

Global Tropics Hazards And Benefits Outlook

June 18, 2013

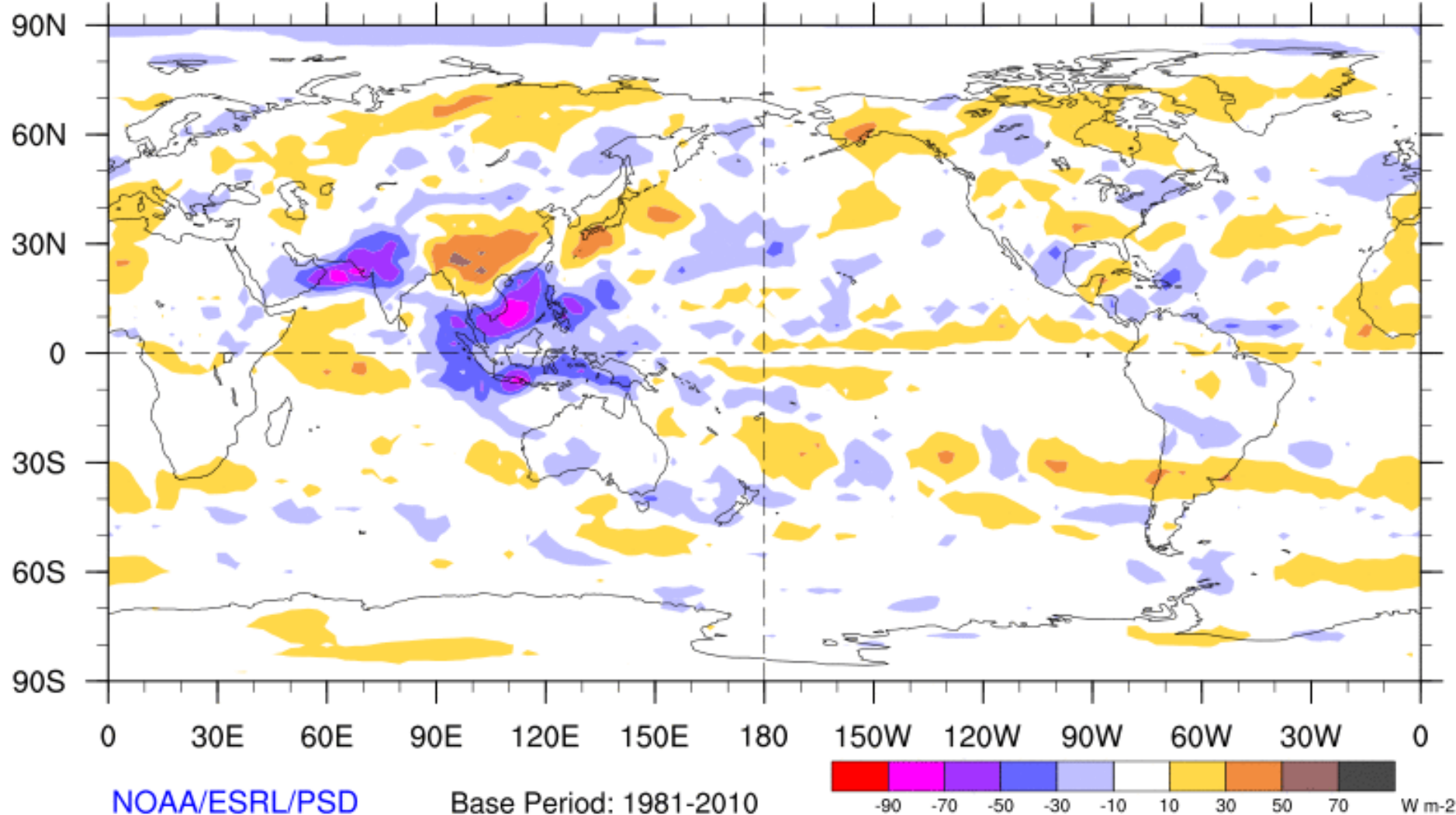
Matthew Rosencrans

Outline

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

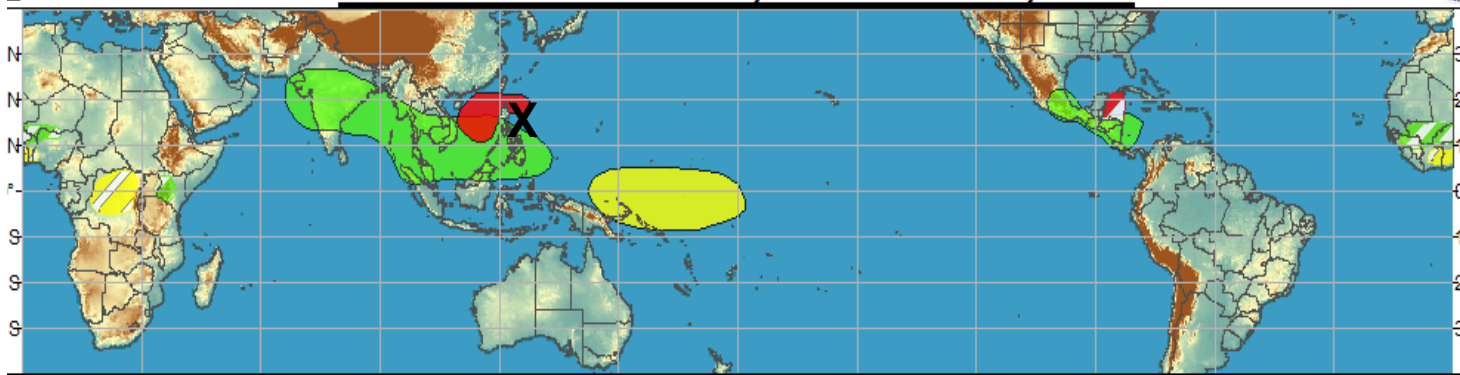
7-Day Average OLR Anomaly

2013/06/10 - 2013/06/16

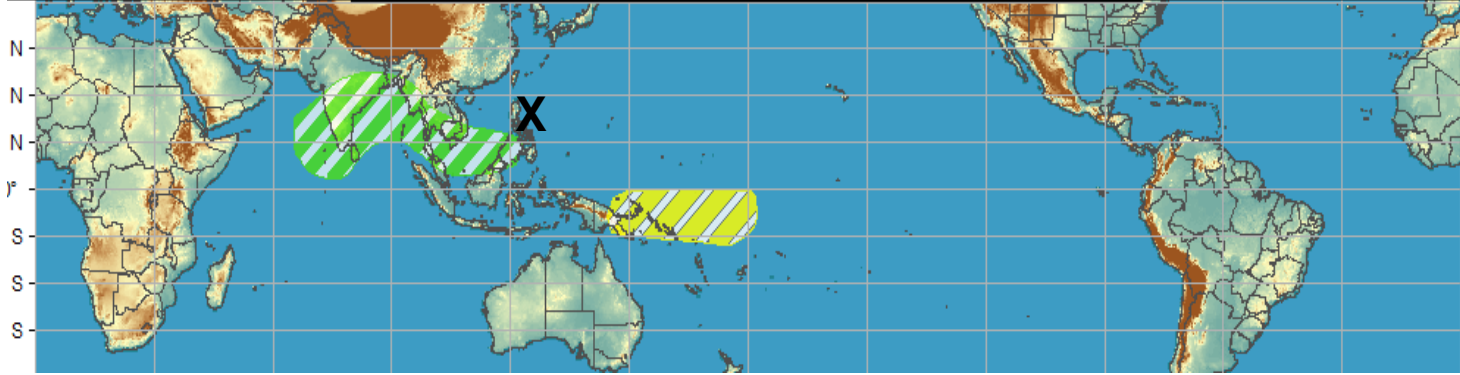


Outlook Review

Week 1 - Valid: Jun 12, 2013 - Jun 18, 2013

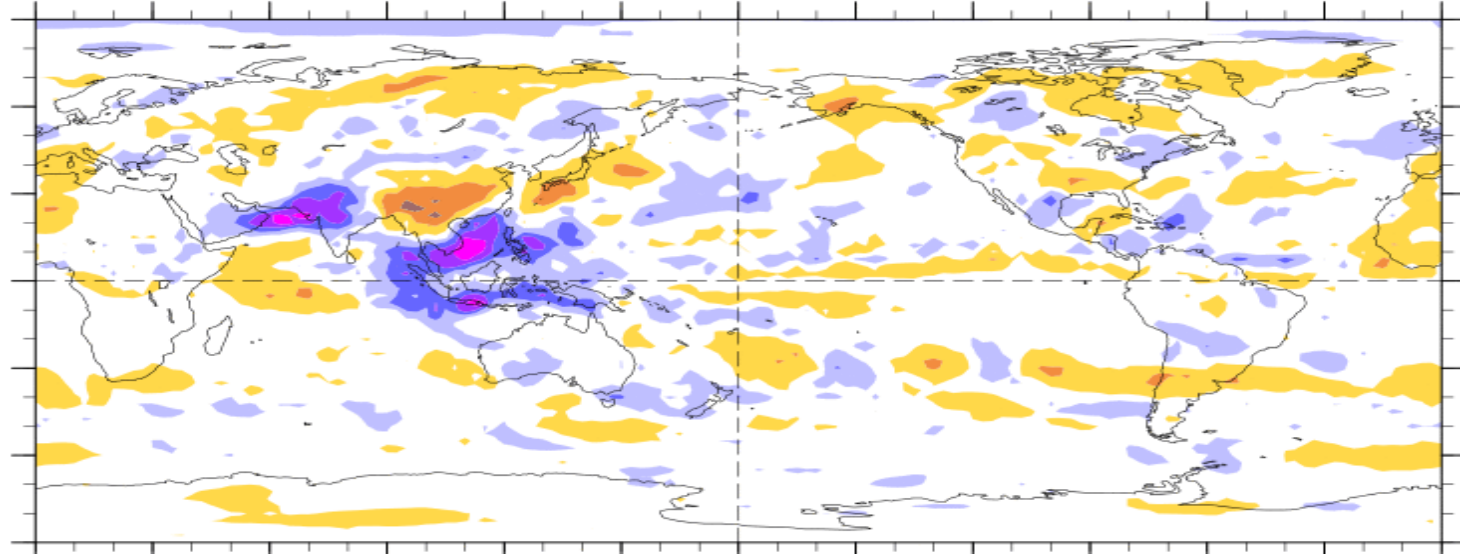


Week 2 - valid: Jun 12, 2013 - Jun 18, 2013



7-Day Average OLR Anomaly

2013/06/10 - 2013/06/16



Cool shading
More clouds/rain

Warm shading
Less clouds/rain

Synopsis of Climate Modes

ENSO:

- ENSO-neutral is favored through the Northern Hemisphere summer 2013

MJO and other subseasonal tropical variability:

- The MJO strengthened during the past week, with enhanced convection over the Maritime Continent and south Asia.
- Model MJO index forecasts indicate propagation of the MJO across the Western Pacific to the central Pacific by the end of Week-2
- Atmospheric Kelvin waves playing a role.

Tropics:

- Tropics are active, TD2 in ATL, TS Leepi over WPAC.
- Threat for TC development
 - EPAC - late Week-1 (Kelvin wave) and Week-2 (MJO)
 - WPAC – Week-1 (MJO), lower threat Week-2

Impacts:

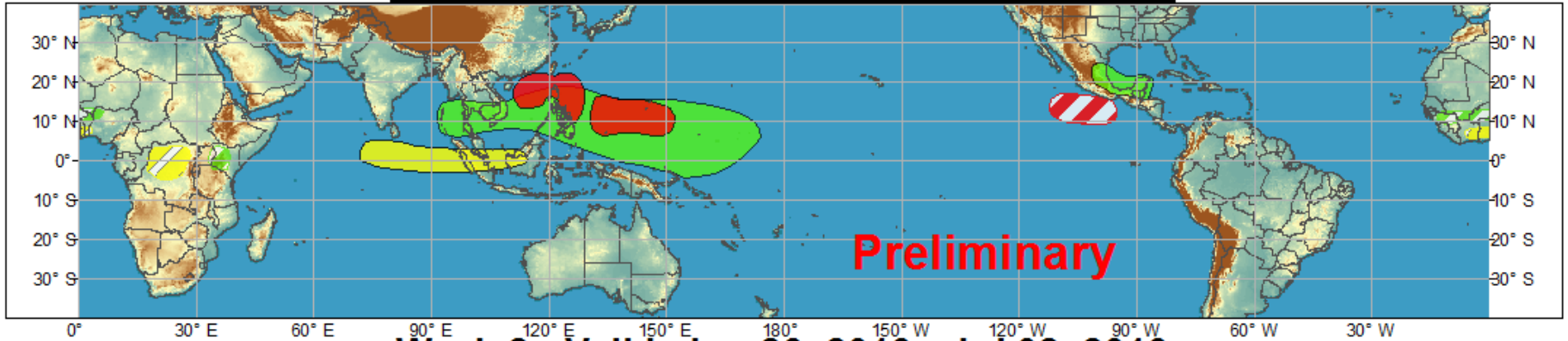
- MJO likely to increase threat of EPAC TC development during Week-2.
- Typically leads to increased moisture over Southwest the next 7-14 days (Week-3 from now).



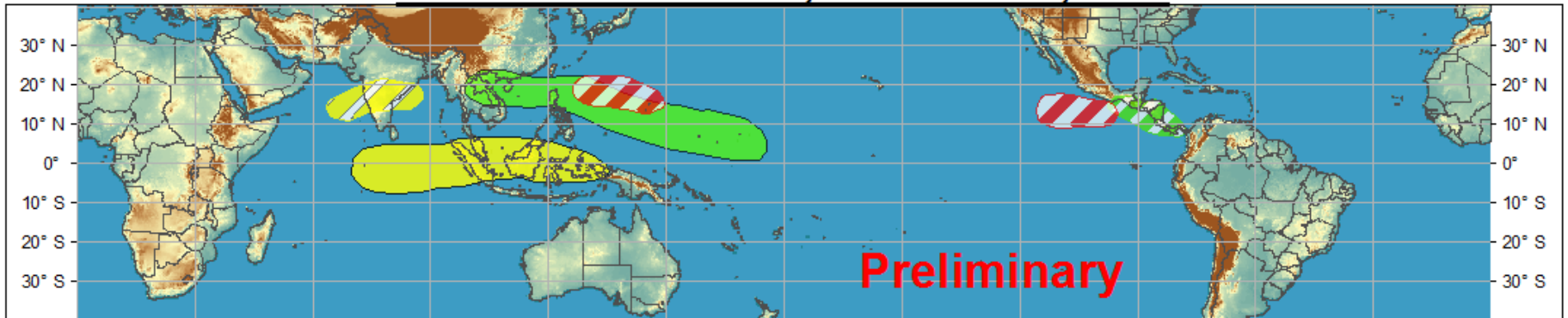
Global Tropics Hazards and Benefits Outlook - Climate Prediction Center



Week 1 - Valid: Jun 19, 2013 - Jun 25, 2013



Week 2 - Valid: Jun 26, 2013 - Jul 02, 2013



Confidence
High Moderate

Tropical Cyclone Formation



Development of a tropical cyclone that eventually reaches tropical storm/cyclone 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.

Below-normal temperatures



7-day mean temperatures in the lower third of the historical range.

Produced: 06/18/2013

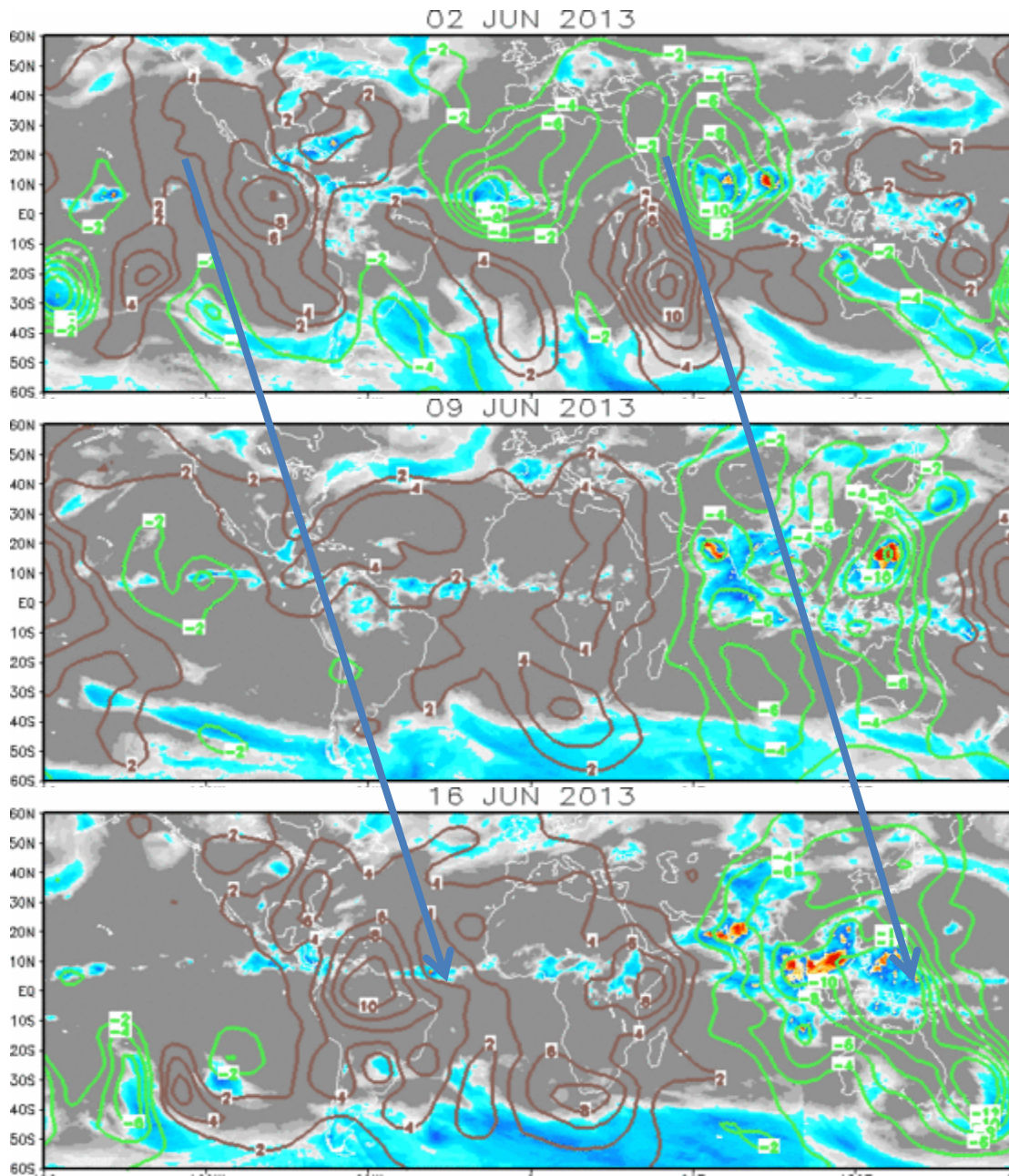
Forecaster: Rosencrans

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.

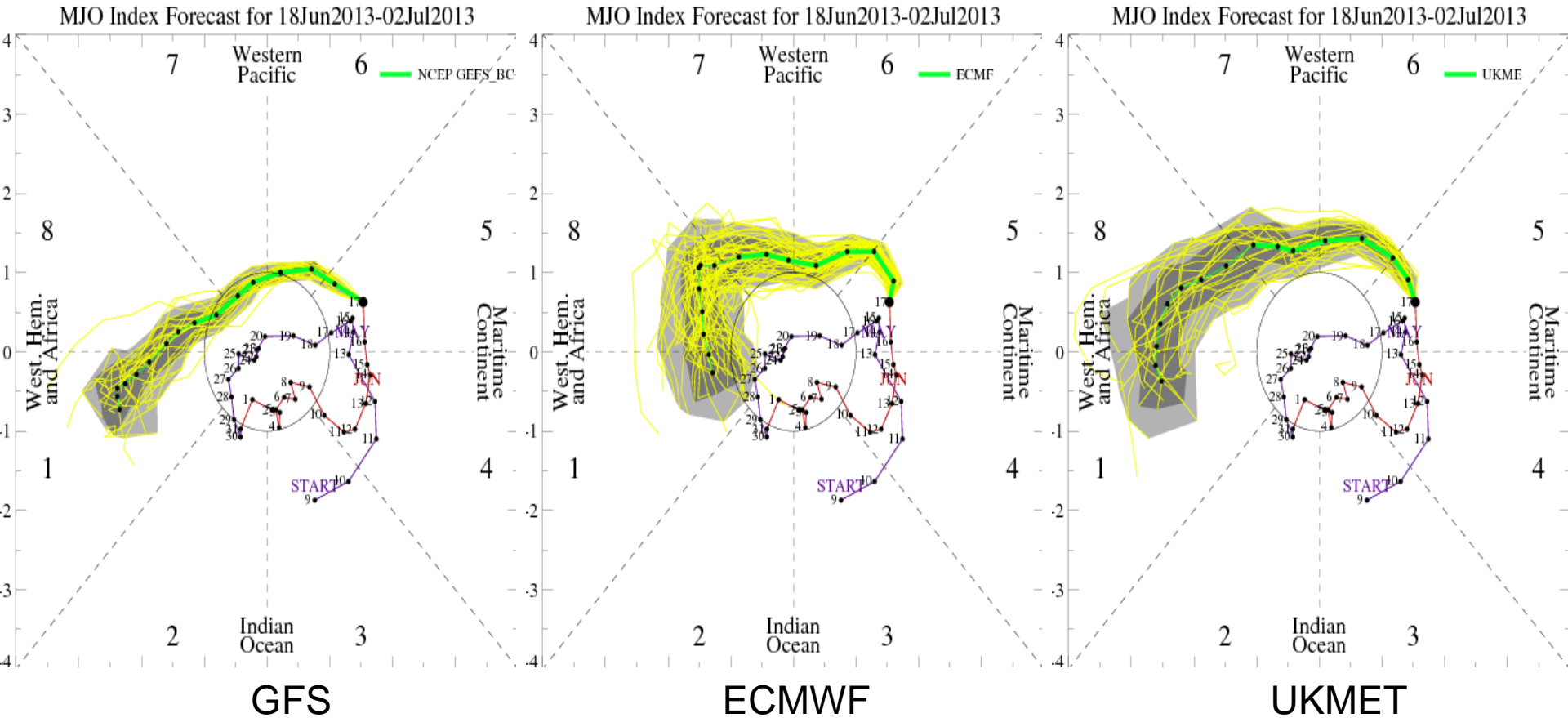


IR Satellite & 200-hpa Velocity Potential Anomalies

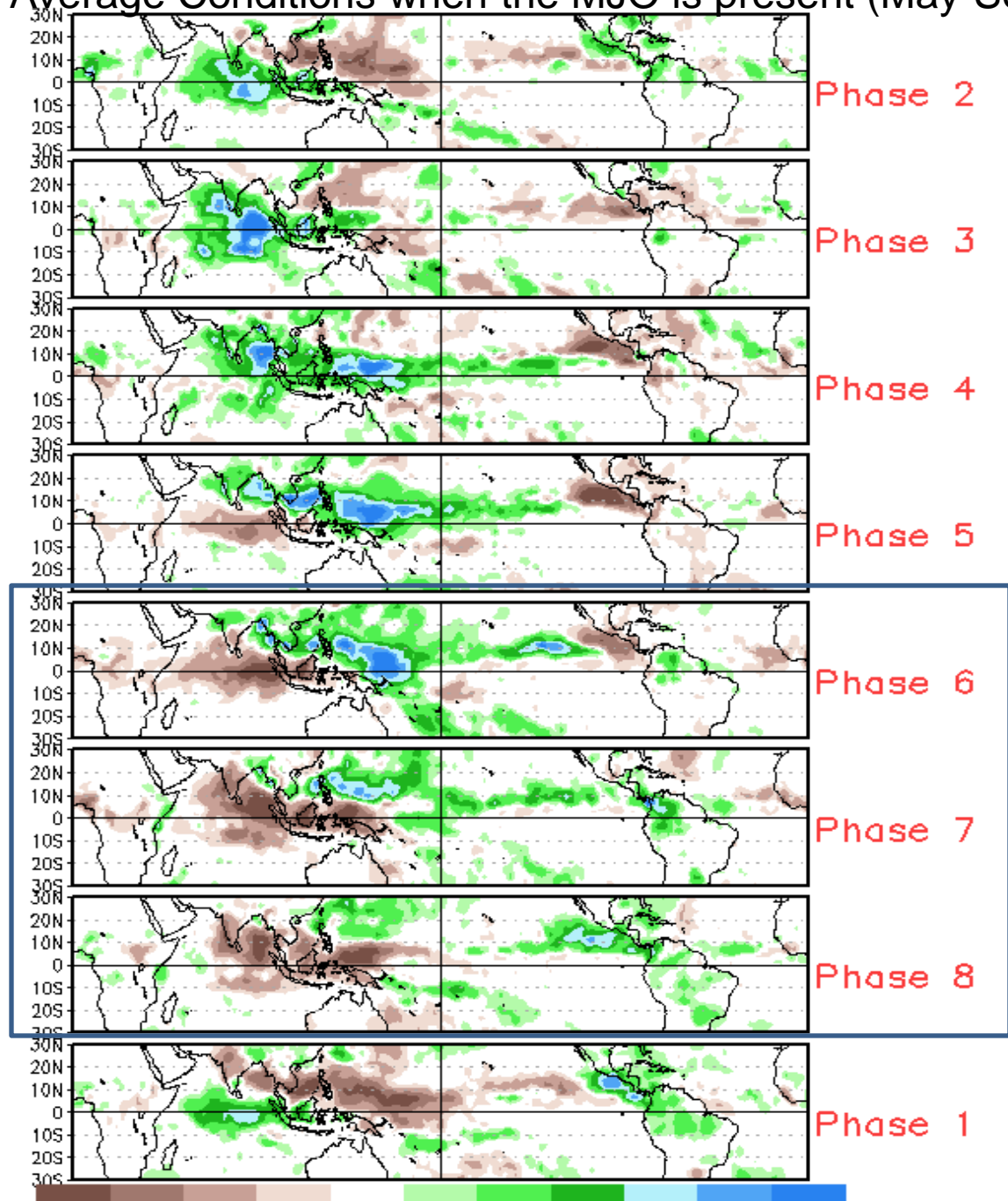
Green: Enhanced Divergence Brown: Enhanced Convergence

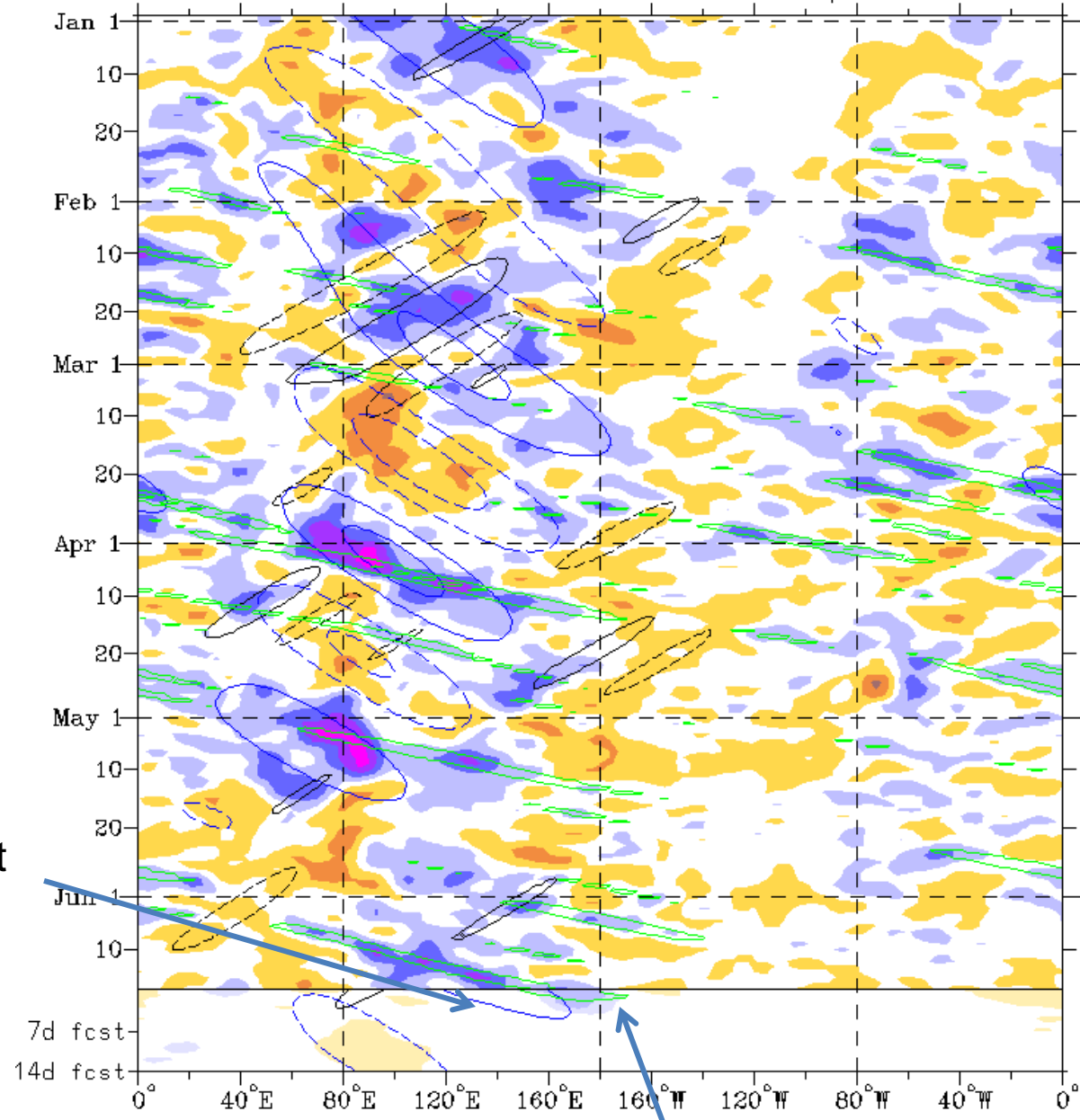


MJO Observation/Forecast



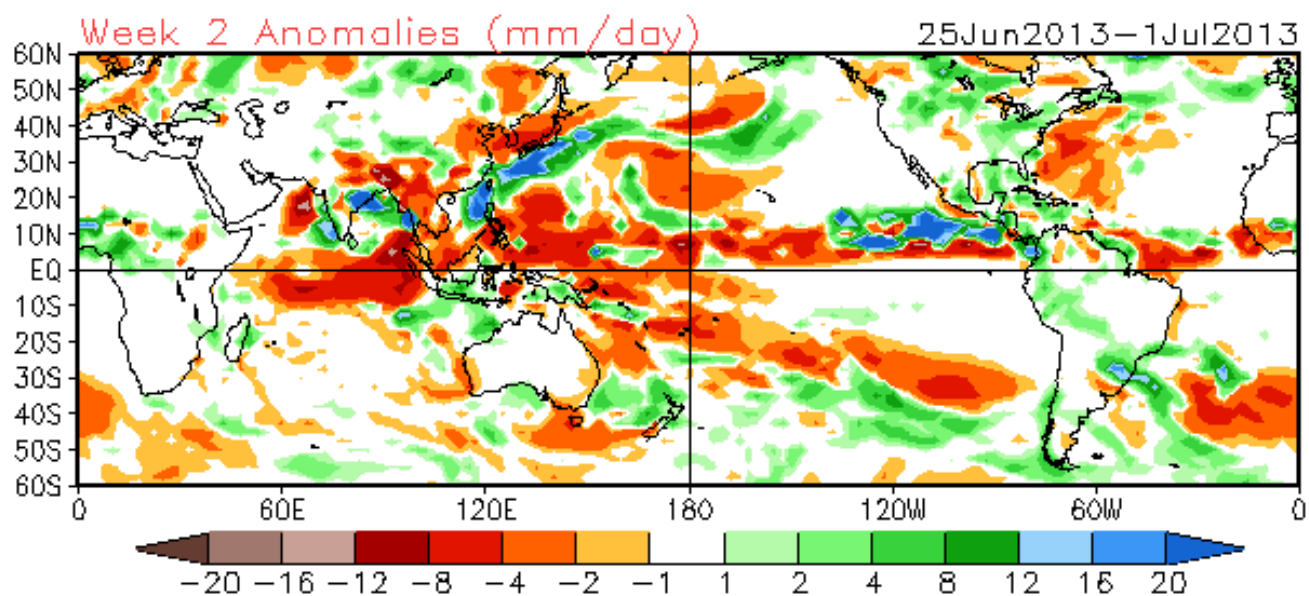
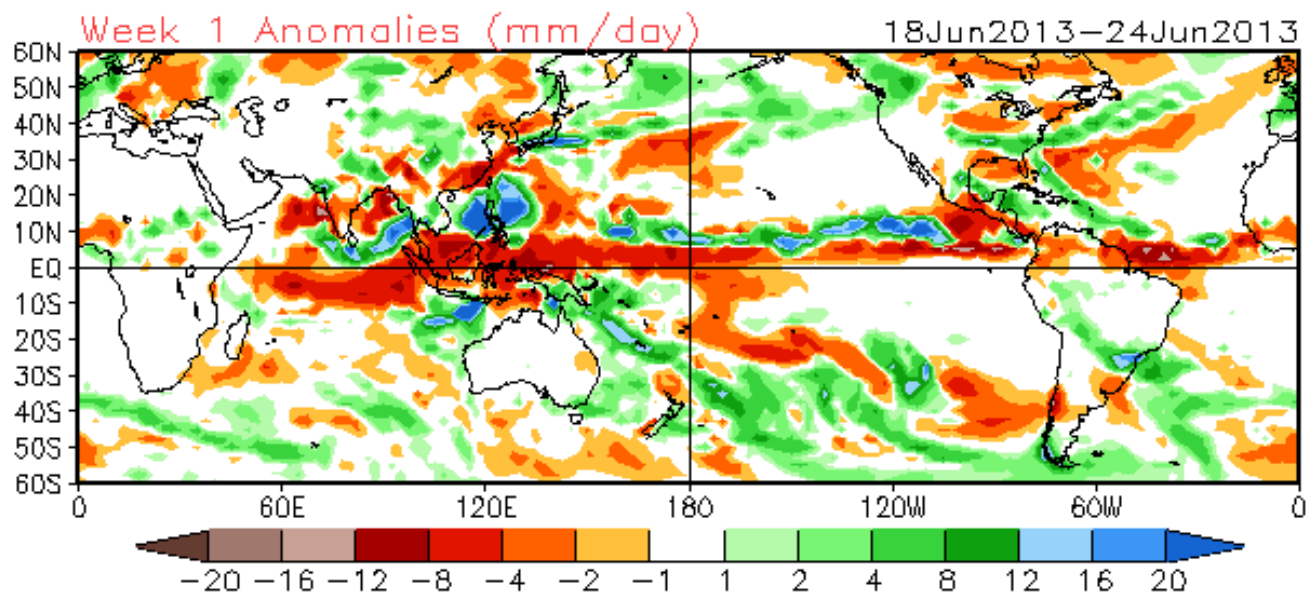
Average Conditions when the MJO is present (May-Sep)





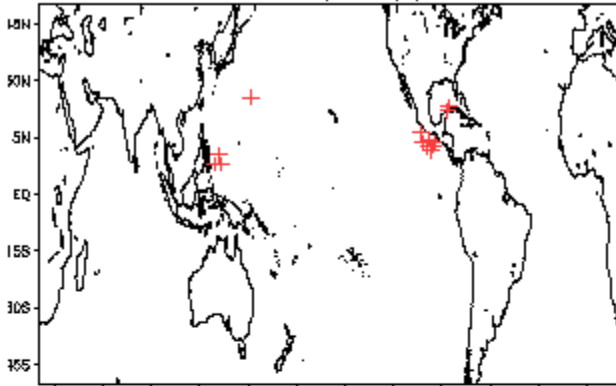
Active phase of the MJO forecast to impact Western Pacific.

Atmospheric Kelvin waves to impact Americas (Tropical Cyclone threat EPAC, late Week-1).

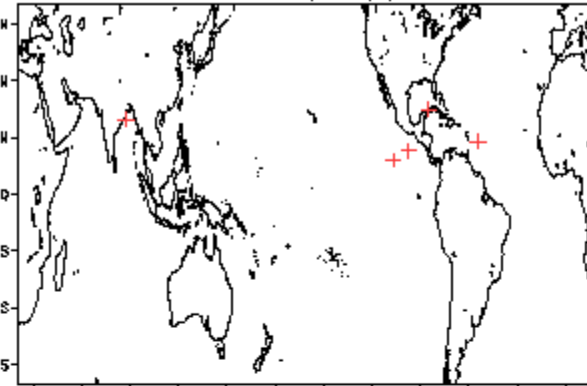


June Tropical Storm Formation by MJO phase

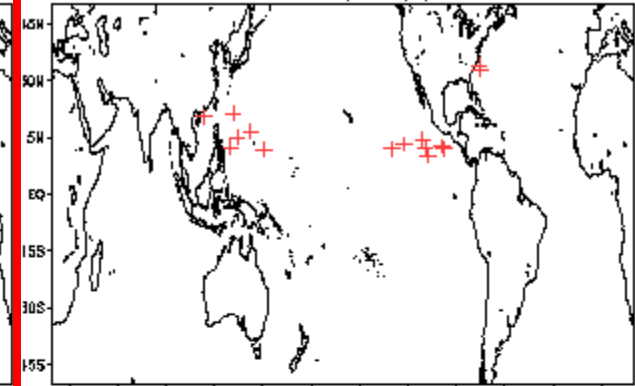
Phase 1 (104 days) 14 storms



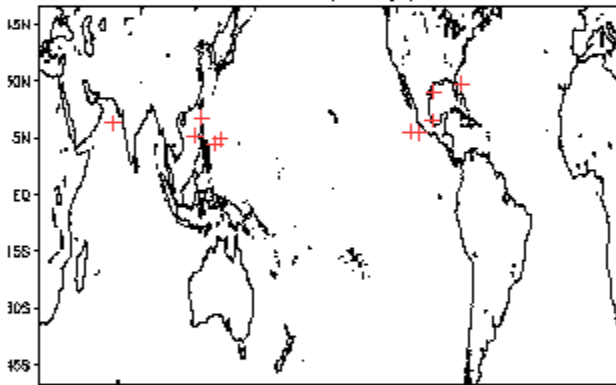
Phase 4 (80 days) 6 storms



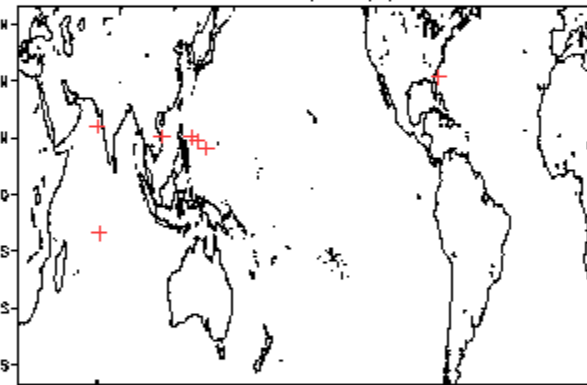
Phase 7 (45 days) 16 storms



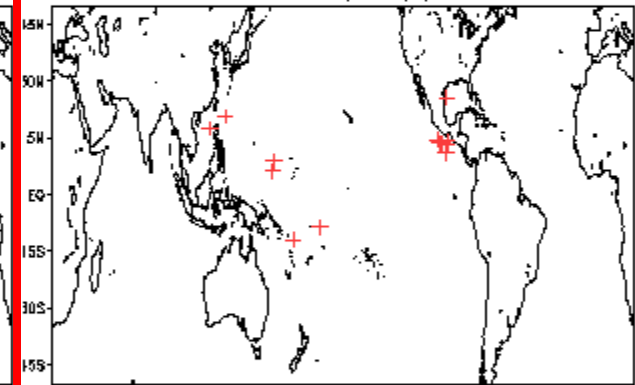
Phase 2 (82 days) 11 storms



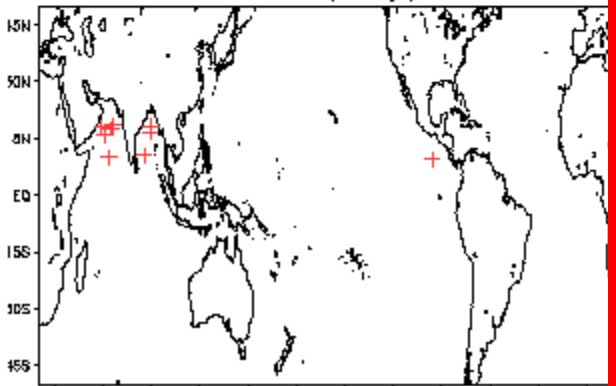
Phase 5 (77 days) 8 storms



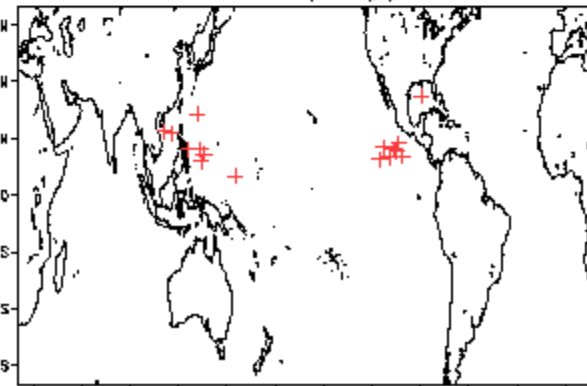
Phase 8 (70 days) 15 storms



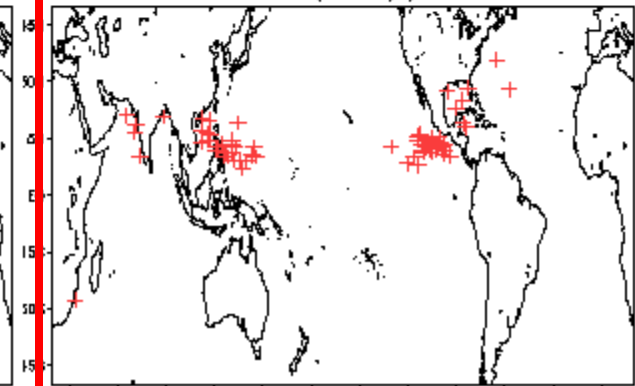
Phase 3 (57 days) 10 storms



Phase 6 (82 days) 17 storms



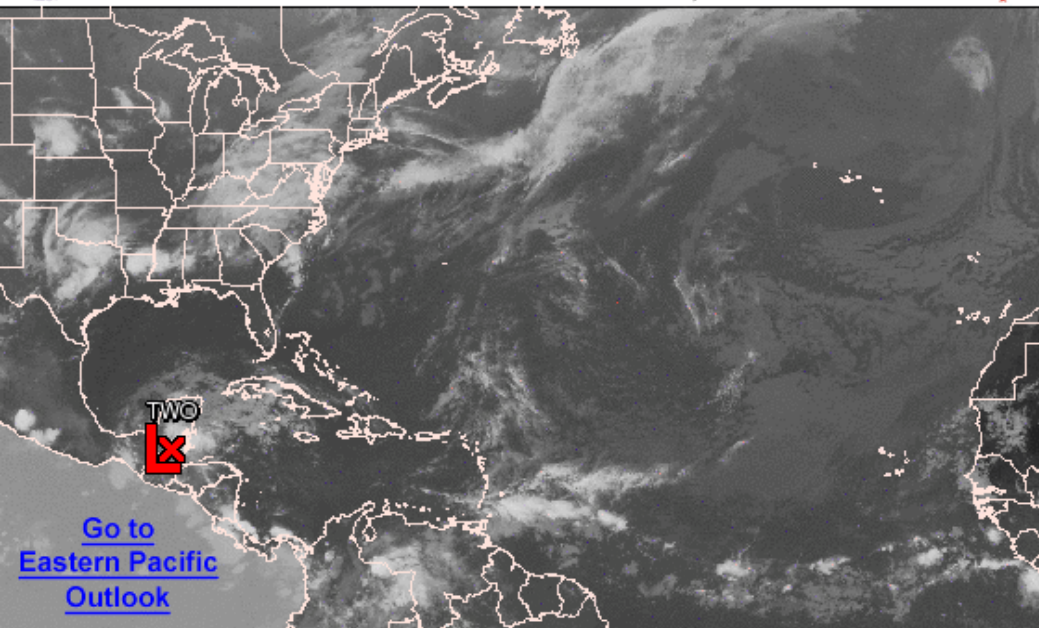
Null (123 days) 71 storms





Graphical Tropical Weather Outlook

National Hurricane Center Miami, Florida



[Go to Eastern Pacific Outlook](#)

800 AM EDT TUE JUN 18 2013

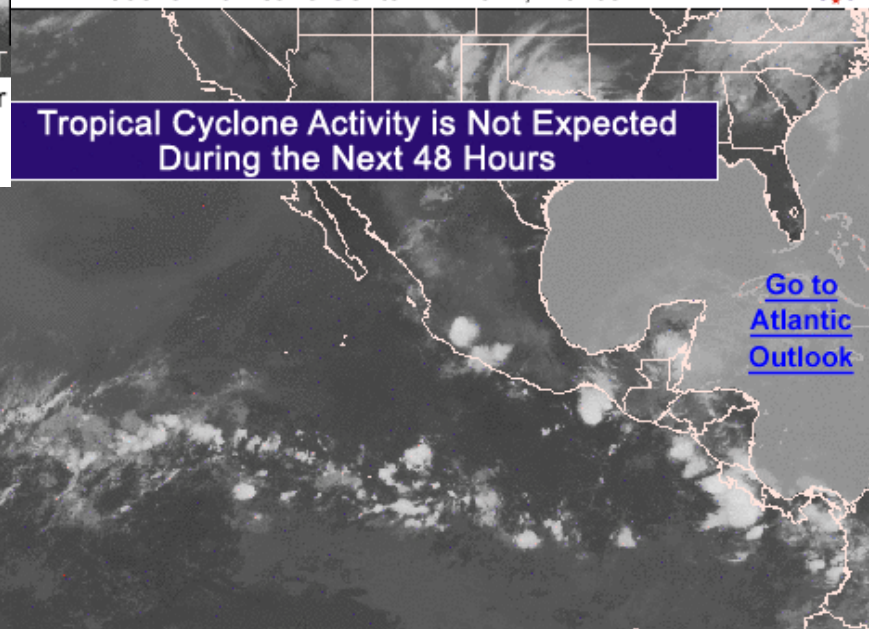
Satellite Image: 0652 AM EDT

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%

Graphical Tropical Weather Outlook

National Hurricane Center Miami, Florida



Tropical Cyclone Activity is Not Expected During the Next 48 Hours

[Go to Atlantic Outlook](#)

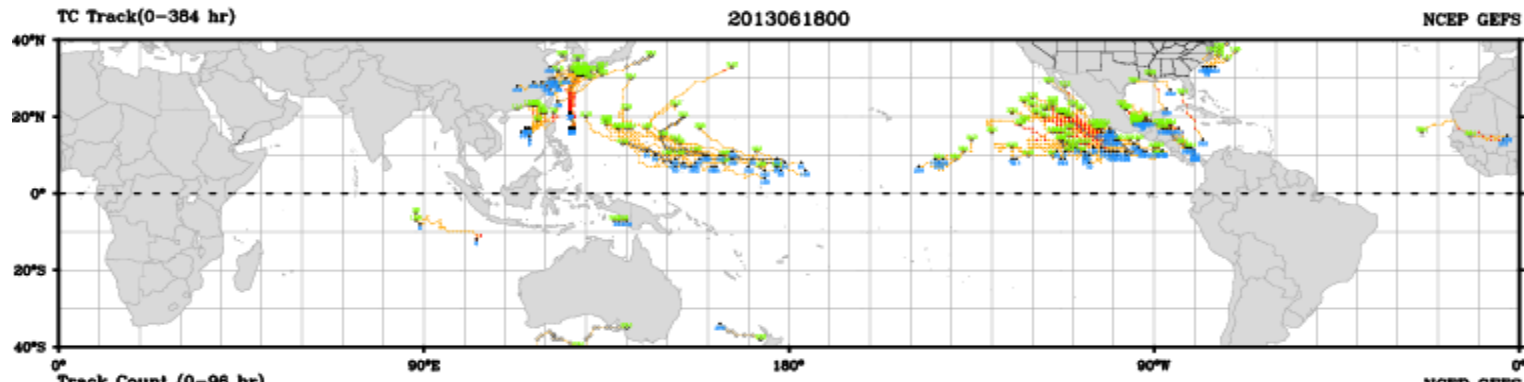
500 AM PDT TUE JUN 18 2013

Satellite Image: 0352 AM PDT

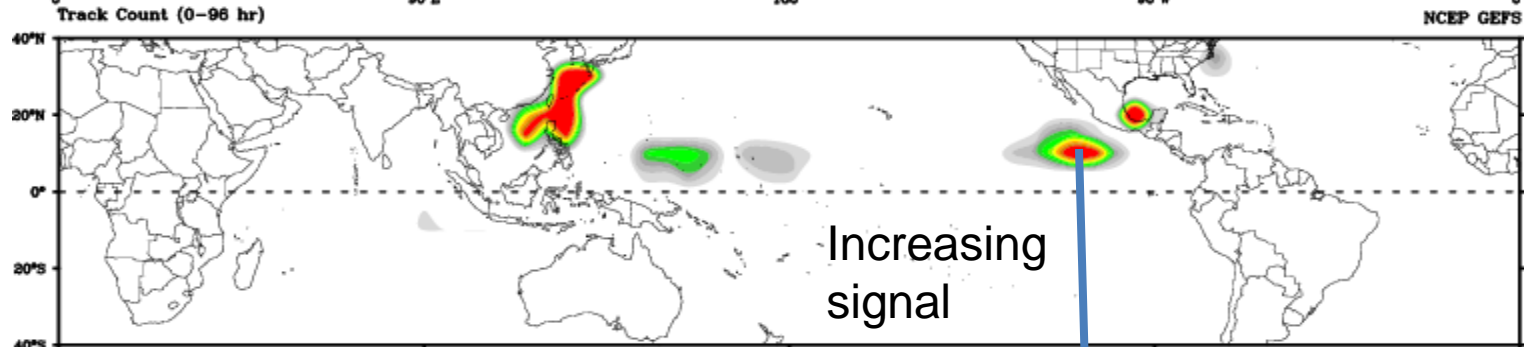
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Central Pacific Hurricane Center

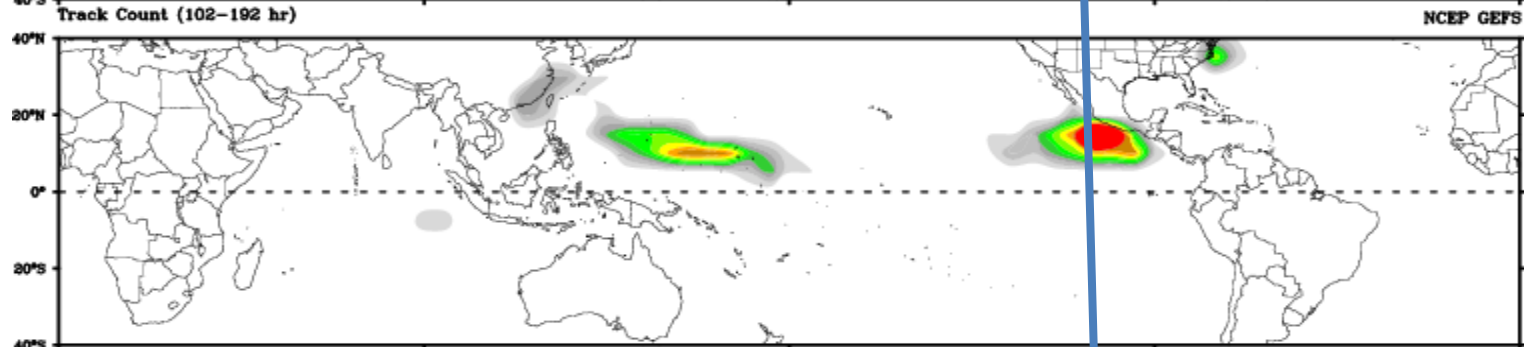


Days 1-4

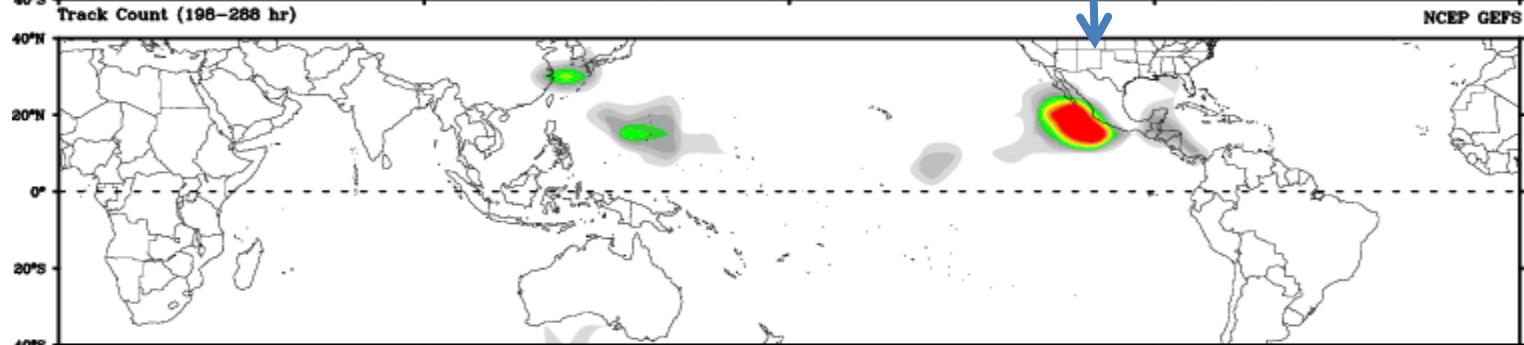


Increasing signal

Day 5-8



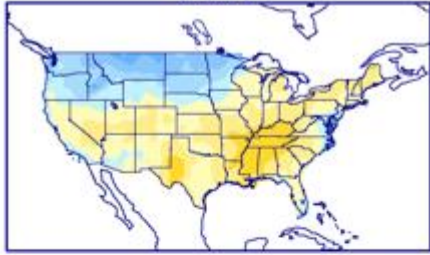
Day 9-12



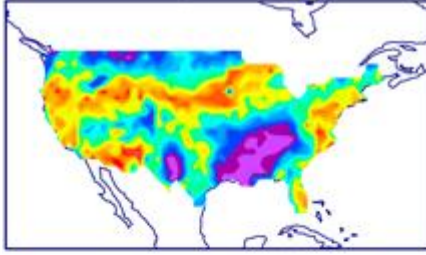
Connections to U.S. Impacts

US Composites based on MJO Phase

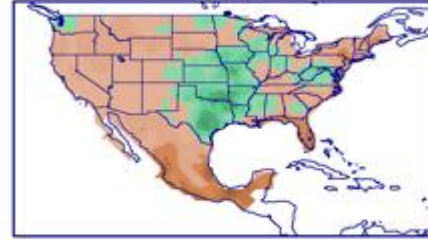
phase 6



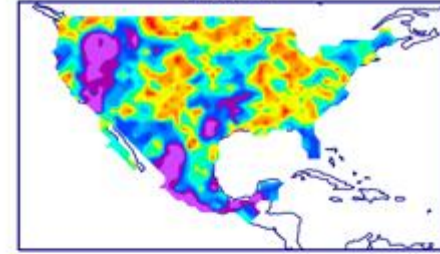
phase 6



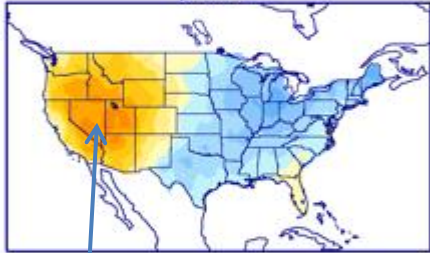
phase 6



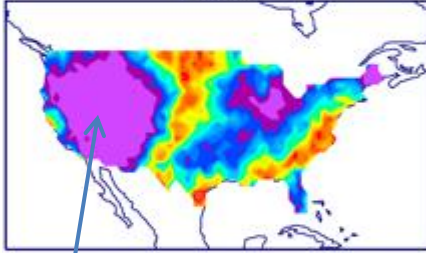
phase 6



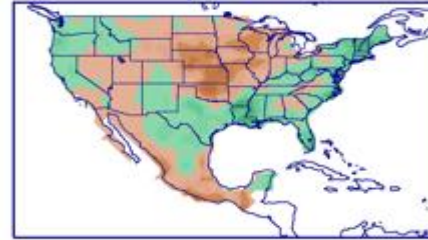
phase 7



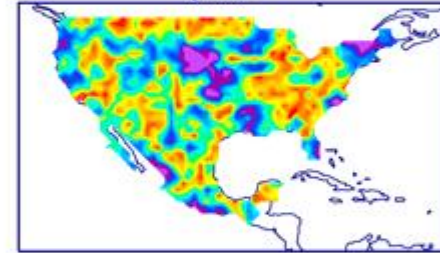
phase 7



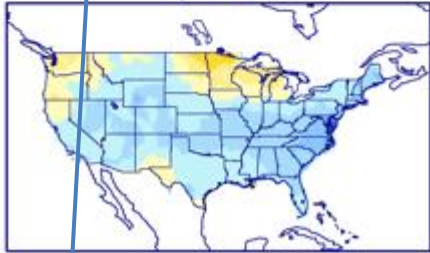
phase 7



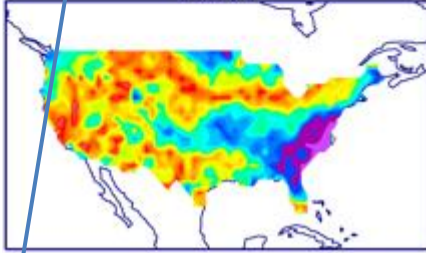
phase 7



phase 8



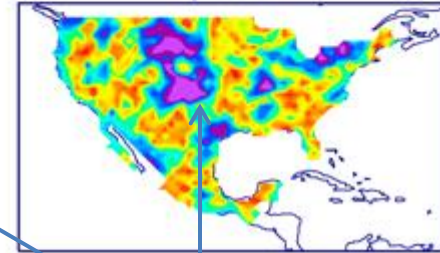
phase 8



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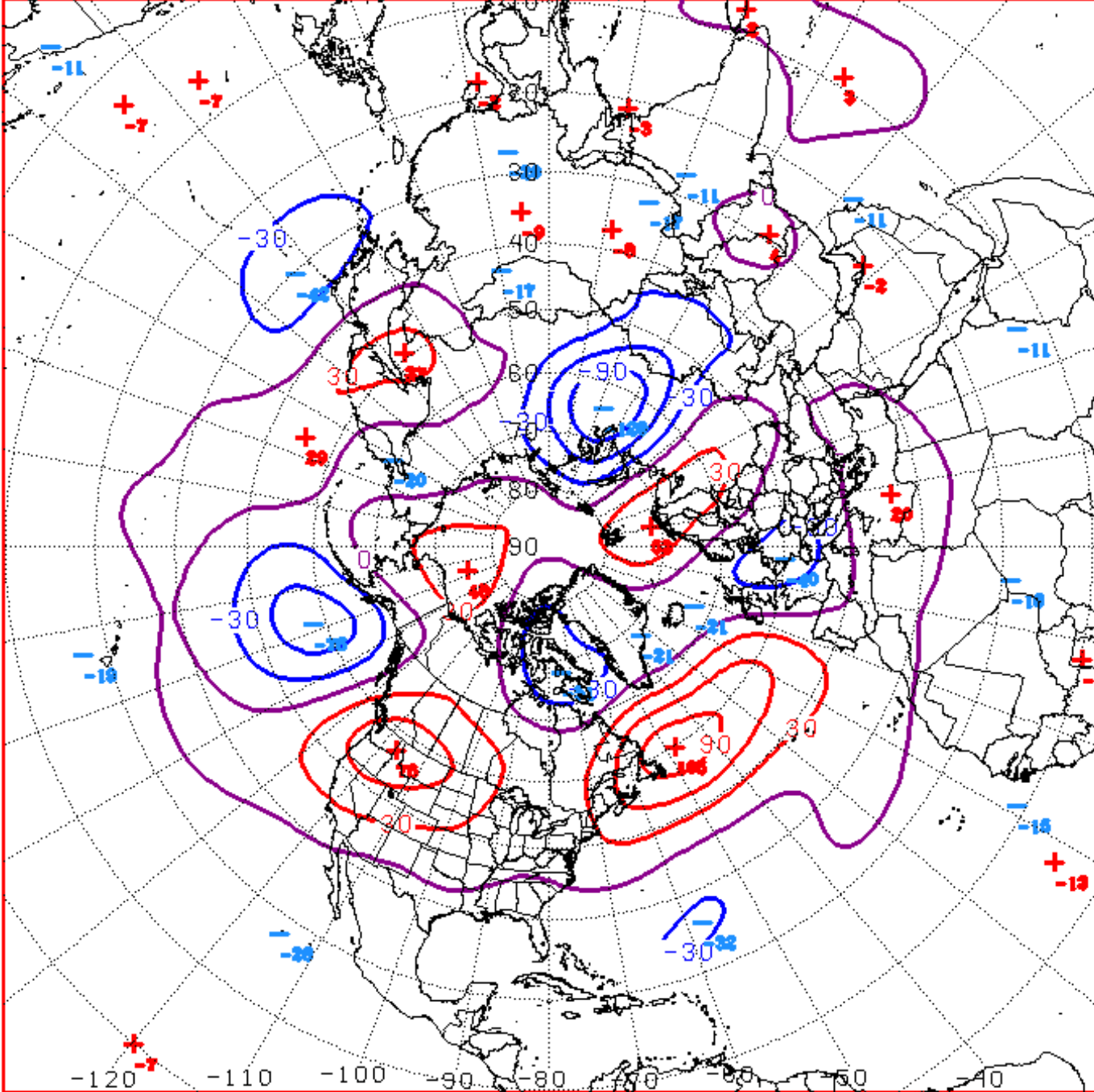


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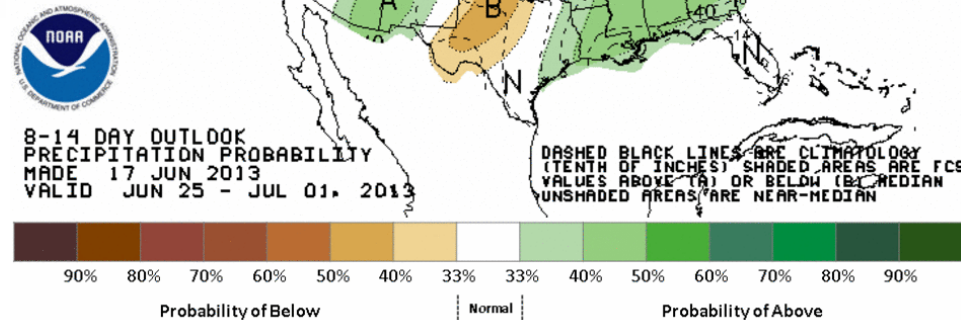
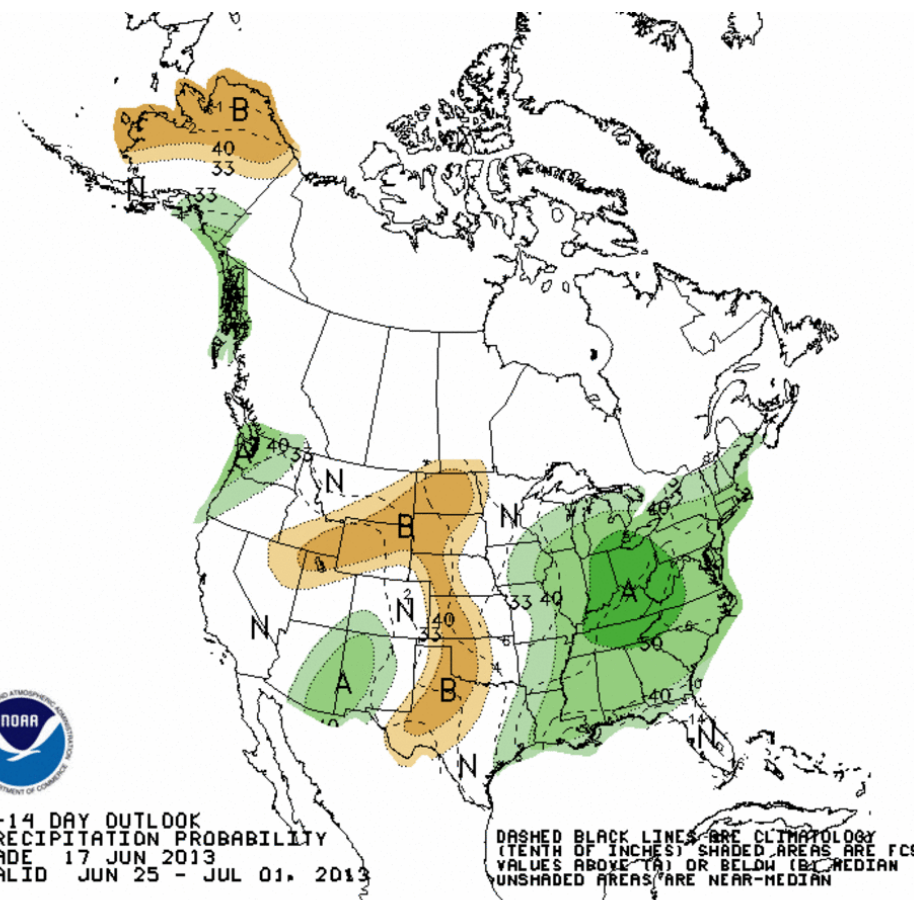
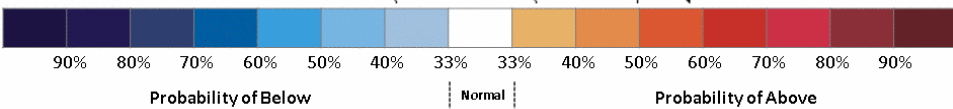
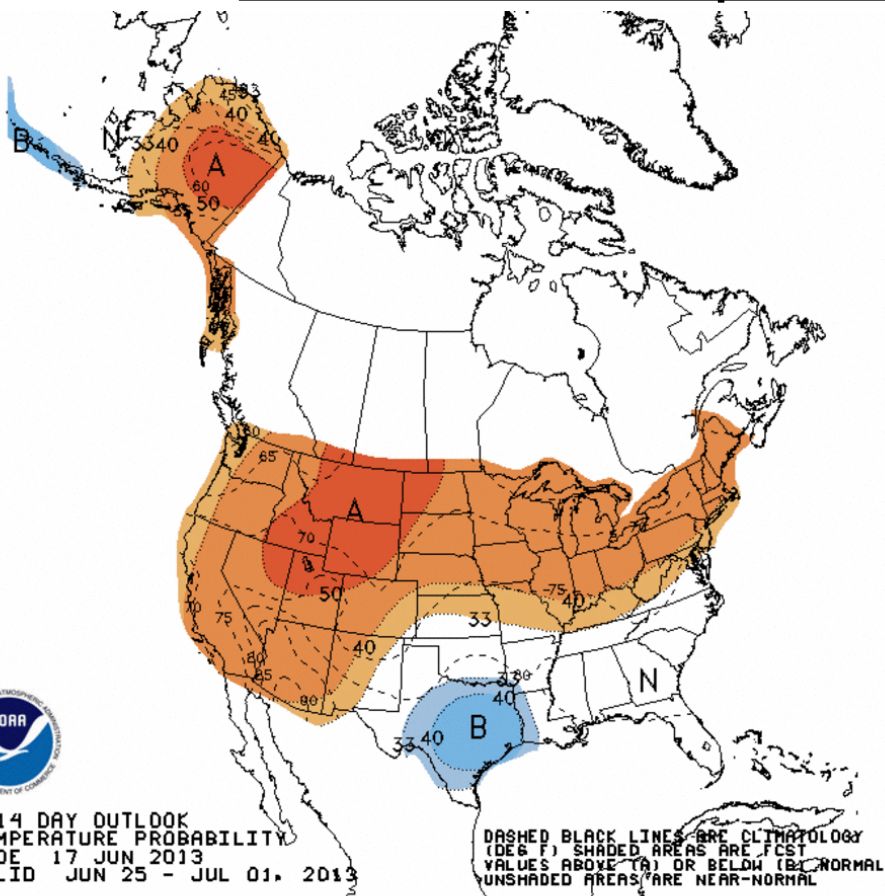
Indicates a shift toward warmer conditions across the western of the CONUS, Week-1/2.

Would also support a more active southern stream, wet eastern half, and some moisture return later Week-2/3 to Rockies.



D+11 500 MB ANOMALIES FROM 00Z ECMM
CPC MAP MADE JUN 18 2013 1055 UTC CNTD JUN 29 2013

Week 2 – Temperature and Precipitation

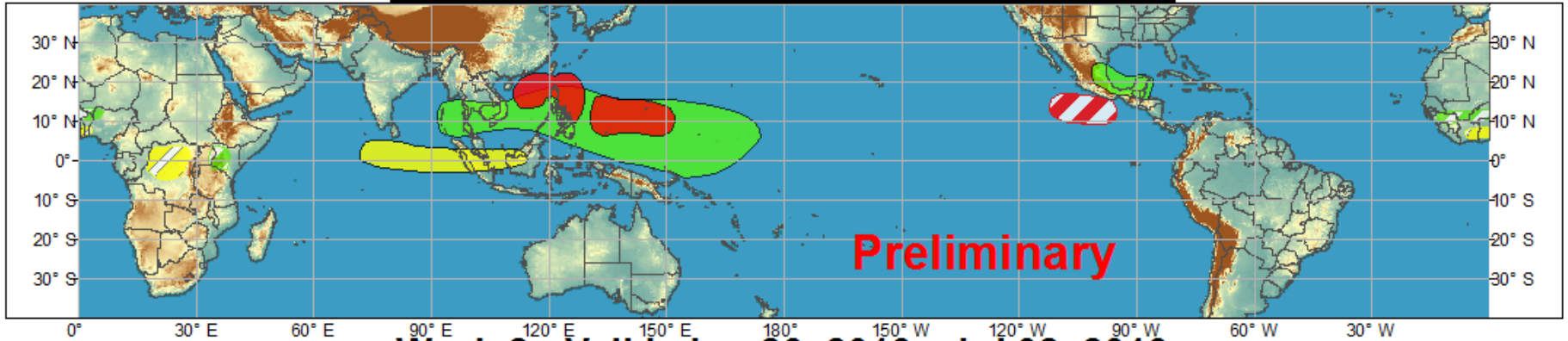




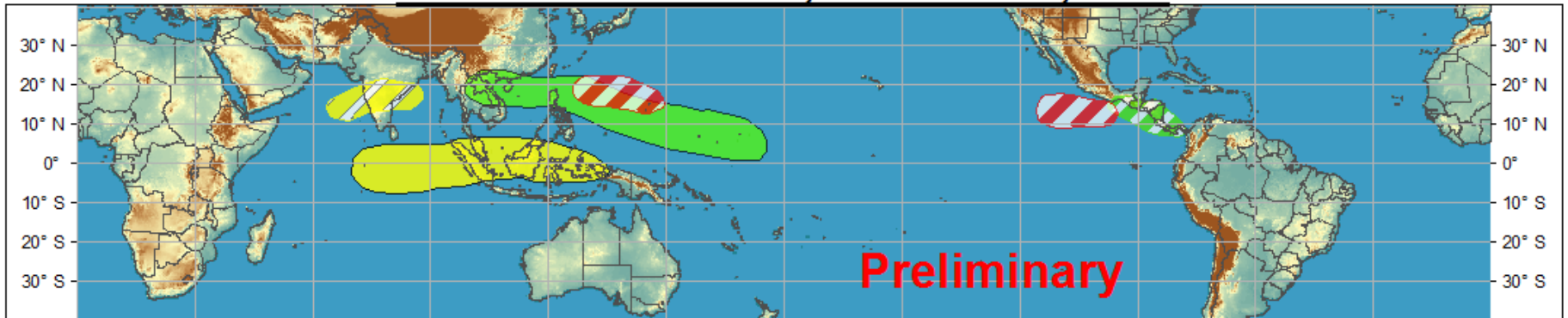
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