

Global Tropics Hazards And Benefits Outlook

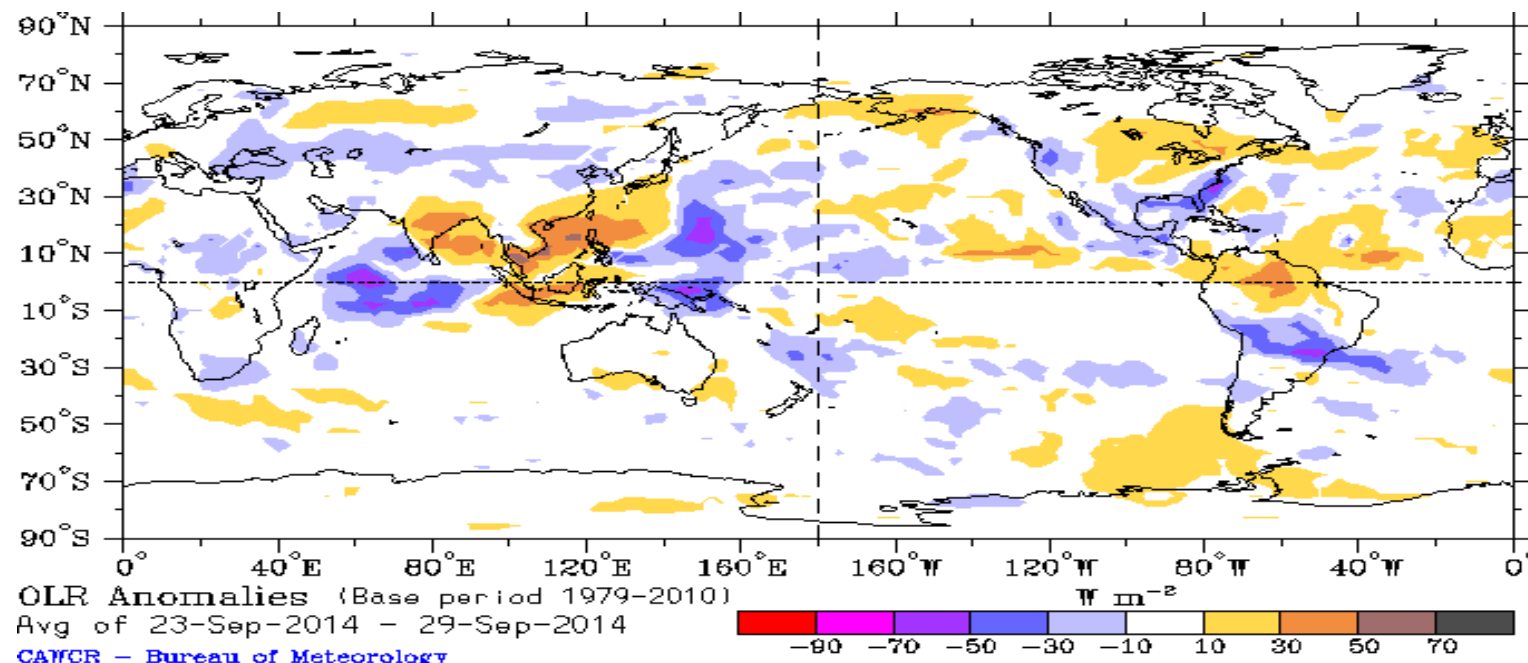
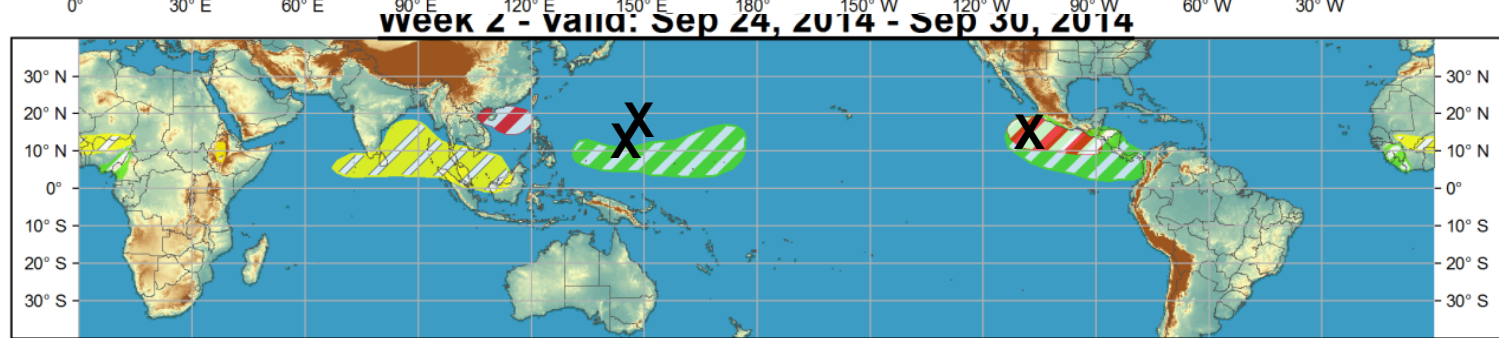
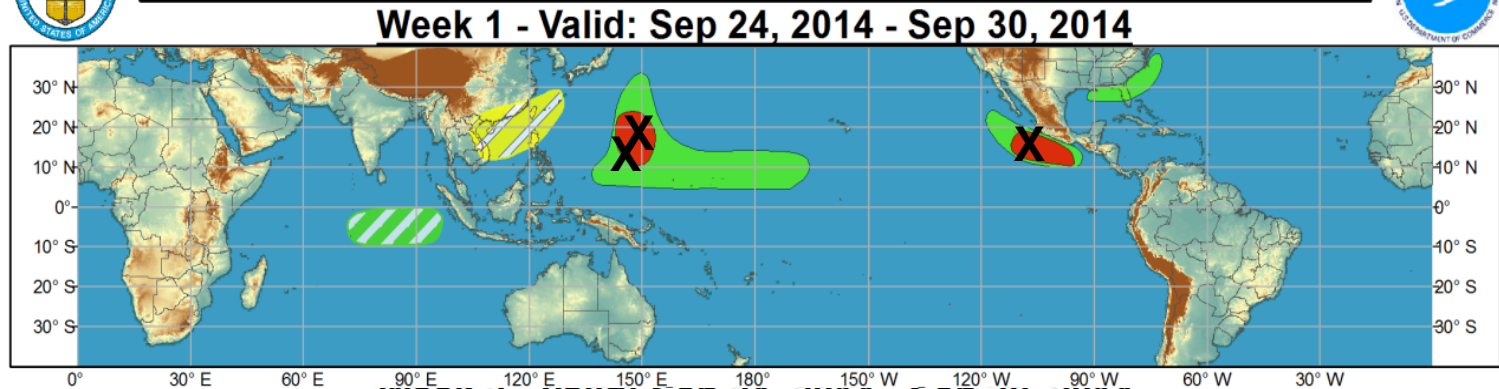
September 30, 2013

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:

- 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 atmospheric circulation not coherent with a robust MJO. Equatorial Rossby waves, Kelvin Waves, and vacillations in the Asian Monsoon are impacting the overall pattern.
- Dynamical model MJO index forecasts depict little to no movement, potential just the index aligning to the base state and little MJO activity. The statistical tools show eastward propagation but little to no signal strength.

Extratropics:

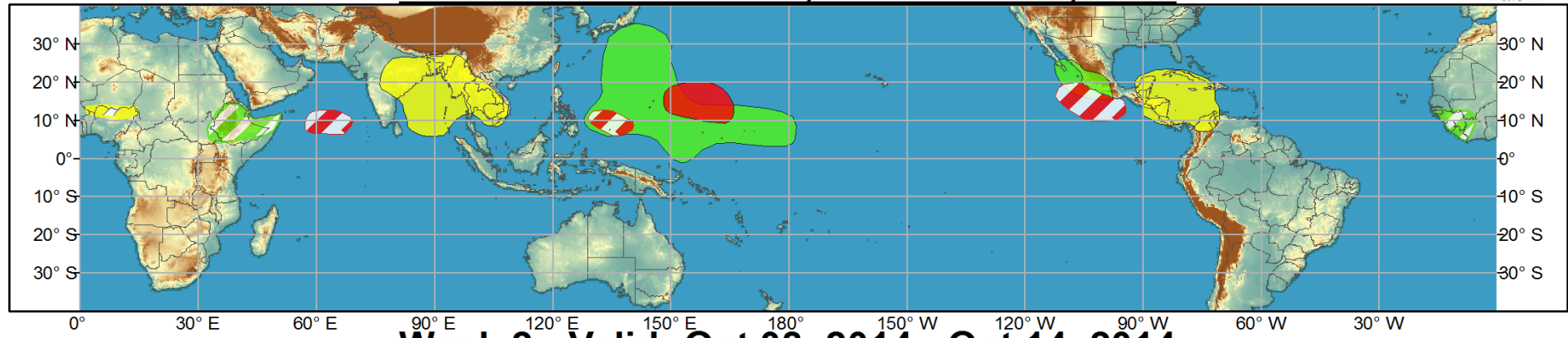
- The extended range forecast for the U.S. is not likely to be largely impacted directly by the MJO. Recurving tropical cyclones may result in amplification over the North Pacific and eventually downstream to the U.S. during Week-2



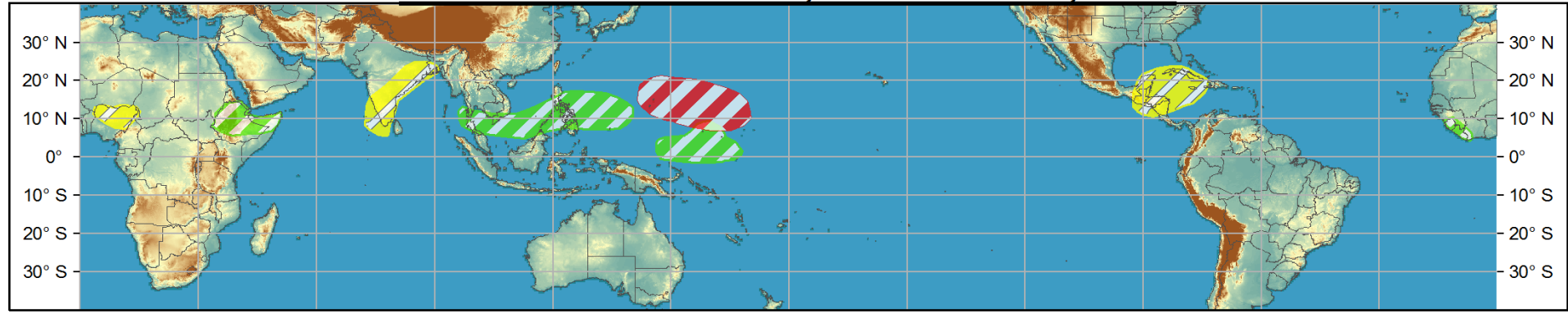
Global Tropics Hazards and Benefits Outlook - Climate Prediction Center



Week 1 - Valid: Oct 01, 2014 - Oct 07, 2014



Week 2 - Valid: Oct 08, 2014 - Oct 14, 2014



Produced: 09/30/2014

Forecaster: Rosencrans

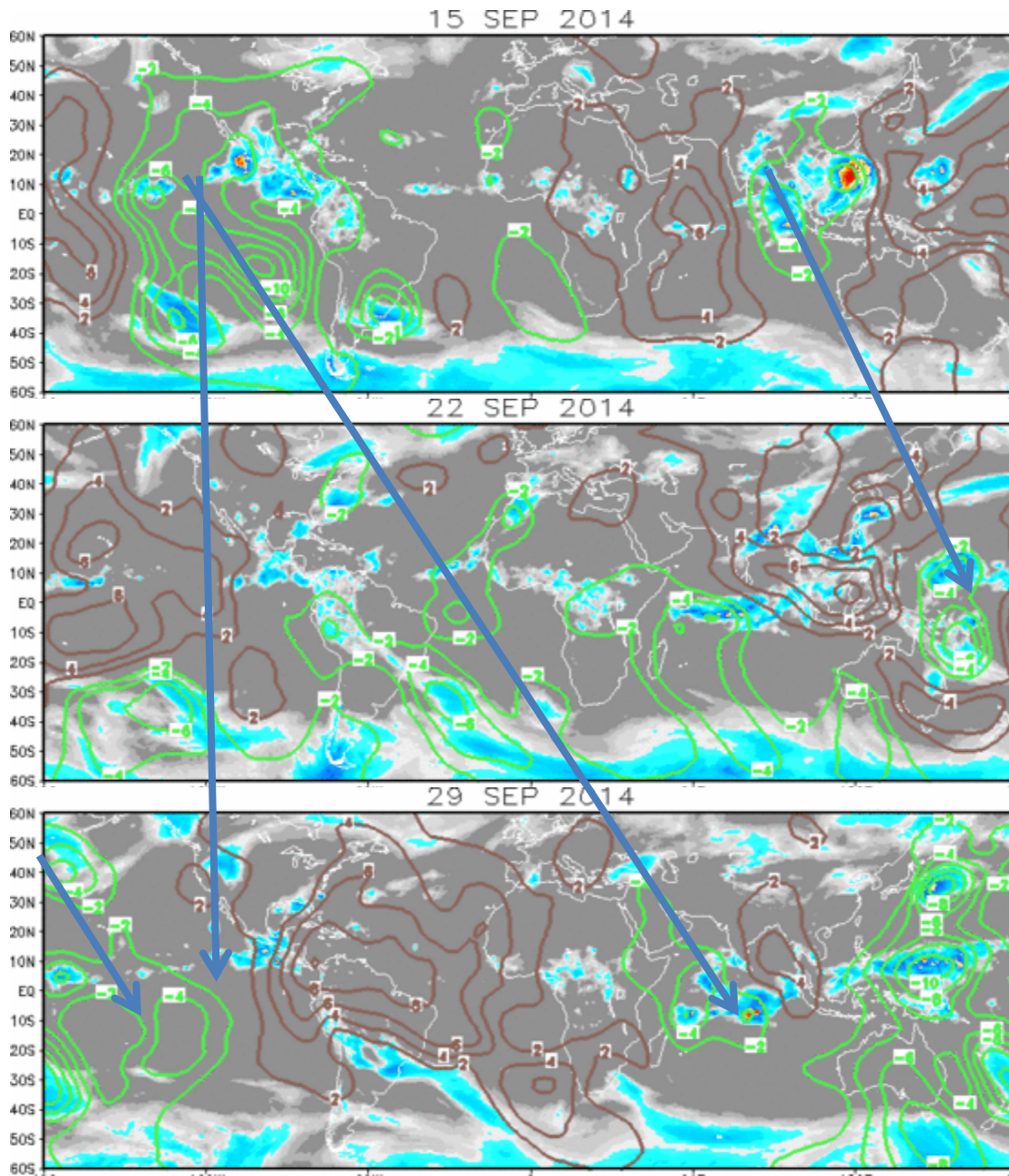
Confidence		
High	Moderate	
		Development of a tropical cyclone (tropical depression - TD, or greater strength).
		Above-average rainfall: Weekly total rainfall in the upper third of the historical range.
		Below-average rainfall: Weekly total rainfall in the lower third of the historical range.
		Above-normal 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.

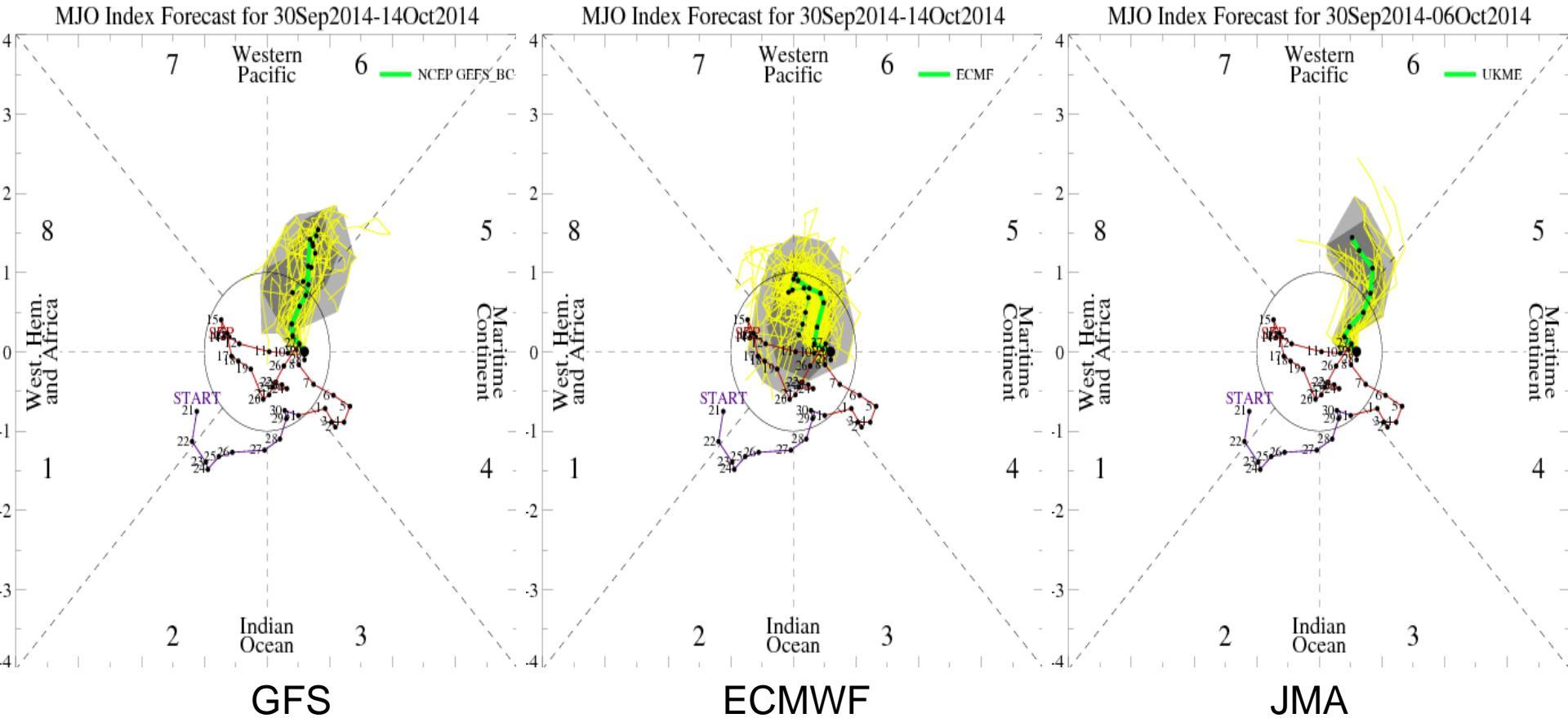


IR Satellite & 200-hpa Velocity Potential Anomalies

Green: Enhanced Divergence Brown: Enhanced Convergence



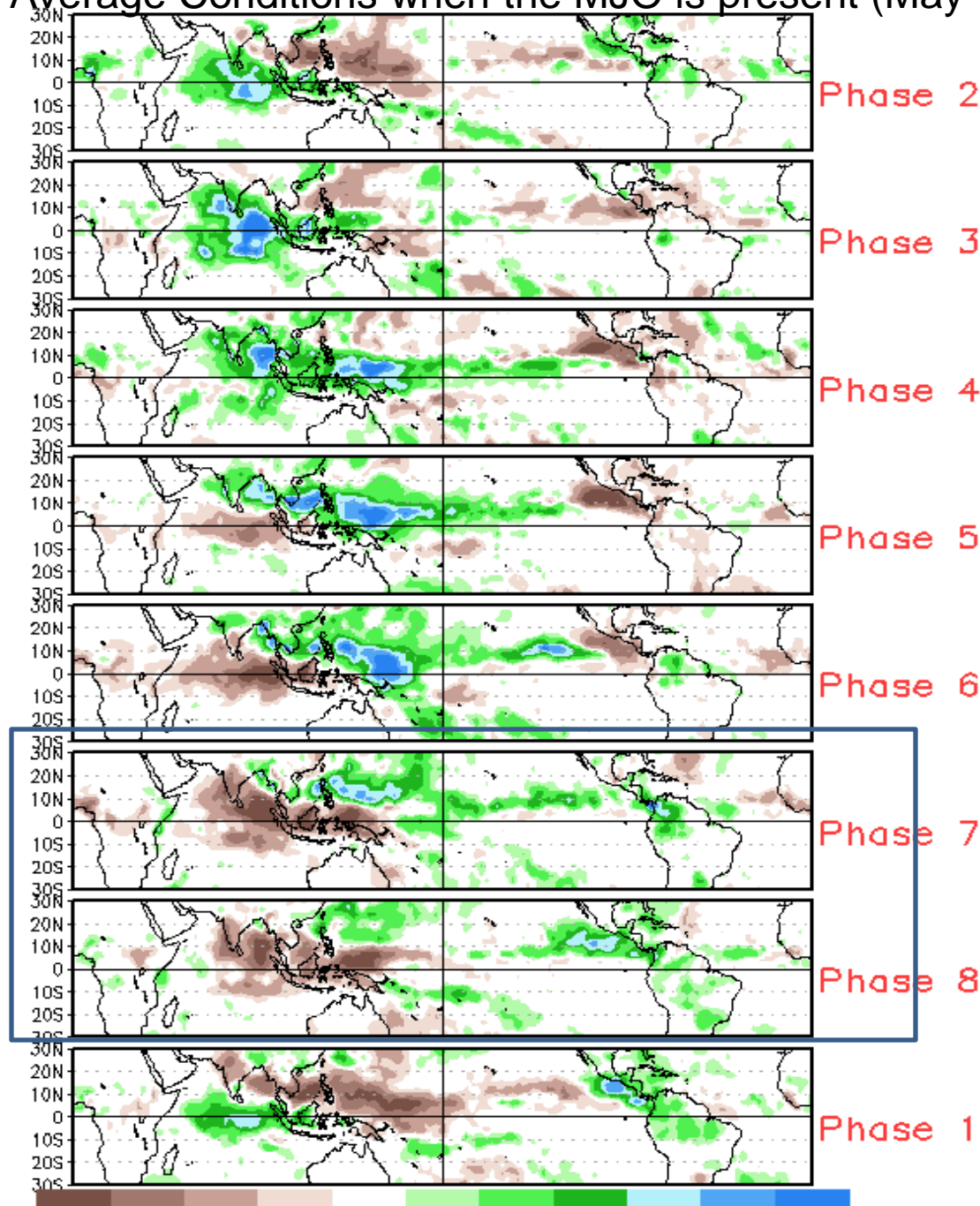
MJO Observation/Forecast



Wheeler-Hendon based analyses of model forecasts indicate no coherent signal.

Models indicate convection aligns with MJO phase 5-6

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



Phase 2

Phase 3

Phase 4

Phase 5

Phase 6

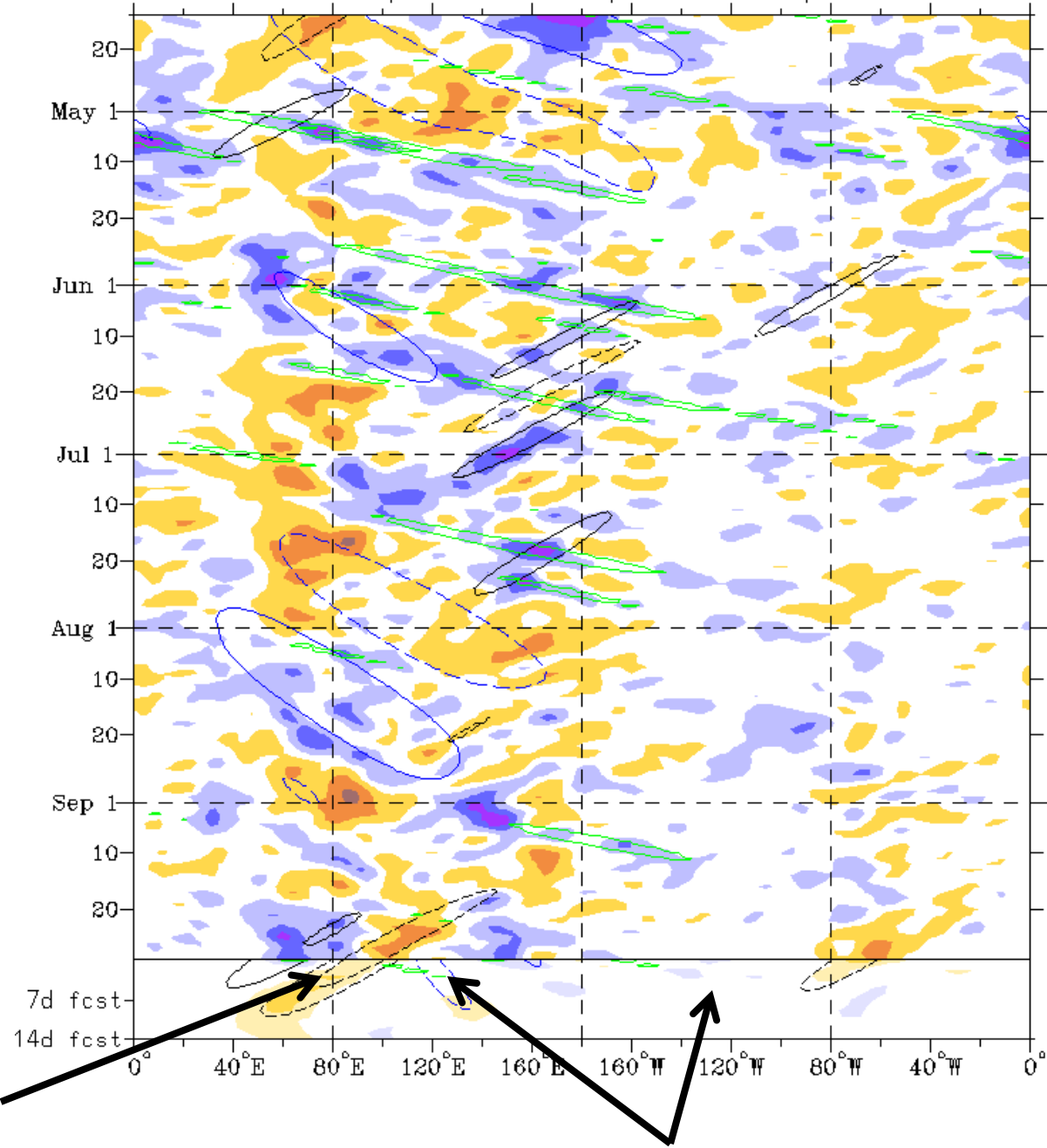
Phase 7

Phase 8

Phase 1

CAVEAT: These panels are representative of robust MJO events.



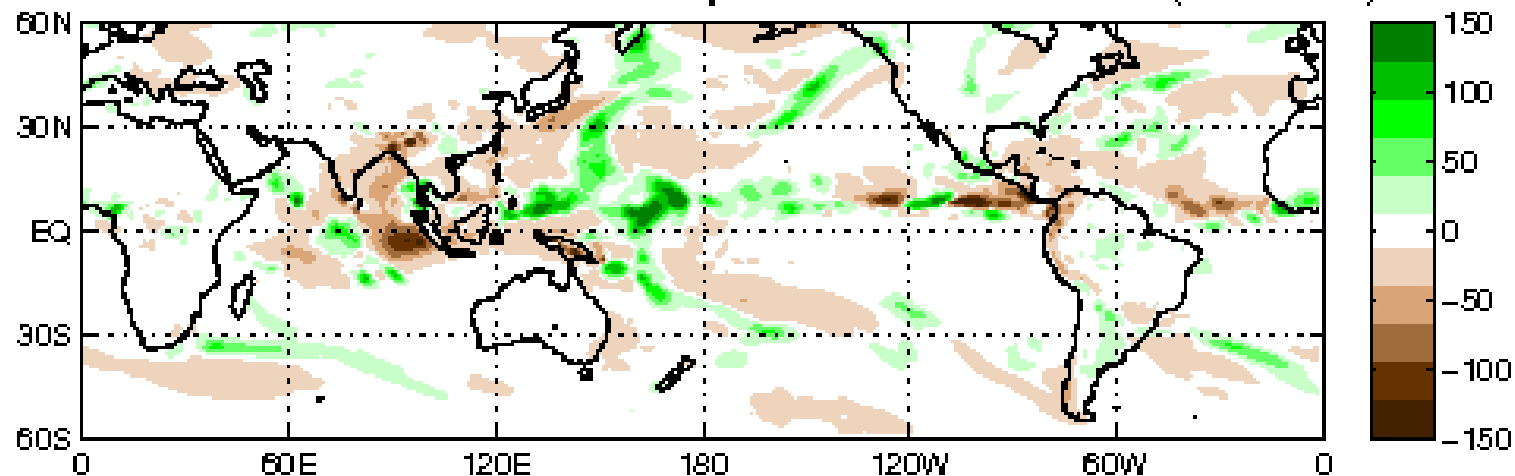


Evolving ENSO also contributing.

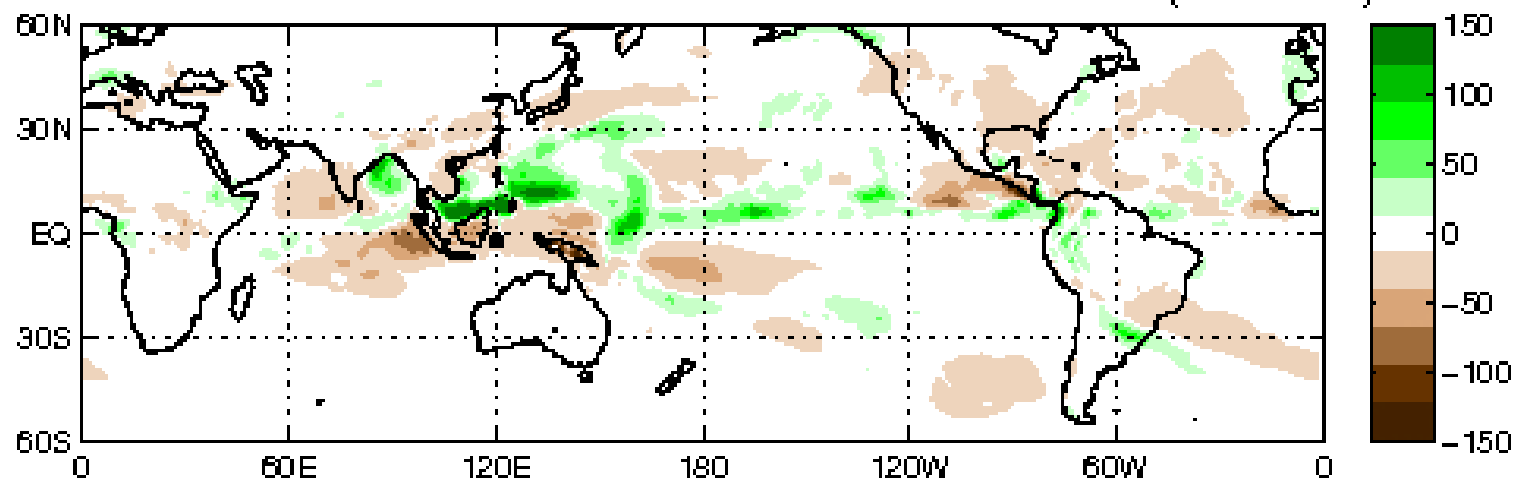
Equatorial Rossby Waves to impact Indian Ocean (wPac), supporting drier (wetter) conditions.

Kelvin Wave to impact wPAC and ATL.

CFS: Anom. PREC Week: 1: 30-Sep-2014 to 06-Oct-2014 (mm/week)

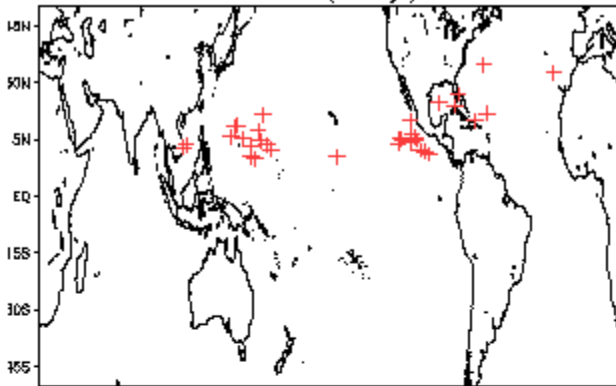


CFS: Anom. PREC Week: 2: 07-Oct-2014 to 13-Oct-2014 (mm/week)

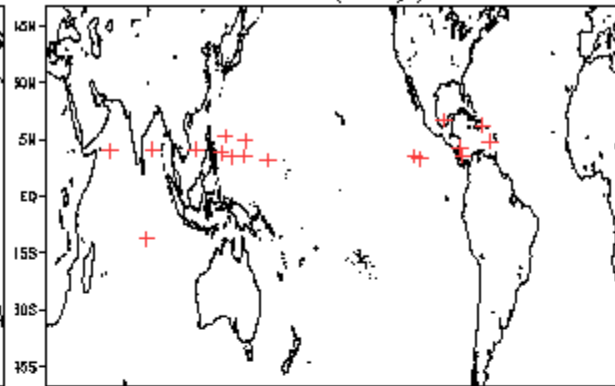


October Tropical Storm Formation by MJO phase

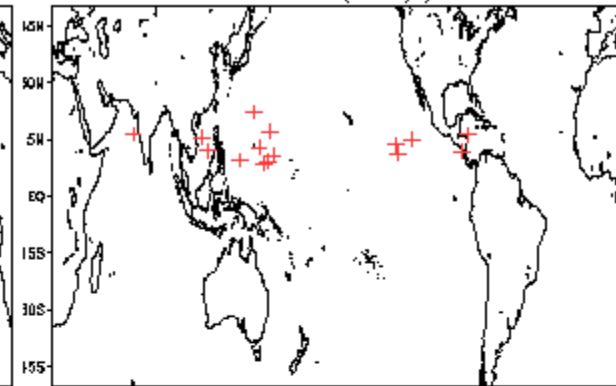
Phase 1 (94 days) 34 storms



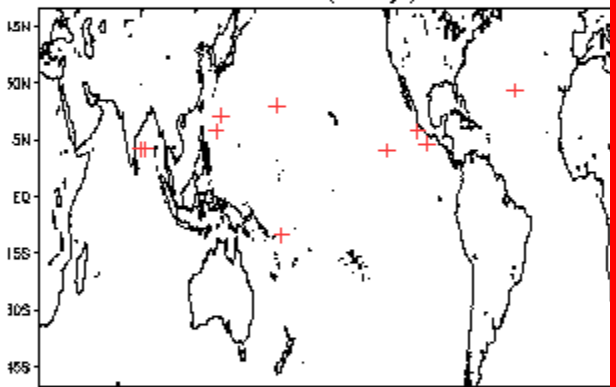
Phase 4 (85 days) 18 storms



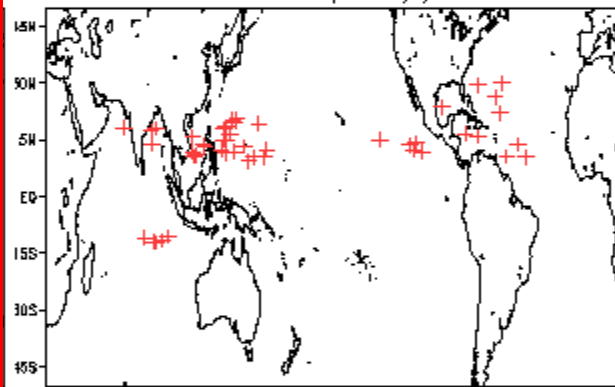
Phase 7 (48 days) 16 storms



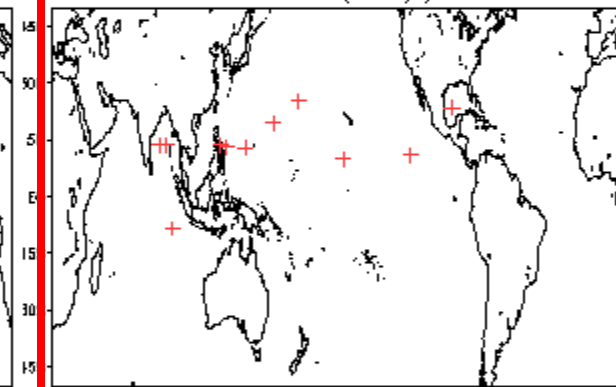
Phase 2 (75 days) 11 storms



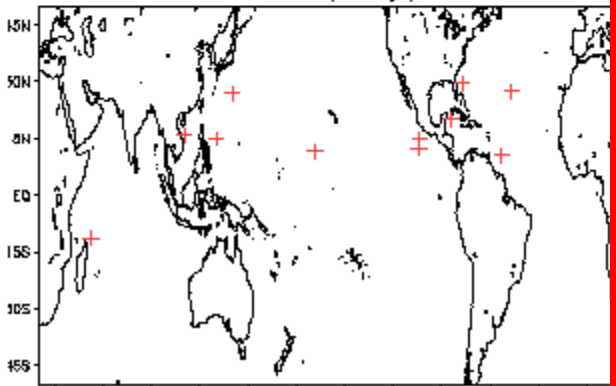
Phase 5 (177 days) 15 storms



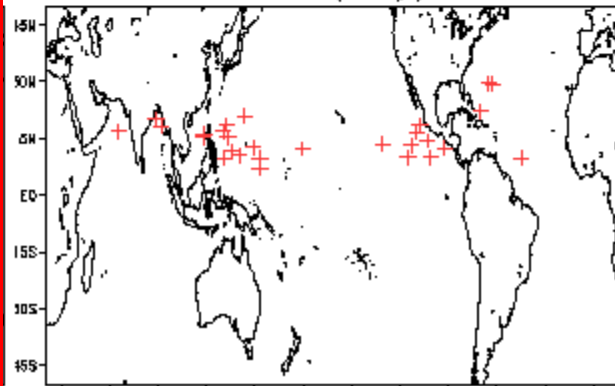
Phase 8 (66 days) 12 storms



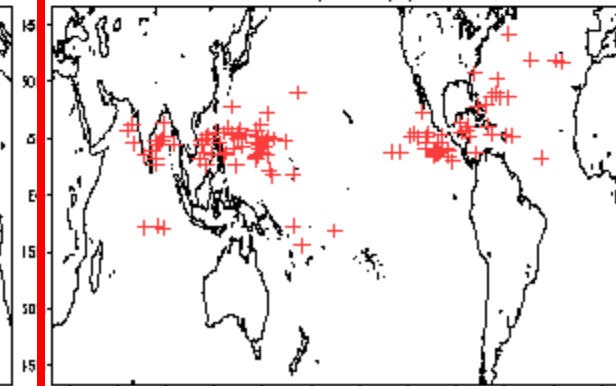
Phase 3 (41 days) 12 storms



Phase 6 (78 days) 30 storms



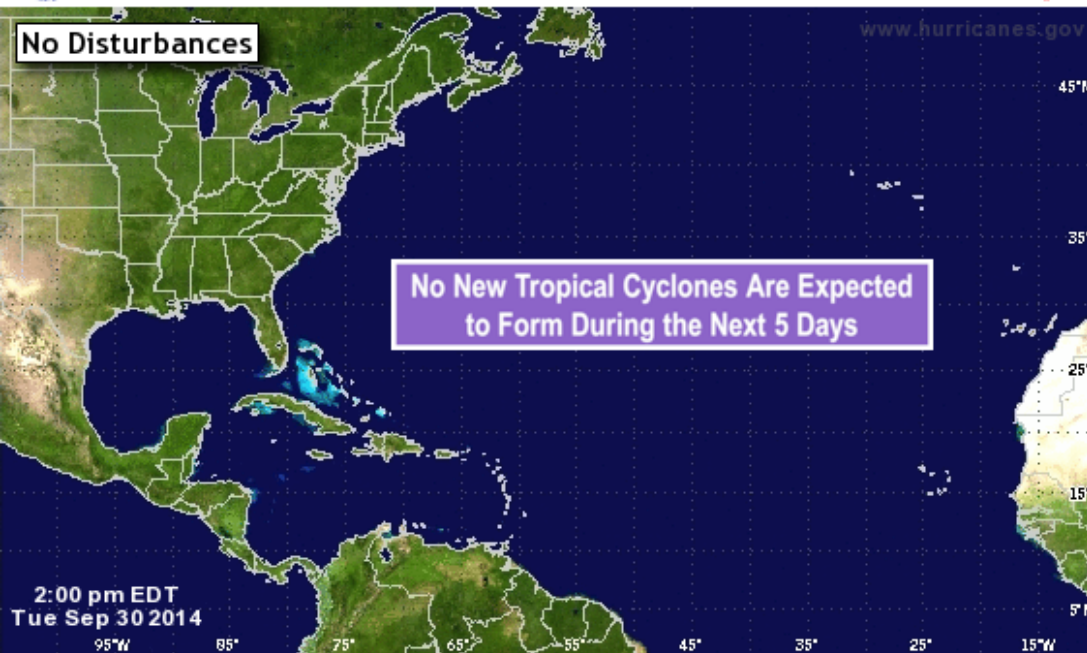
Null (422 days) 119 storms





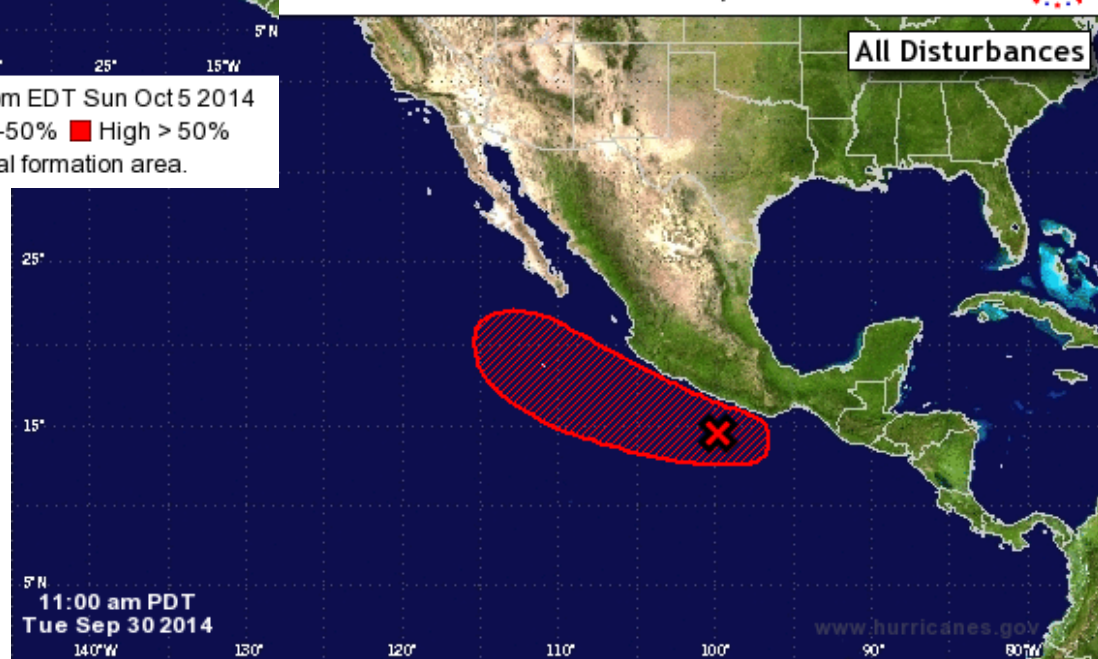
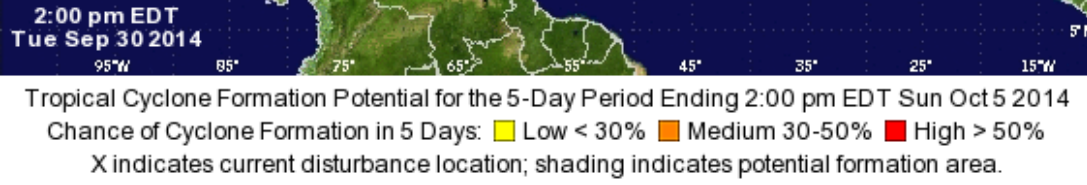
Experimental 5-Day Graphical Tropical Weather Outlook

National Hurricane Center Miami, Florida



Experimental 5-Day Graphical Tropical Weather Outlook

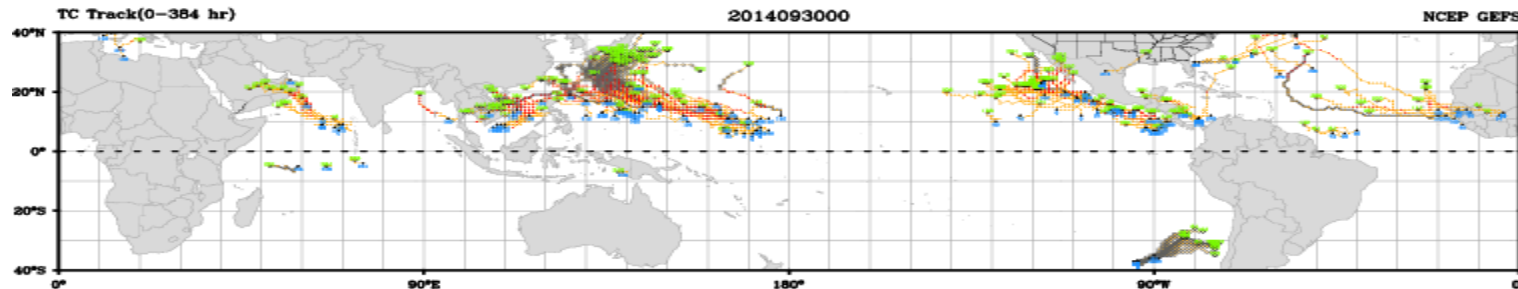
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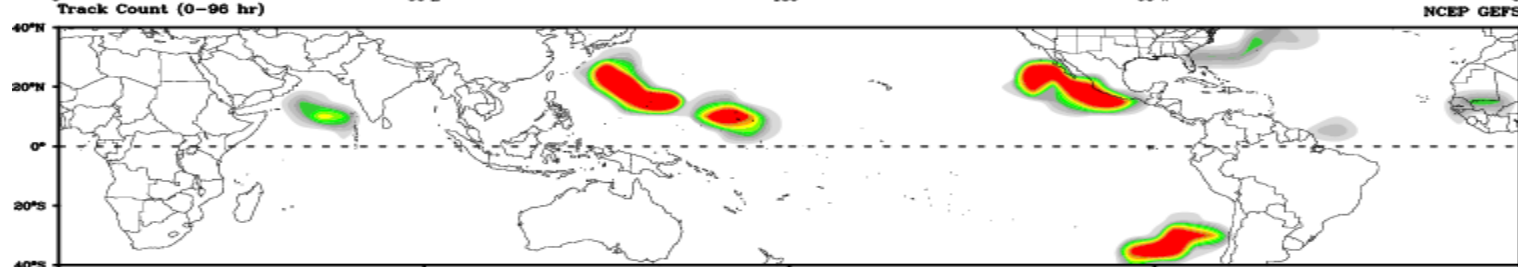
Tropical Cyclone Formation Potential for the 5-Day Period Ending 11:00 am PDT Sun Oct 5 2014

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

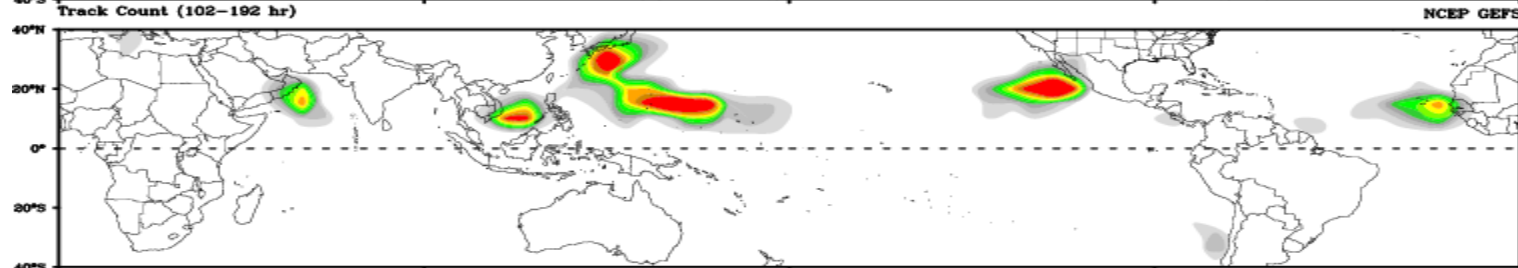
X indicates current disturbance location; shading indicates potential formation area.



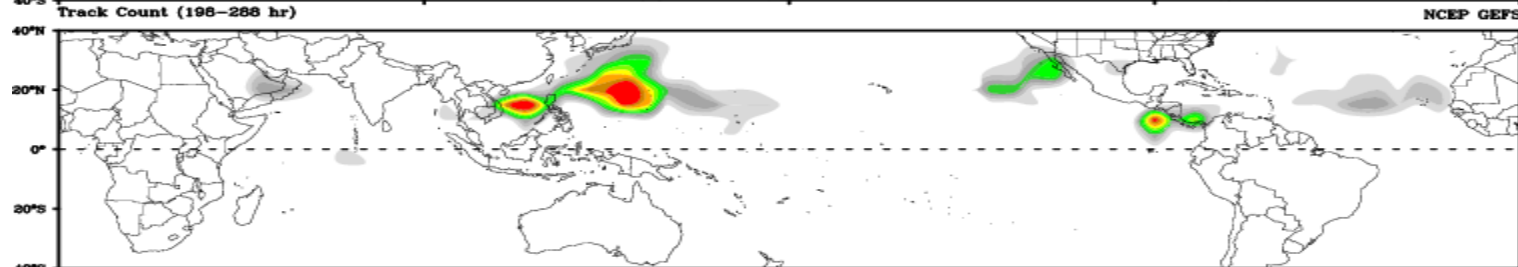
Days 1-4



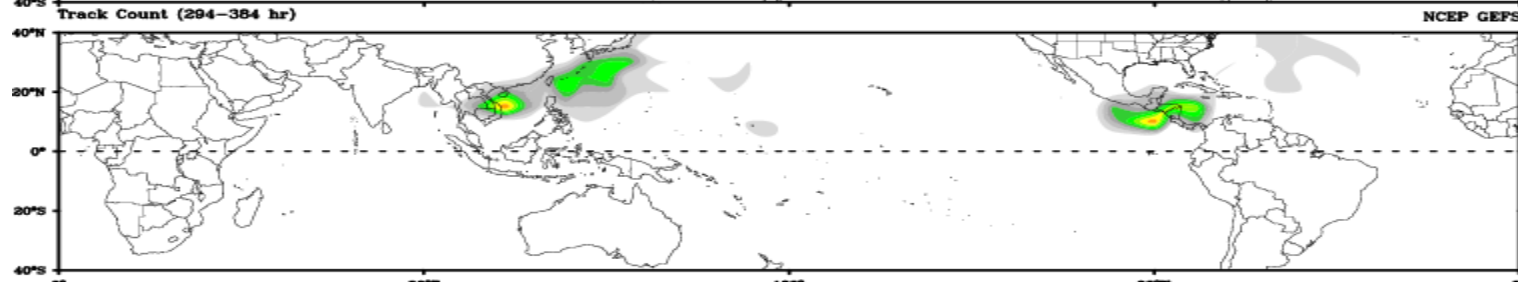
Day 5-8

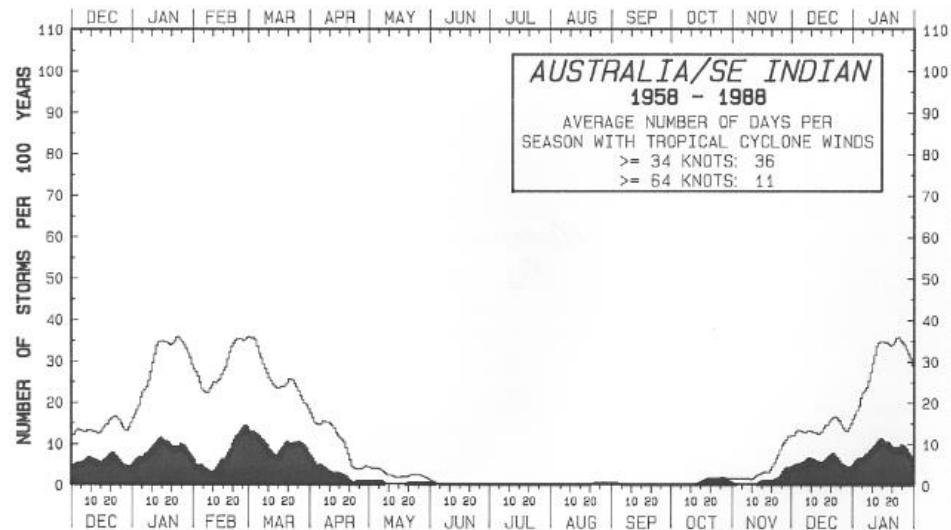
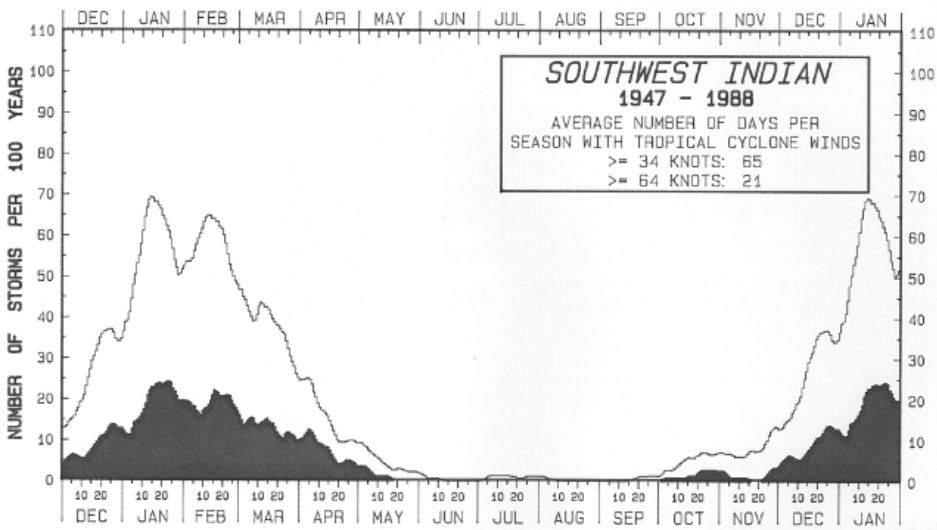
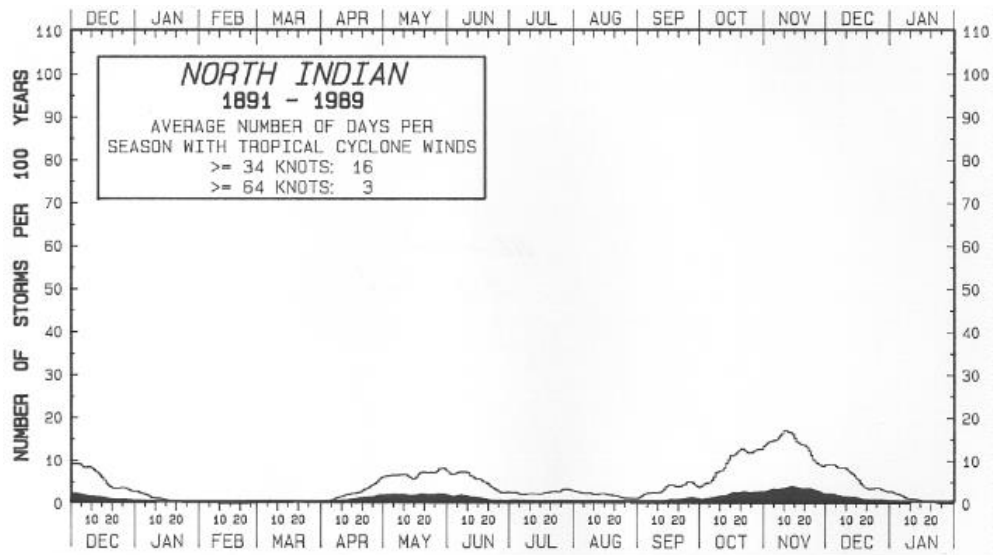


Day 9-12

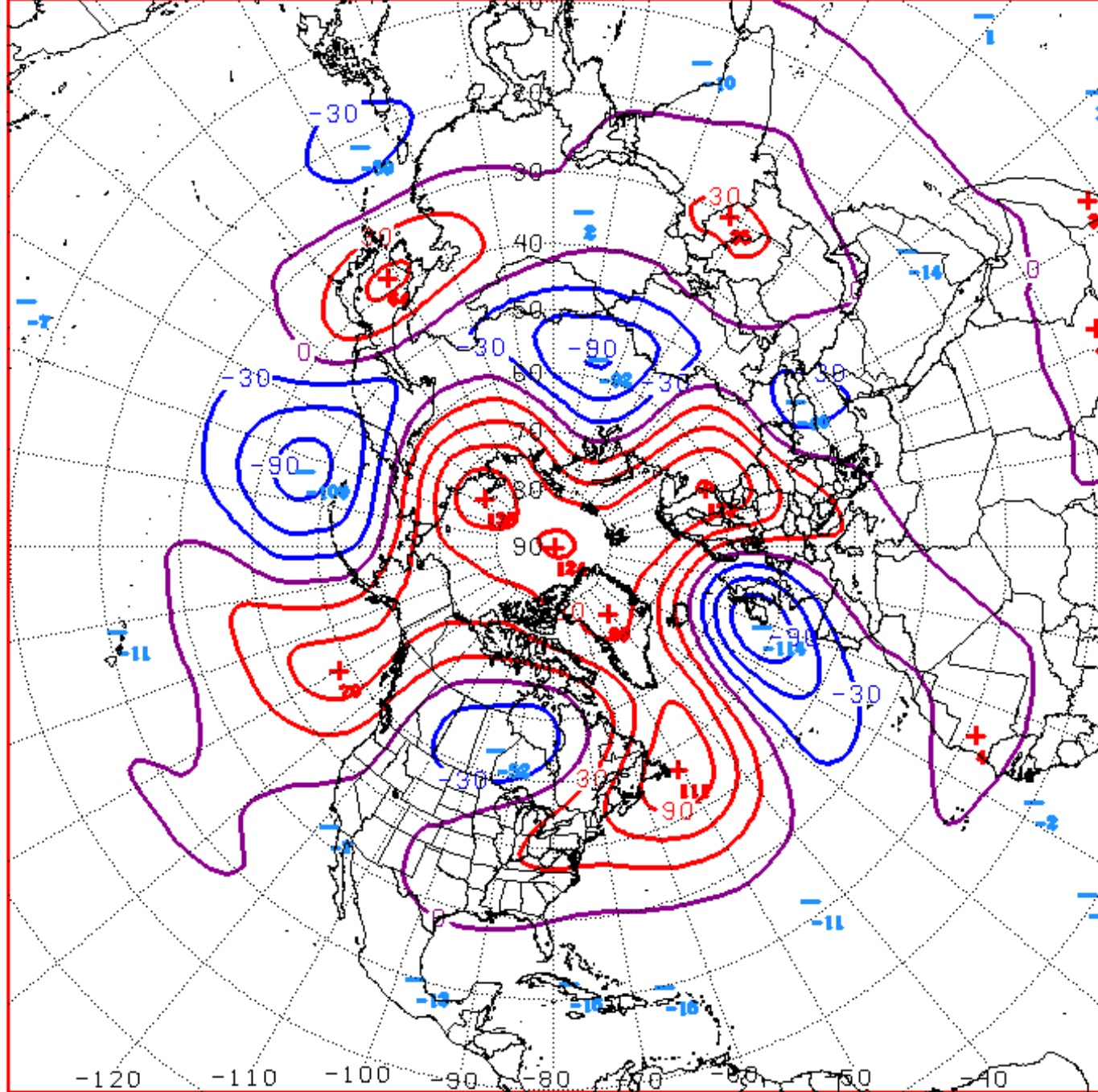


Day 13-15





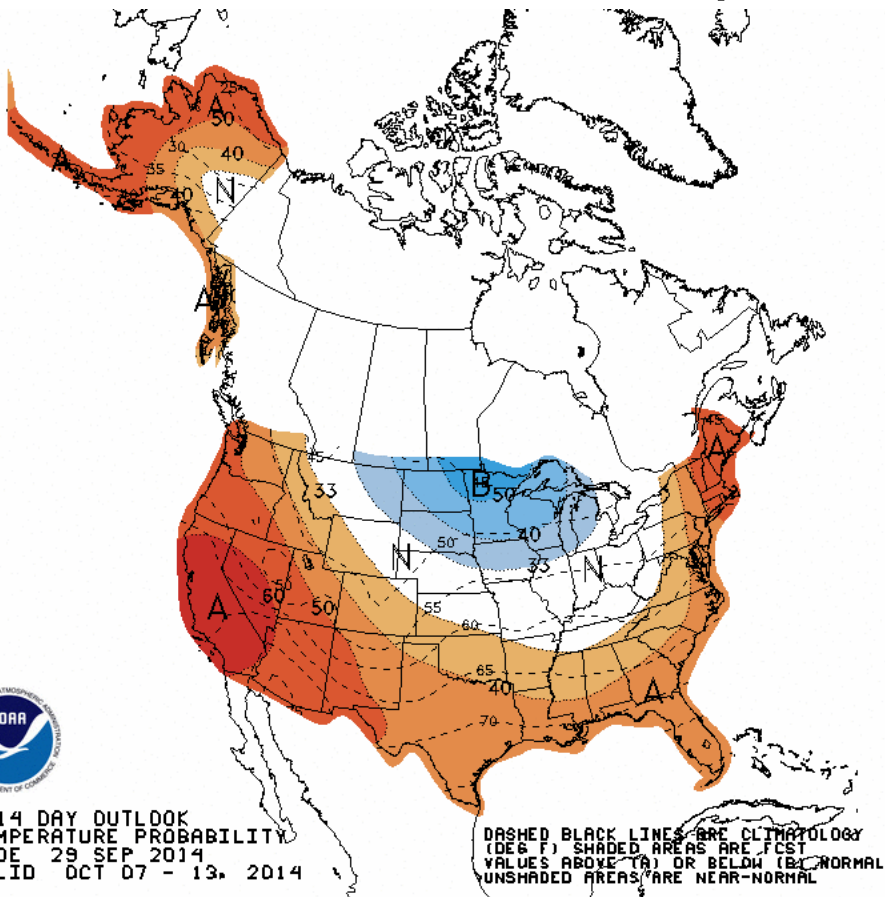
Connections to U.S. Impacts



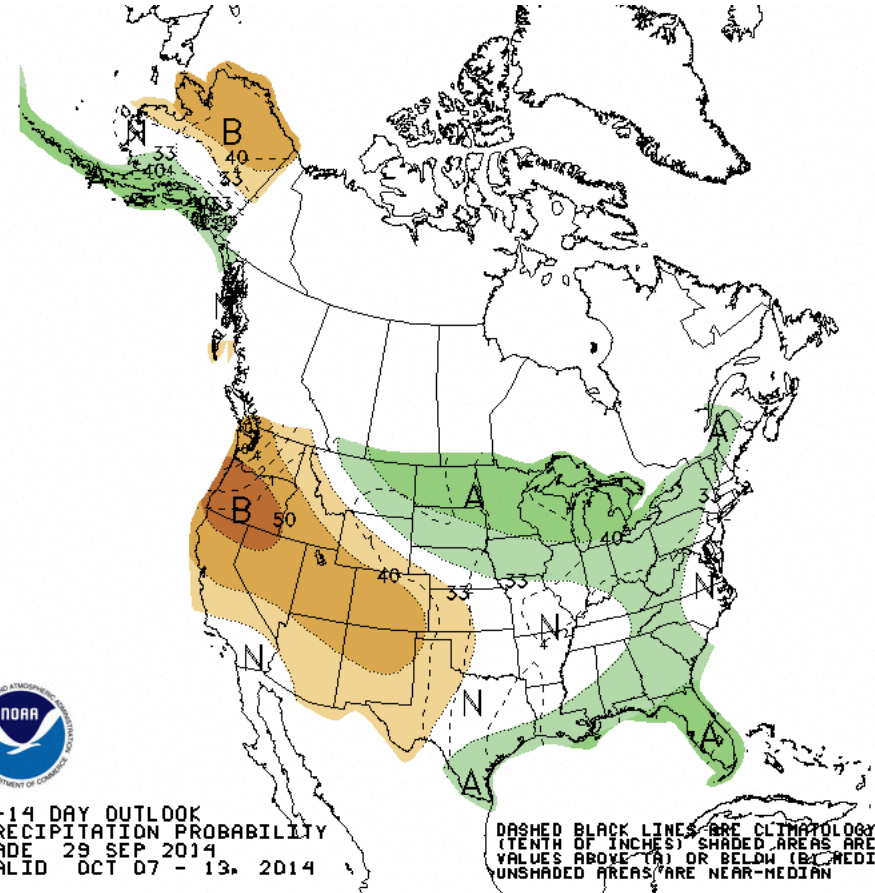
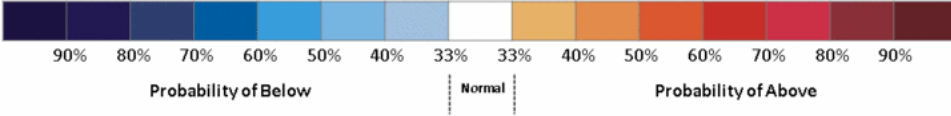
-120 -110 -100 -90 -80 -70 -60 -50

D+11 500 MB ANOMALIES FROM 00Z ECMM
CPC MAP MADE SEP 30 2014 1021 UTC CNTD OCT 11 2014

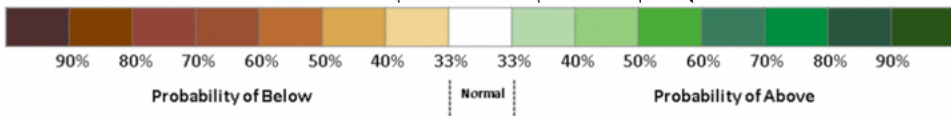
Week 2 – Temperature and Precipitation



8-14 DAY OUTLOOK
TEMPERATURE PROBABILITY
MADE 29 SEP 2014
VALID OCT 07 - 13, 2014



8-14 DAY OUTLOOK
PRECIPITATION PROBABILITY
MADE 29 SEP 2014
VALID OCT 07 - 13, 2014

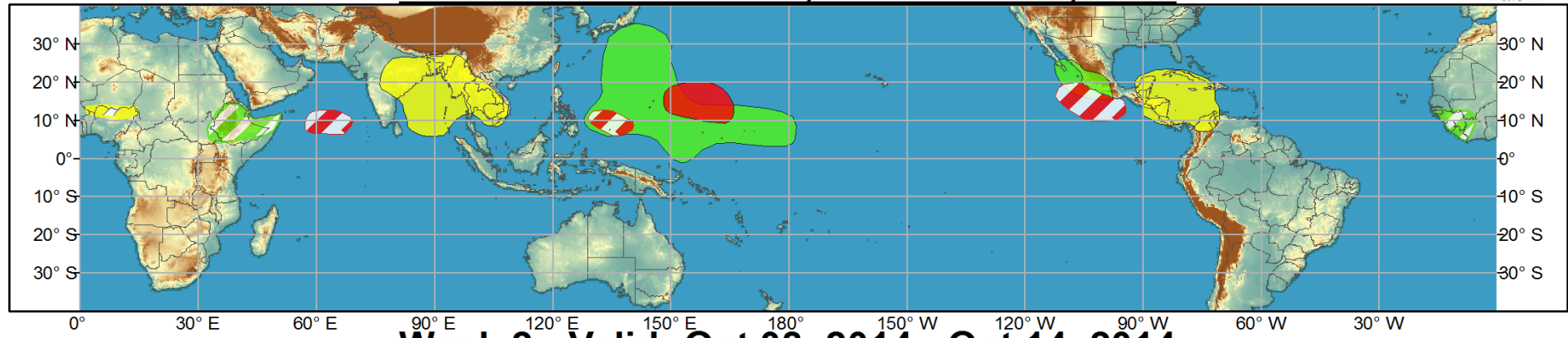




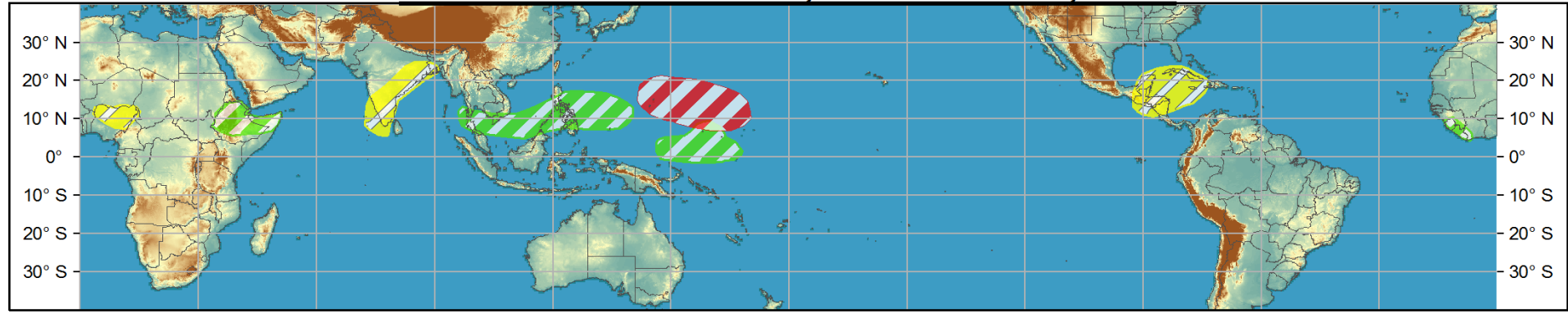
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