

# Global Tropics Hazards And Benefits Outlook

June 11, 2013

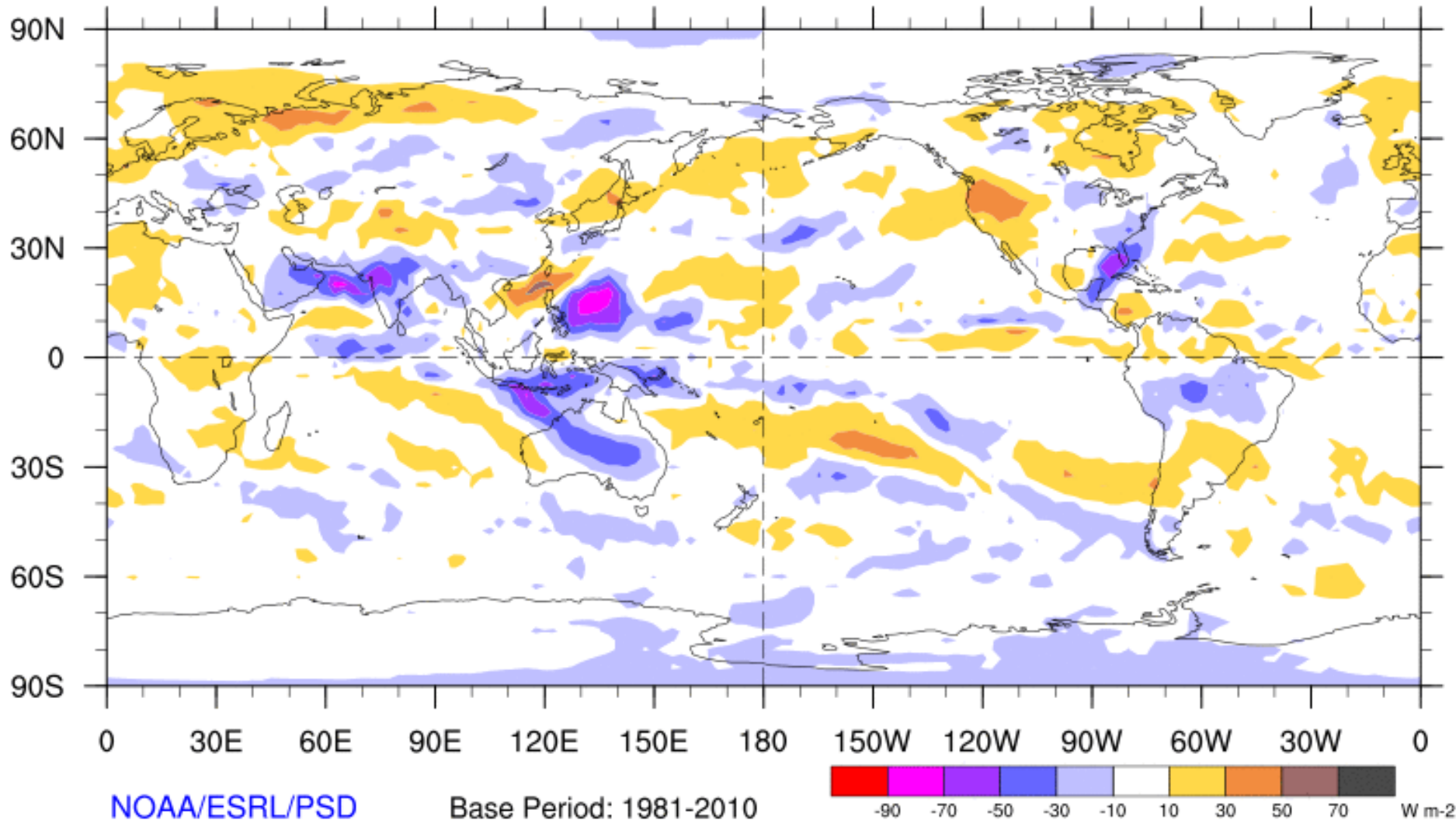
Matthew Rosencrans

## Outline

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

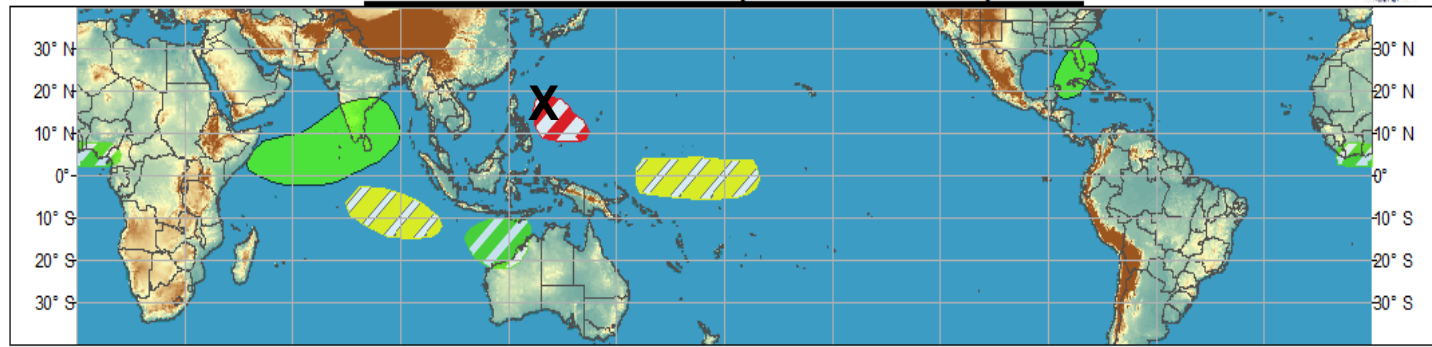
# 7-Day Average OLR Anomaly

2013/06/03 - 2013/06/09

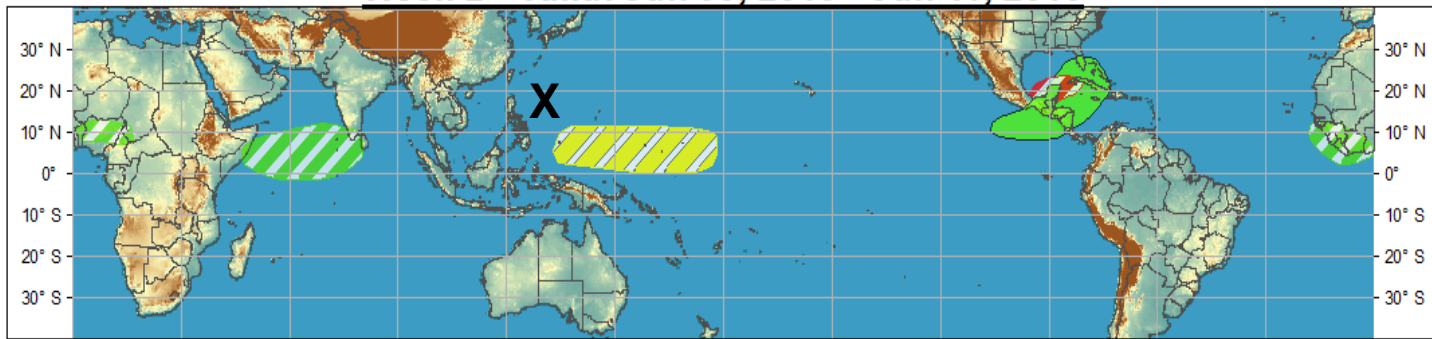


# Outlook Review

**Week 1 - Valid: Jun 05, 2013 - Jun 11, 2013**

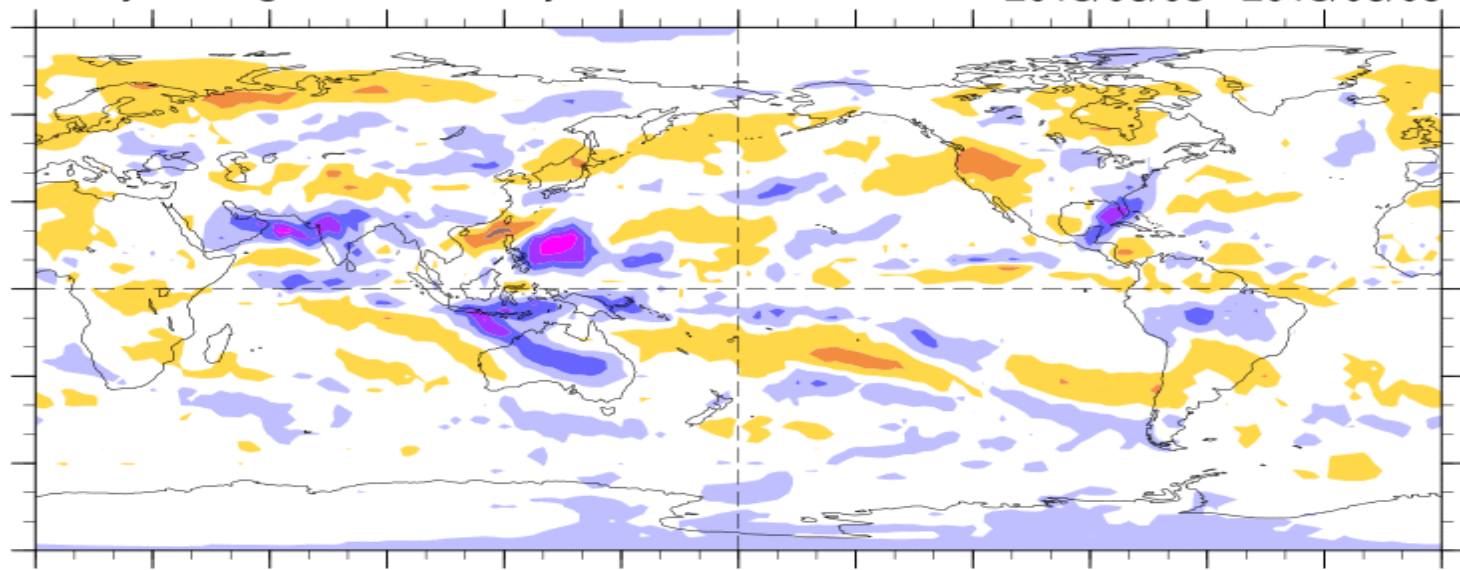


**Week 2 - Valid: Jun 05, 2013 - Jun 11, 2013**



**7-Day Average OLR Anomaly**

2013/06/03 - 2013/06/09



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 has remained weak over the past seven days.
- Model MJO index forecasts indicate strengthening/increasing coherence of the signal over the Maritime Continent (Phase 4), with propagation toward the Western Pacific (Phases 5-6).
- Atmospheric Kelvin waves playing a role.

## Tropics:

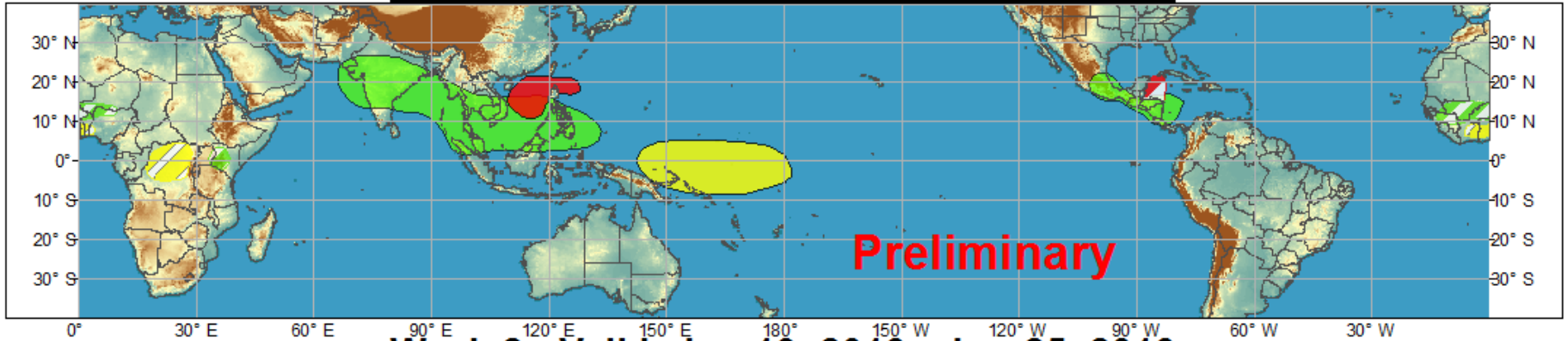
- Slight chance of TC development in the southern Gulf of Mexico/Gulf of Honduras, late in Week-1 to early Week-2. (Moderate Confidence).
- Enhanced likelihood of TC development over South China Sea/near northern Philippines, Week-1.



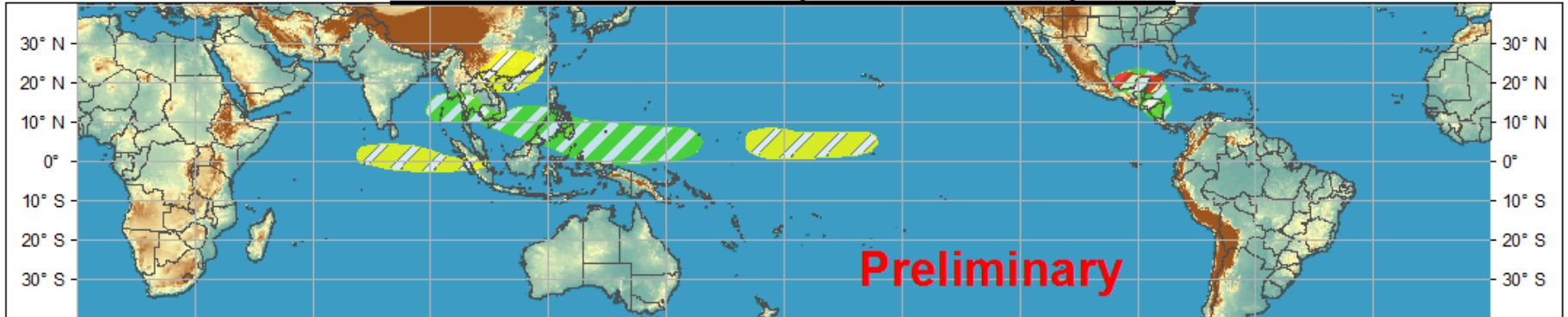
# Global Tropics Hazards and Benefits Outlook - Climate Prediction Center



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



## Week 2 - Valid: Jun 19, 2013 - Jun 25, 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: 06/11/2013

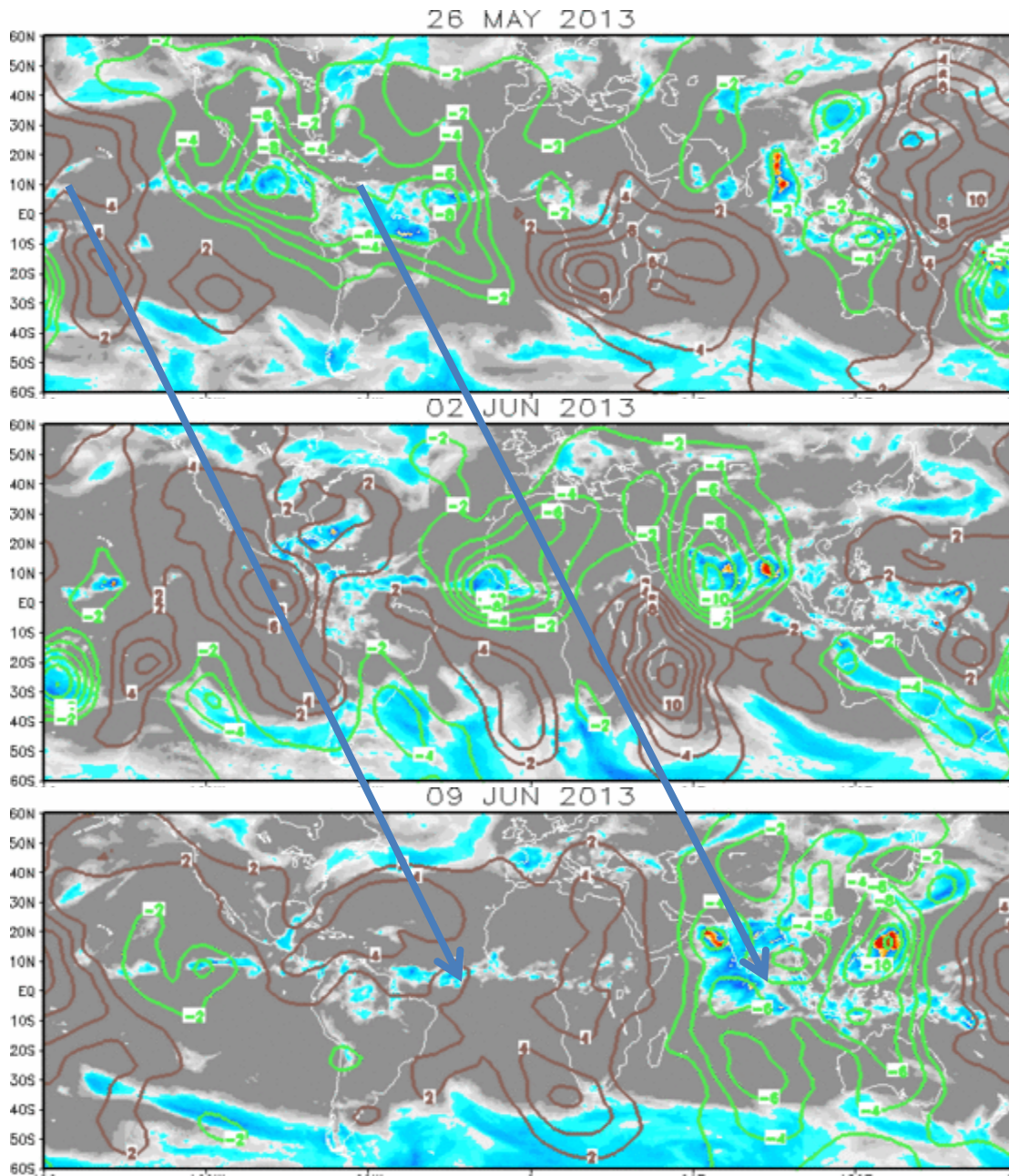
Forecaster: Rosencrans

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.

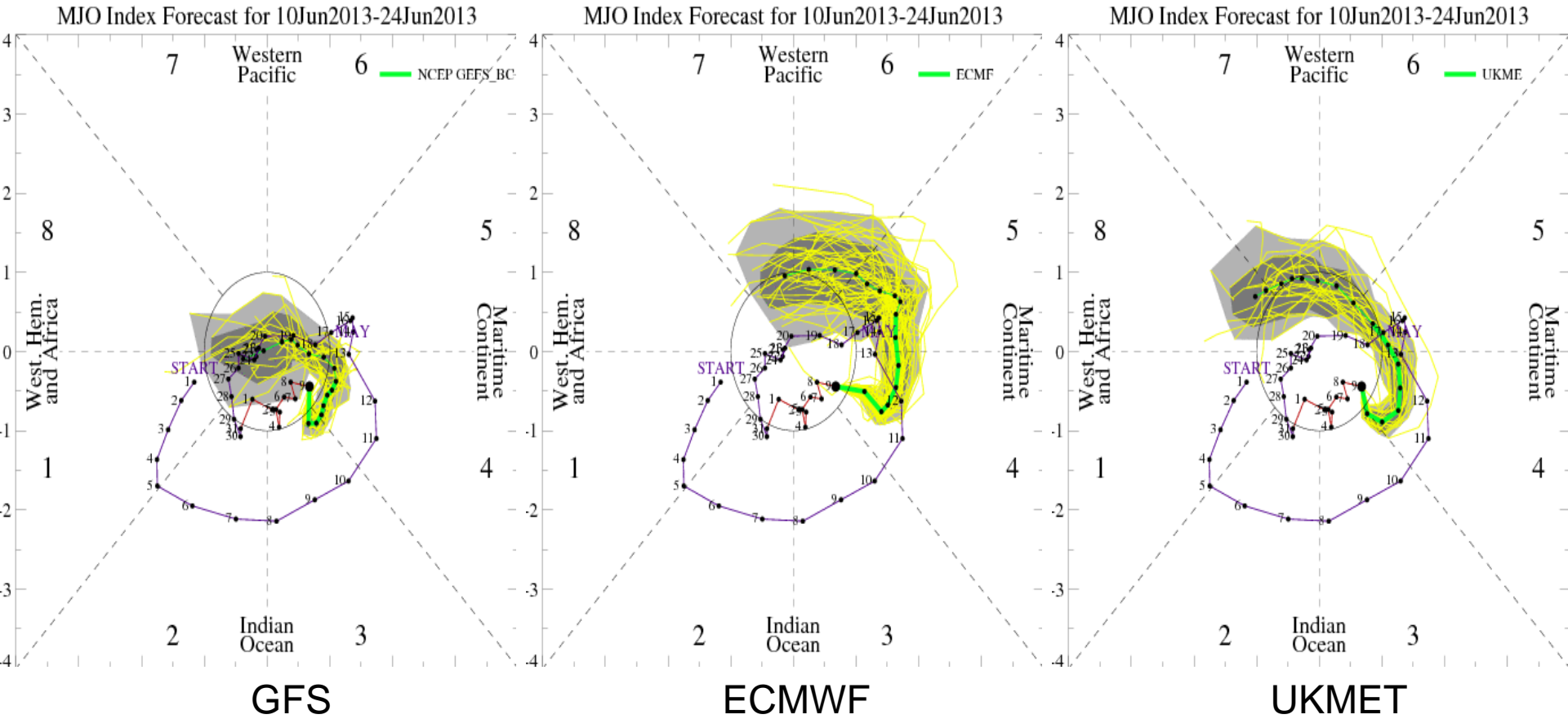


# IR Satellite & 200-hpa Velocity Potential Anomalies

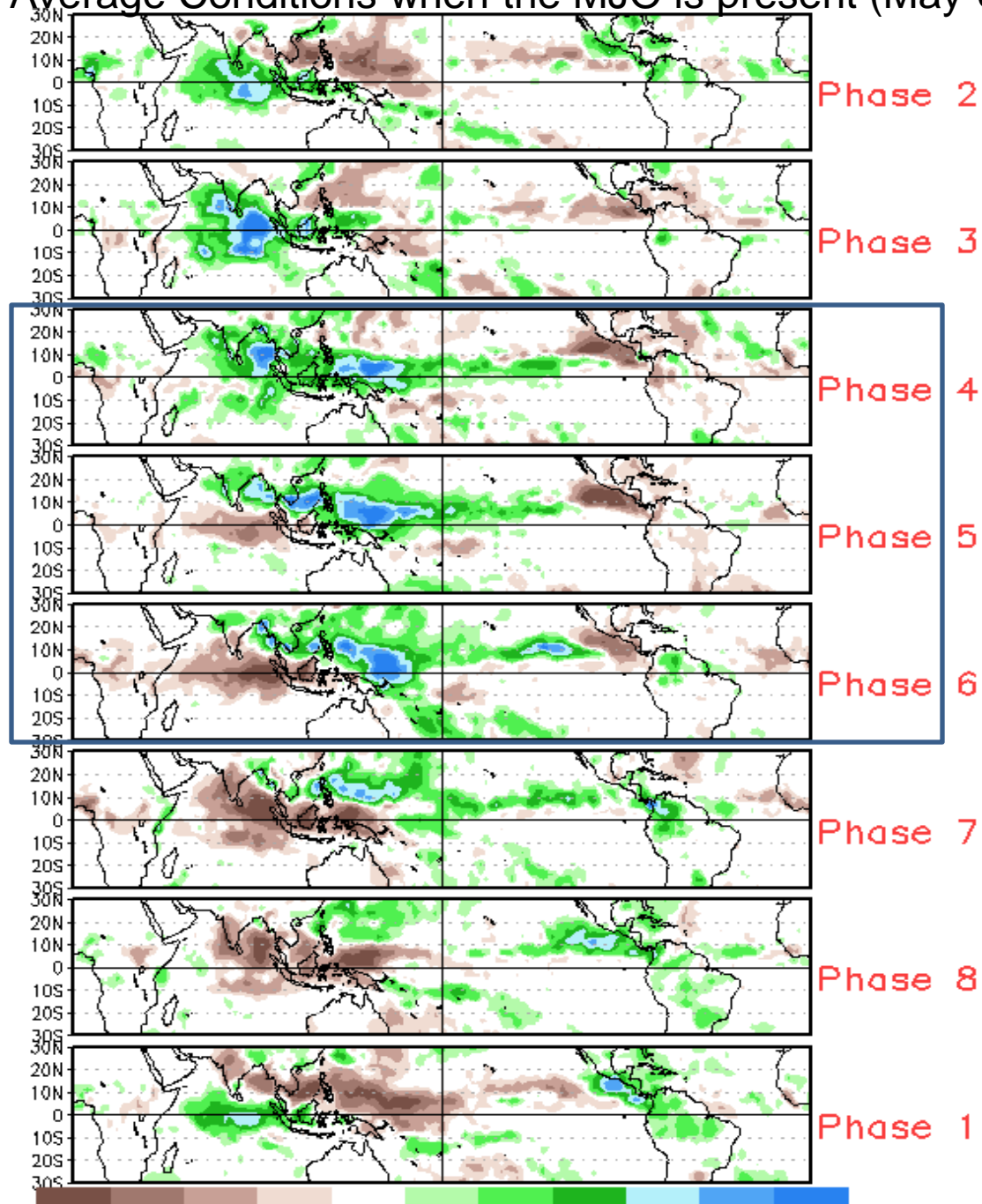
Green: Enhanced Divergence    Brown: Enhanced Convergence



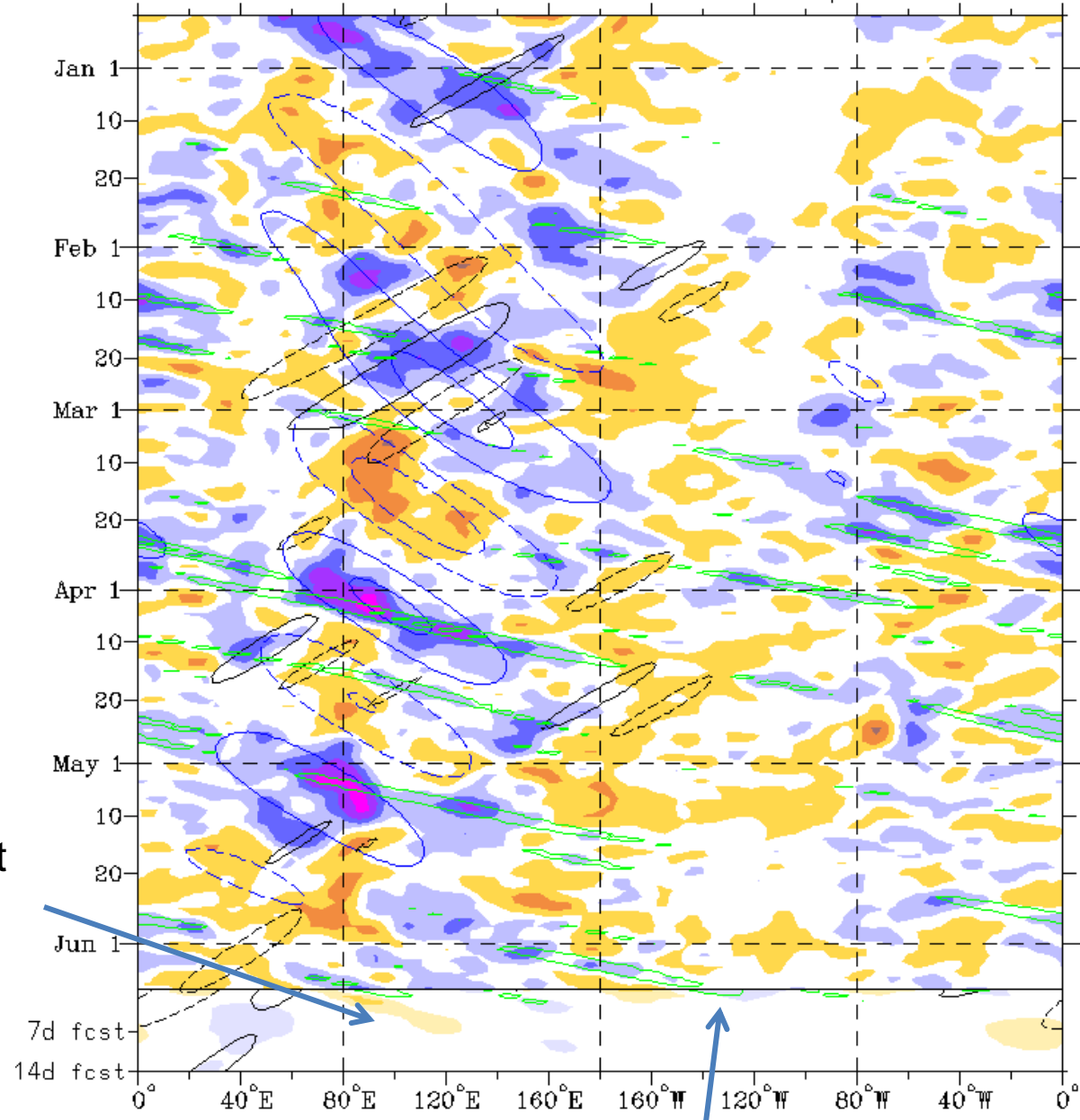
# MJO Observation/Forecast



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

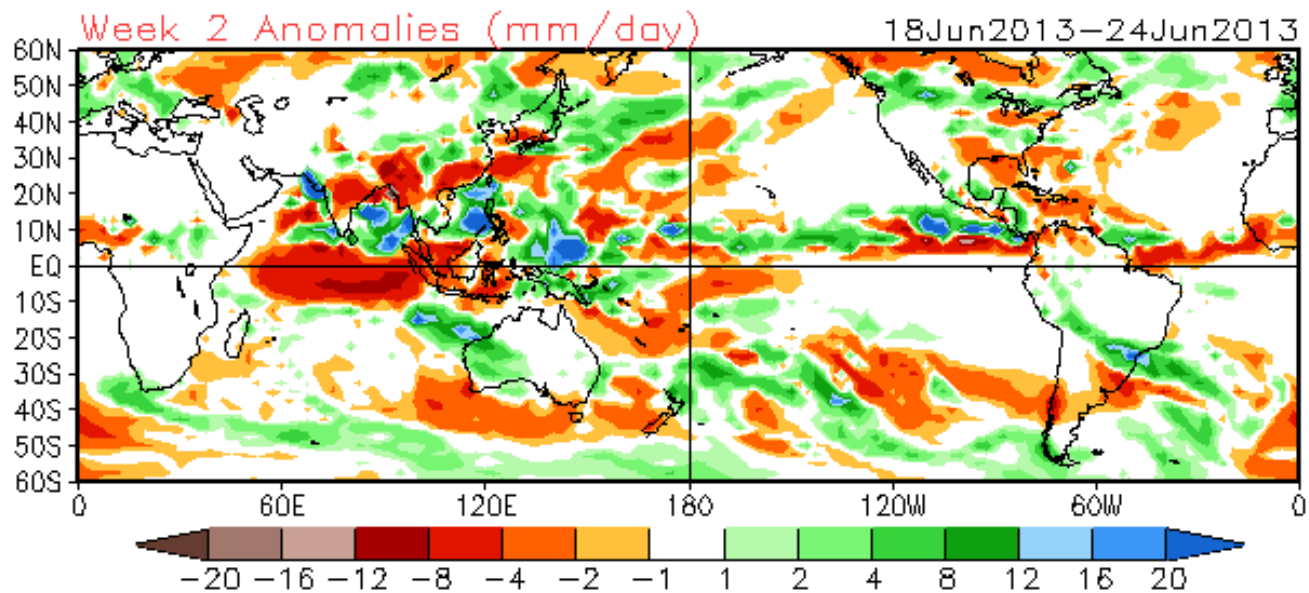
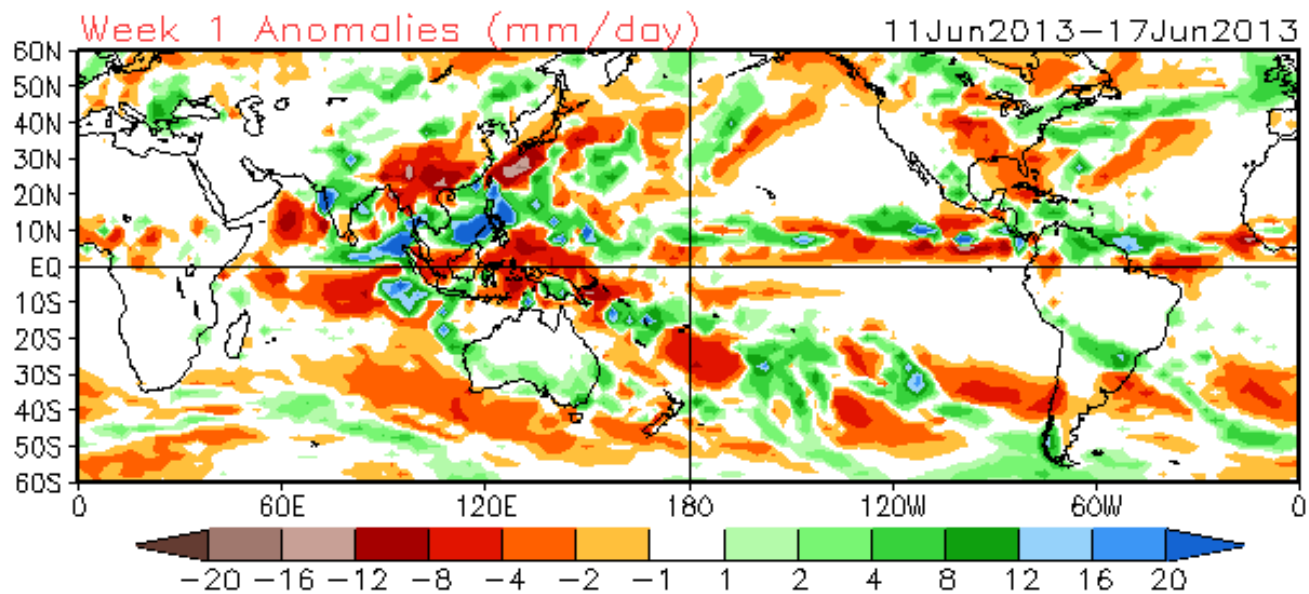






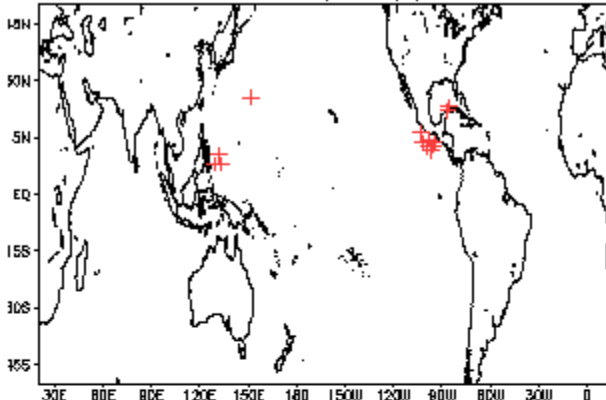
Active phase of the MJO forecast to impact eastern Indian Ocean and Maritime Continent.

Atmospheric Kelvin waves to impact Americas (Tropical Cyclone development threat).

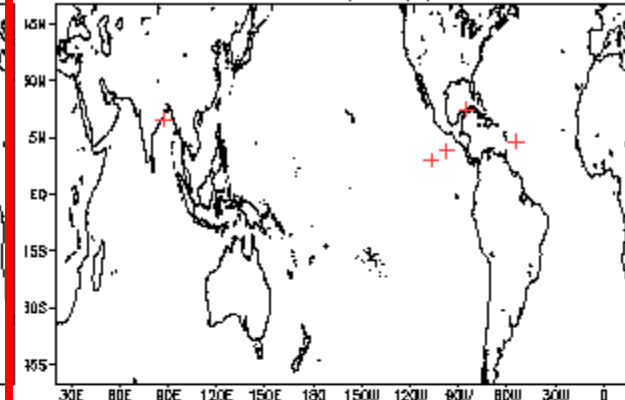


# June Tropical Storm Formation by MJO phase

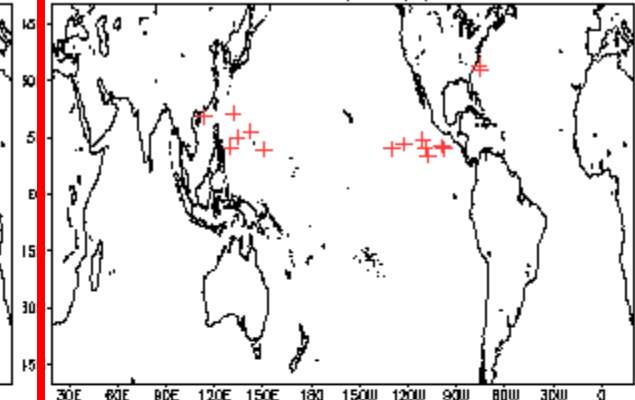
Phase 1 (104 days) 14 storms



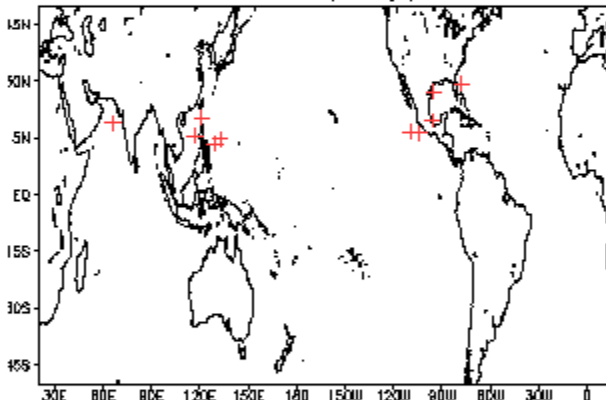
Phase 4 (80 days) 6 storms



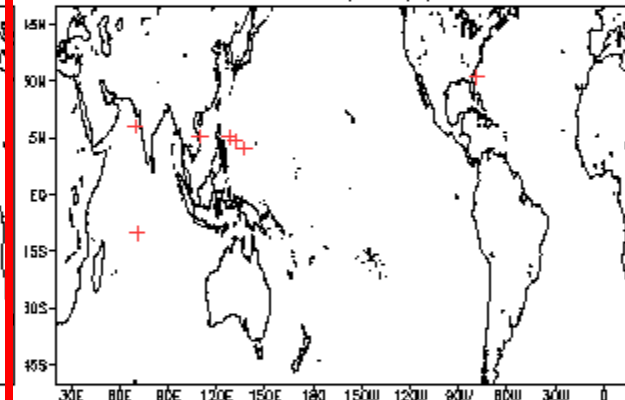
Phase 7 (45 days) 16 storms



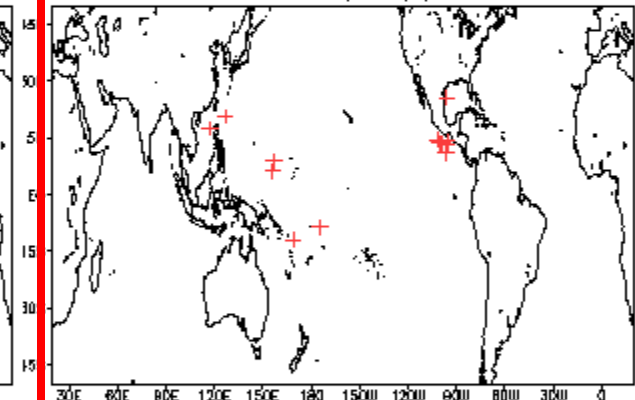
Phase 2 (82 days) 11 storms



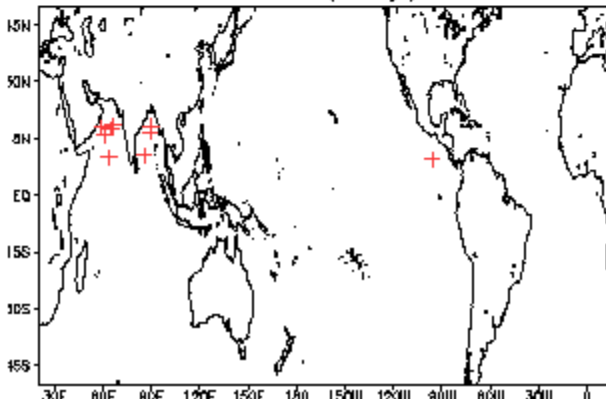
Phase 5 (77 days) 8 storms



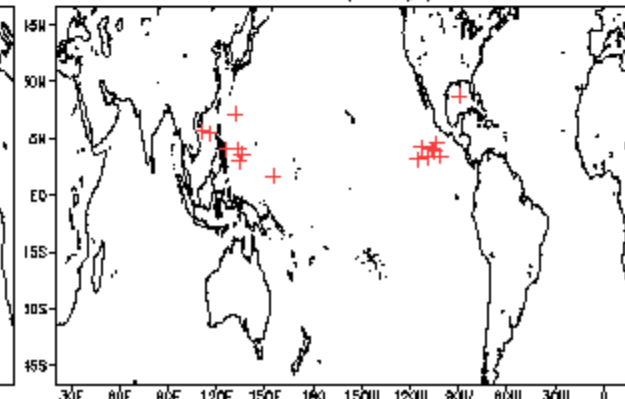
Phase 8 (70 days) 15 storms



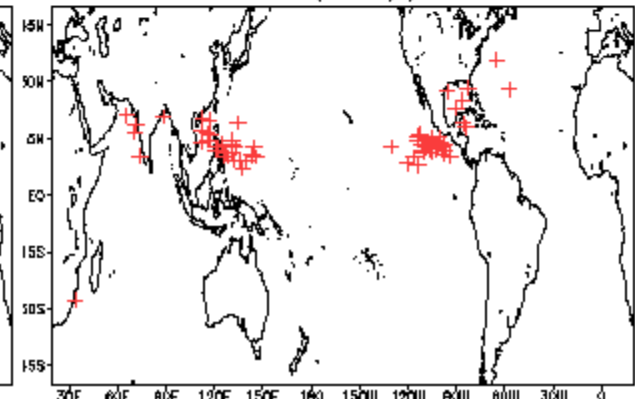
Phase 3 (57 days) 10 storms



Phase 6 (82 days) 17 storms



Null (423 days) 71 storms





# Graphical Tropical Weather Outlook

National Hurricane Center Miami, Florida



800 AM EDT TUE JUN 11 2013

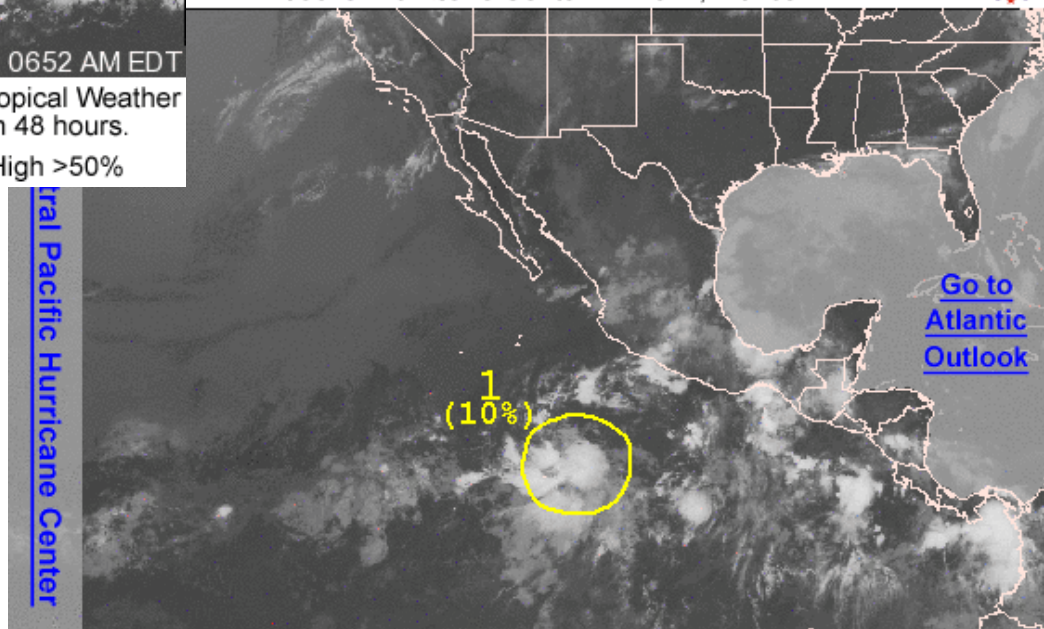
Satellite Image: 0652 AM EDT

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

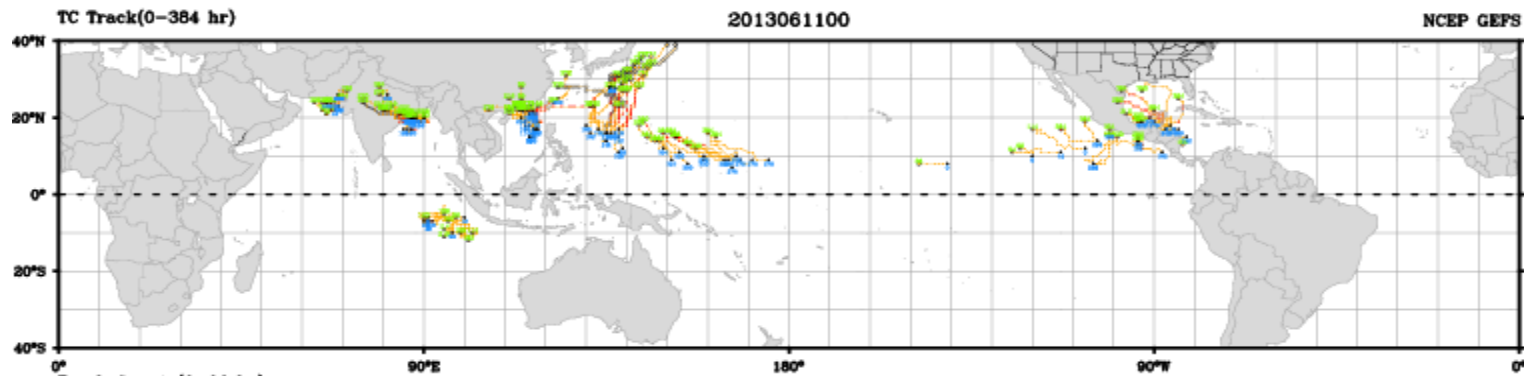


500 AM PDT TUE JUN 11 2013

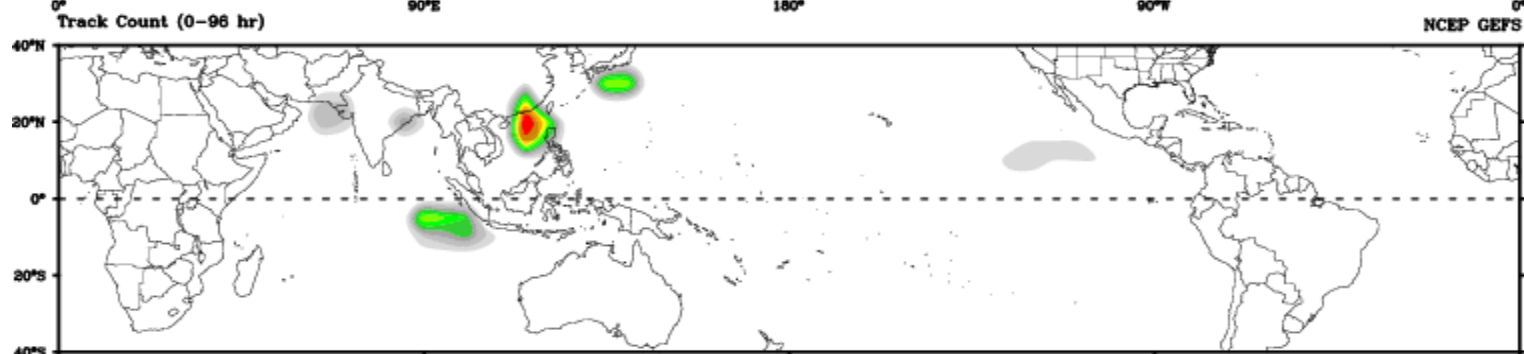
Satellite Image: 0422 AM PDT

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

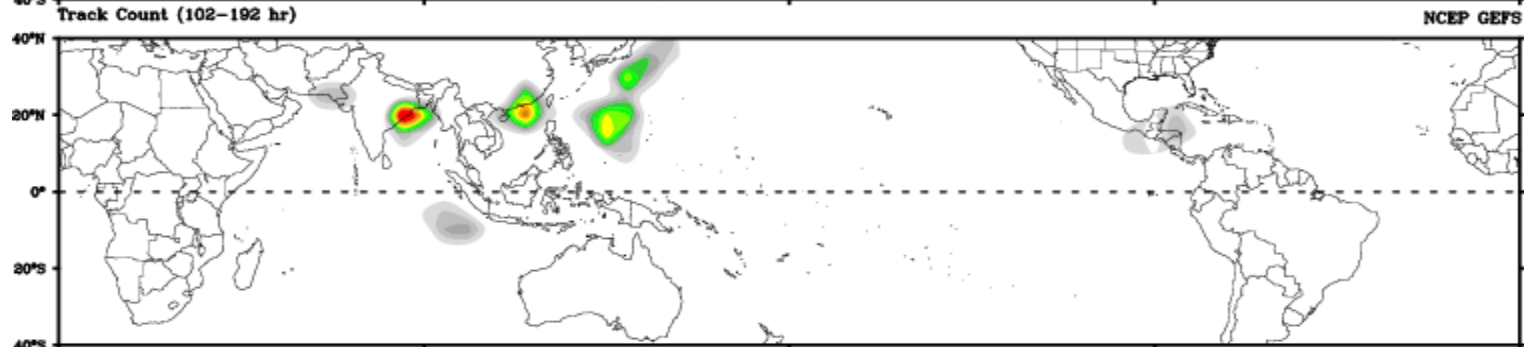
Low <30%
  Medium 30-50%
  High >50%



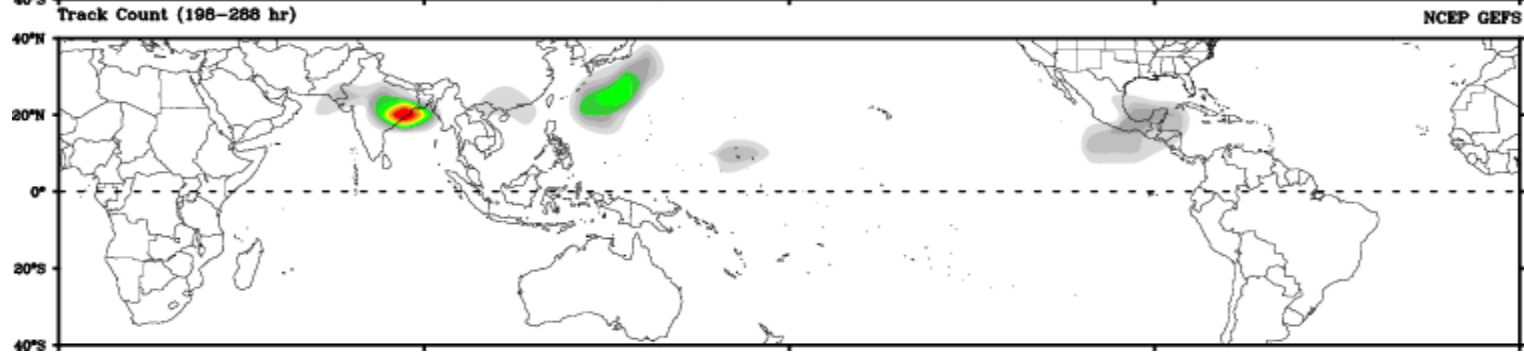
Days 1-4



Day 5-8

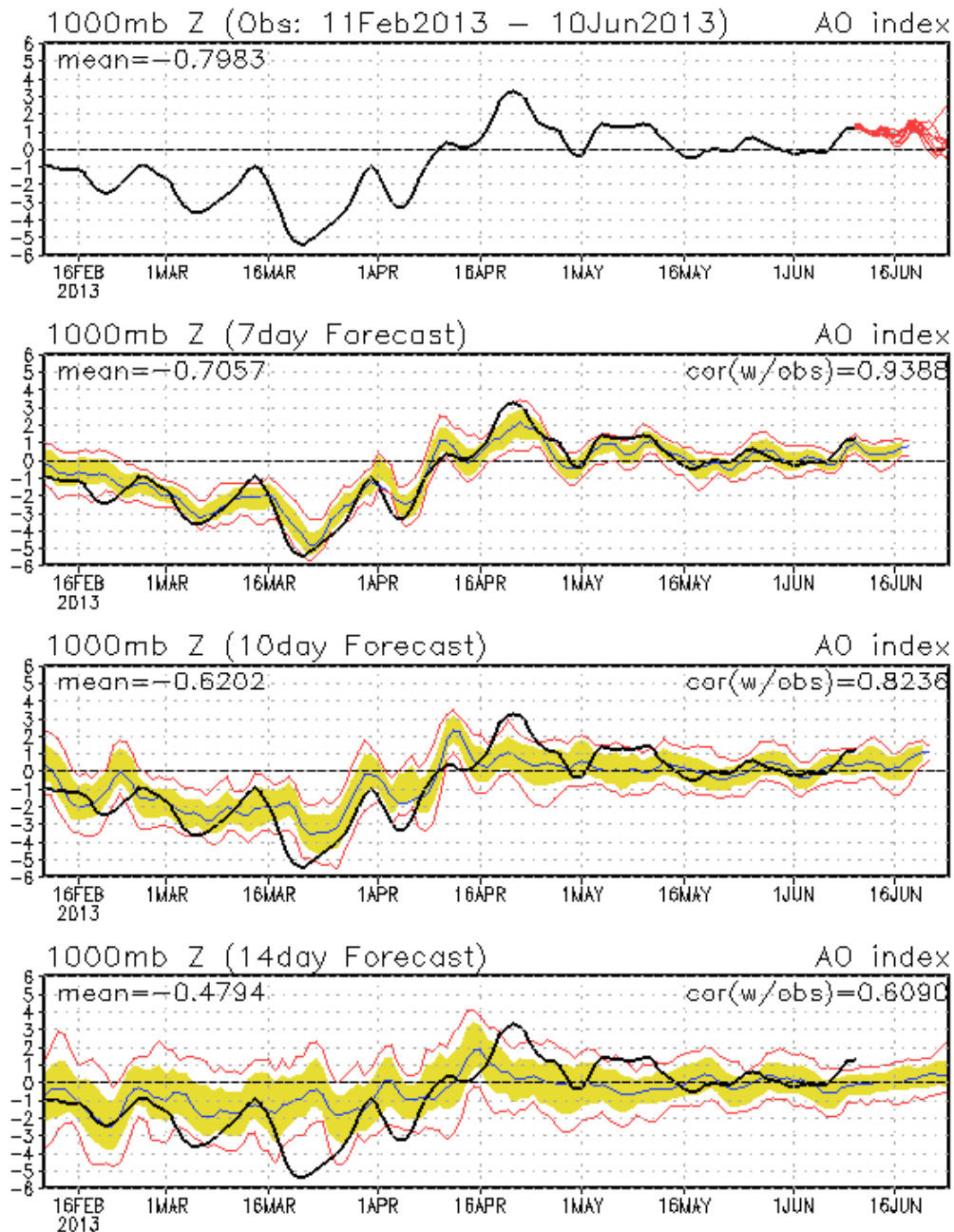


Day 9-12



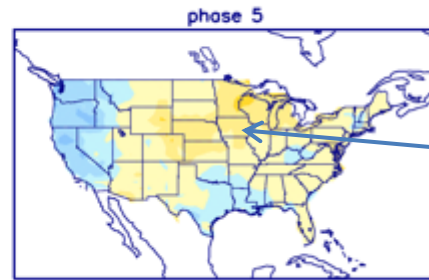
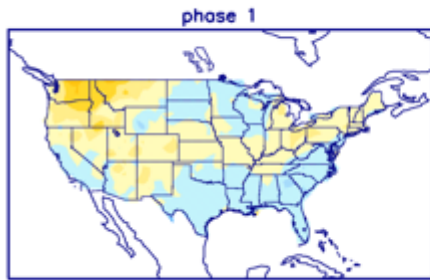
# Connections to U.S. Impacts

## AO: Observed & ENSM forecasts



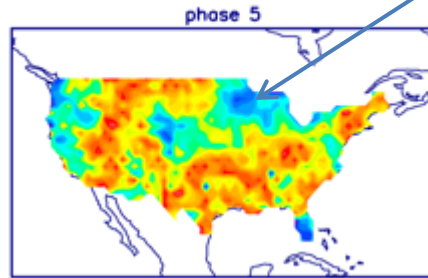
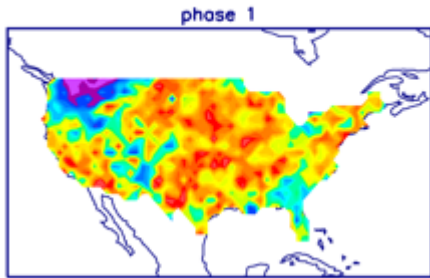
# US Composites based on MJO Phase

T composites (MJJ)



Indicates a shift toward warmer conditions across the center portions of the CONUS. Signal is weak.

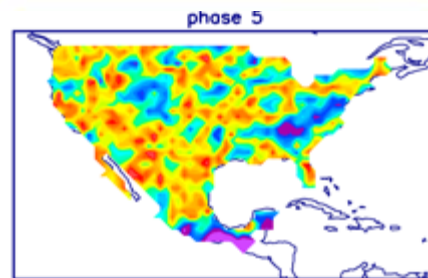
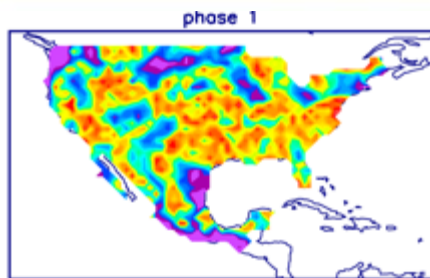
Significance (%) (MJJ)



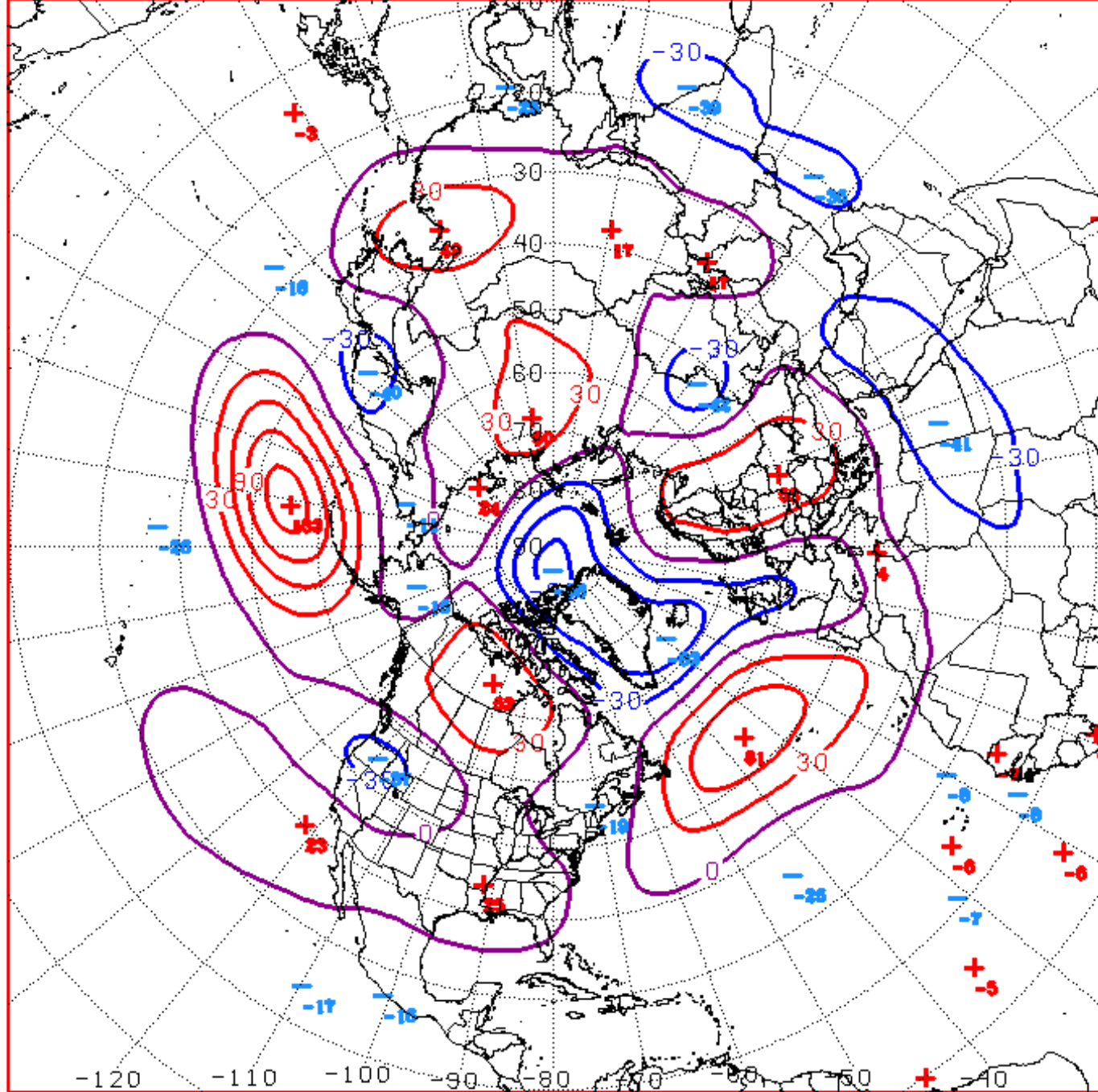
P composites (MJJ)



Would also support a more active northern stream, and dryness over the southeast  
Lower significance/certainty about impacts on precip.



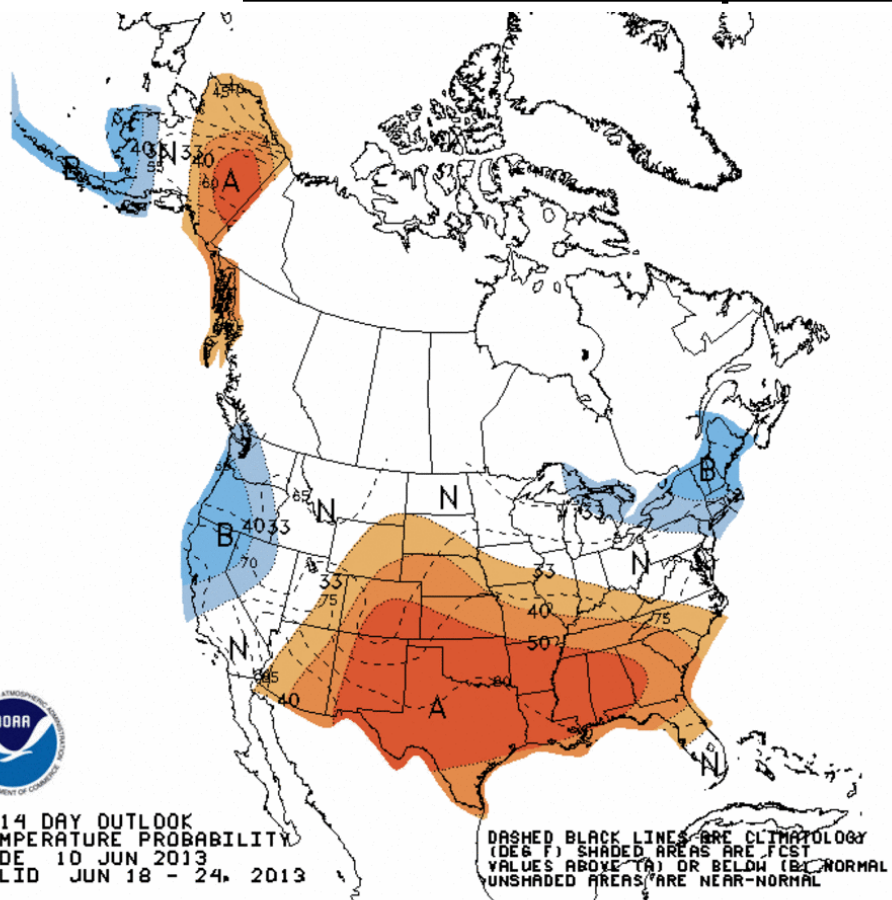




-120 -110 -100 -90 -80 -70 -60 -50 + 40

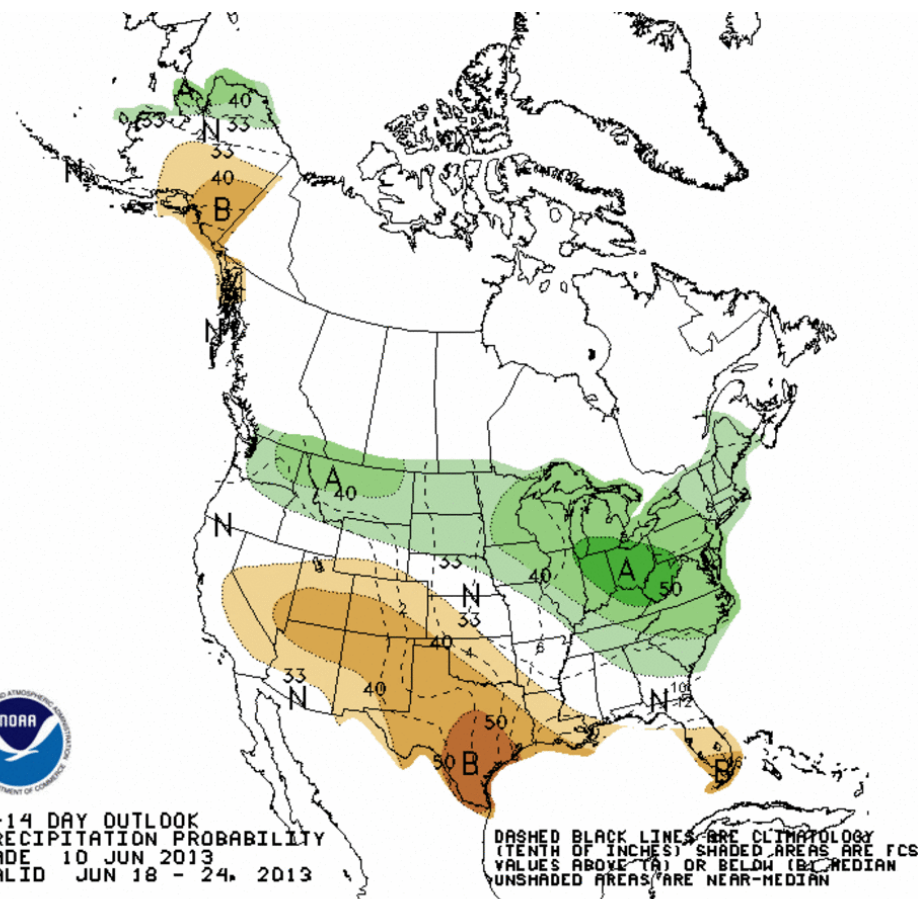
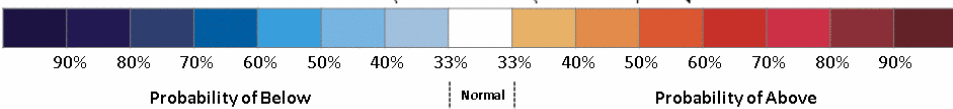
D+11 500 MB ANOMALIES FROM 00Z ECMM  
CPC MAP MADE JUN 11 2013 1037 UTC CNTD JUN 22 2013

# Week 2 – Temperature and Precipitation



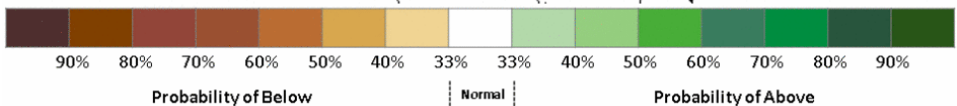
8-14 DAY OUTLOOK  
TEMPERATURE PROBABILITY  
MADE 10 JUN 2013  
VALID JUN 18 - 24, 2013

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 10 JUN 2013  
VALID JUN 18 - 24, 2013

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

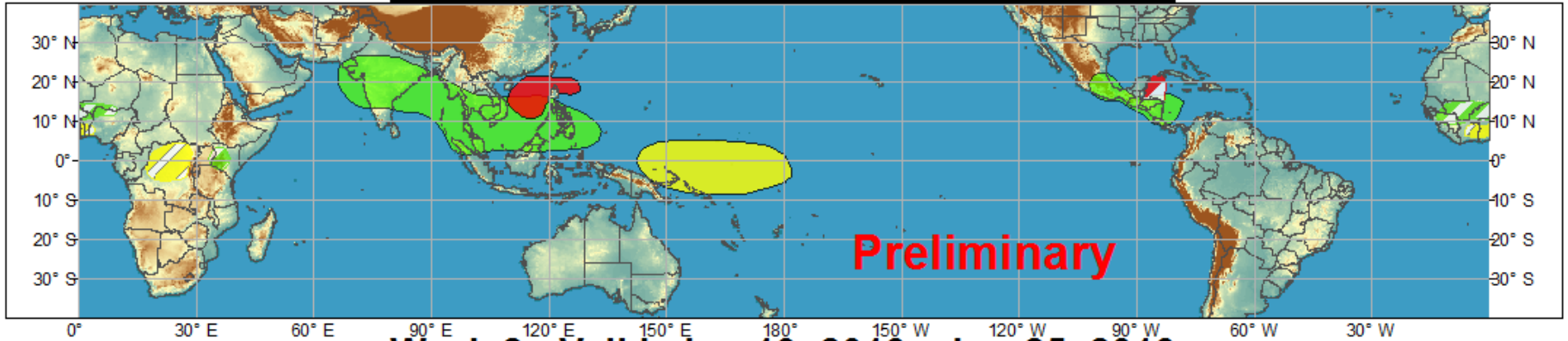




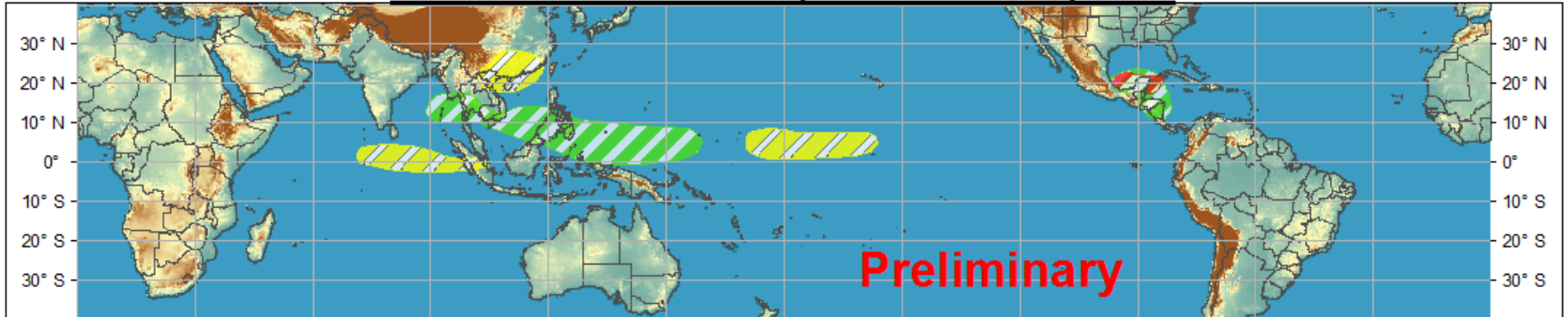
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