

# Global Tropics Hazards And Benefits Outlook

February 5, 2013

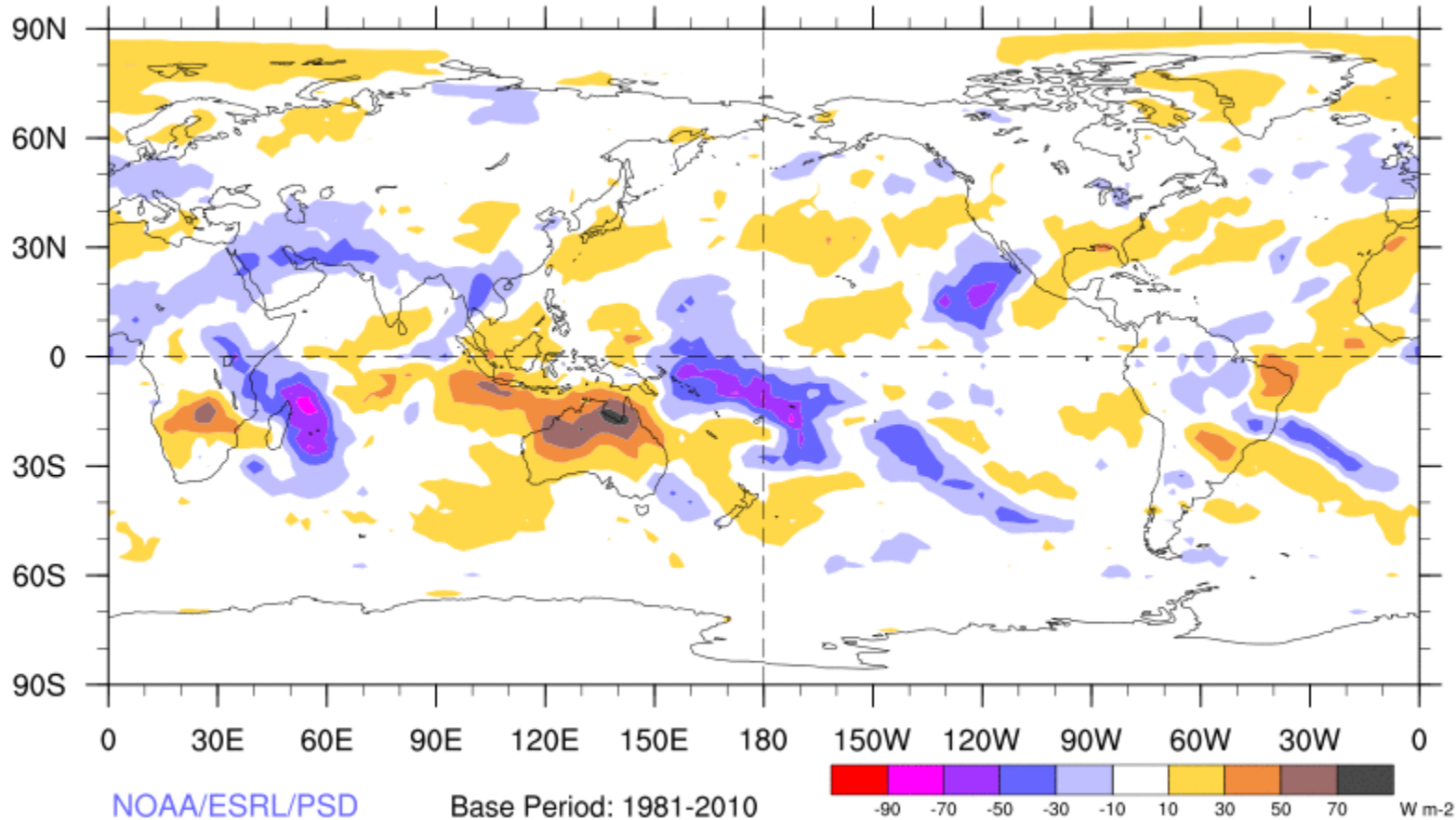
Jon Gottschalck

## Outline

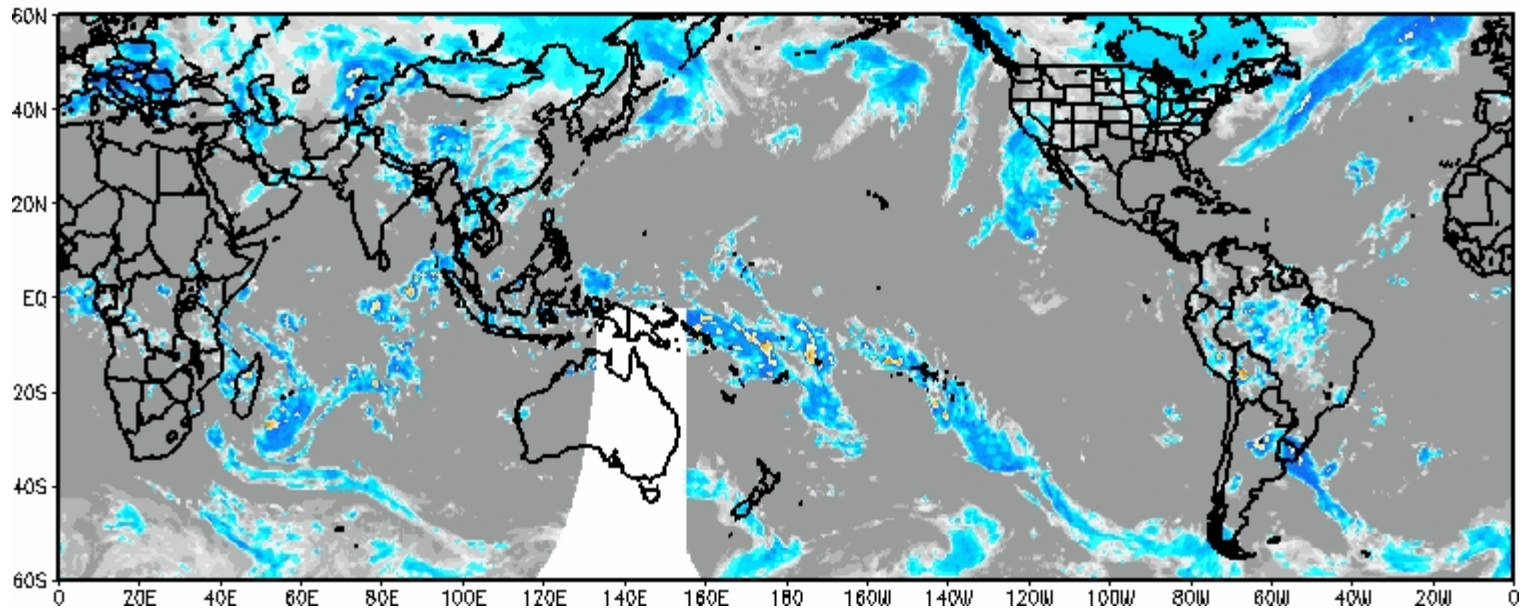
1. Review of Recent Conditions
2. Synopsis of Climate Modes
3. GTH Outlook and Forecast Discussion

# 7-Day Average OLR Anomaly

2013/01/28 - 2013/02/03

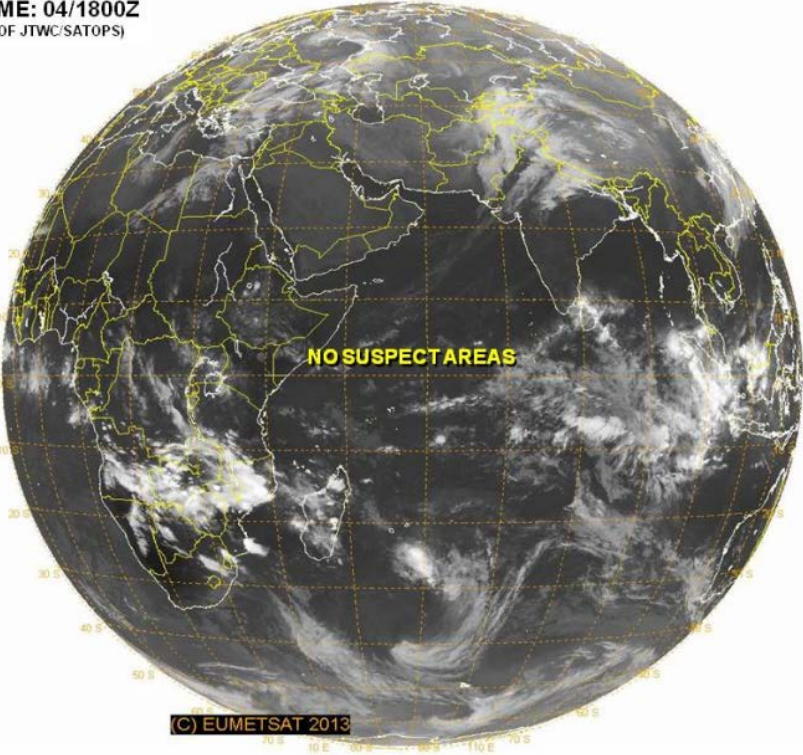


IR Temperatures  
0900 UTC 02 FEB 2013

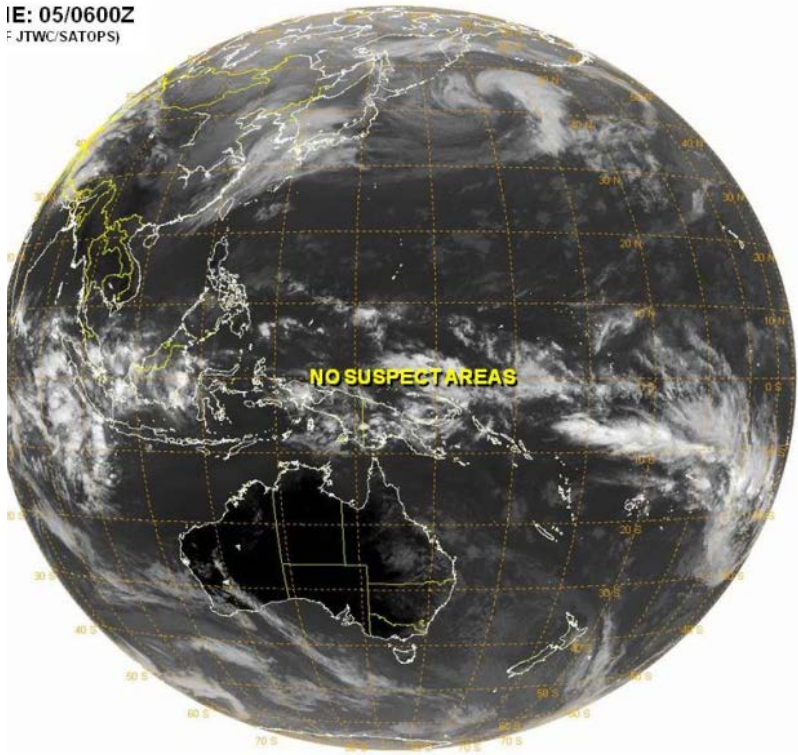


# Tropical Cyclone Review

**VALID TIME: 04/1800Z**  
(PRODUCT OF JTWC/SATOPS)



**IE: 05/0600Z**  
(PRODUCT OF JTWC/SATOPS)

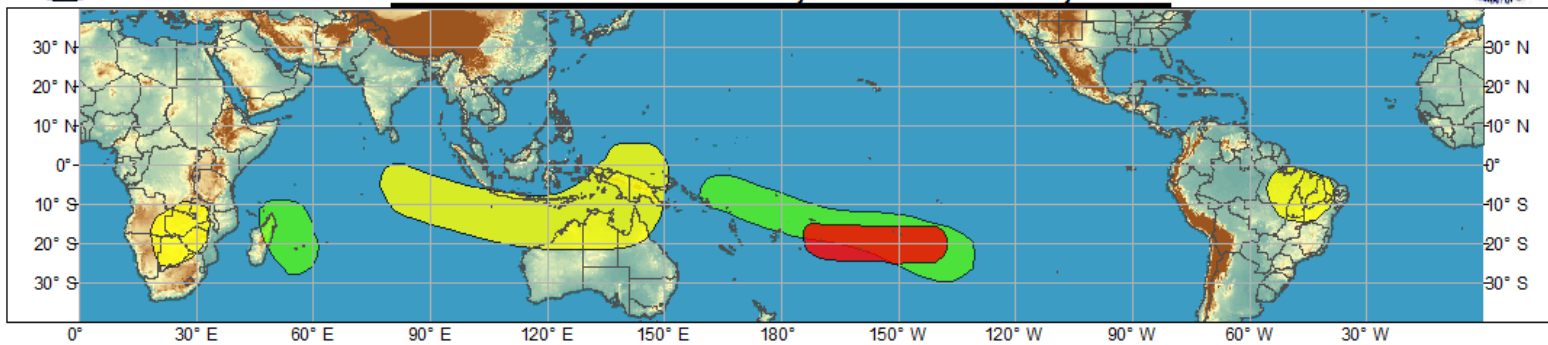




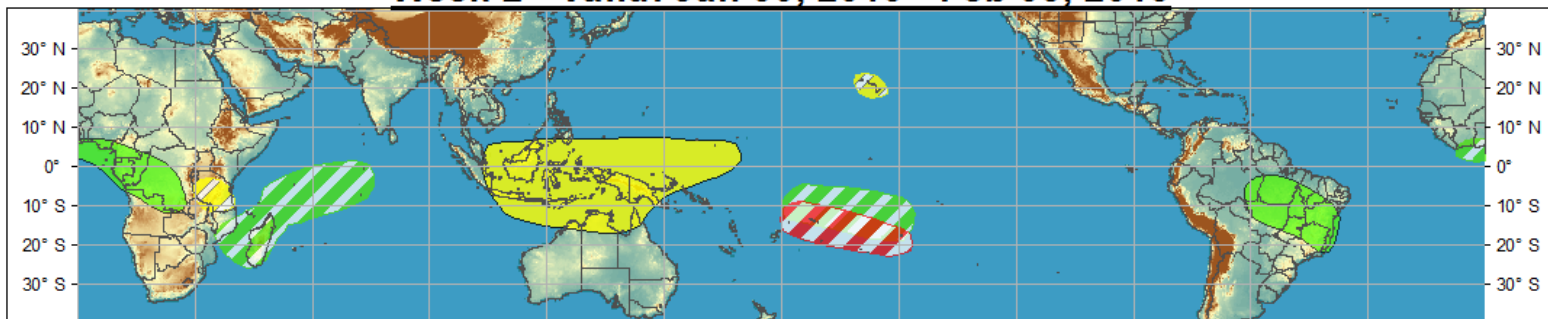
# Global Tropical Hazards/Benefits Outlook - Climate Prediction Center



**Week 1 - Valid: Jan 30, 2013 - Feb 05, 2013**

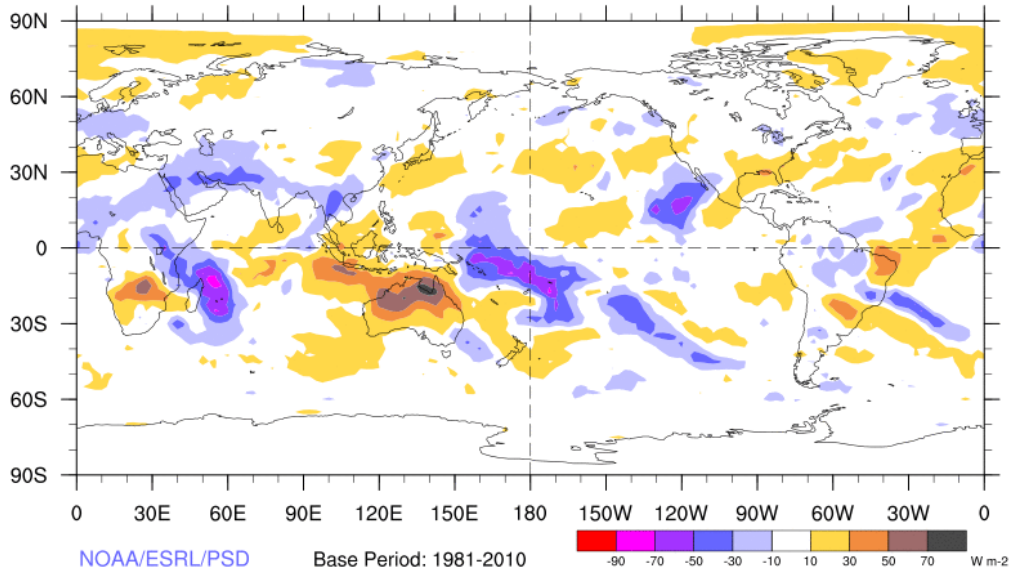


**Week 2 - Valid: Jan 30, 2013 - Feb 05, 2013**



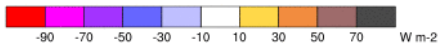
7-Day Average OLR Anomaly

2013/01/28 - 2013/02/03



NOAA/ESRL/PSD

Base Period: 1981-2010



Outlook  
Review

# Synopsis of Climate Modes

## ENSO:

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

## MJO and other subseasonal tropical variability:

- The MJO remained active over the past week with more coherent eastward propagation. The enhanced phase is nearing Africa.
- Large spread in dynamical model MJO index forecasts, but we favor continued eastward propagation during the next two weeks with the enhanced phase entering the Indian Ocean.

## Extratropics:

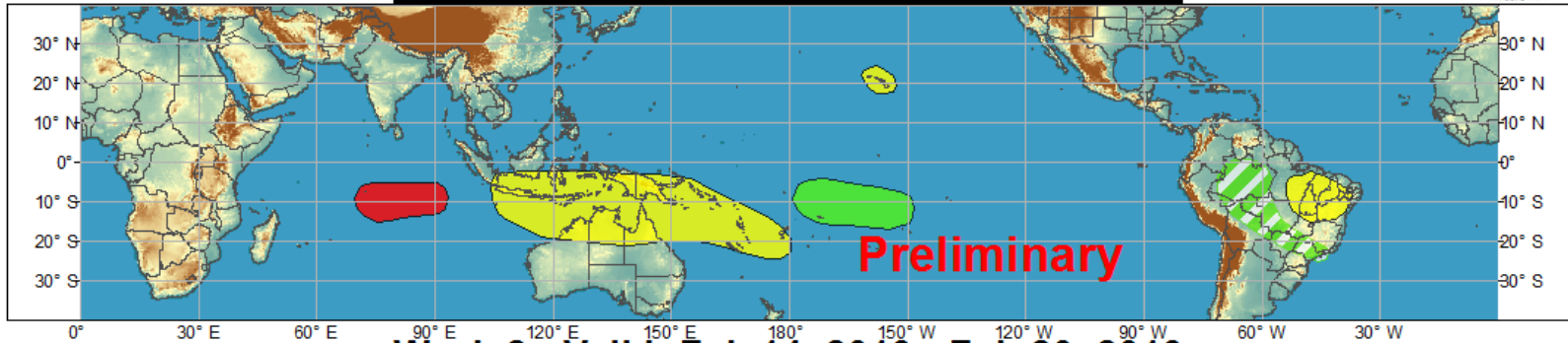
- The forecast MJO evolution would favor a trough across the west on average near or just after mid-February and so an elevated chance for below-normal temperatures across the west.
- Late in February would favor troughing along or near the west coast and a ridge on average across the eastern U.S.



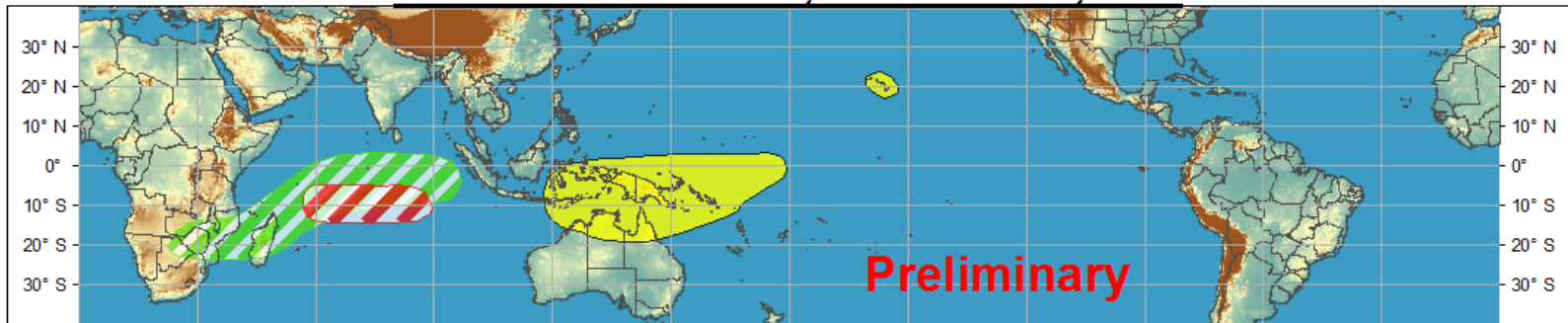
# Global Tropical Hazards/Benefits Outlook - Climate Prediction Center













## Week 1 - Valid: Feb 07, 2013 - Feb 13, 2013



## Week 2 - Valid: Feb 14, 2013 - Feb 20, 2013



**Confidence**  
High Moderate

- |                                   |   |  |
|-----------------------------------|---|--|
| <b>Tropical Cyclone Formation</b> |       | Development of a tropical cyclone that eventually reaches tropical storm/cyclone strength. |
| <b>Above-average rainfall</b>     |       | Weekly total rainfall in the upper third of the historical range.                          |
| <b>Below-average rainfall</b>     |   | Weekly total rainfall in the lower third of the historical range.                          |
| <b>Above-normal temperatures</b>  |   | 7-day mean temperatures in the upper third of the historical range.                        |
| <b>Below-normal temperatures</b>  |   | 7-day mean temperatures in the lower third of the historical range.                        |

Produced: 02/05/2013

Forecaster: Gottschalck

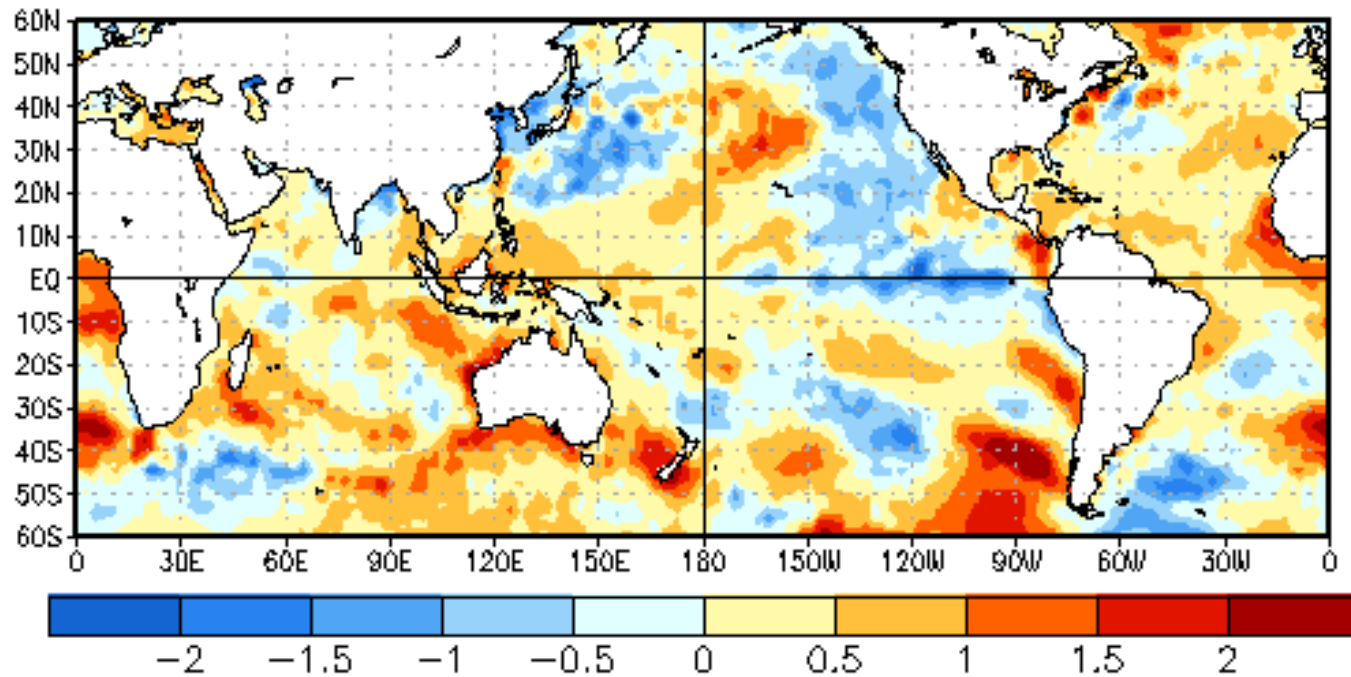
Product is updated once per week. The product targets broad scale conditions integrated over a 7-day period for US interests only. Consult your local responsible forecast agency.



# SST Observations

SST Anomalies (°C)

30 JAN 2013

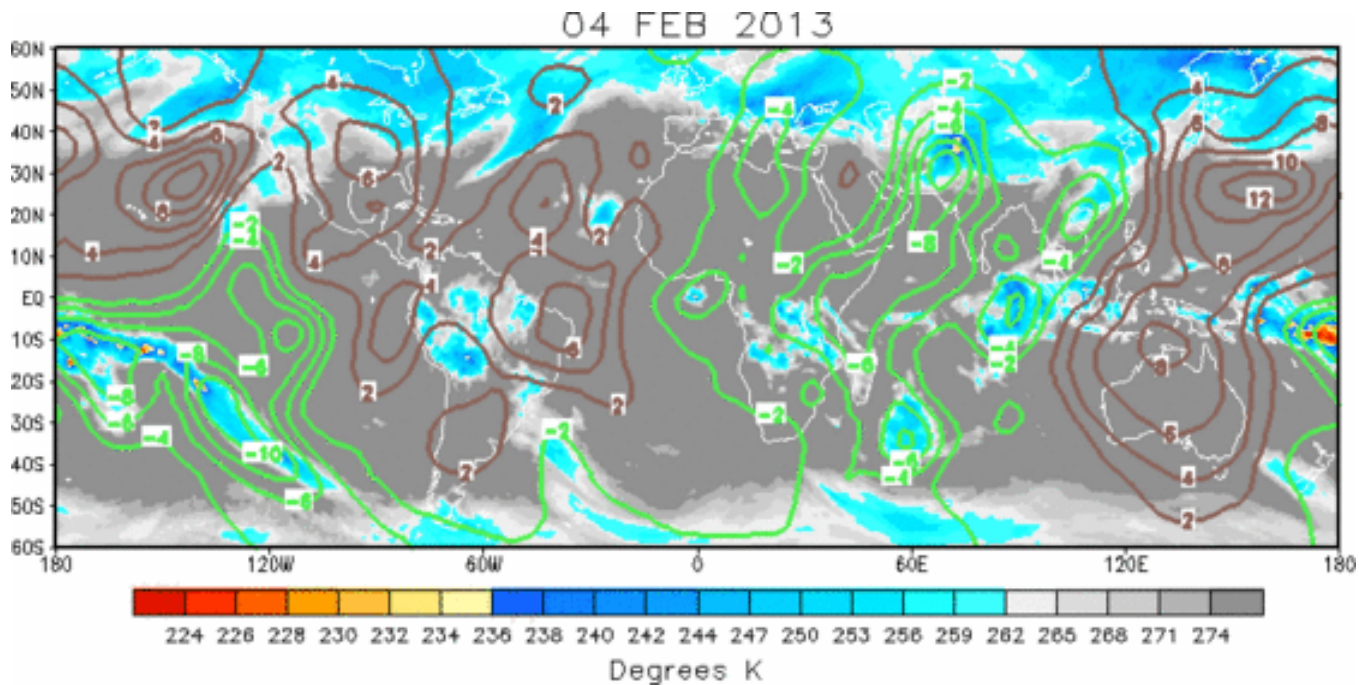




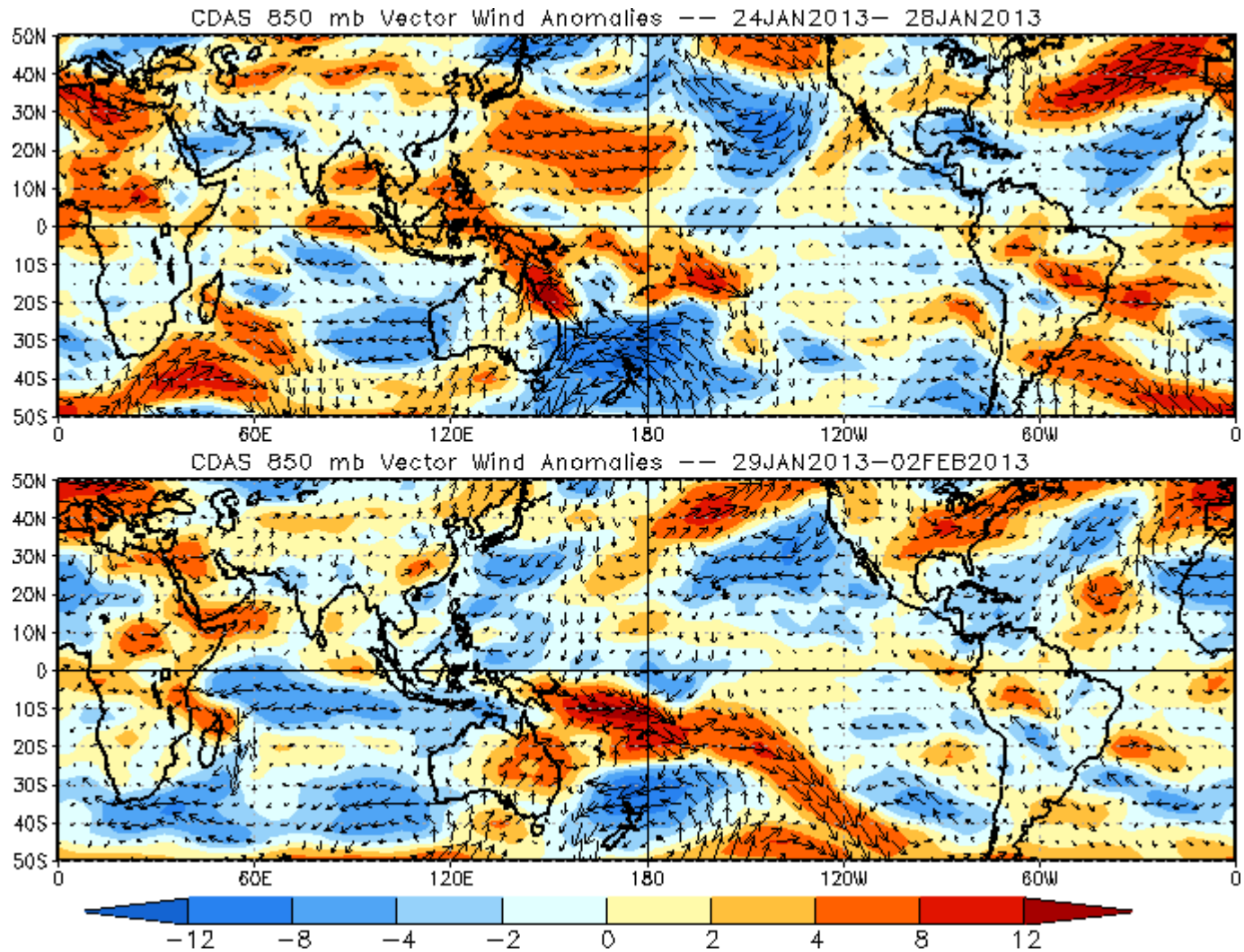
# IR Satellite & 200-hpa Velocity Potential Anomalies

Green: Enhanced Divergence

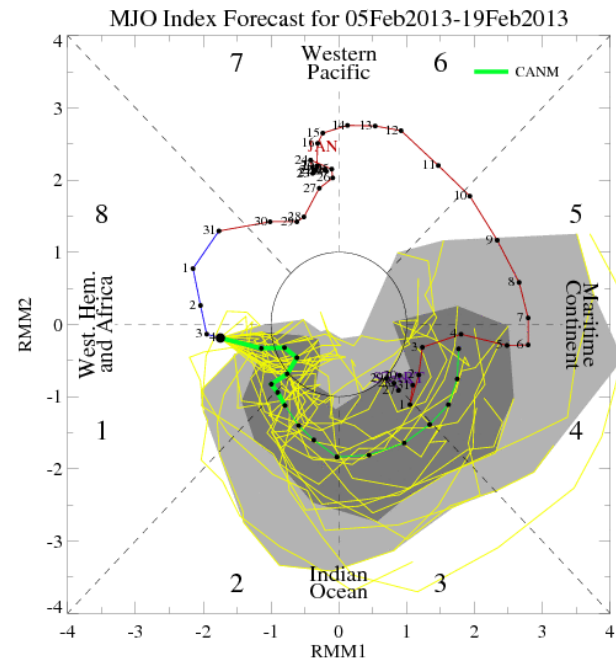
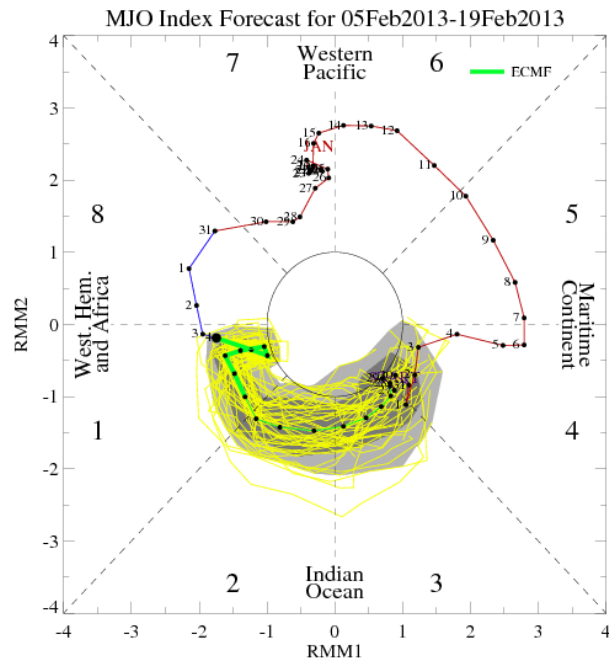
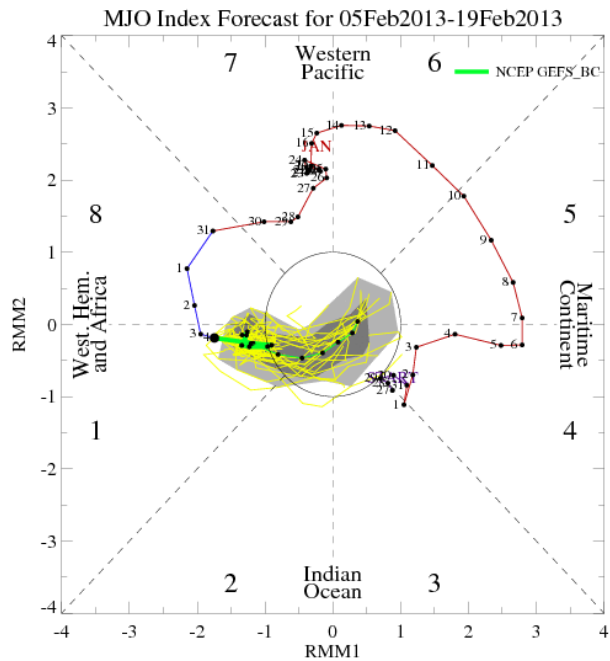
Brown: Enhanced Convergence



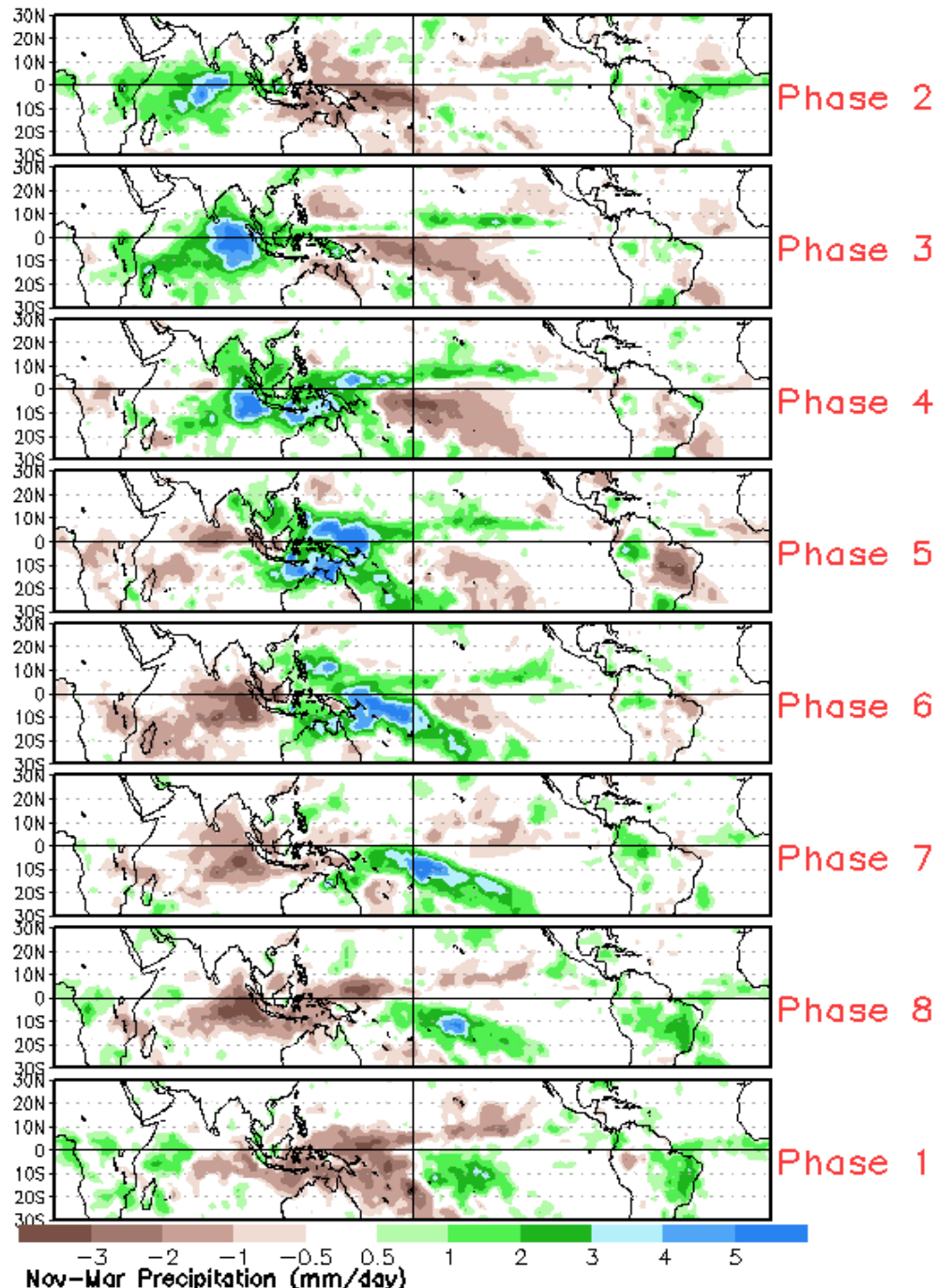
# 850-hPa winds



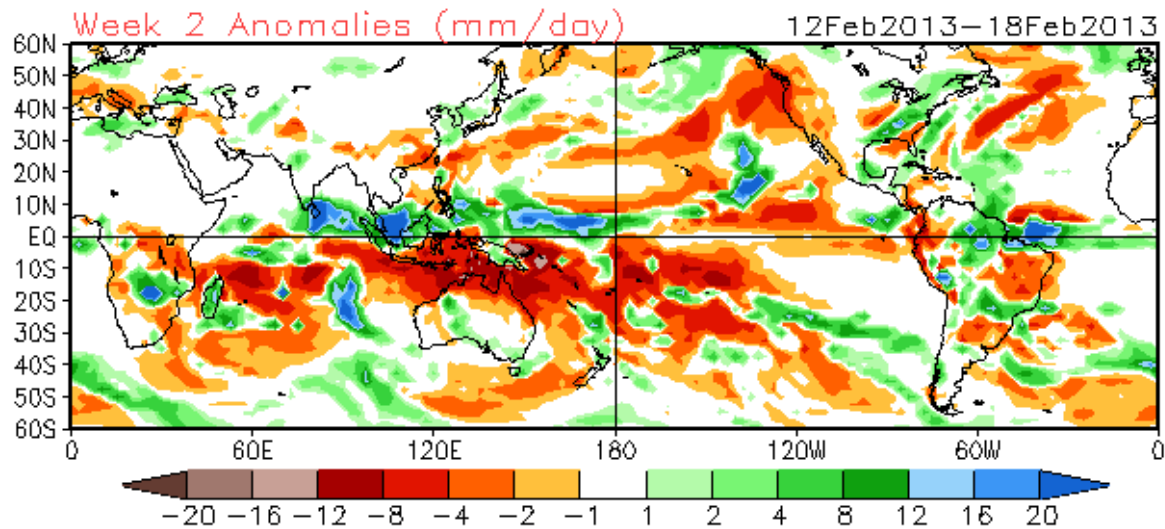
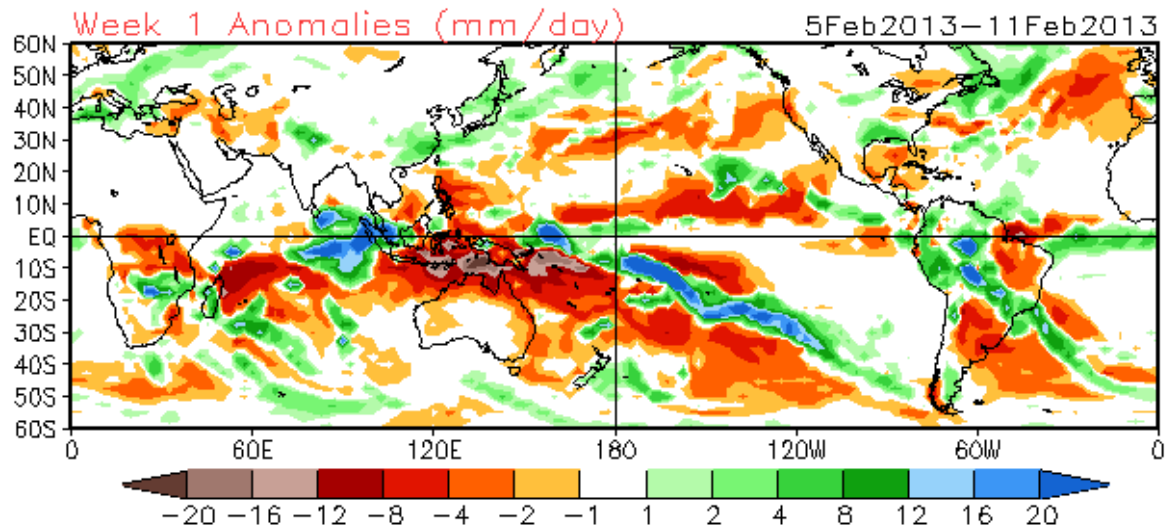
# MJO Observation/Forecast



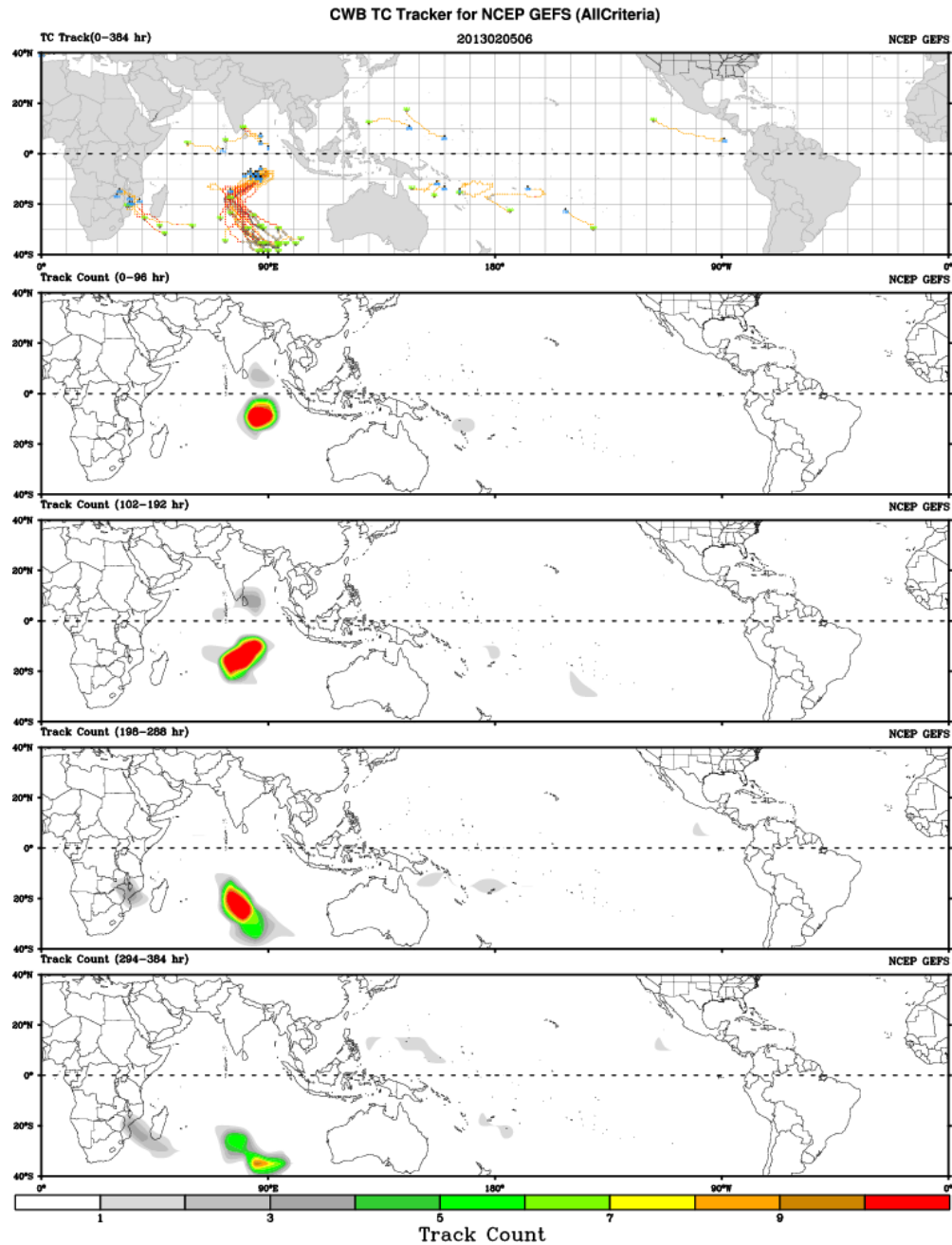
# Average Conditions when the MJO is present (Nov-Mar)



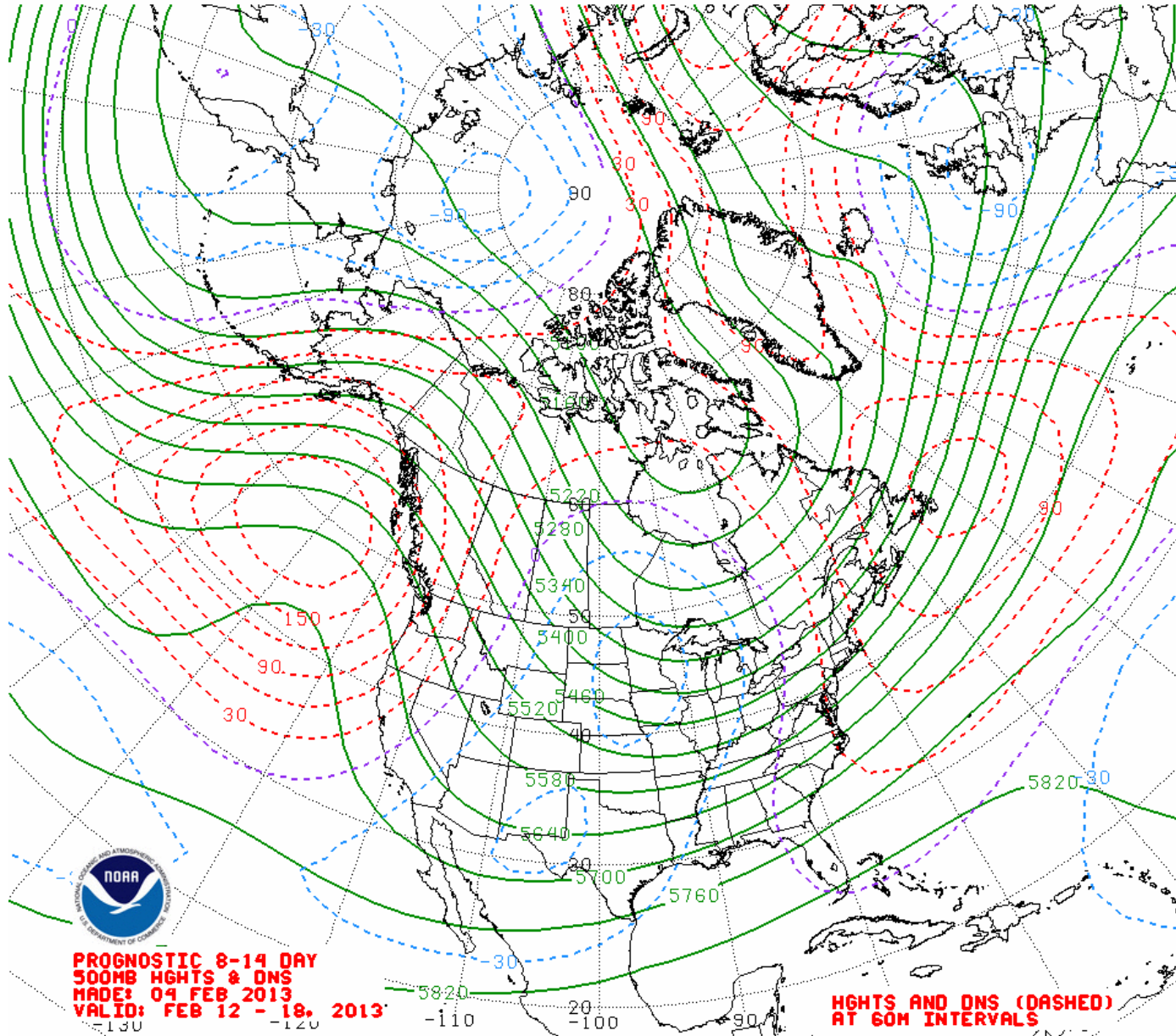
16 Member Ensemble Mean Forecast from 04Feb2013



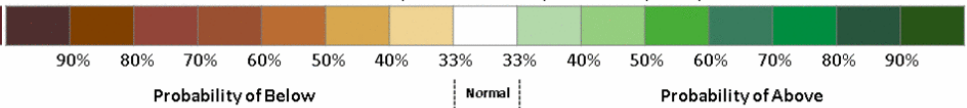
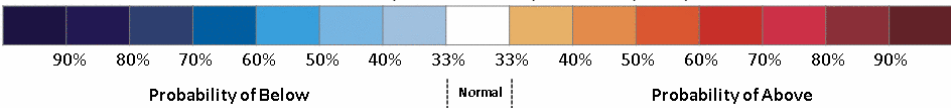
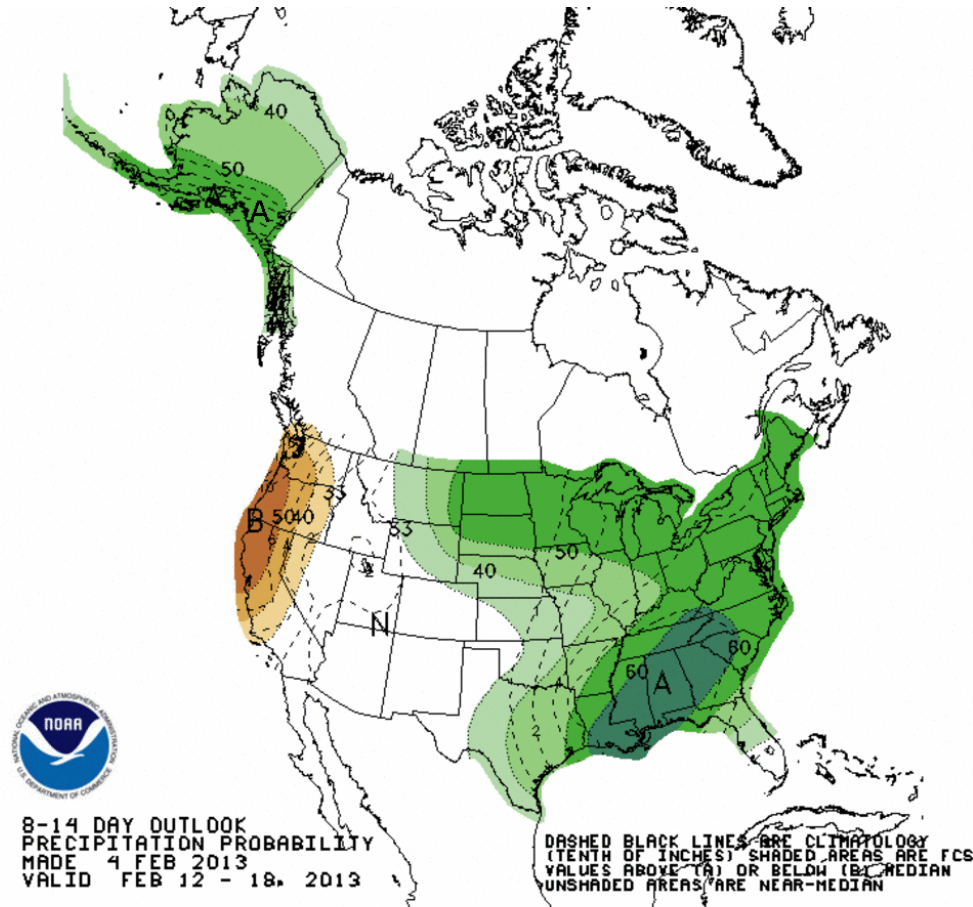
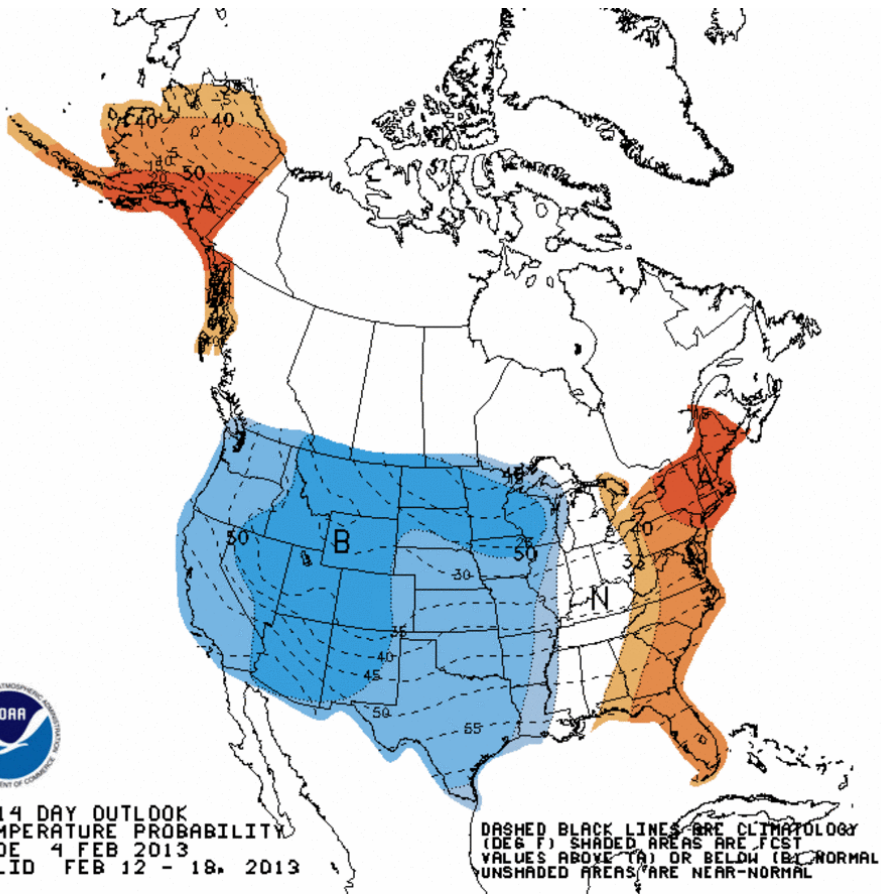
# GFS Tropical Cyclone Guidance



# Week 2 500-hPa Manual Chart

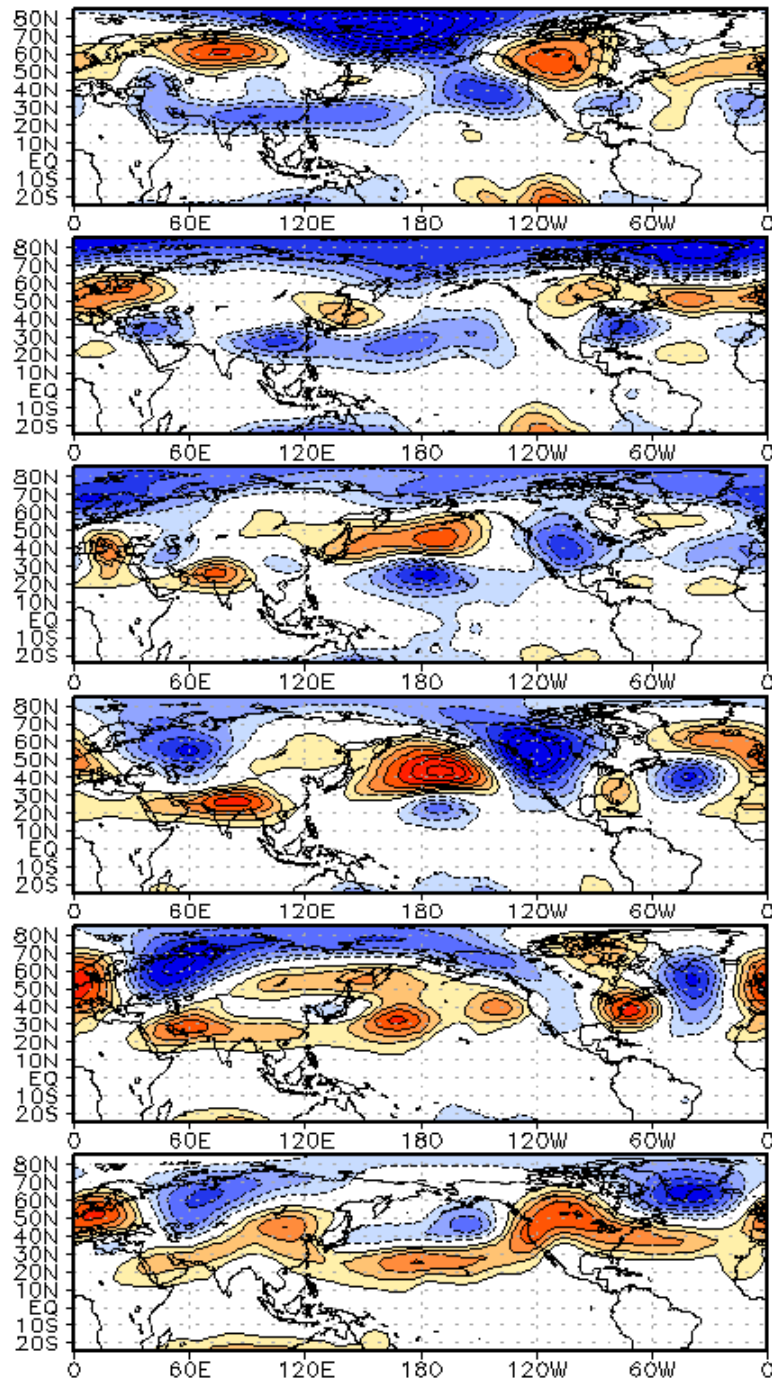


# Week 2 – Temperature and Precipitation

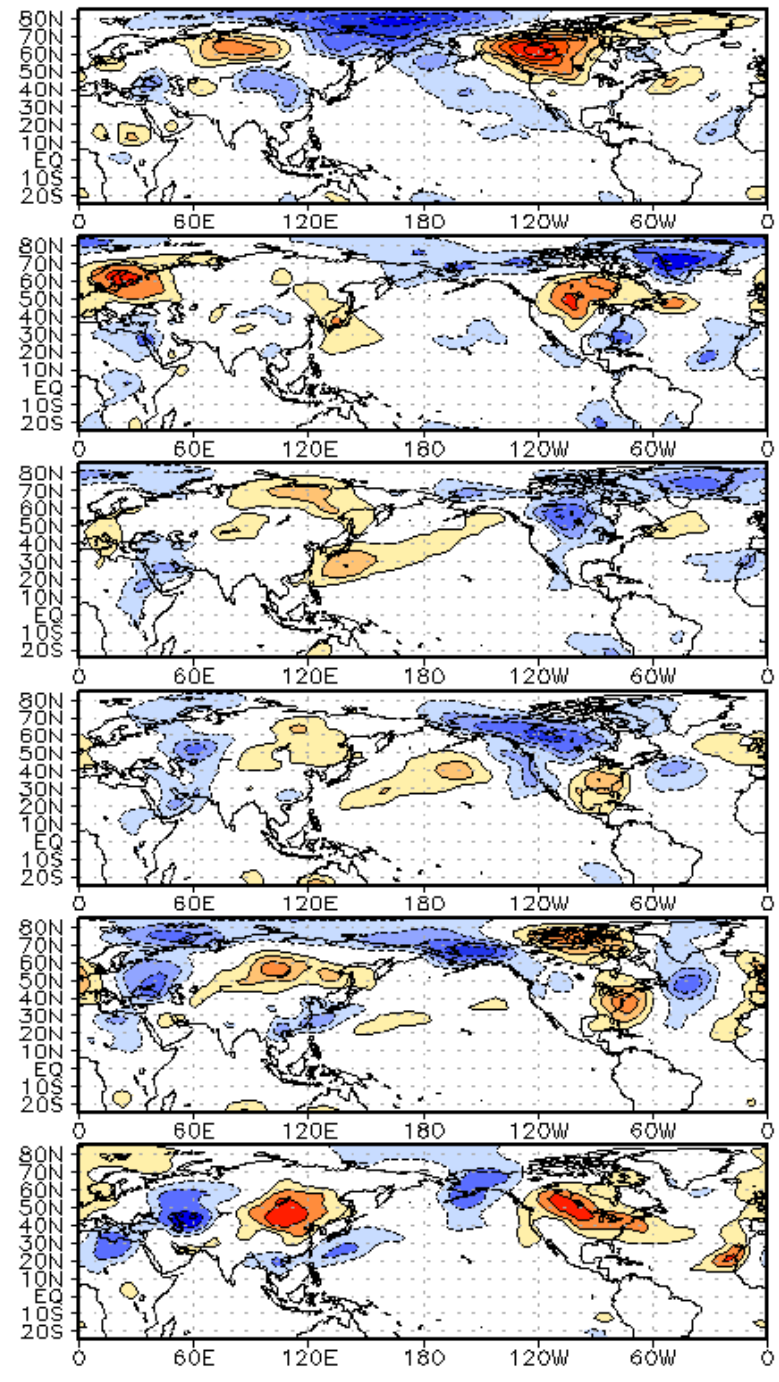




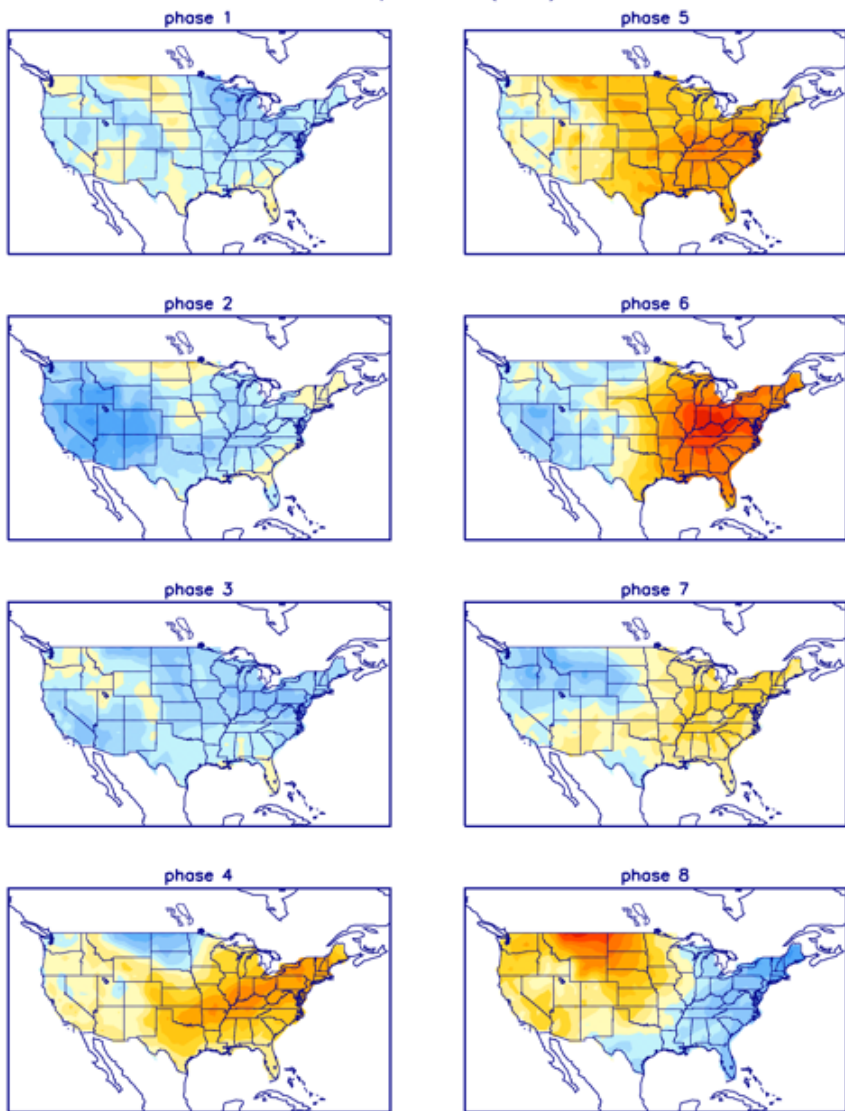
WHMJO Phase 1 z200 Lagged Composite (Jfm)



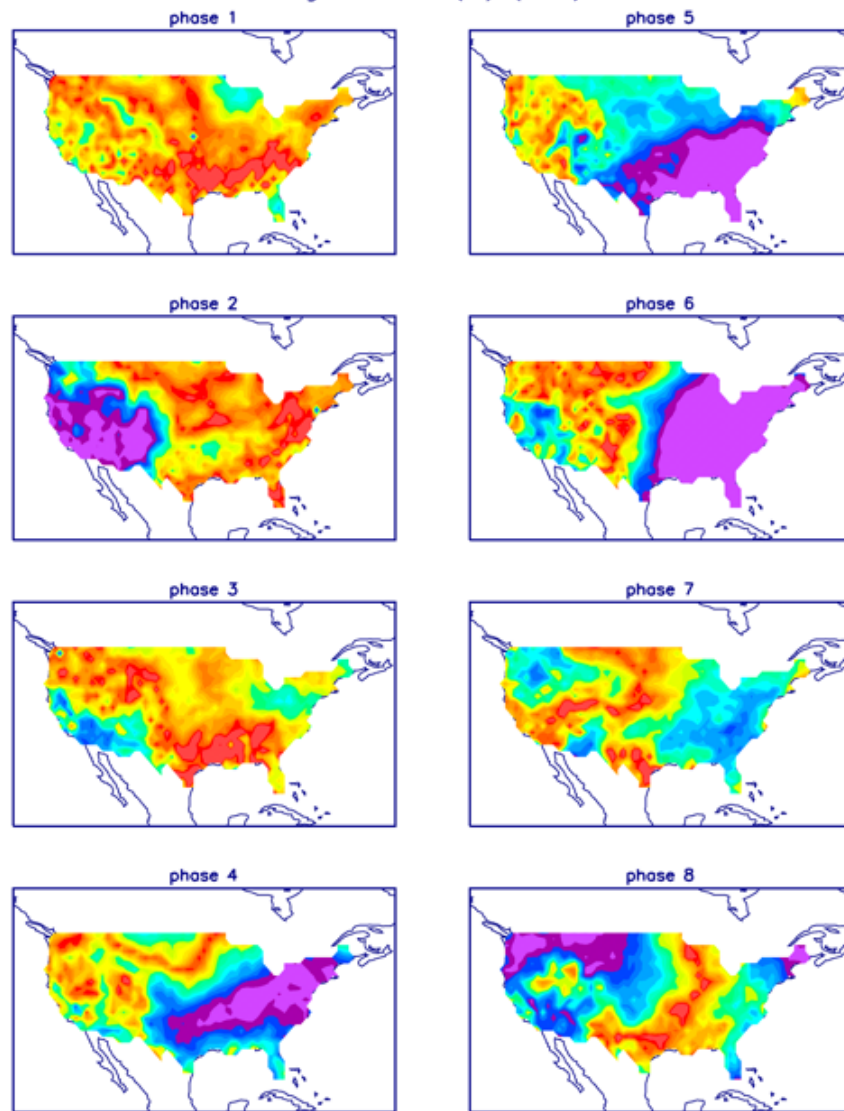
WHMJO Phase 1 t850 Lagged Composite (Jfm)



T composites (JFM)



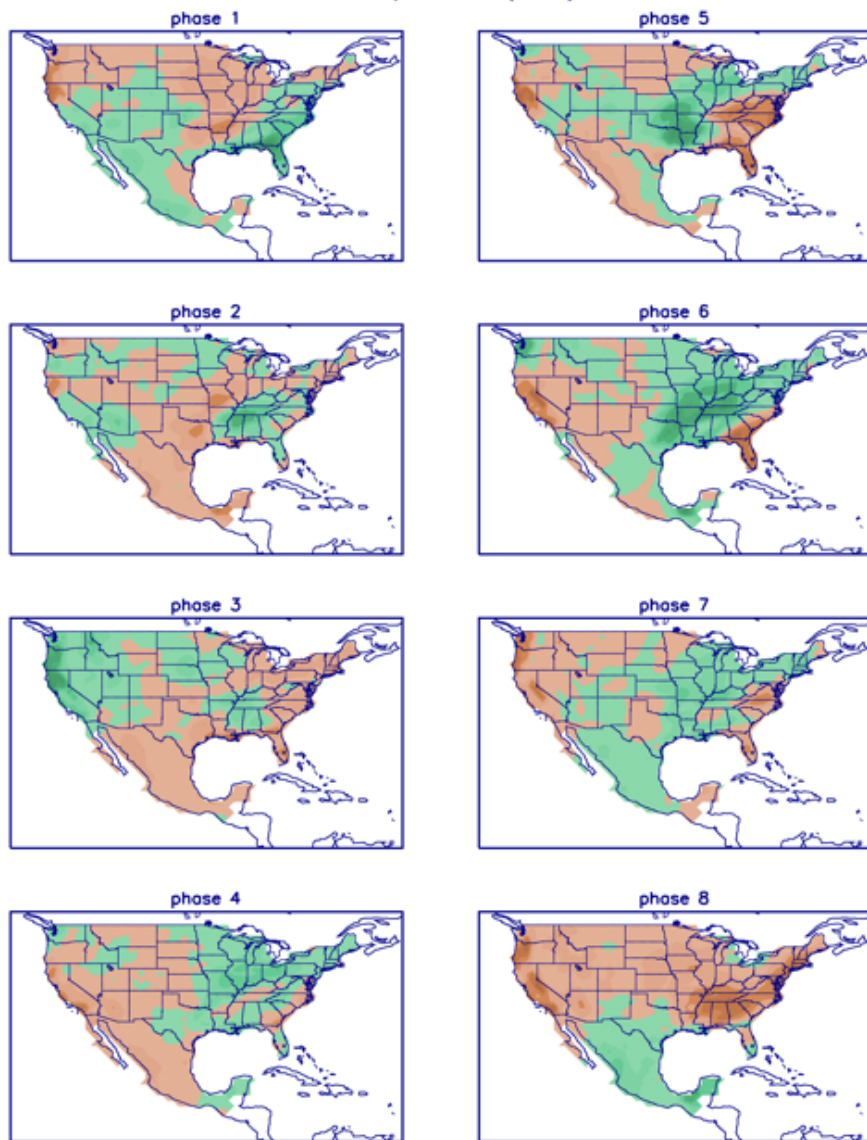
Significance (%) (JFM)



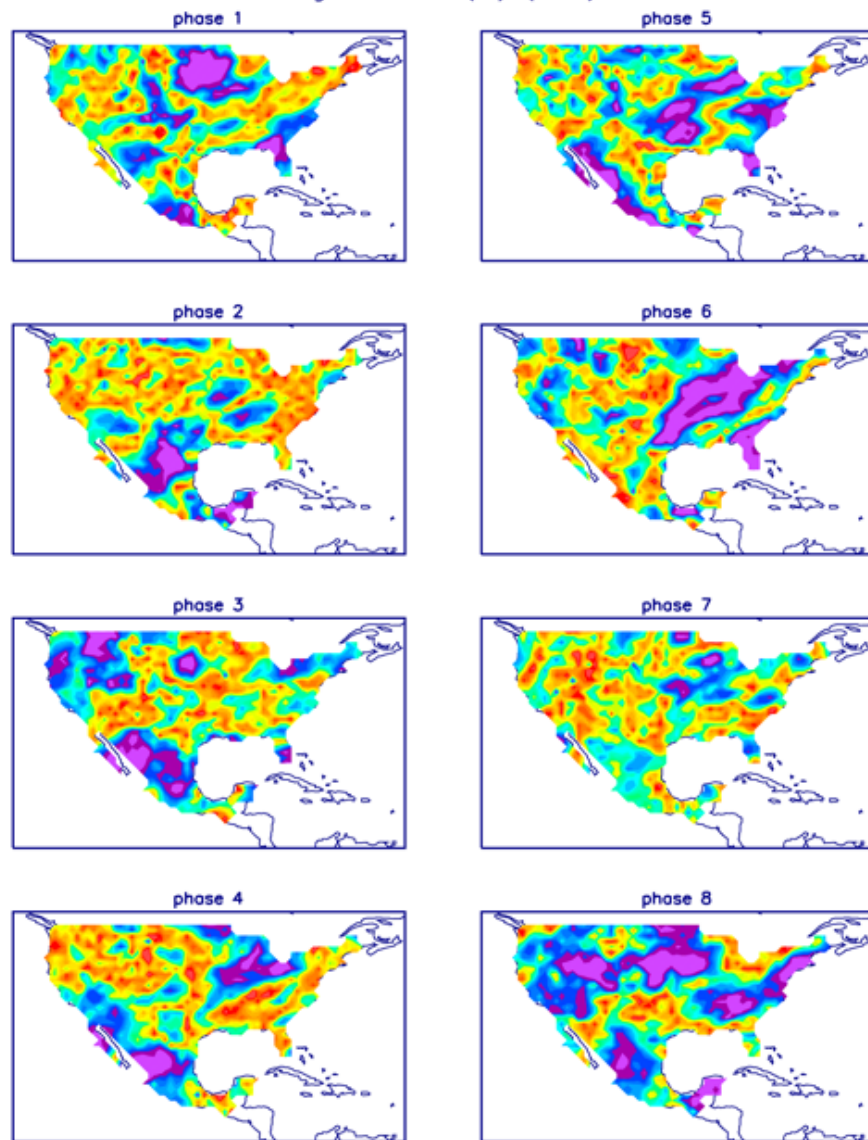
-3.0 -2.7 -2.4 -2.1 -1.8 -1.5 -1.2 -0.9 -0.6 -0.3 0.0 0.3 0.6 0.9 1.2 1.5 1.8 2.1 2.4 2.7 3.0

0.0 2.5 5.0 7.5 10.0 12.5 15.0 17.5 20.0 22.5 25.0 27.5 30.0 32.5 35.0 37.5 40.0 42.5 45.0 47.5 50.0

P composites (JFM)



Significance (%) (JFM)

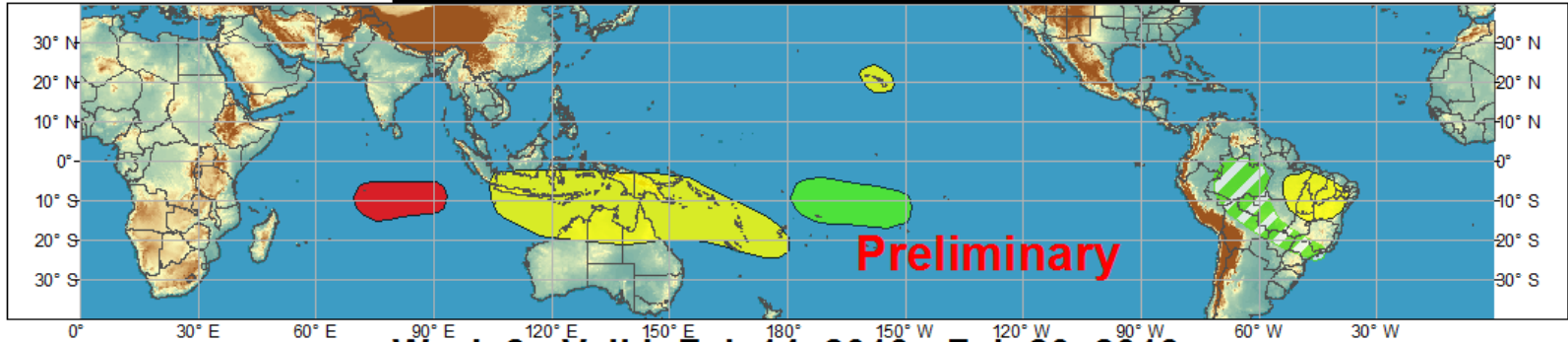




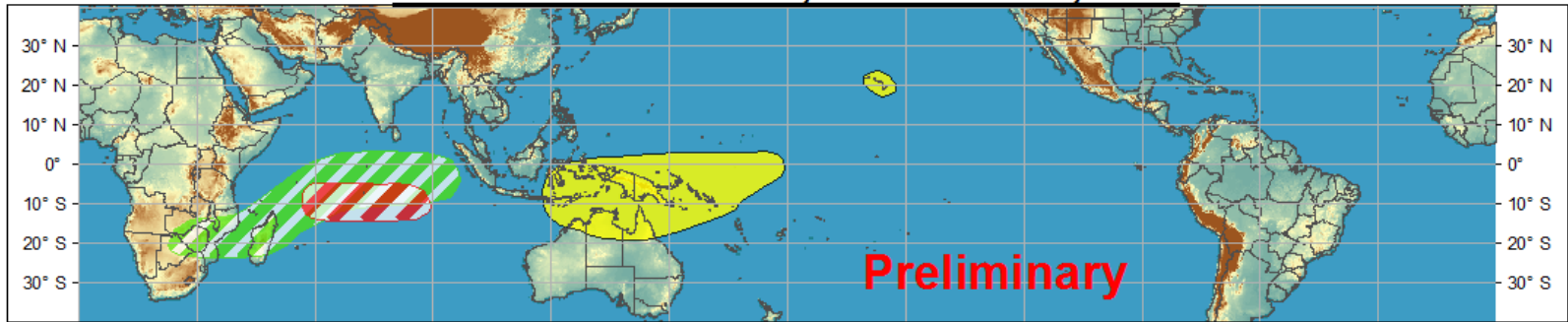
# Global Tropical Hazards/Benefits Outlook - Climate Prediction Center













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## Week 2 - Valid: Feb 14, 2013 - Feb 20, 2013



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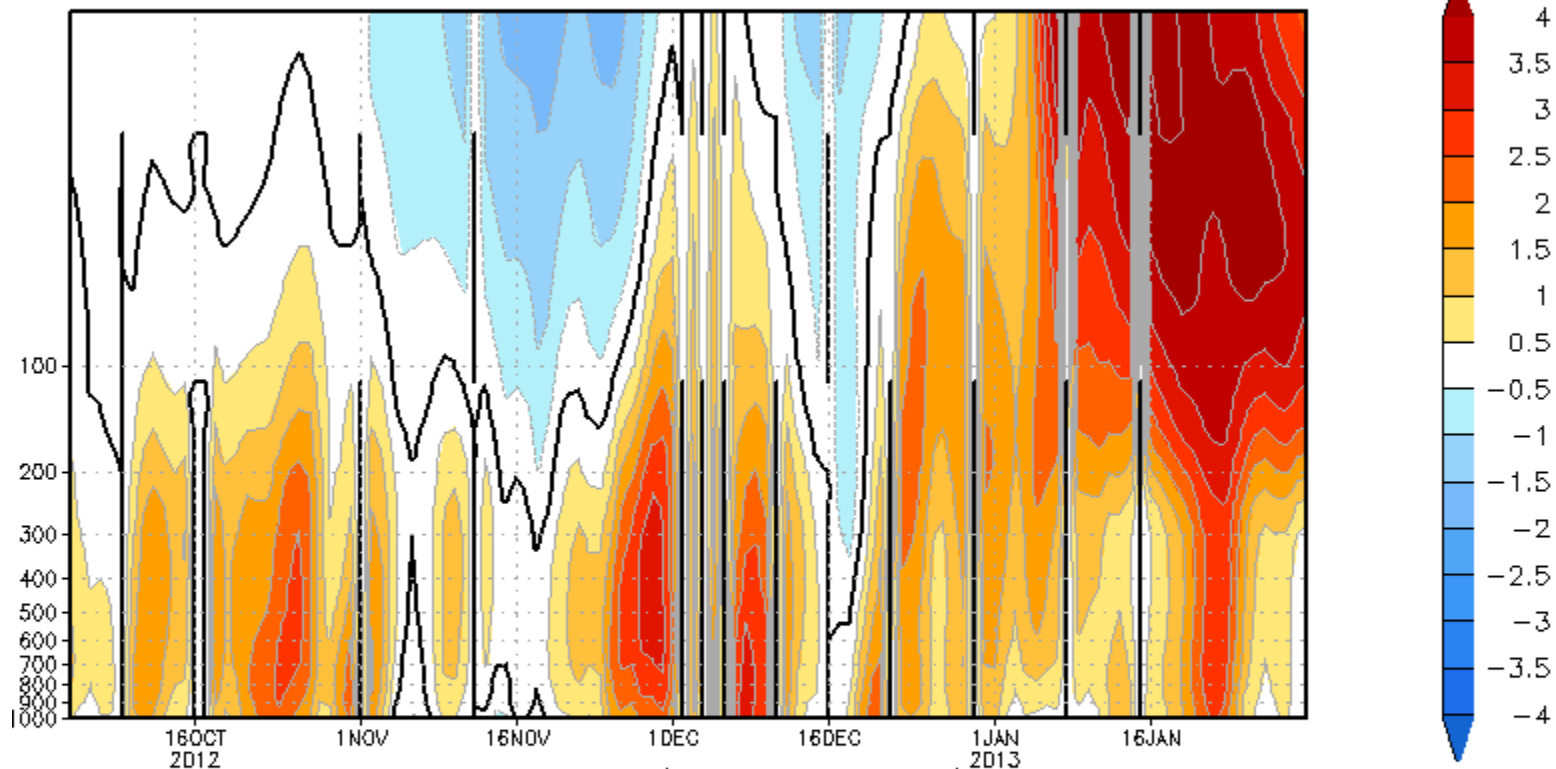
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Forecaster: Gottschalck

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# Normalized GPH anomaly (65°N–90°N) (04Oct2012 – 31Jan2013)



## AO index (1000mb Z)

