

# Global Tropics Hazards And Benefits Outlook

May 7, 2013

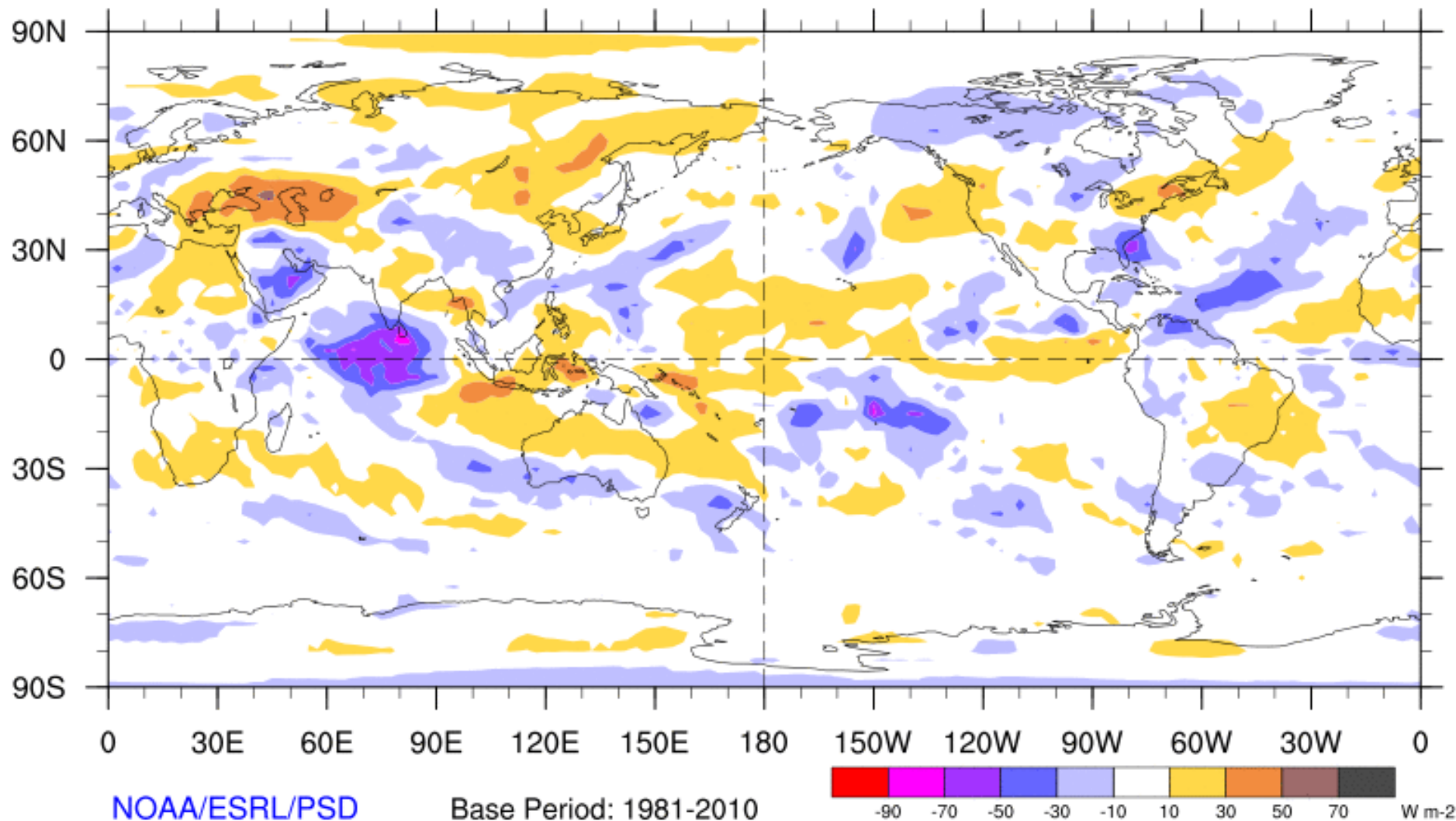
Brad Pugh

## Outline

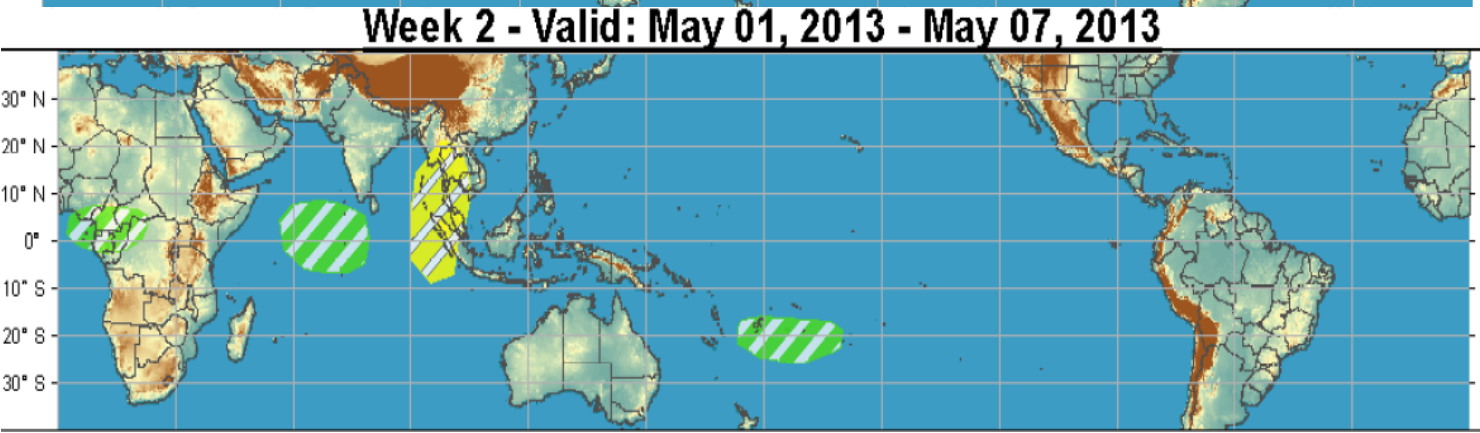
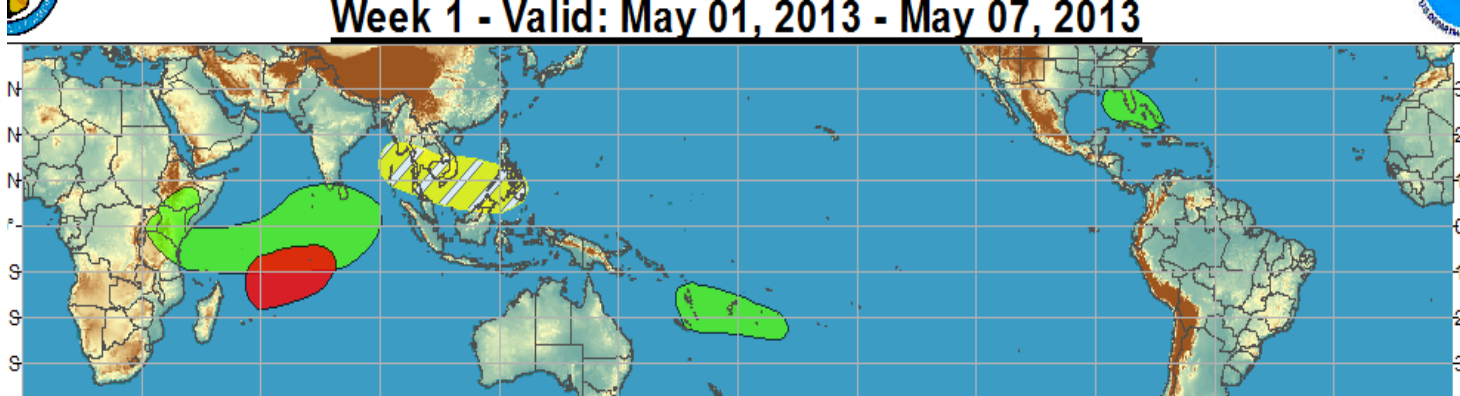
1. Review of Recent Conditions
2. Synopsis of Climate Modes
3. GTH Outlook and Forecast Discussion

# 7-Day Average OLR Anomaly

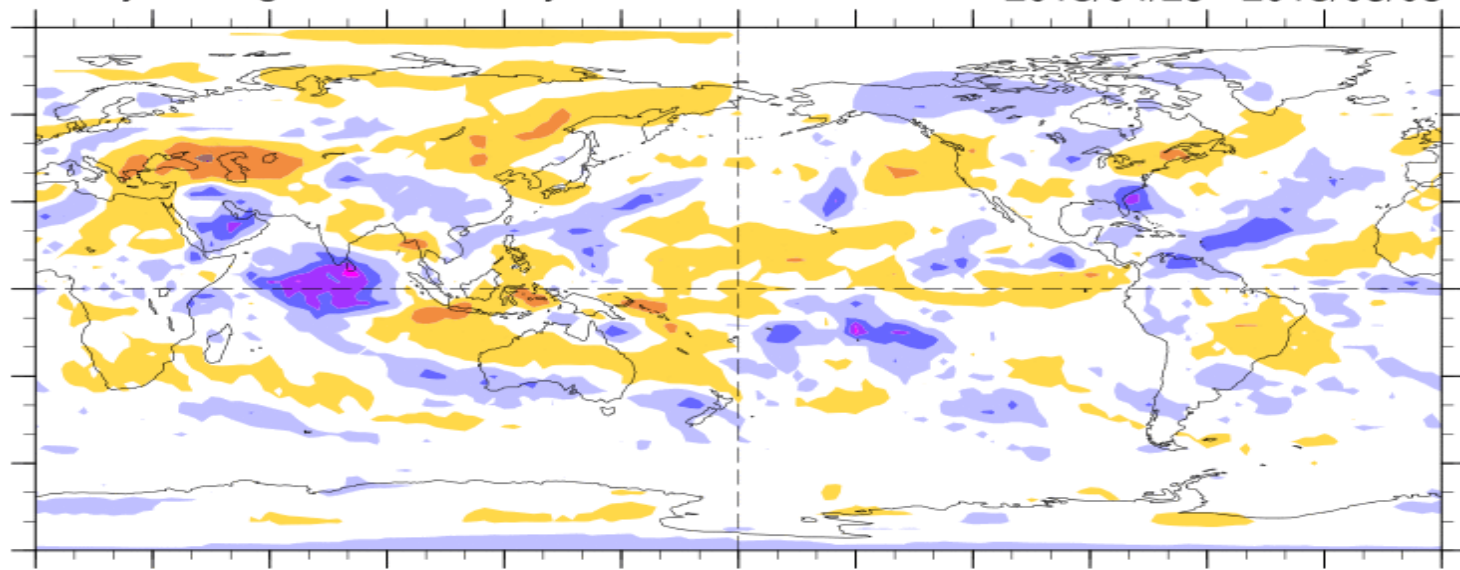
2013/04/29 - 2013/05/05



# Outlook Review



7-Day Average OLR Anomaly 2013/04/29 - 2013/05/05



Cool shading  
More clouds/rain

Warm shading  
Less clouds/rain

# Synopsis of Climate Modes

## ENSO:

- ENSO-neutral conditions are favored to continue through boreal summer 2013.

## MJO and other subseasonal tropical variability:

- The MJO strengthened since the beginning of May as many observational indicators are more coherent than late April.
- Model MJO index forecasts continue an organized MJO during the next 2 weeks with enhanced convection shifting east from the Indian Ocean to the Maritime Continent.

## Extratropics:

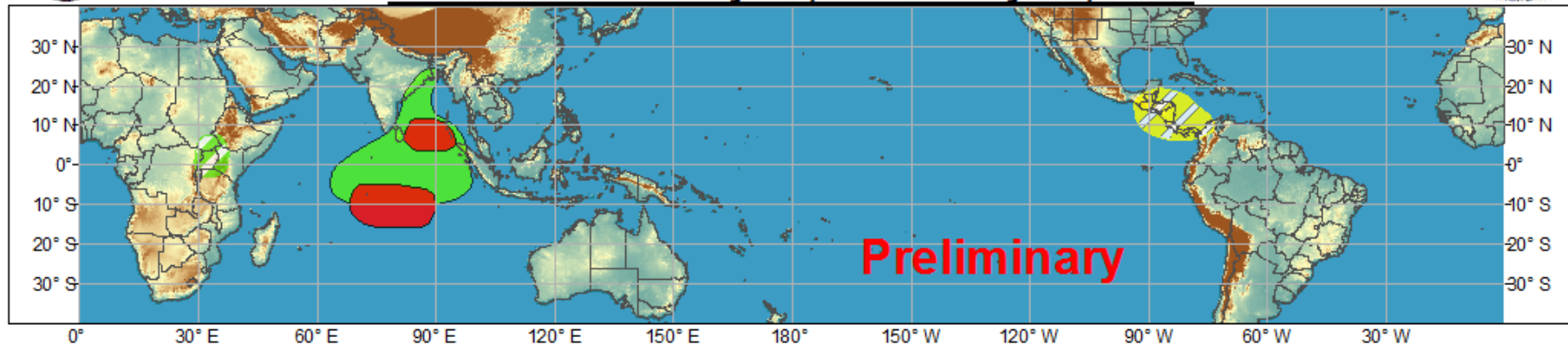
- Due to the transition time of year (too early to influence monsoon flow & TC development), the MJO is expected to have only minor effects on the mid-latitudes of North America.
- The expected evolution of the MJO tends to favor above normal temperatures for the eastern half of the nation late week-2 and week-3.



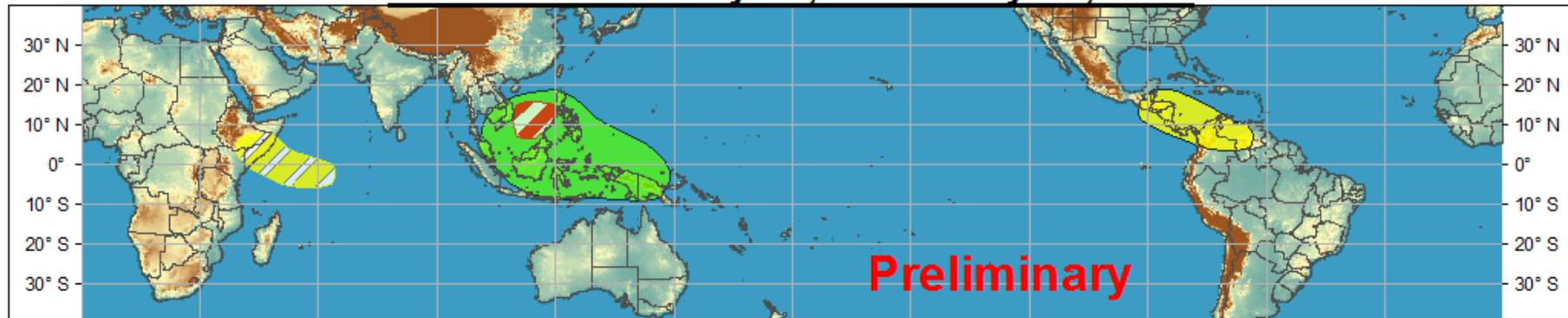
# Global Tropics Hazards and Benefits Outlook - Climate Prediction Center



## Week 1 - Valid: May 08, 2013 - May 14, 2013



## Week 2 - Valid: May 15, 2013 - May 21, 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: 05/06/2013

Forecaster: Pugh

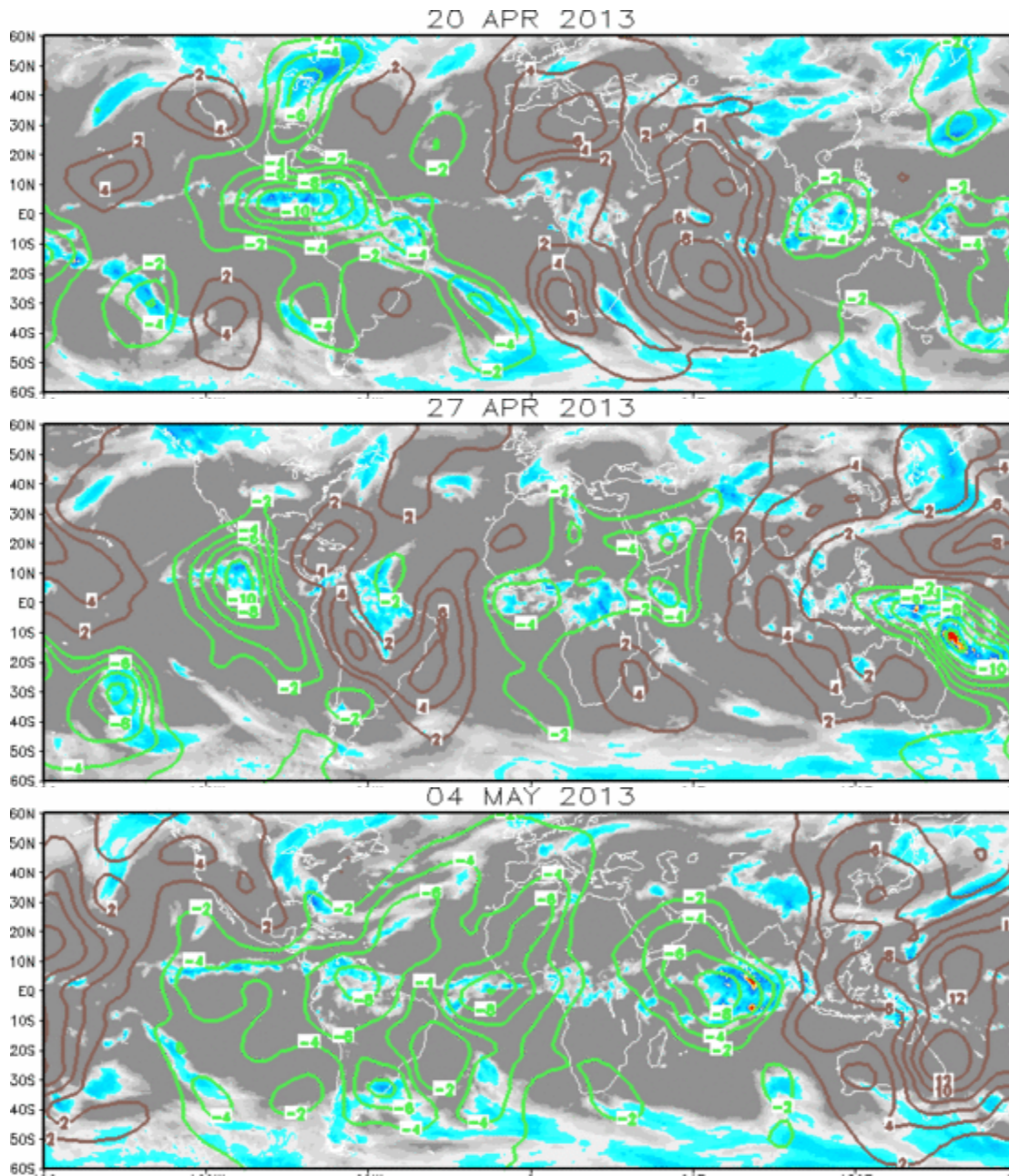
Product is updated once per week. The product targets broad scale conditions integrated over a 7-day period for US interests only. Consult your local responsible forecast agency.





# IR Satellite & 200-hpa Velocity Potential Anomalies

Green: Enhanced Divergence    Brown: Enhanced Convergence

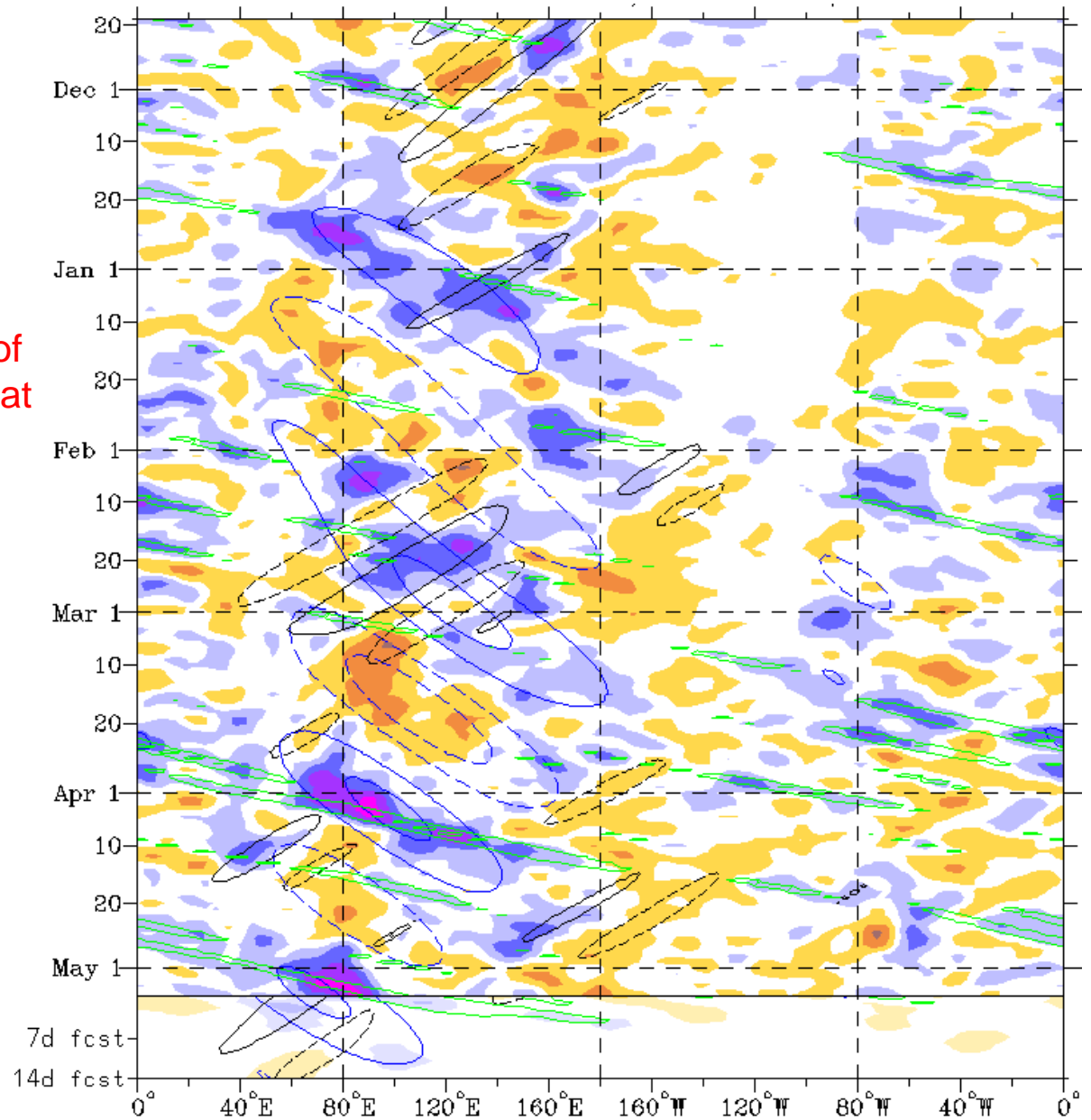


# OLR Anomalies

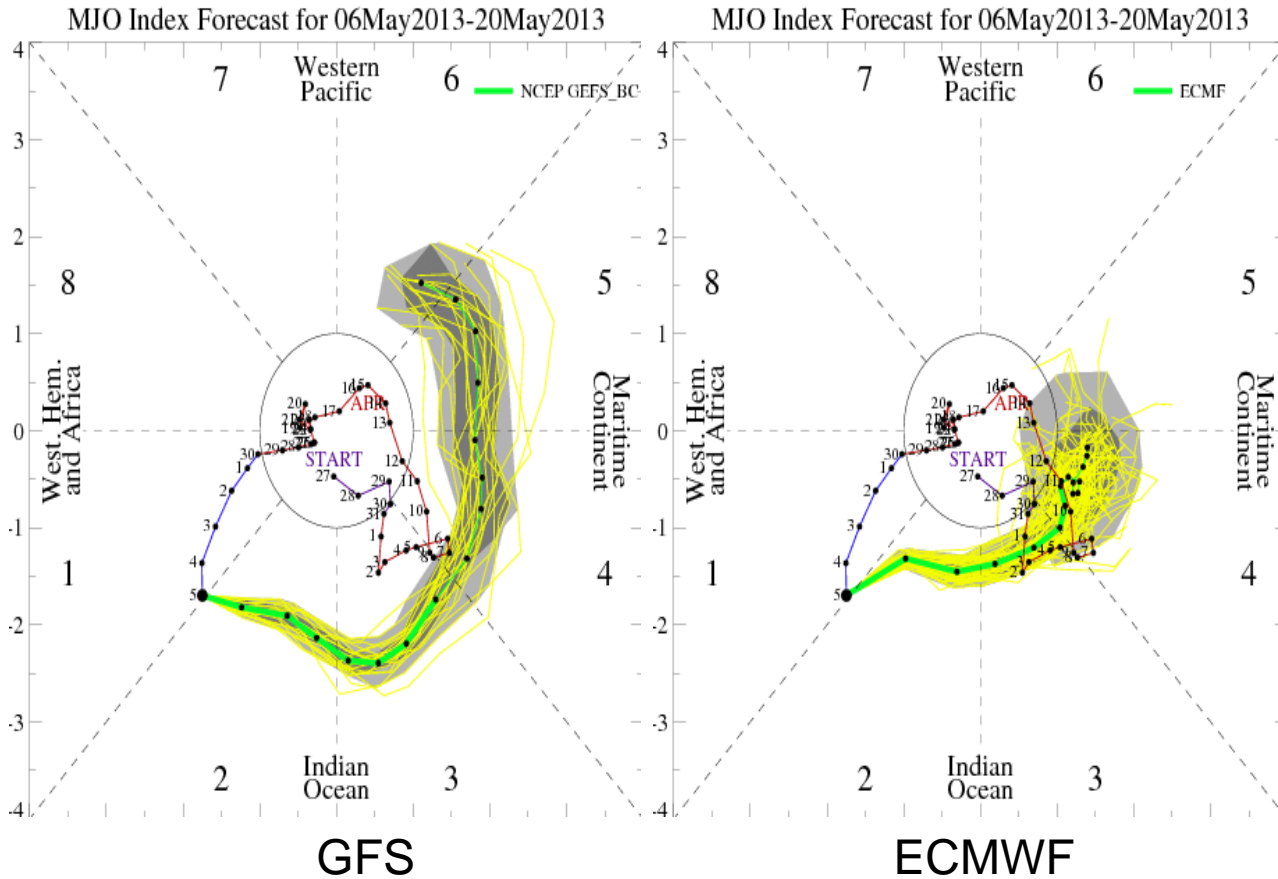
Cool shading  
More clouds/rain

Warm shading  
Less clouds/rain

Ovals represent the targeting of  
organized tropical variability that  
can be used to aid predictions

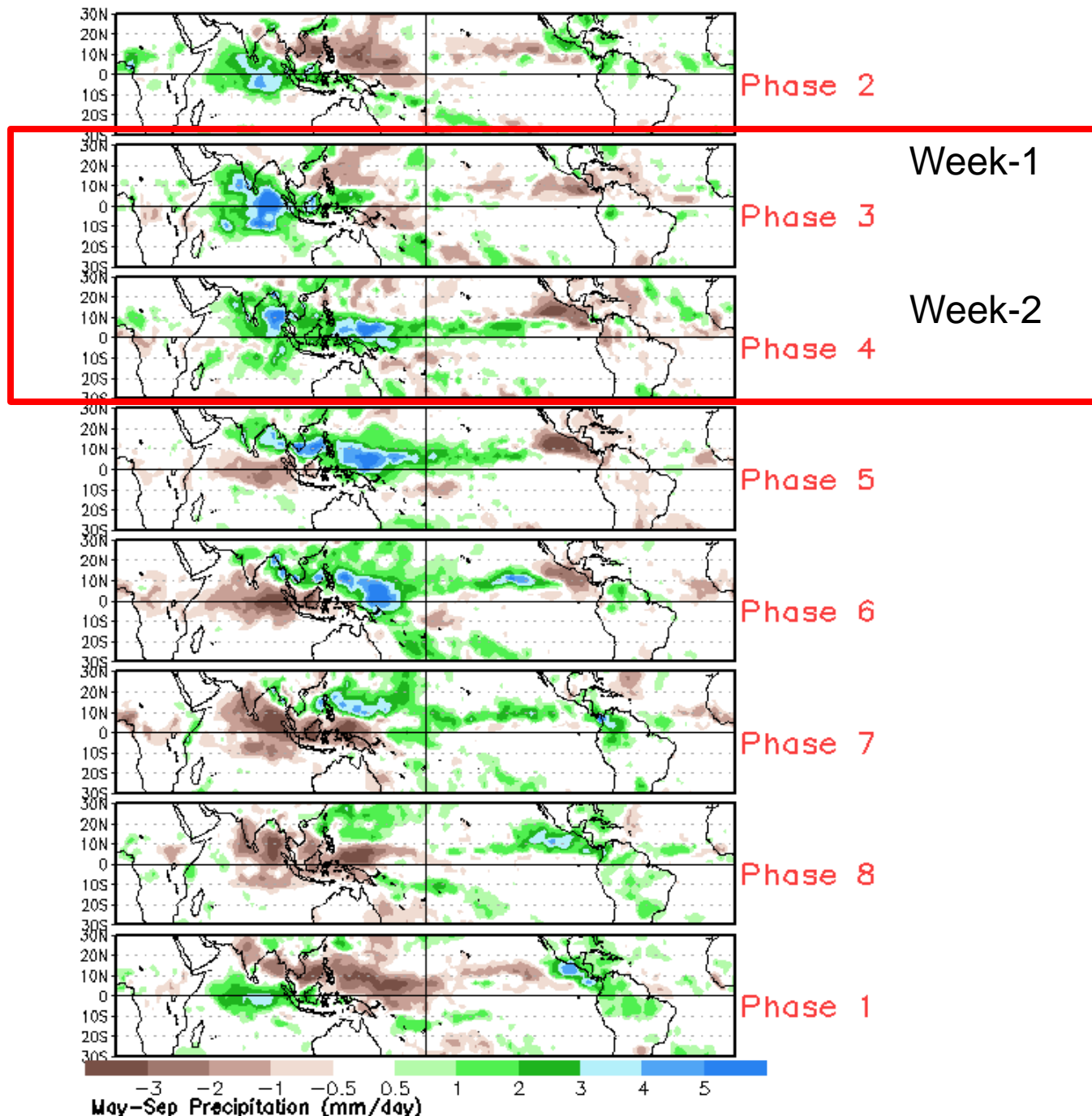


# MJO Observation/Forecast

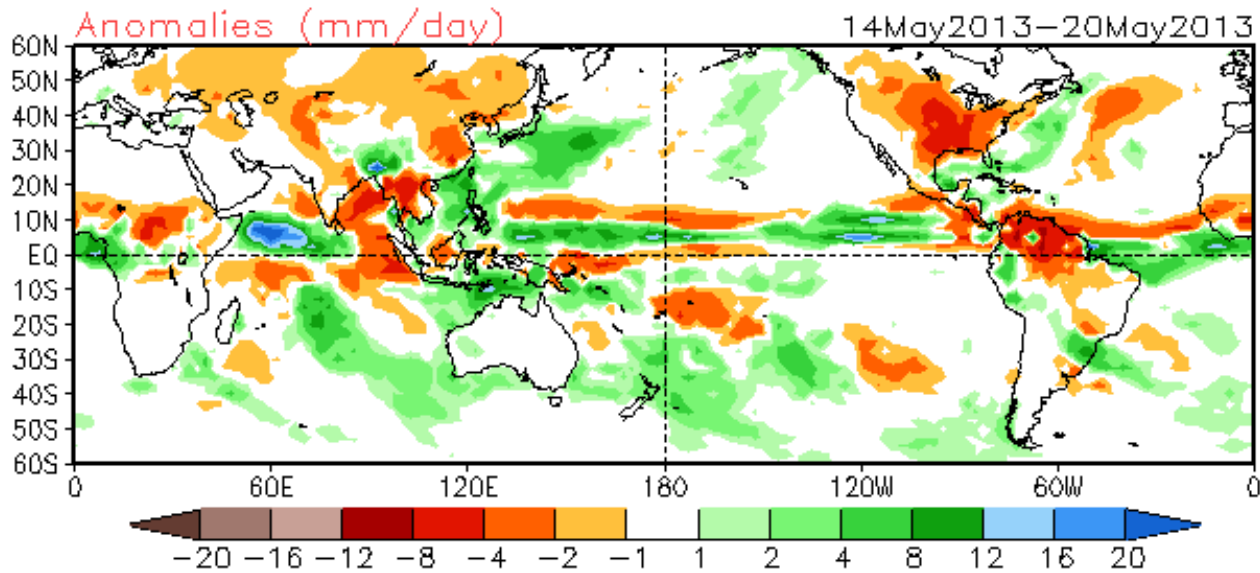
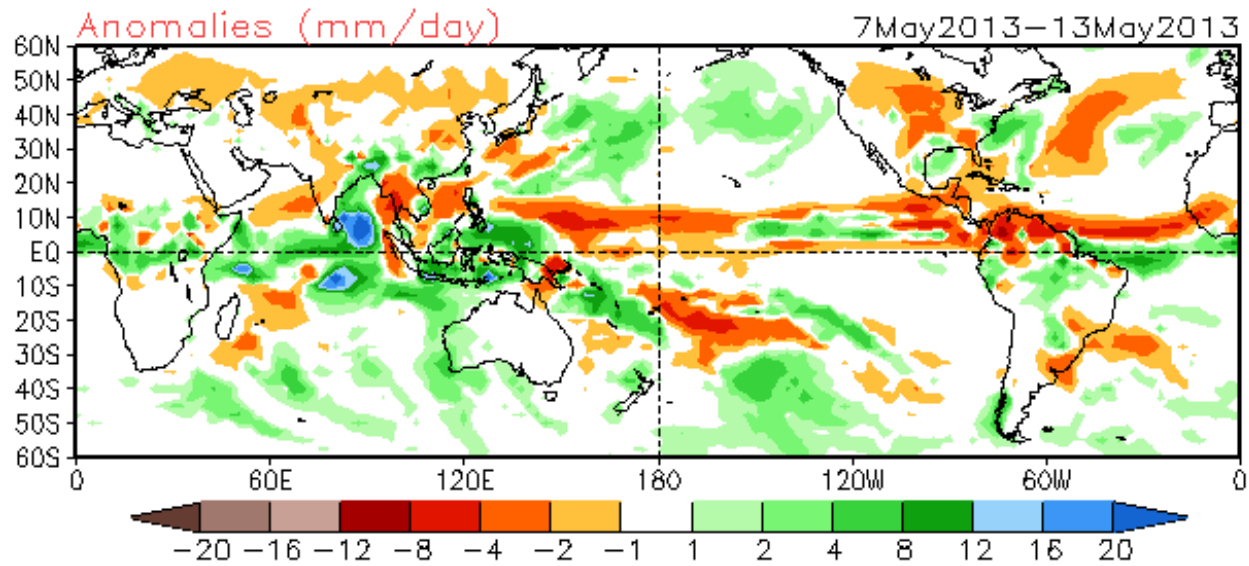




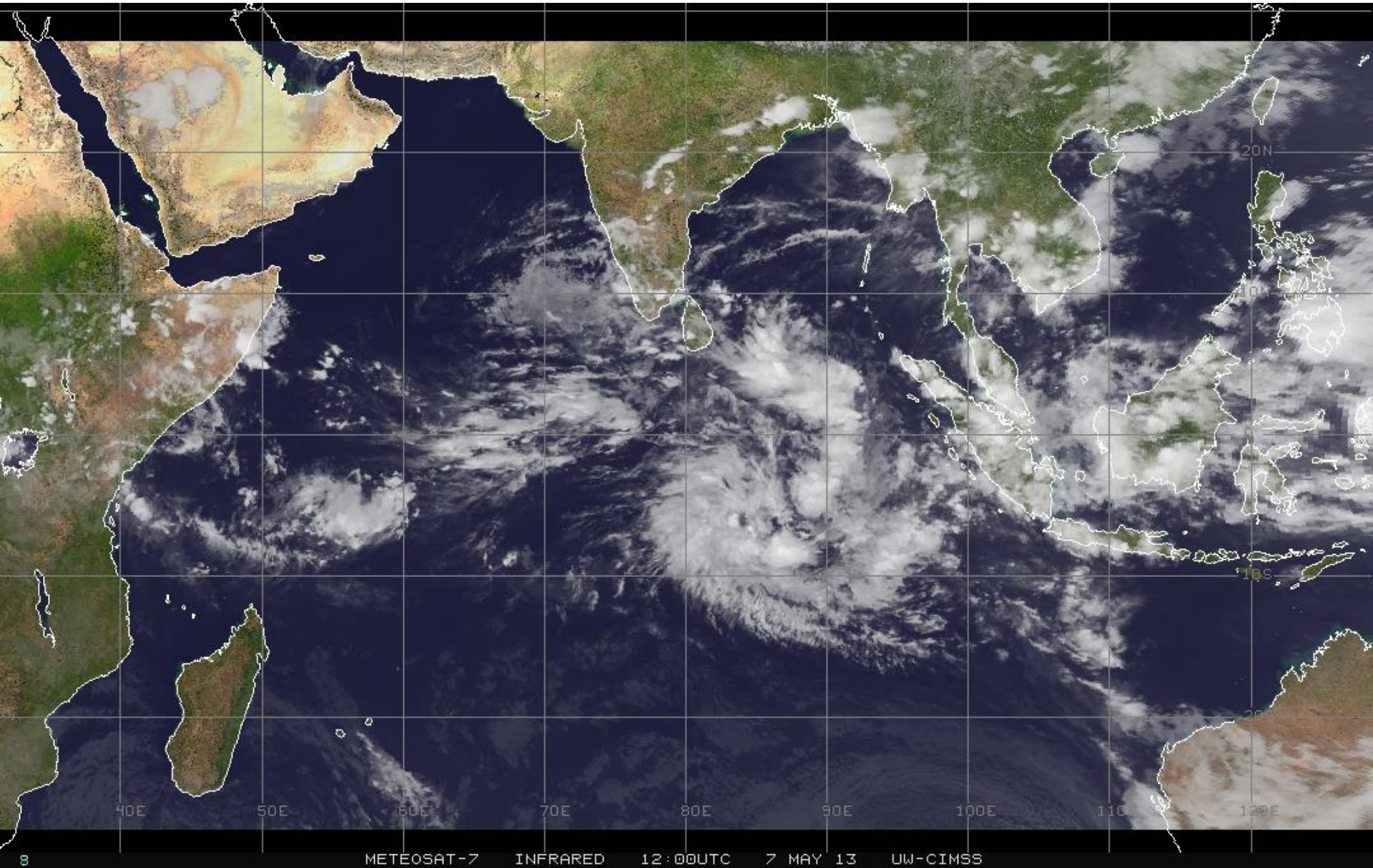
# Average Conditions when the MJO is present (May-Sep)



# GFS Model



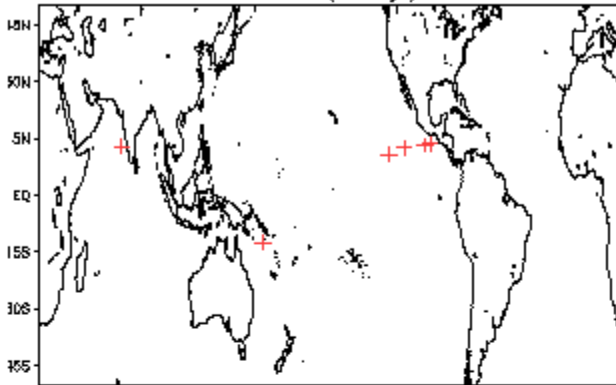
# IR Satellite 8am EDT



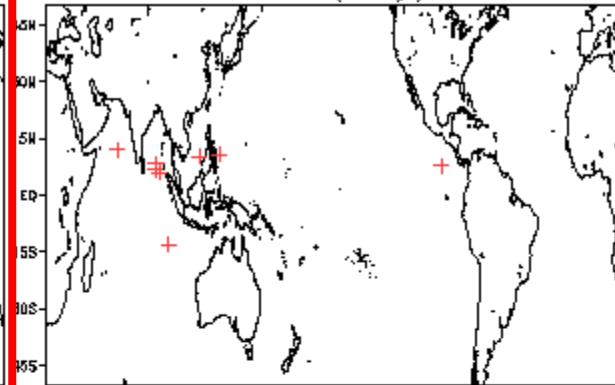


# May Tropical Storm Formation by MJO phase

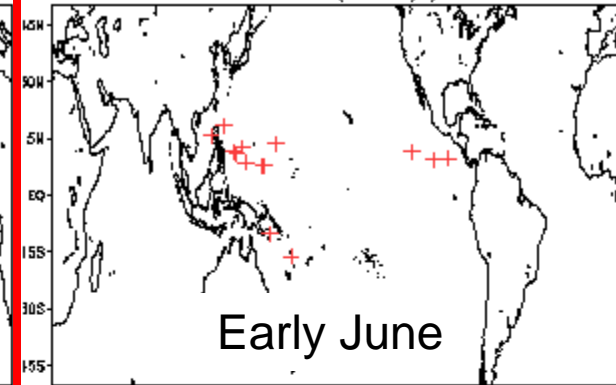
Phase 1 (85 days) 7 storms



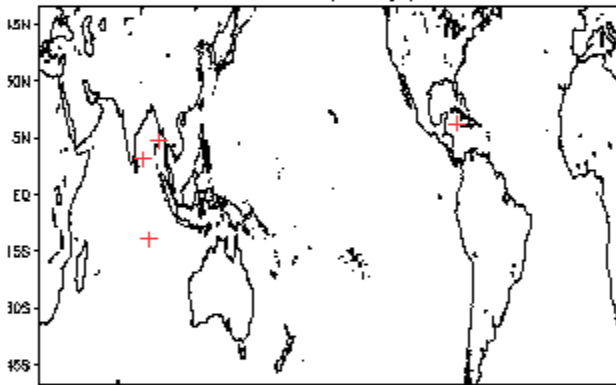
Phase 4 (85 days) 9 storms



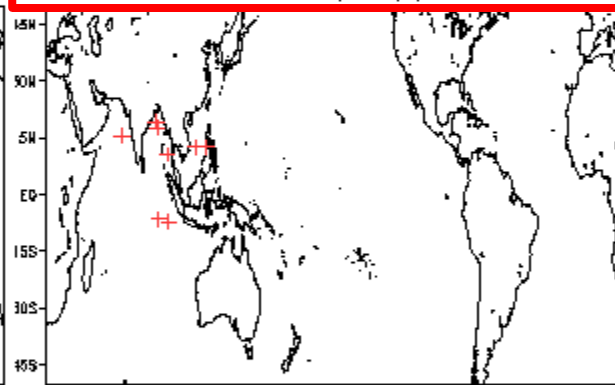
Phase 7 (111 days) 15 storms



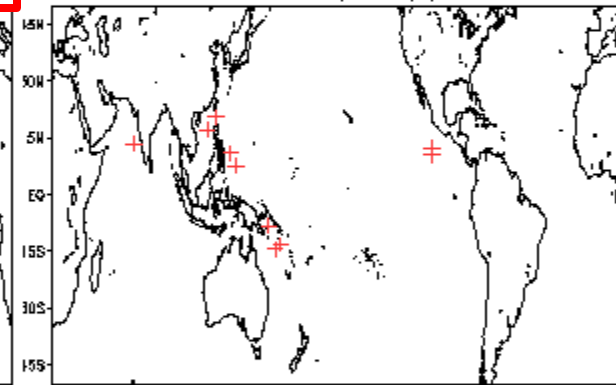
Phase 2 (76 days) 5 storms



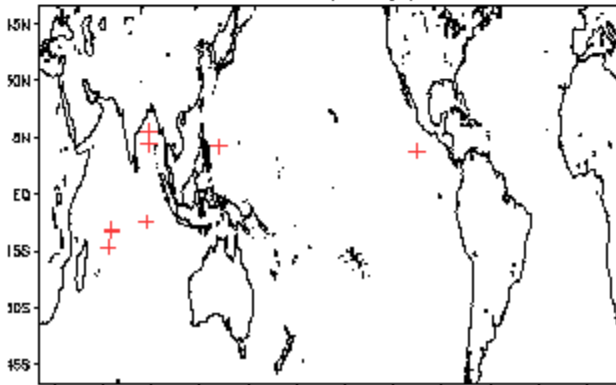
Phase 5 (86 days) 9 storms



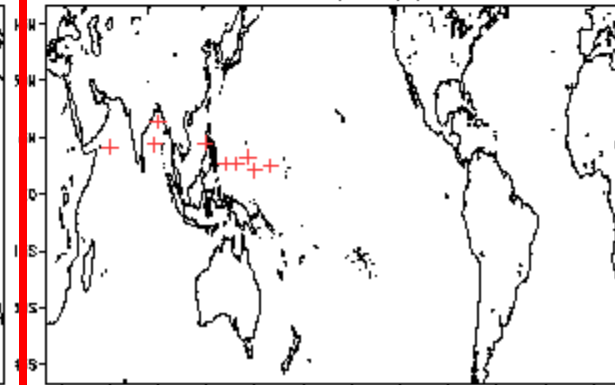
Phase 8 (111 days) 11 storms



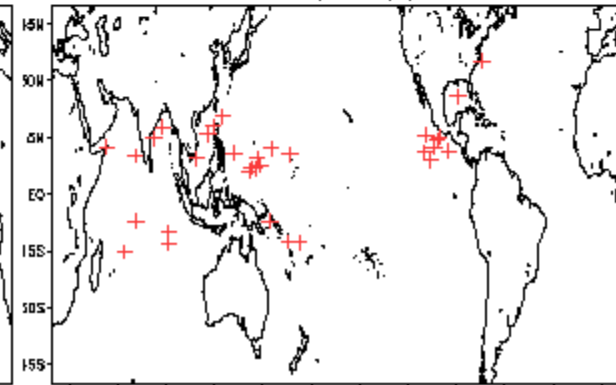
Phase 3 (73 days) 9 storms



Phase 6 (87 days) 10 storms



Null (349 days) 33 storms

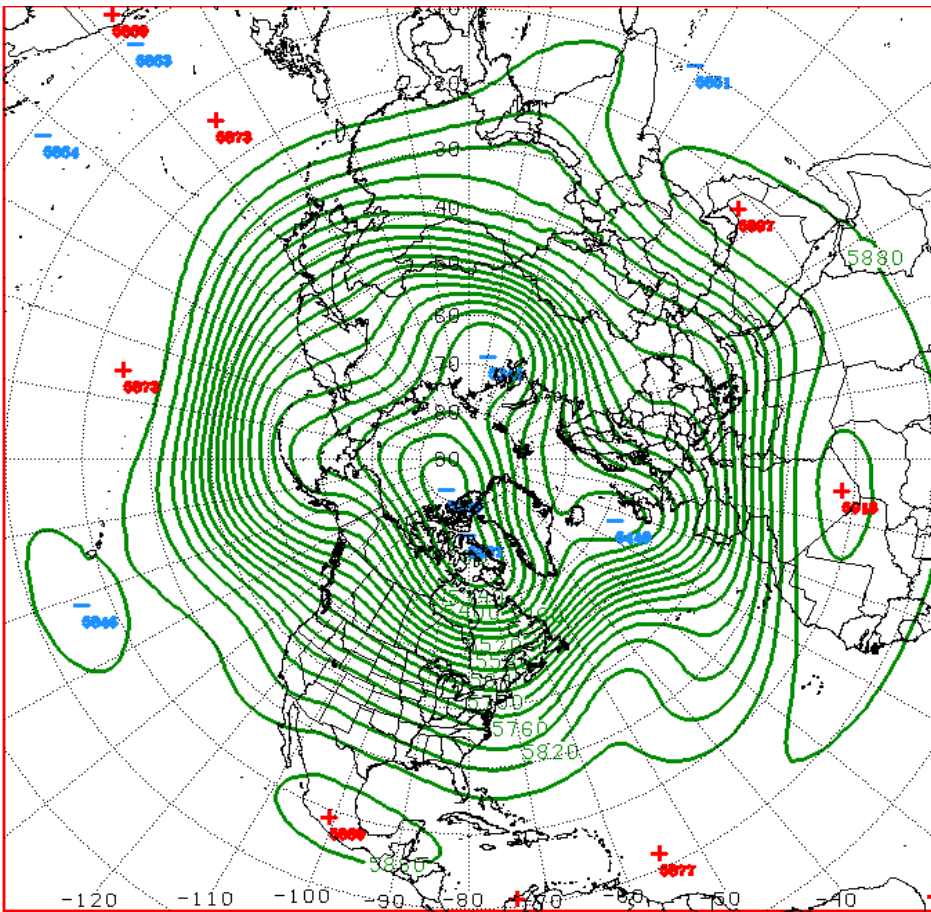


**Table 2.** Progress of the average eastern Pacific season (1971-2009). Date upon which the following number of events would normally have occurred.

<b>Number</b>	<b>Named systems</b>	<b>Hurricanes</b>	<b>Category 3 or greater</b>
1	June 10	June 26	July 19
2	June 25	July 14	Aug 19
3	July 5	July 29	Sep 20
4	July 14	Aug 12	-
5	July 22	Aug 26	-
6	July 30	Sep 9	-
7	Aug 7	Sep 24	-
8	Aug 15	Oct 15	-
9	Aug 24	-	-
10	Sep 1	-	-
11	Sep 10	-	-
12	Sep 19	-	-
13	Sep 28	-	-
14	Oct 11	-	-
15	Nov 5	-	-

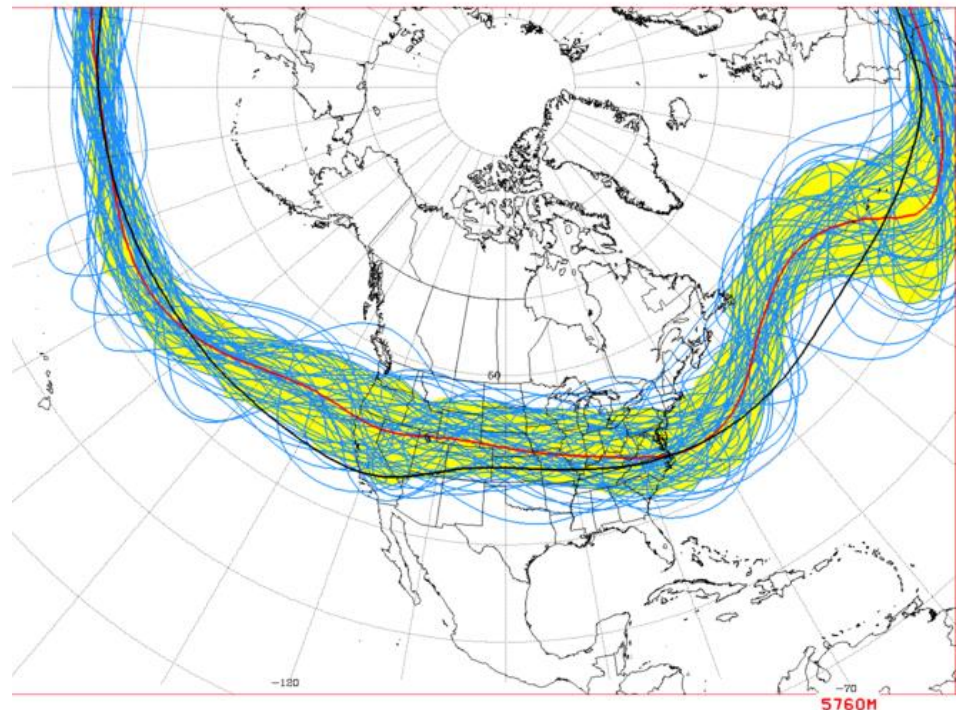


# Mean mid-level forecast circulation for Days 8-14



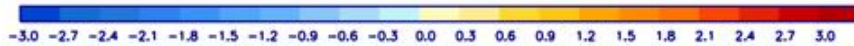
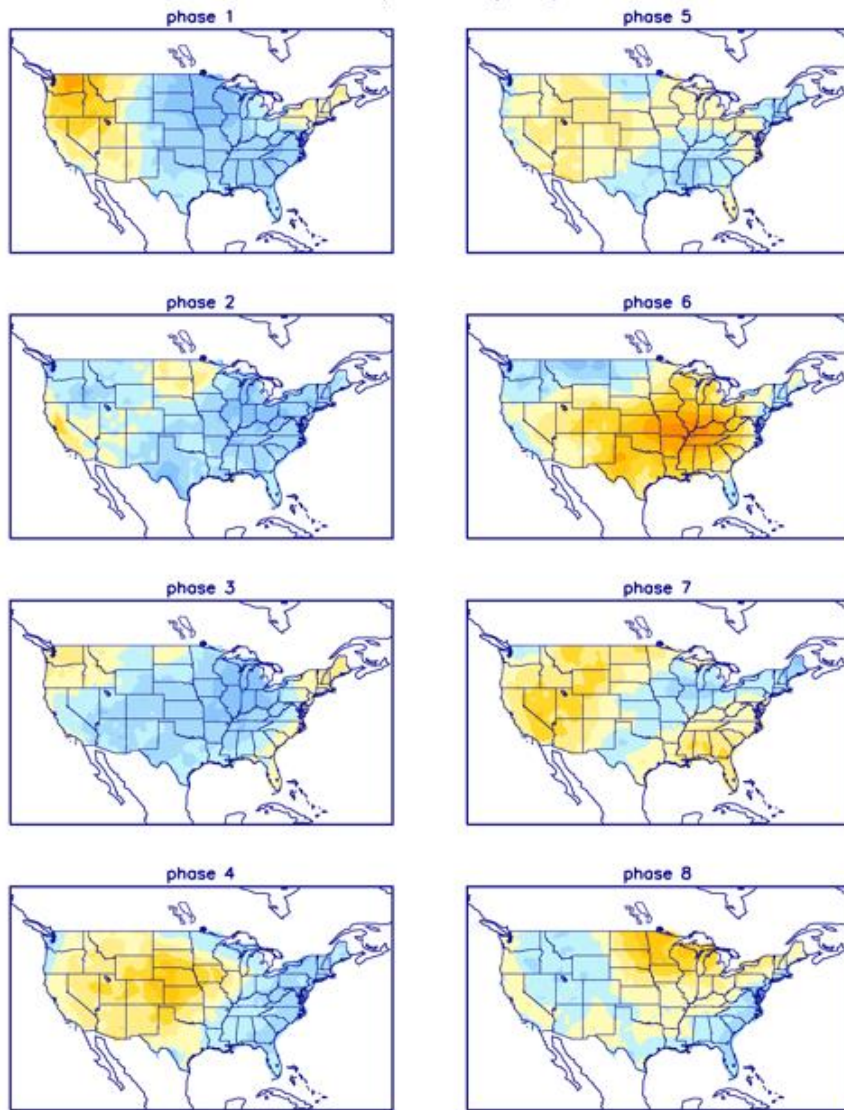
D+11 500 MB HEIGHTS FROM 00Z ECMM  
CPC MAP MADE MAY 06 2013 1038 UTC CNTD MAY 17 2013

**Total**

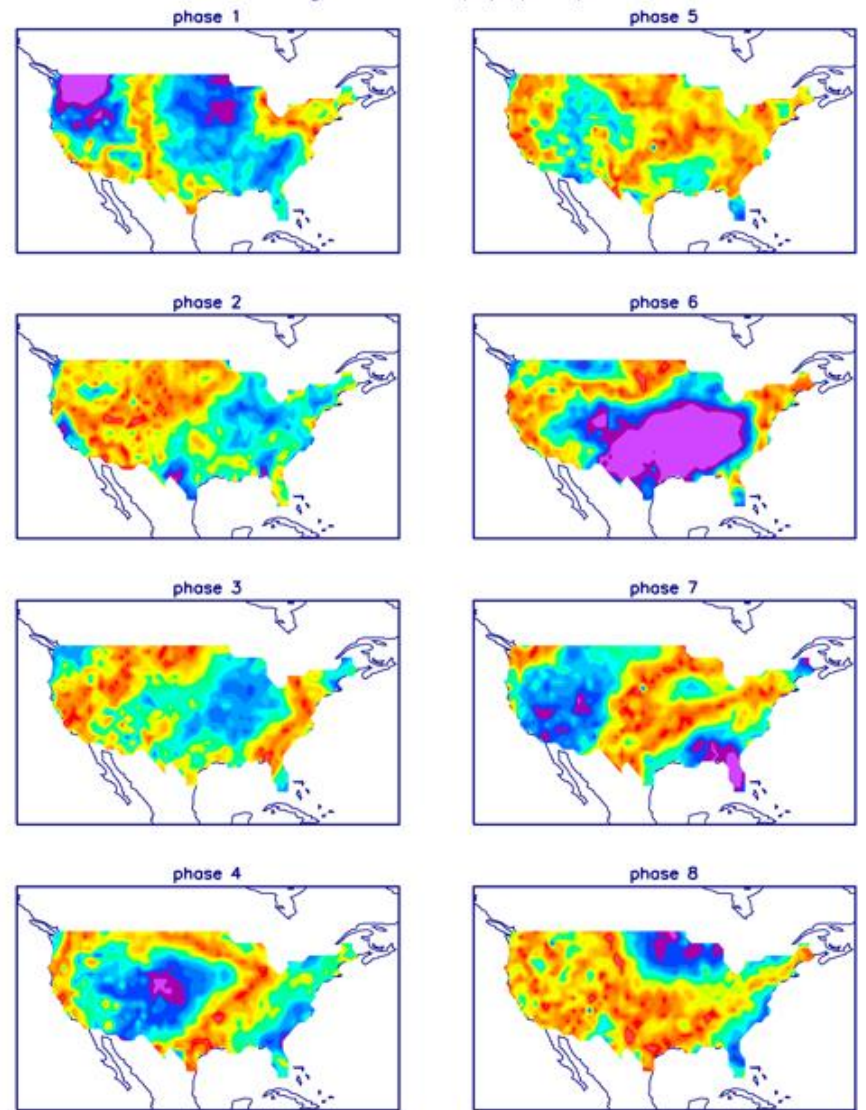


**Individual Ensemble Members**  
(Mean: Black & Climo: Red)

T composites (AMJ)



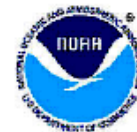
Significance (%) (AMJ)



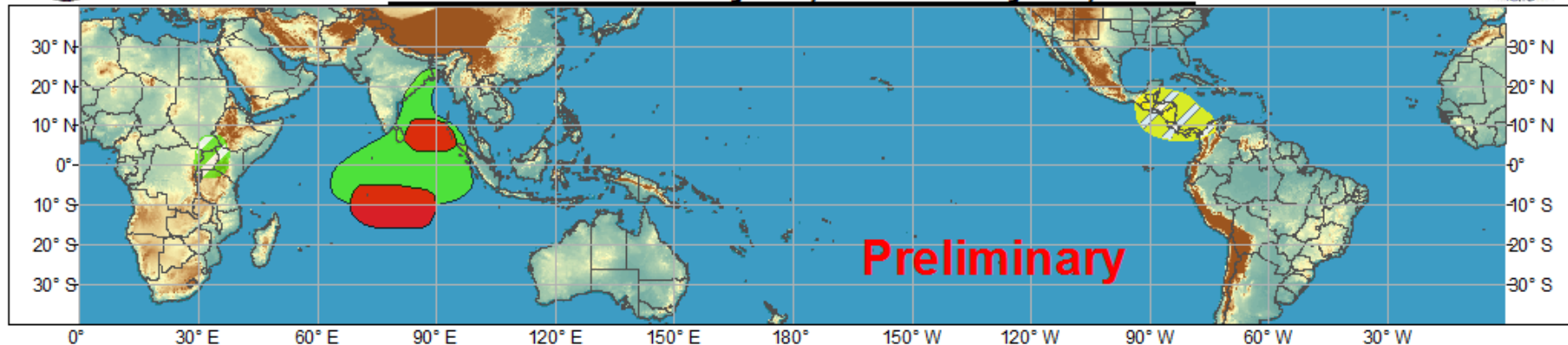




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