

Global Tropics Hazards And Benefits Outlook

September 3, 2013

Adam Allgood

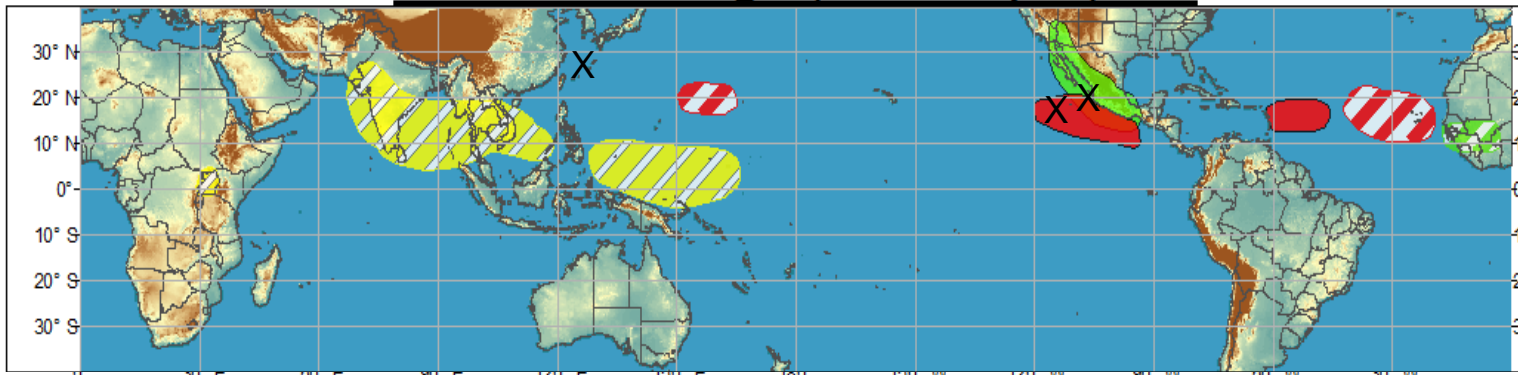
Outline

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

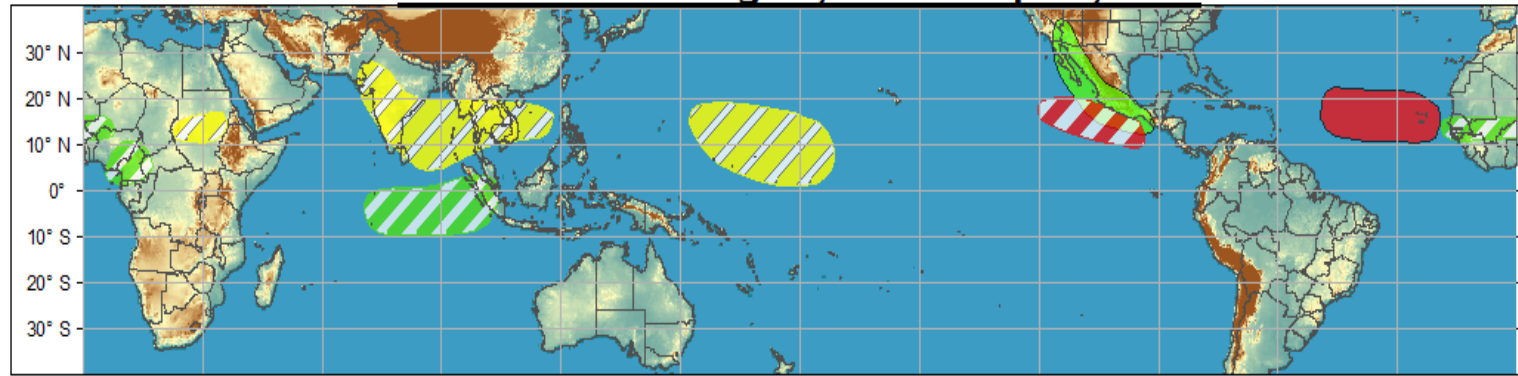
Outlook Review

- E Pacific TCs:
- Juliette (28 Aug)
 - Kiko (31 Aug)
- W Pacific TCs:
- Toraji (1 Sep)

Week 1 - Valid: Aug 28, 2013 - Sep 03, 2013



Week 2 - Valid: Aug 28, 2013 - Sep 03, 2013

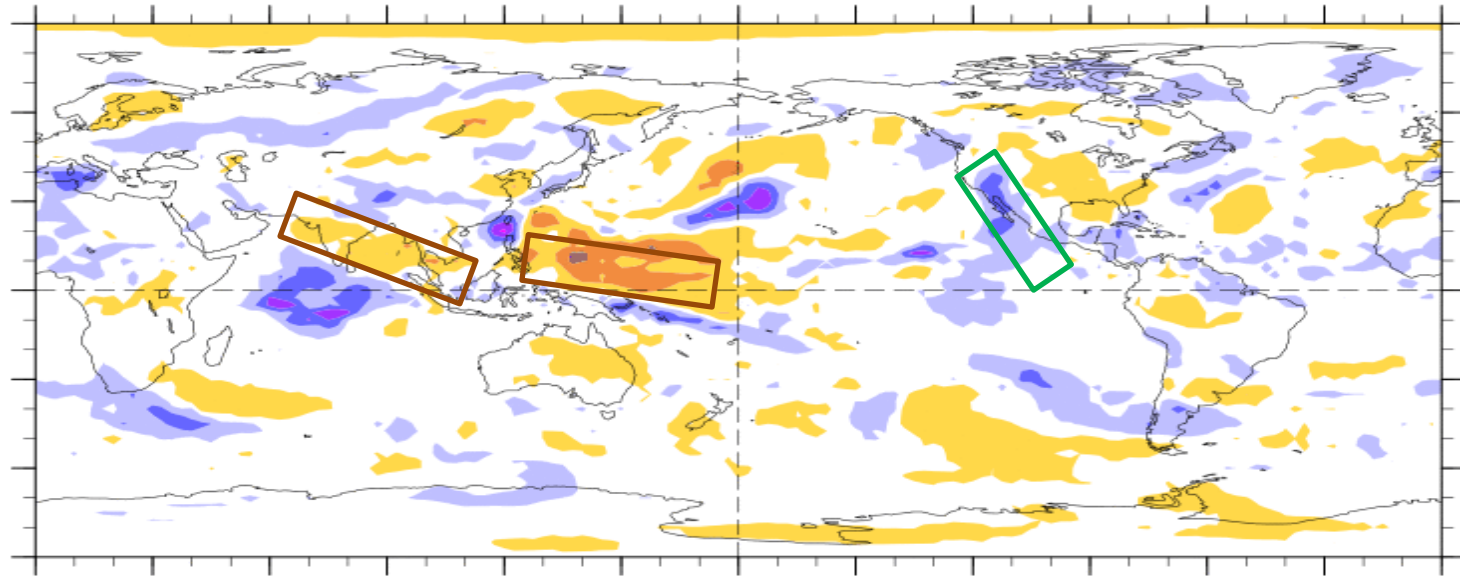


7-Day Average OLR Anomaly

2013/08/26 - 2013/09/01

Cool shading
More clouds/rain

Warm shading
Less clouds/rain



Synopsis of Climate Modes

ENSO:

- ENSO-neutral conditions are favored to continue through Northern Hemisphere spring 2013

MJO and other subseasonal tropical variability:

- An MJO pattern became more coherent during the previous week, with the active phase over the Western Hemisphere, and a strong suppressed phase over the western Pacific.
- Dynamical model MJO index forecasts indicate a weakening of the MJO signal during Week-1, with considerable uncertainty during the Week-2 period. Many models indicate increasing convective anomalies over the Maritime Continent or western Pacific during Week-2.

Extratropics:

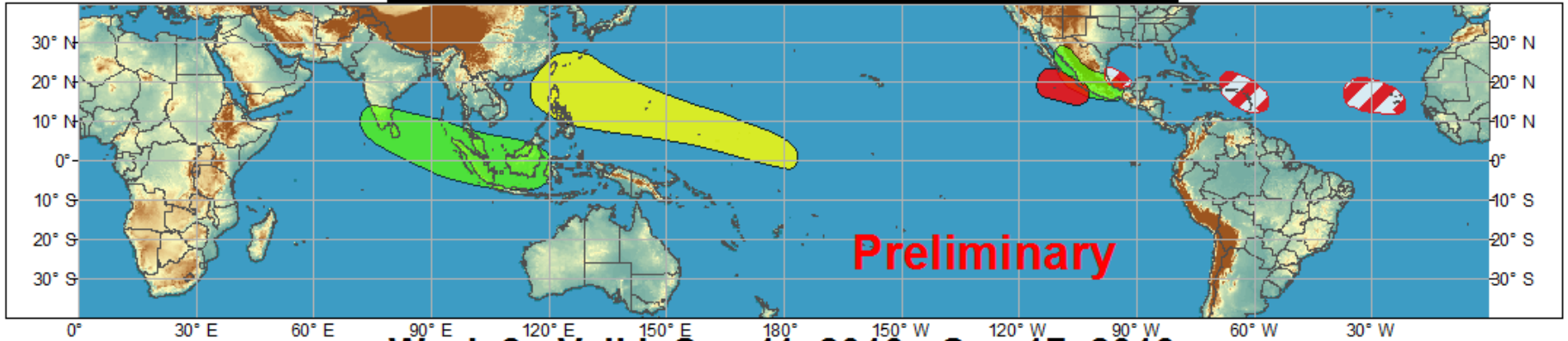
- The extended range forecast for the U.S. aligns well with the typical circulation patterns based on the current phase of the MJO. These include an active late North American Monsoon pattern due to Gulf moisture surges (TC related).



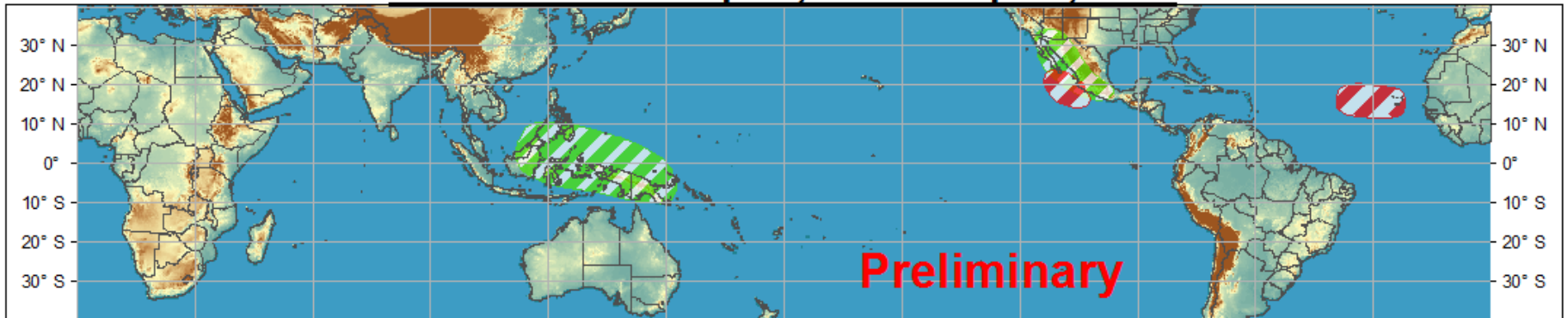
Global Tropics Hazards and Benefits Outlook - Climate Prediction Center



Week 1 - Valid: Sep 04, 2013 - Sep 10, 2013



Week 2 - Valid: Sep 11, 2013 - Sep 17, 2013



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: 09/03/2013

Forecaster: Allgood

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.

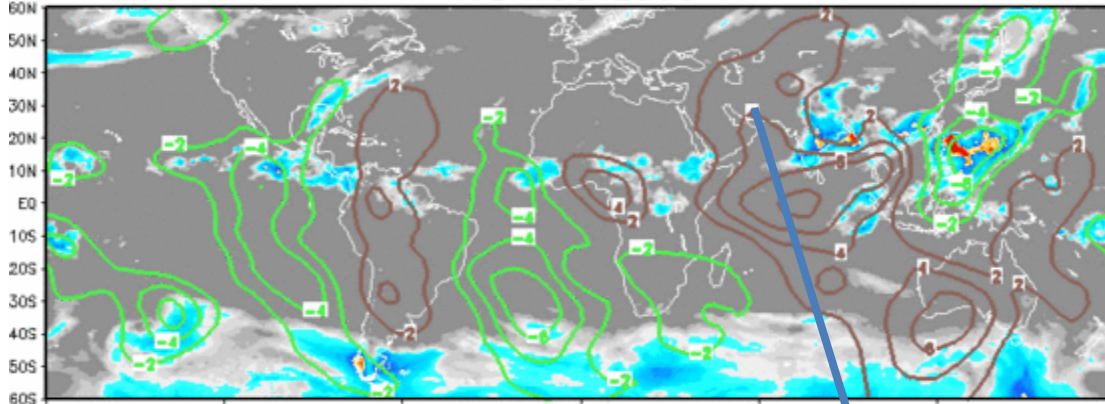


IR Satellite & 200-hpa Velocity Potential Anomalies

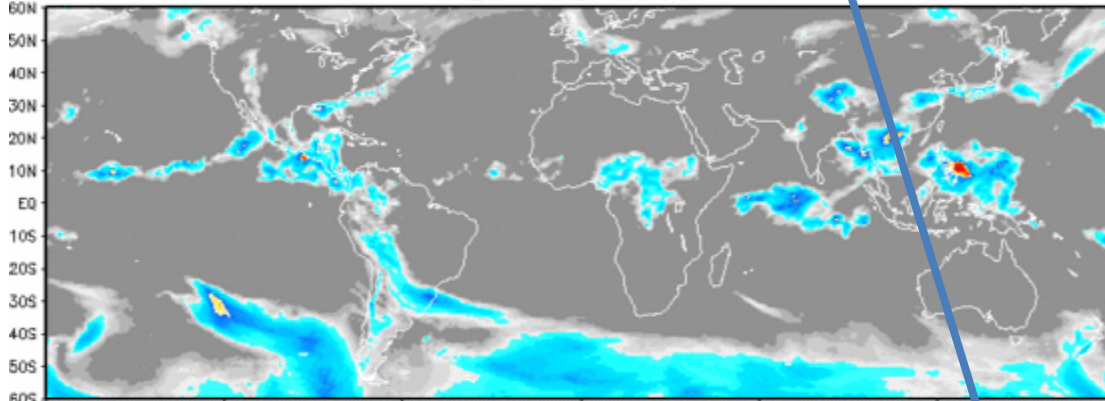
Green: Enhanced Divergence Brown: Enhanced Convergence

Incoherent
upper level
pattern during
late August

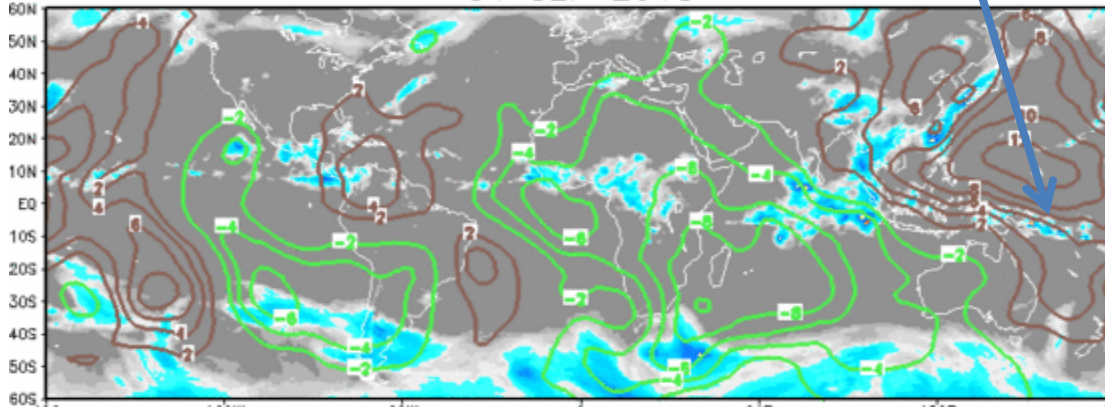
18 AUG 2013



25 AUG 2013

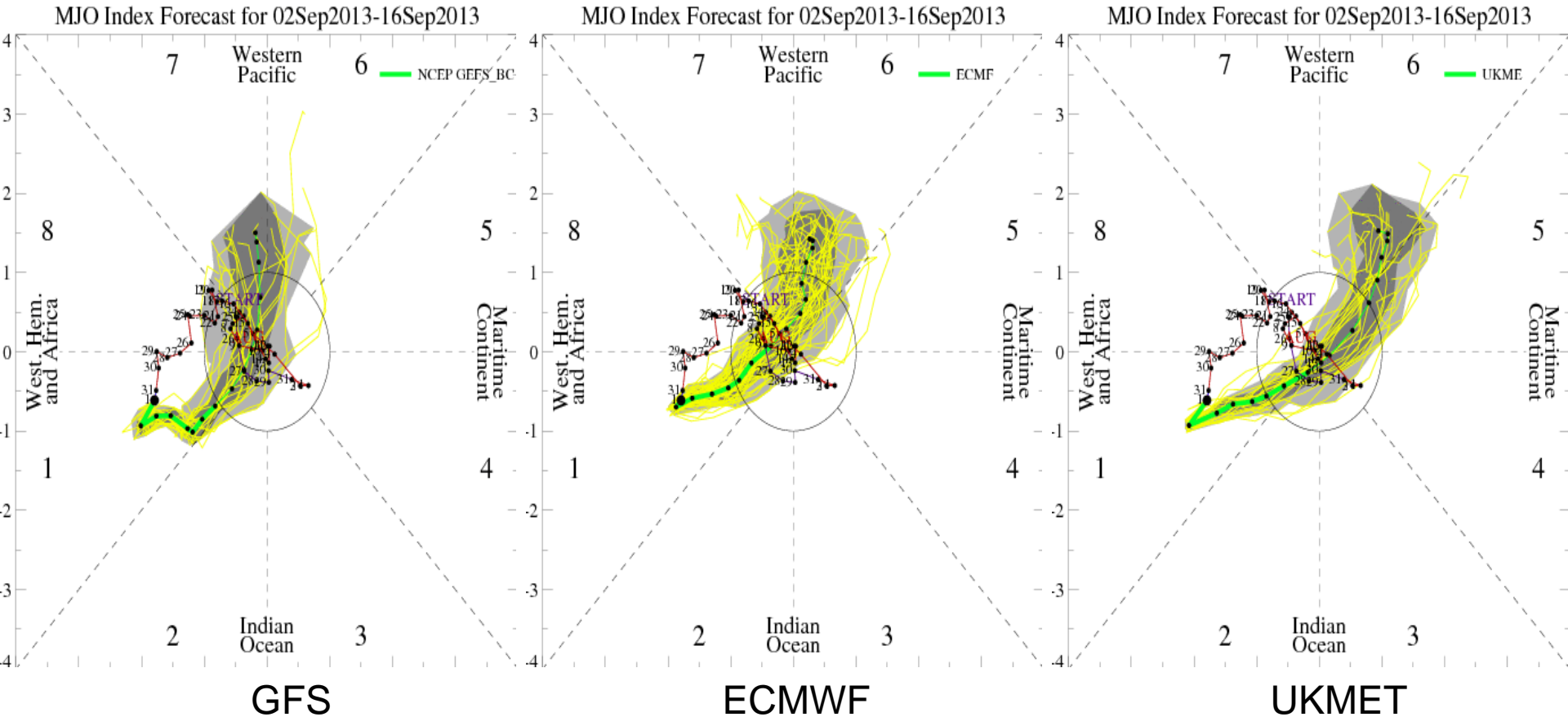


01 SEP 2013



Wavenumber-2
pattern, UL
divergence over
Africa/Indian
Ocean,
convergence
over W Pacific

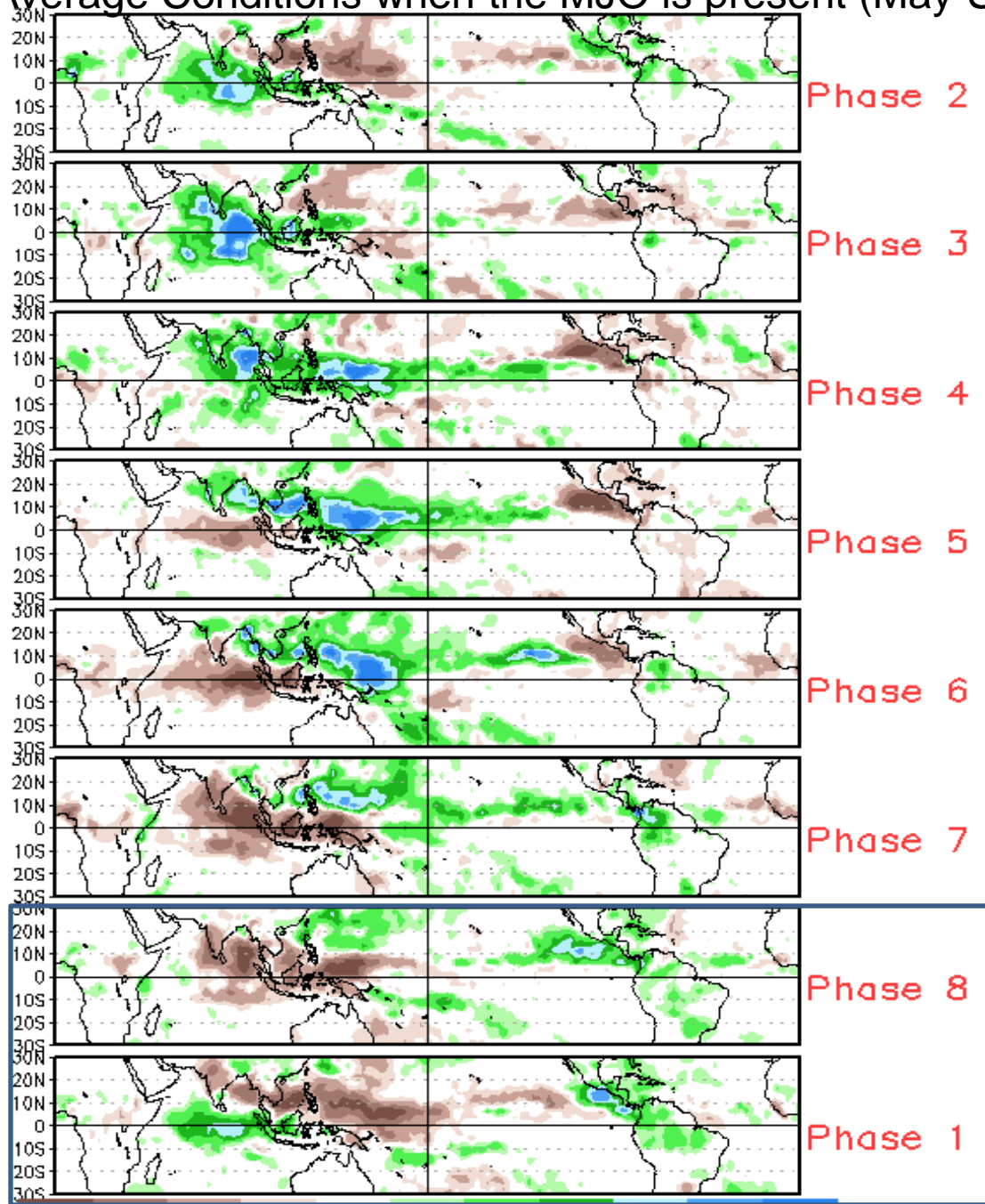
MJO Observation/Forecast



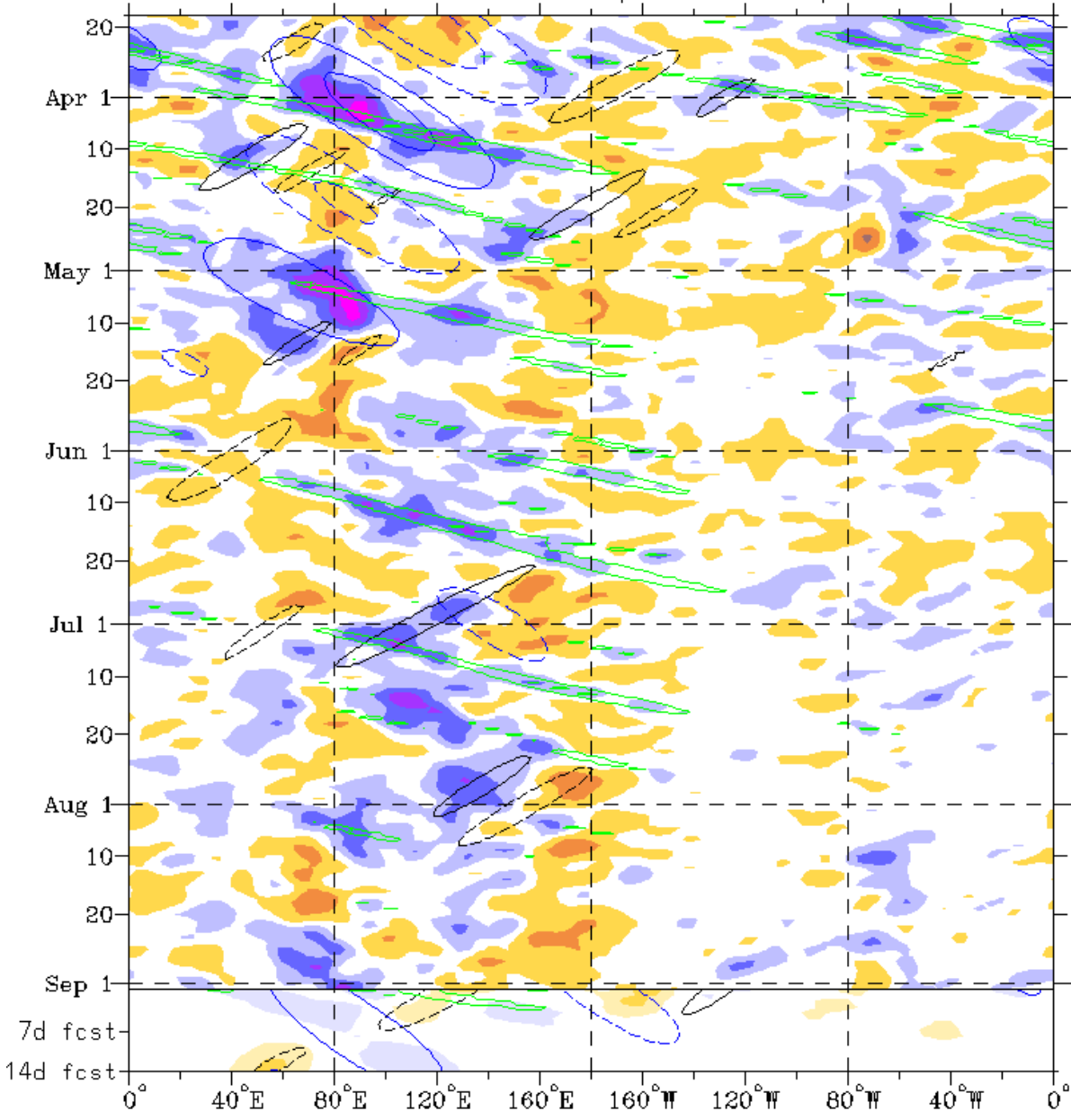
Wheeler-Hendon MJO Index depicts eastward propagation from Phase-8 to Phase-1 during the previous week.

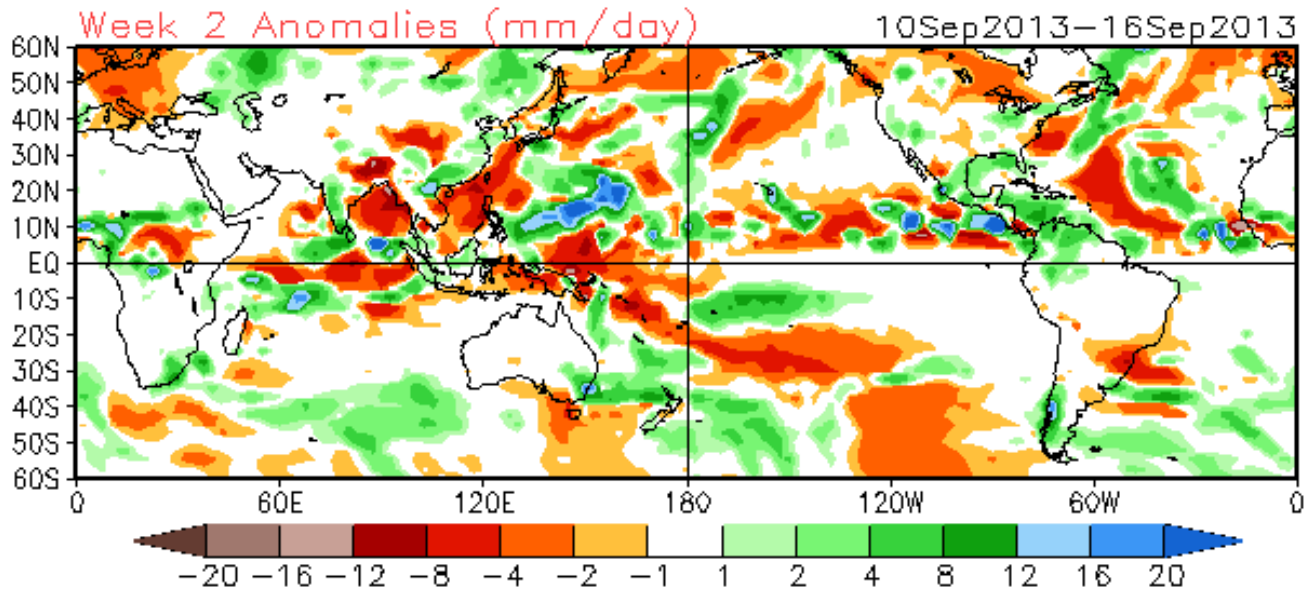
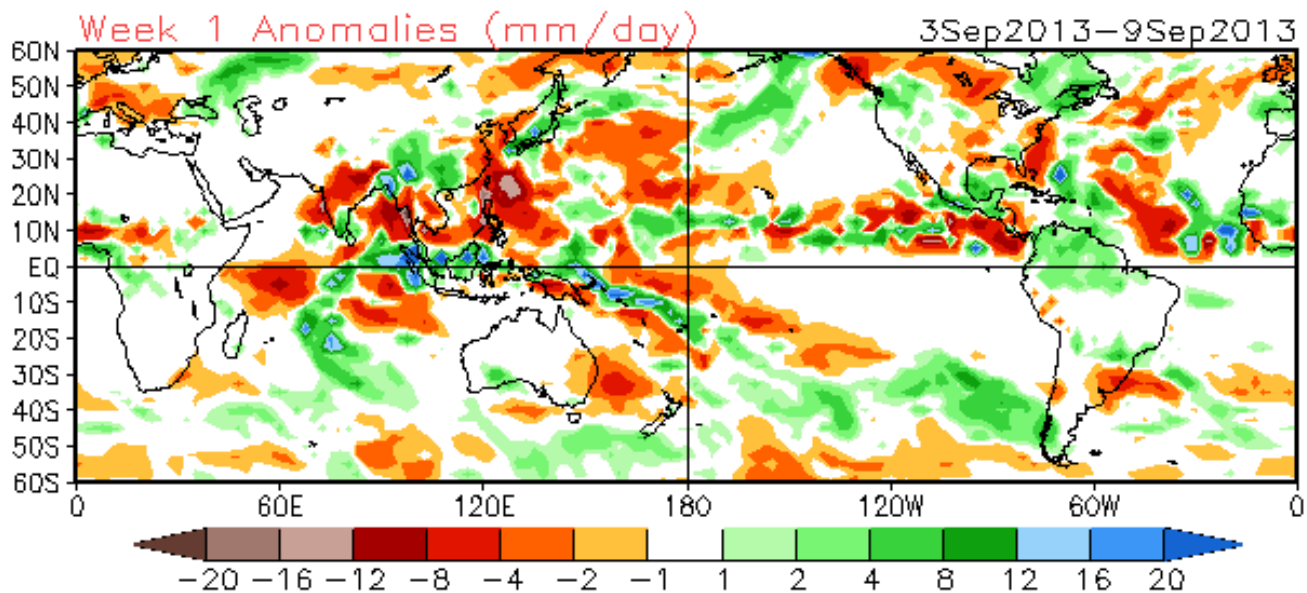
A weakening MJO signal is forecasted for the upcoming week, with several models depicting increased anomalous convection over the western Pacific during Week-2.

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

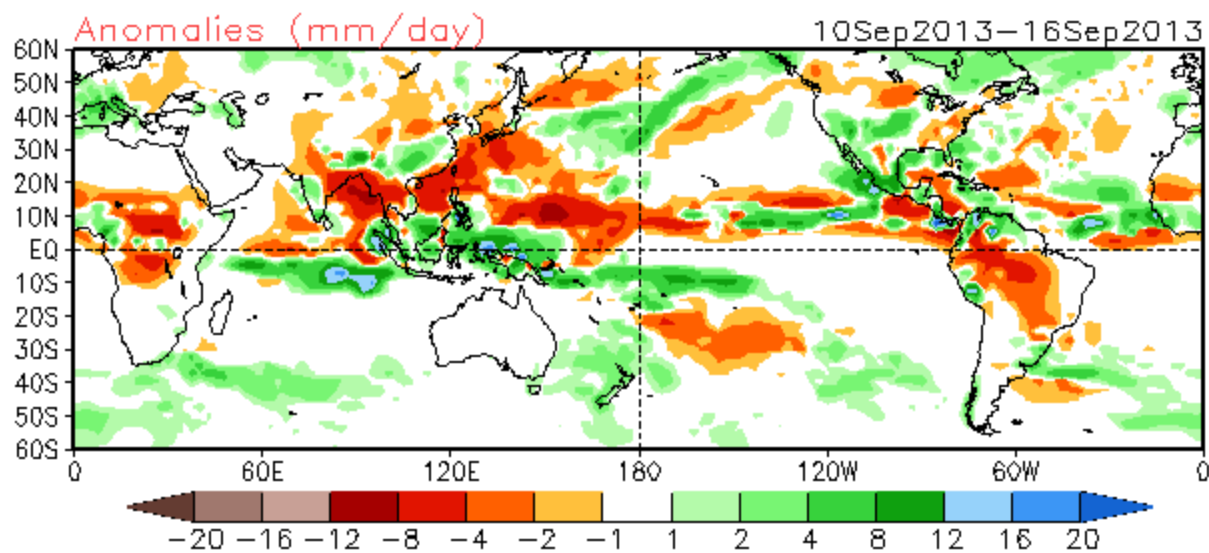
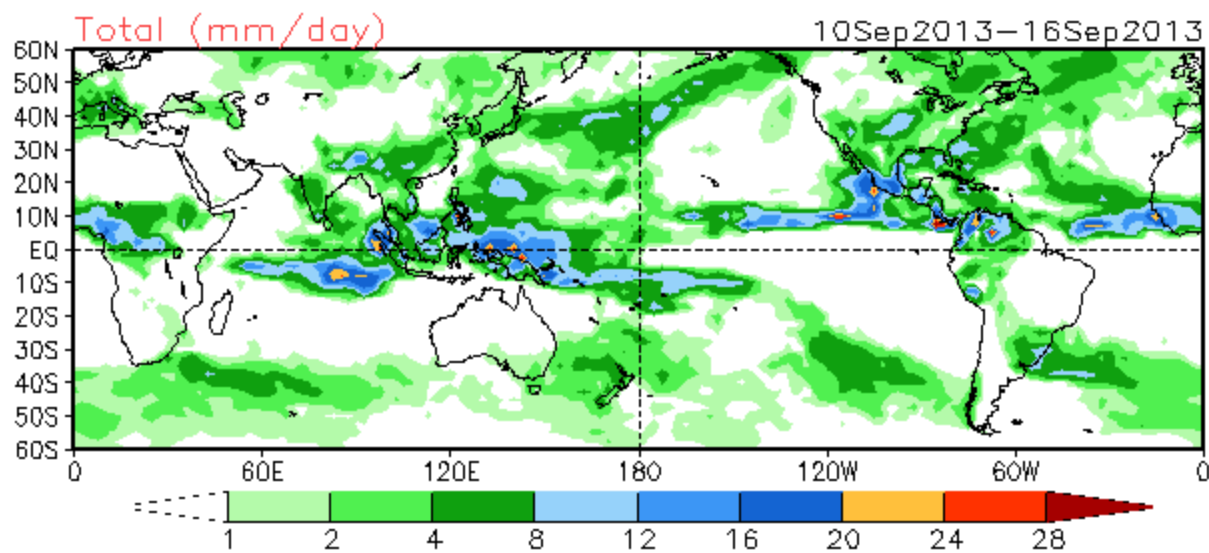


Increased convection over the central Indian Ocean during late August. Suppressed convection over the western Pacific (consistent with Phase-1)



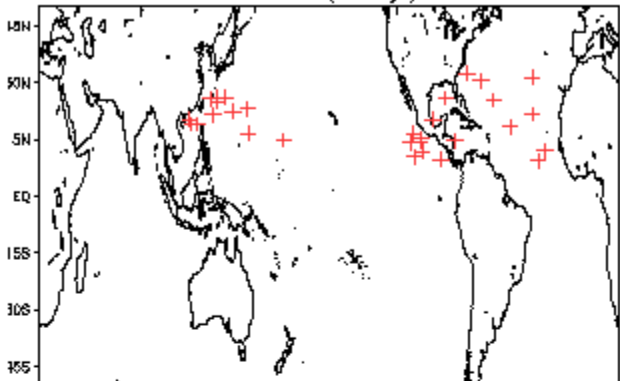


Week 2 Precipitation
Forecast from 02Sep2013

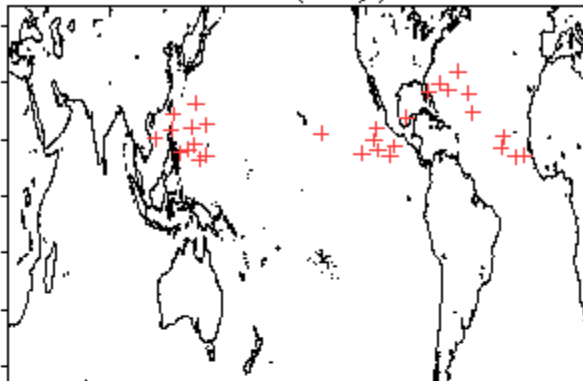


September Tropical Storm Formation by MJO phase

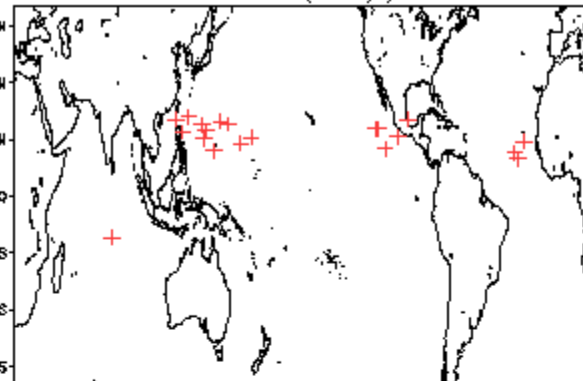
Phase 1 (81 days) 31 storms



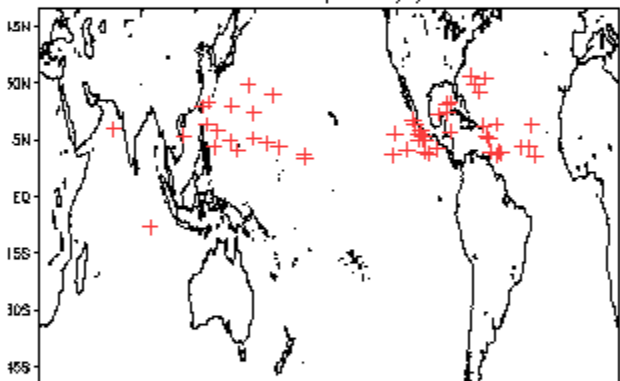
Phase 4 (70 days) 30 storms



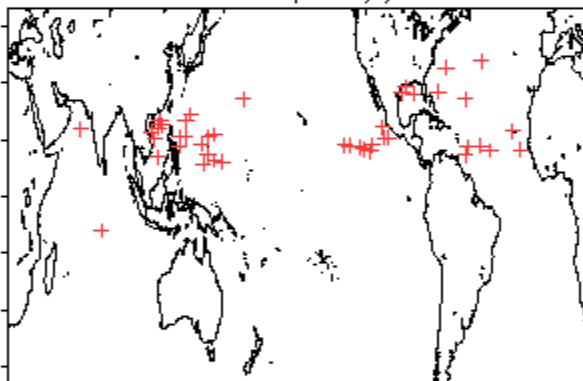
Phase 7 (38 days) 22 storms



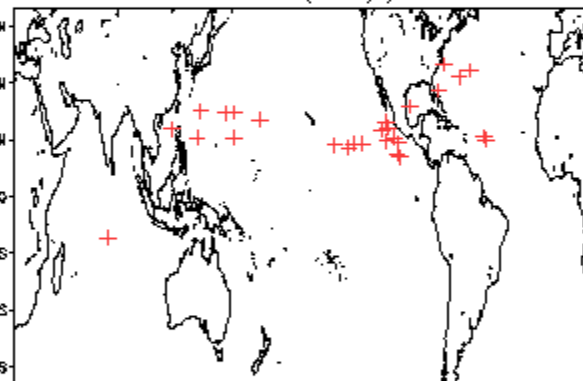
Phase 2 (122 days) 56 storms



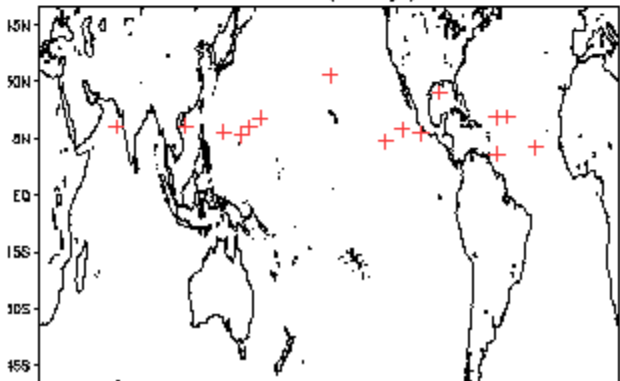
Phase 5 (106 days) 45 storms



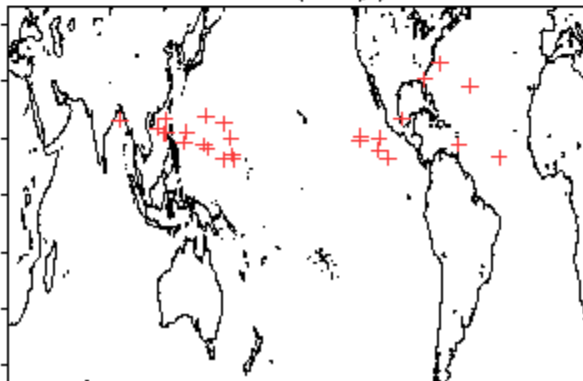
Phase 8 (67 days) 29 storms



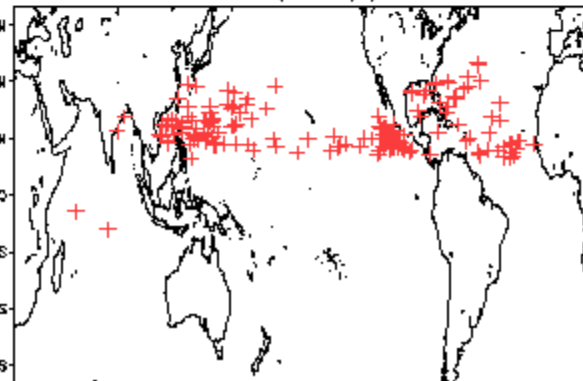
Phase 3 (51 days) 18 storms



Phase 6 (61 days) 27 storms



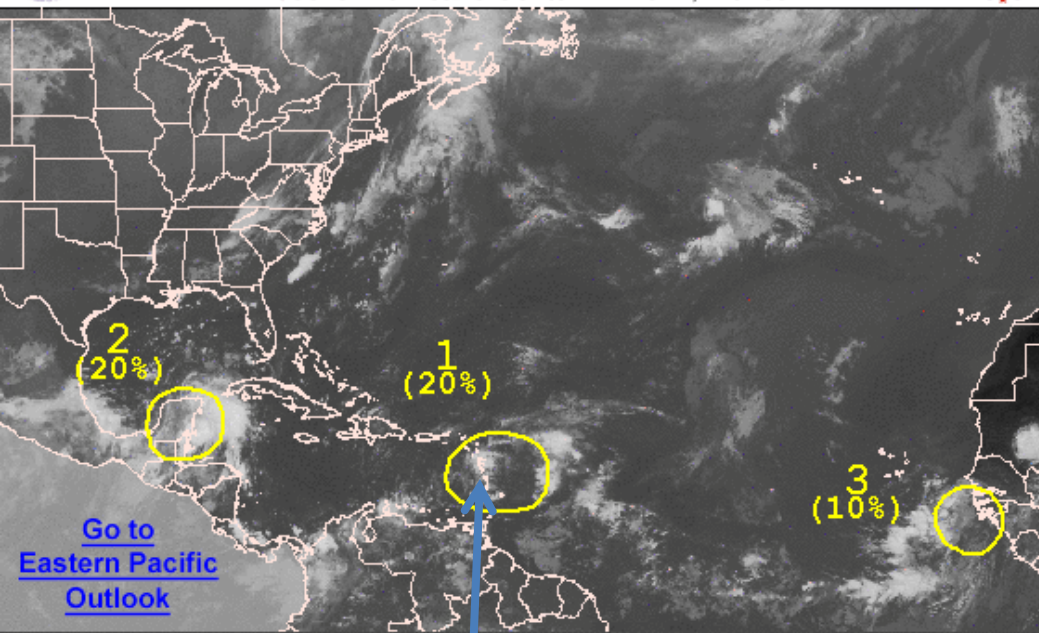
Null (393 days) 189 storms





Graphical Tropical Weather Outlook

National Hurricane Center Miami, Florida



800 AM EDT TUE SEP 3 2013

Satellite Image: 0722 AM EDT

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

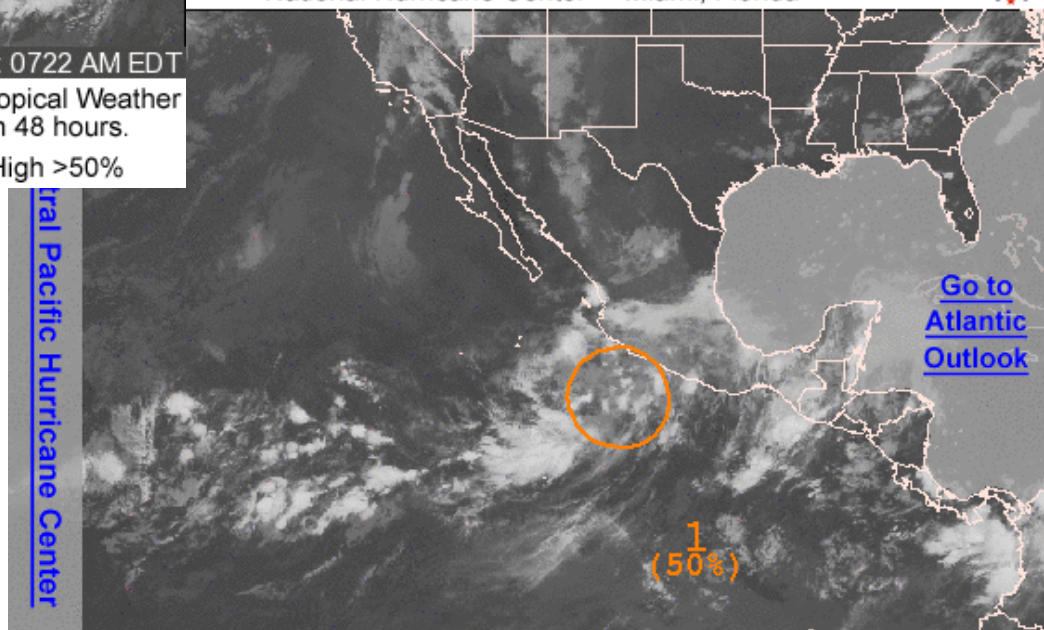
- Low <30%
- Medium 30-50%
- High >50%

50% at 5-days

Central Pacific Hurricane Center

Graphical Tropical Weather Outlook

National Hurricane Center Miami, Florida

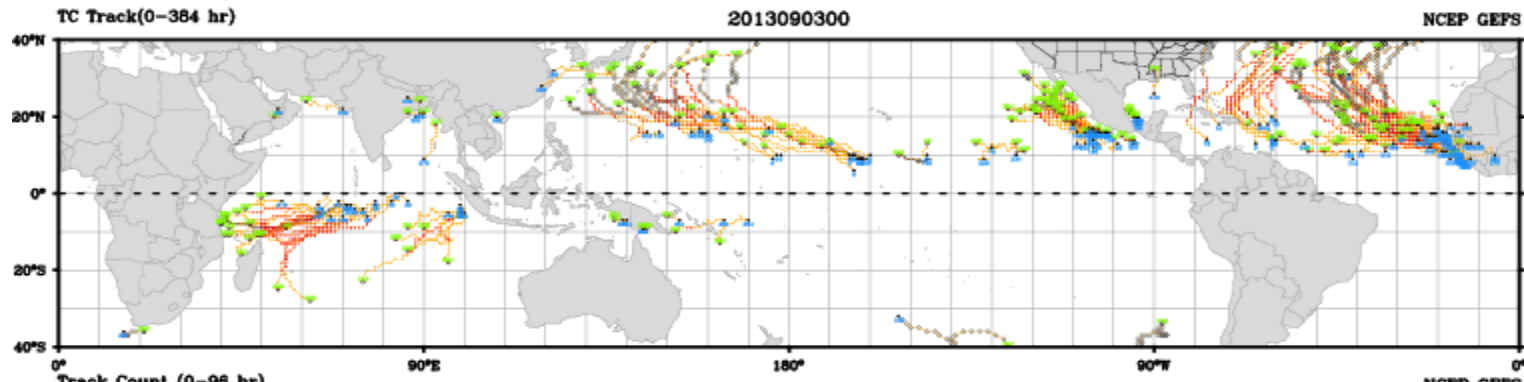


500 AM PDT TUE SEP 3 2013

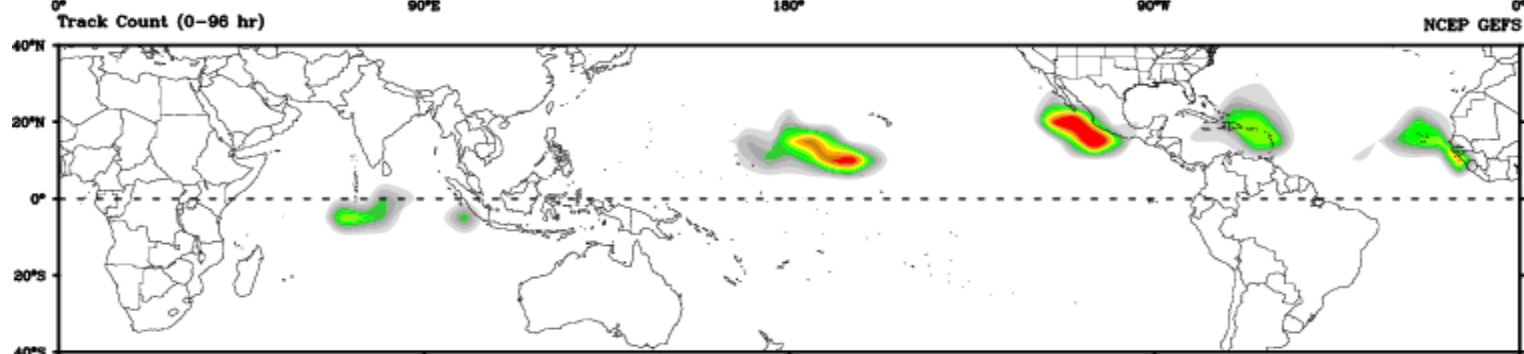
Satellite Image: 0422 AM PDT

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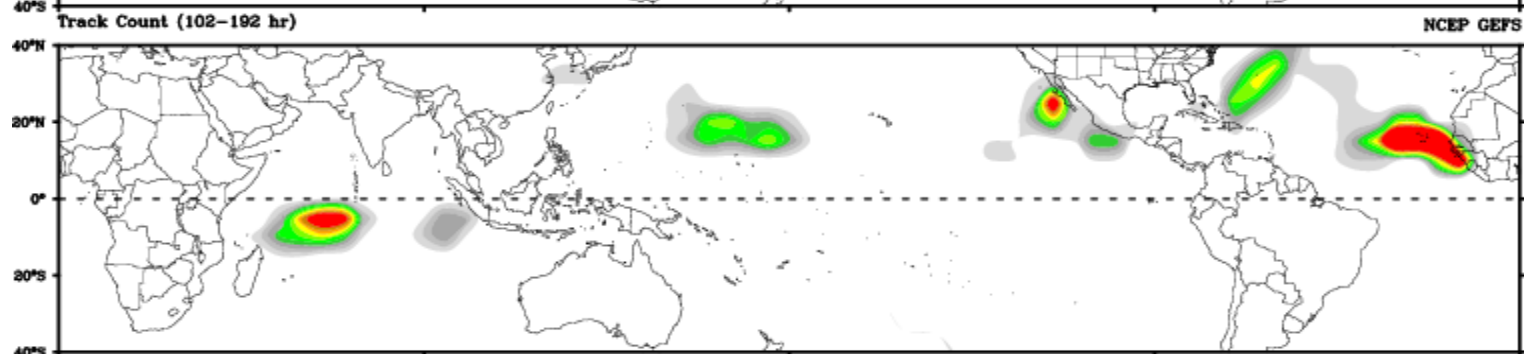
- Low <30%
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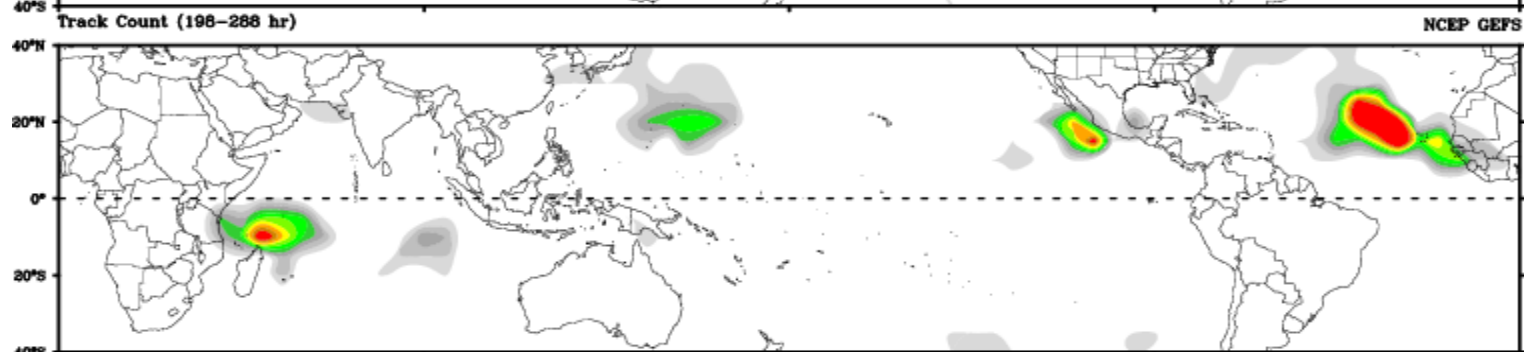
Days 1-4



Day 5-8

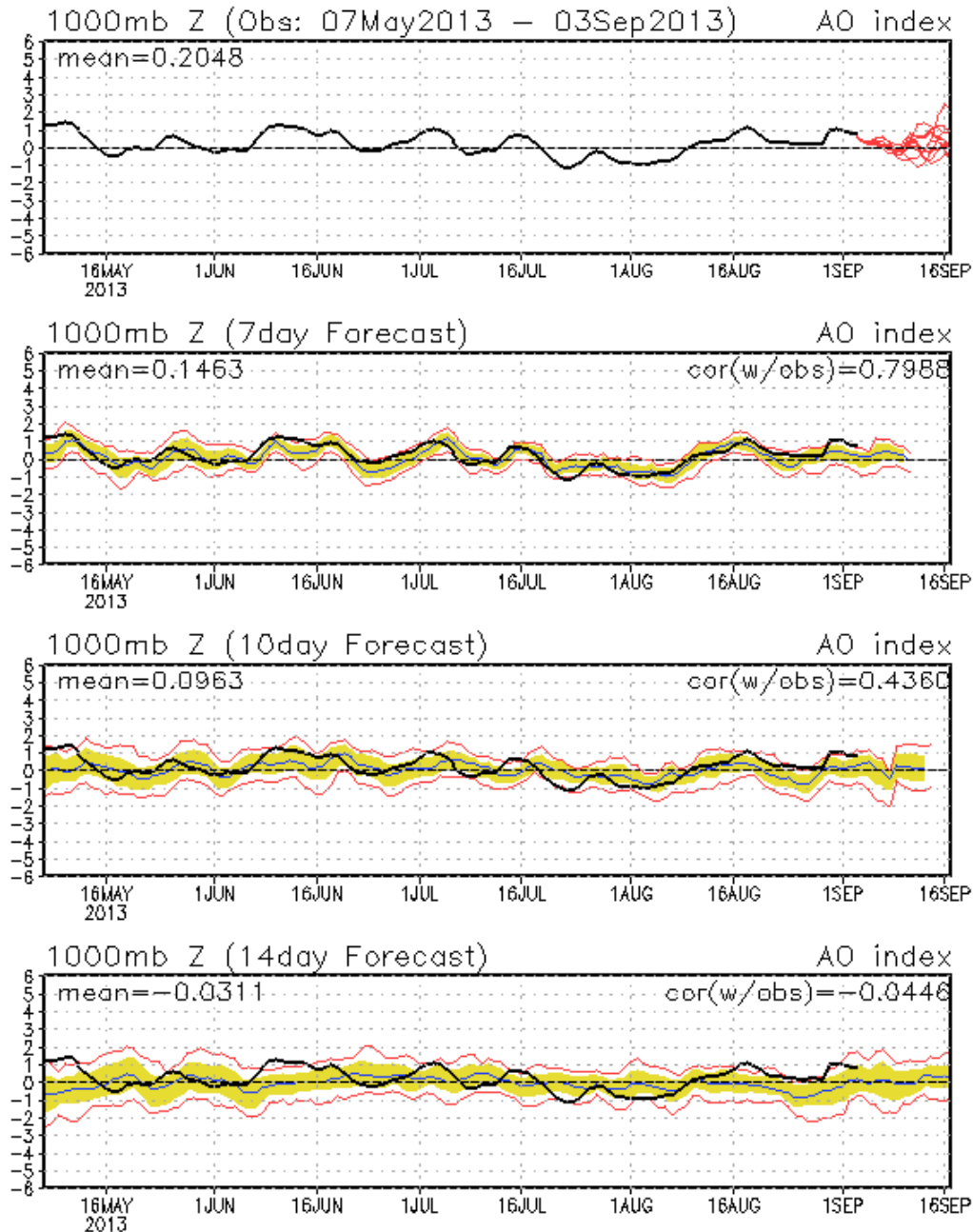


Day 9-12



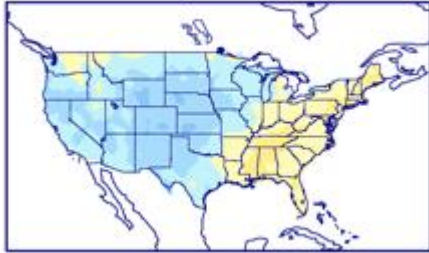
Connections to U.S. Impacts

AO: Observed & ENSM forecasts

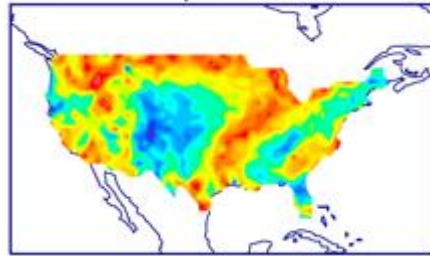


US Composites based on MJO Phase

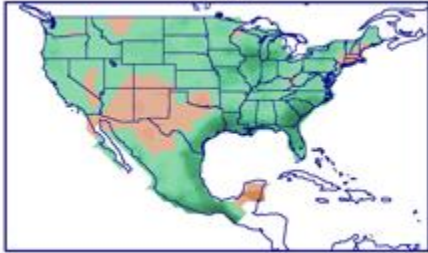
phase 1



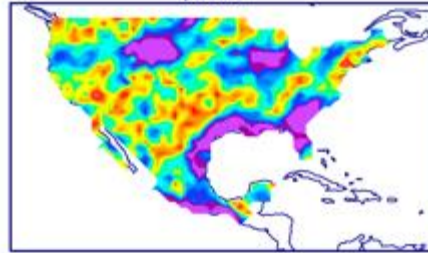
phase 1



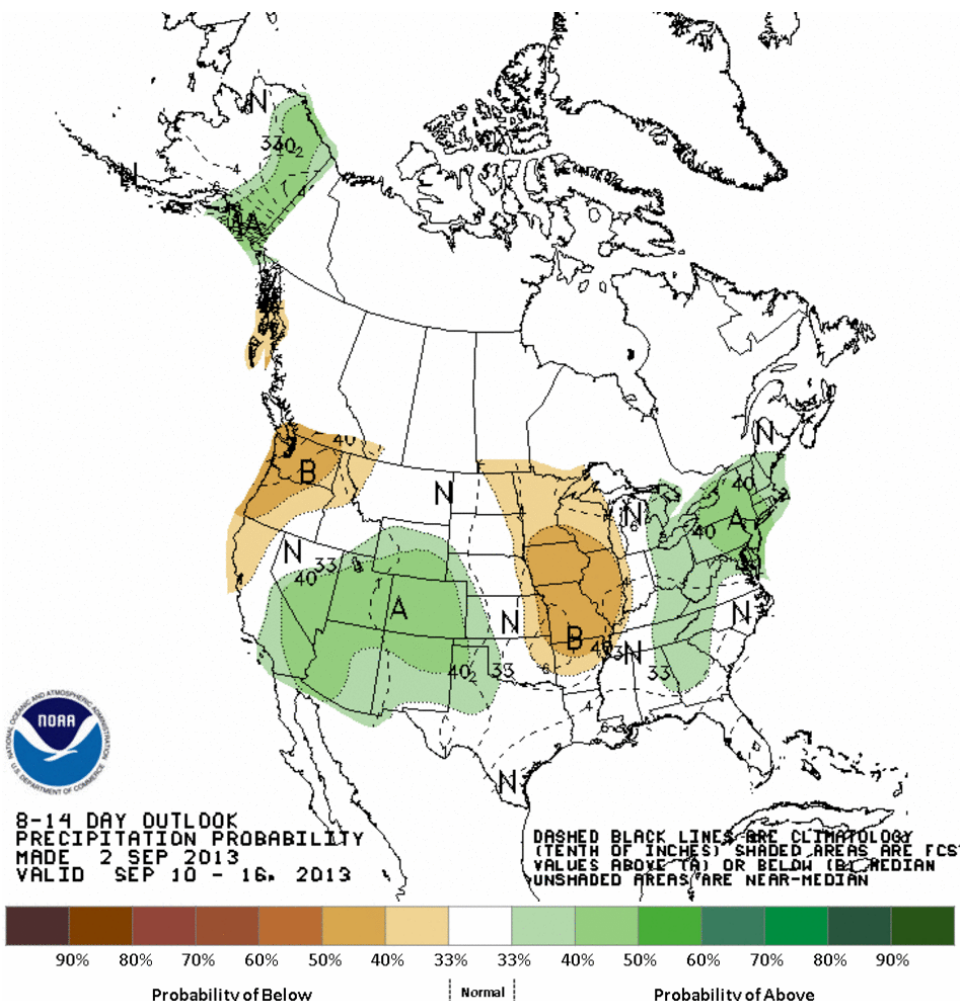
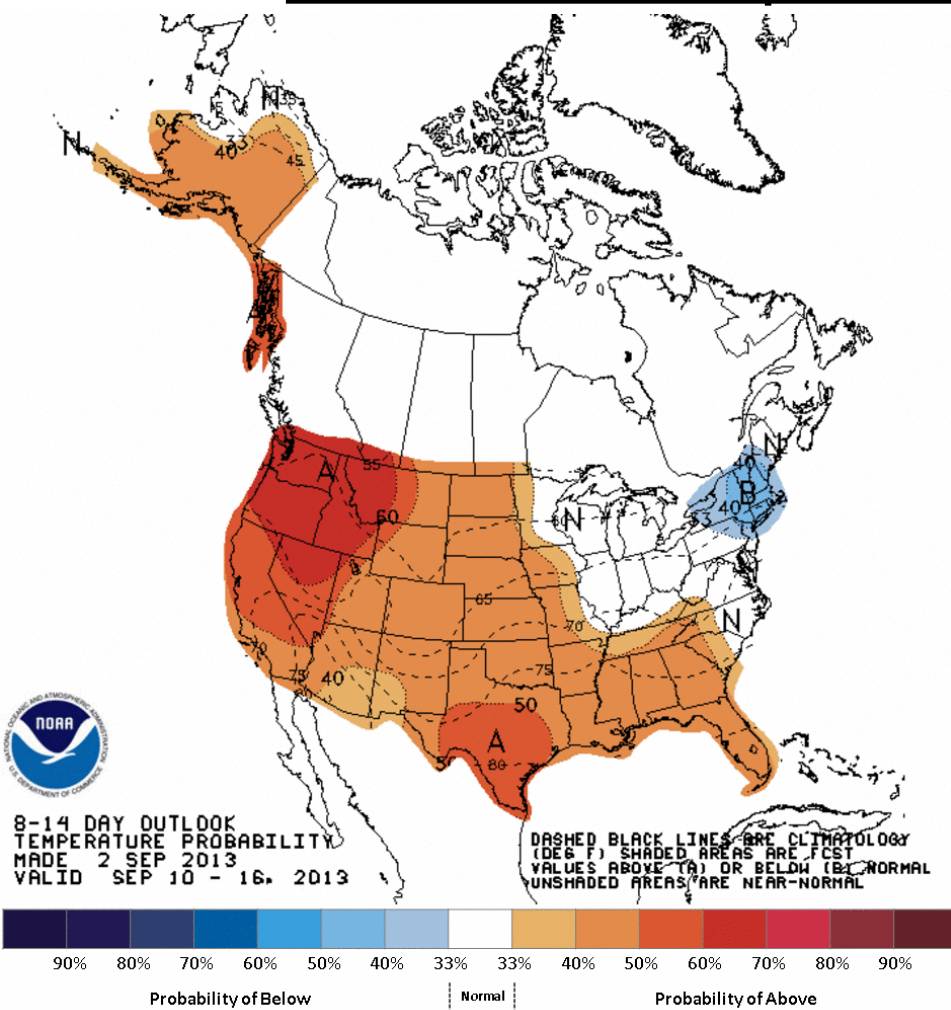
phase 1



phase 1



Week 2 – Temperature and Precipitation

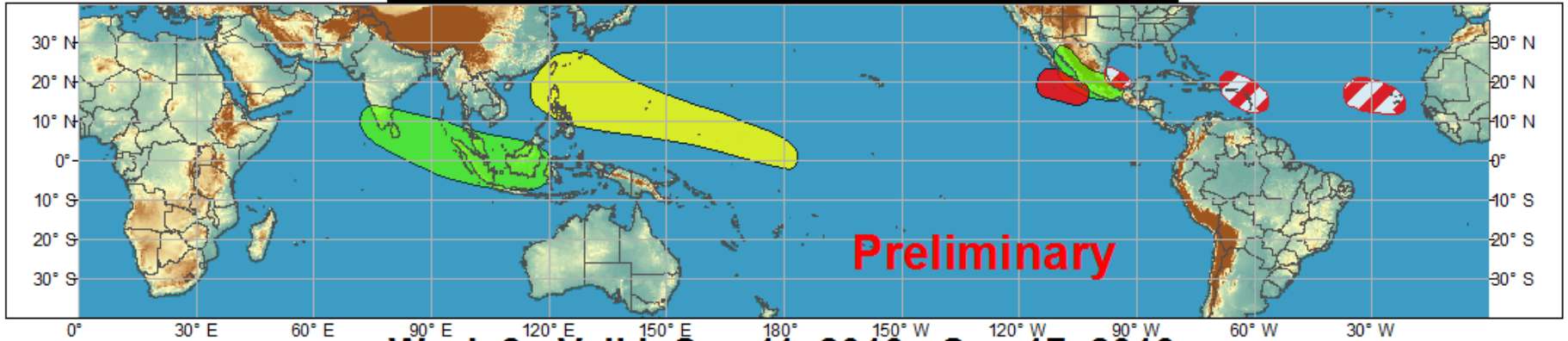




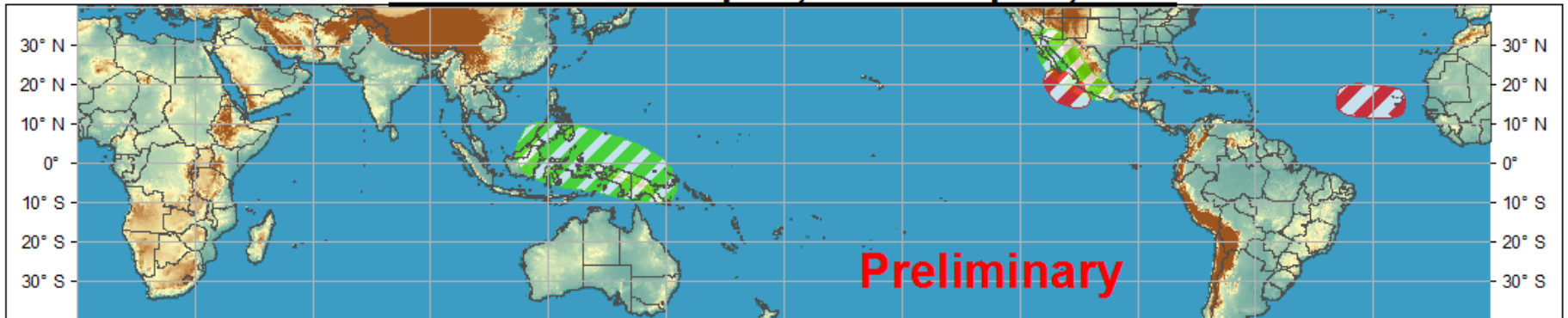
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