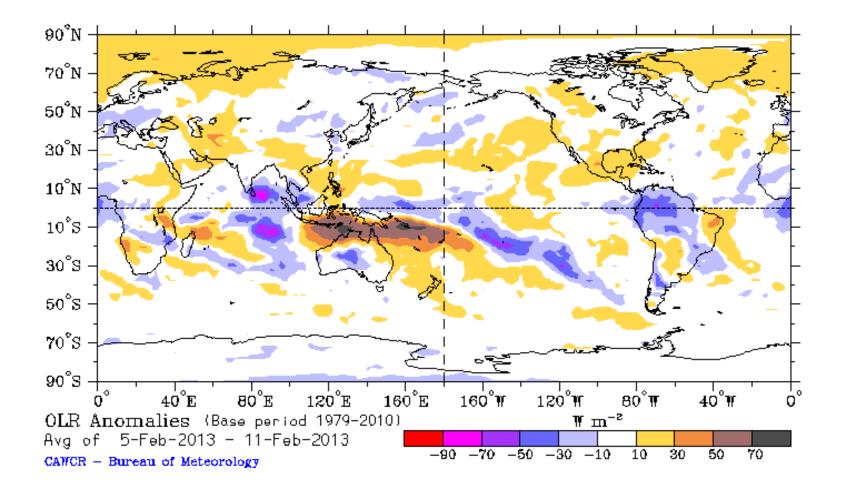
Global Tropics Hazards And Benefits Outlook <u>February 12, 2013</u>

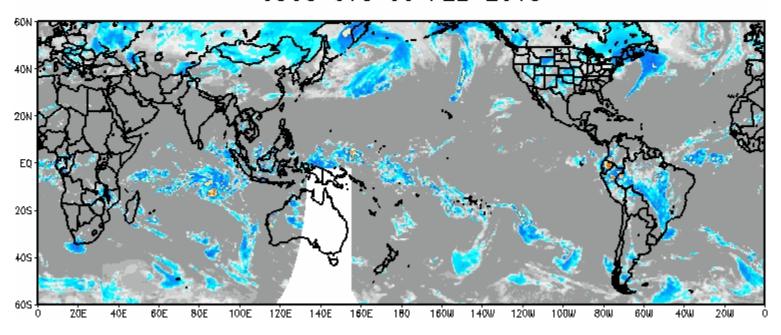
Jon Gottschalck

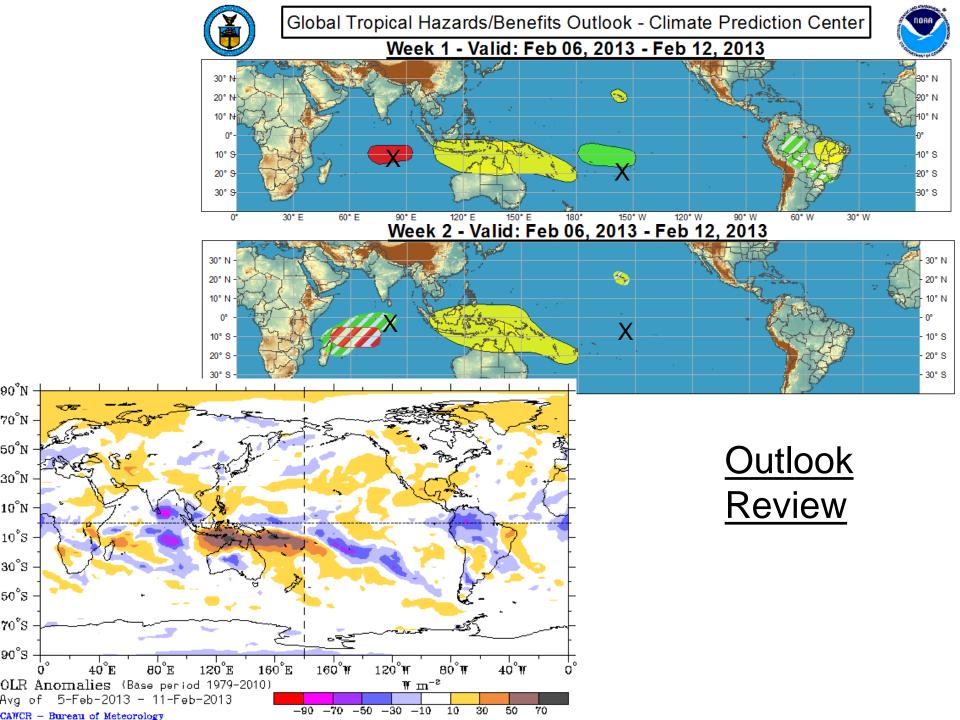
Outline

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



IR Temperatures 0900 UTC 09 FEB 2013





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 with the enhanced phase centered across Africa and approaching the Indian Ocean.
- There is good agreement in dynamical model MJO index forecasts for the continuation of a MJO signal, although this is likely influenced by atmospheric Kelvin wave activity as eastward propagation in the forecasts is fast as compared to a canonical MJO.
- The enhanced phase is expected to cross the Indian Ocean and enter the Maritime continent over the next 2 weeks.

Extratropics:

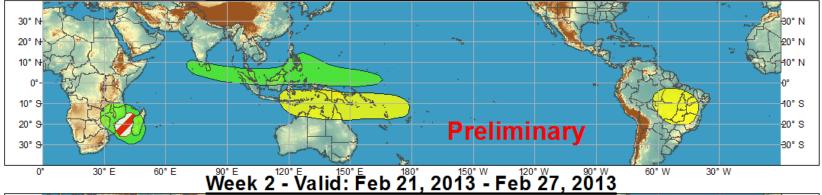
- The forecast MJO evolution would favor a trough across the west on average near or just after mid-February and so an elevated chance for below-normal temperatures across the west.
- Late in February into early March would favor troughing along or near the west coast and a ridge on average across the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

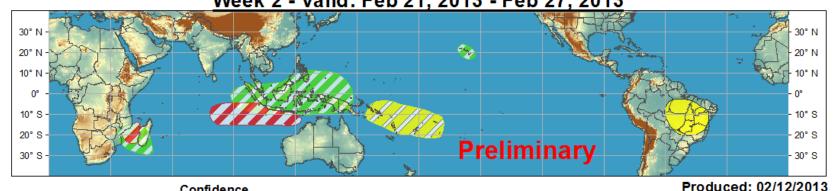


Global Tropical Hazards/Benefits Outlook - Climate Prediction Center



Week 1 - Valid: Feb 14, 2013 - Feb 20, 2013





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

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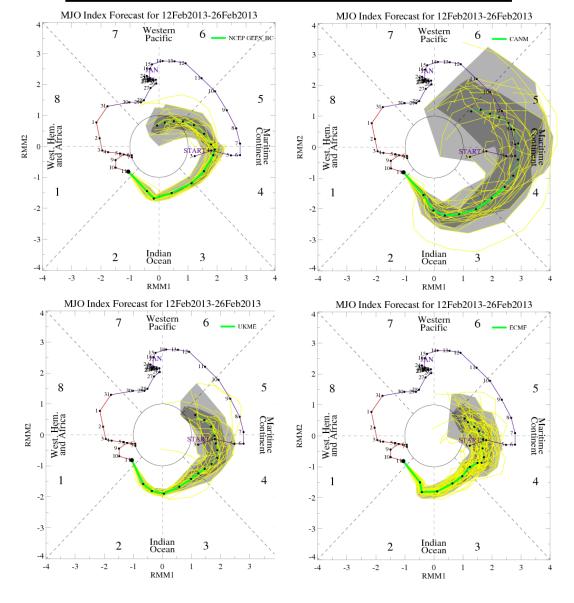




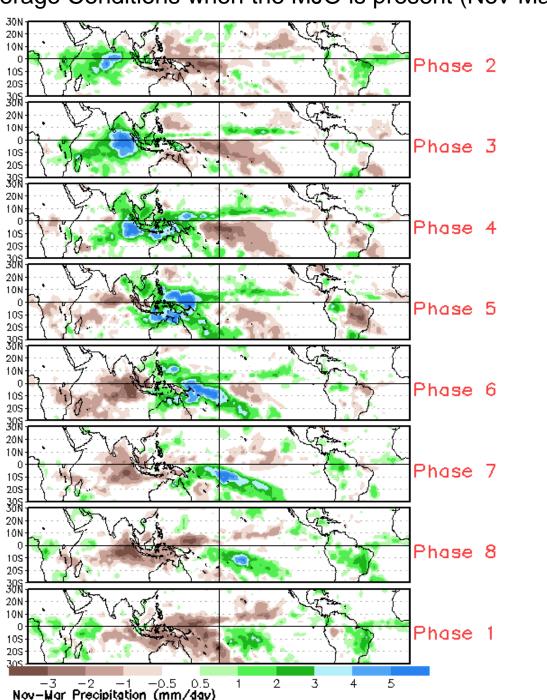
Forecaster: Gottschalck



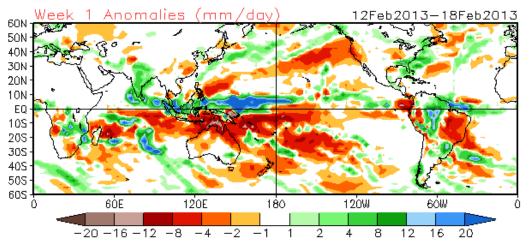
MJO Observation/Forecast

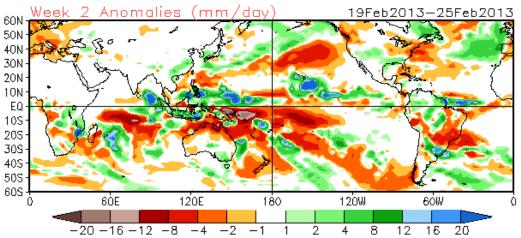


Average Conditions when the MJO is present (Nov-Mar)

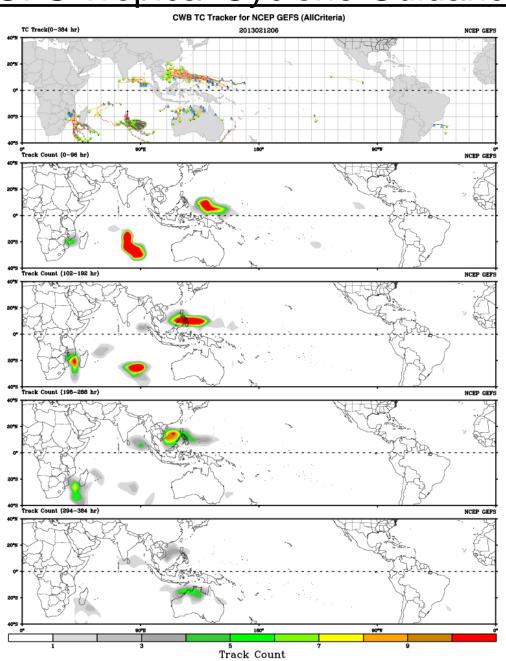


CFSv2 Weeks 1 & 2 Precipitation 16 Member Ensemble Mean Forecast from 11Feb2013

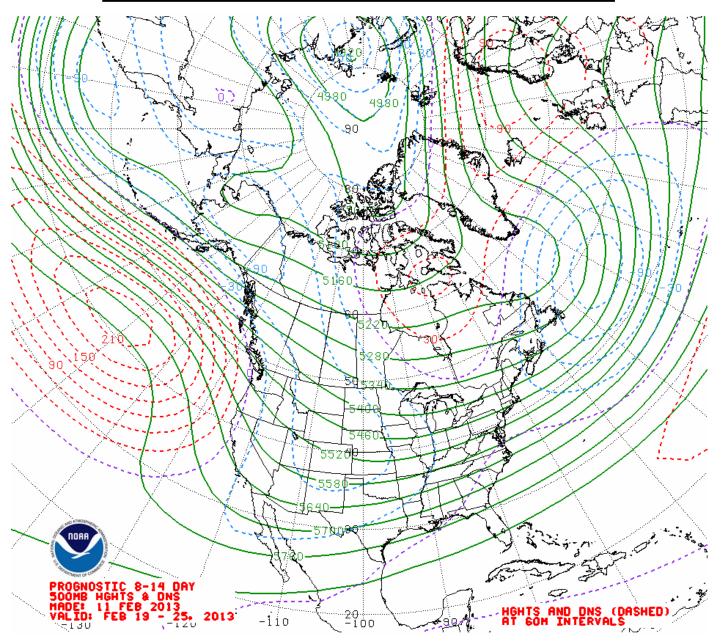




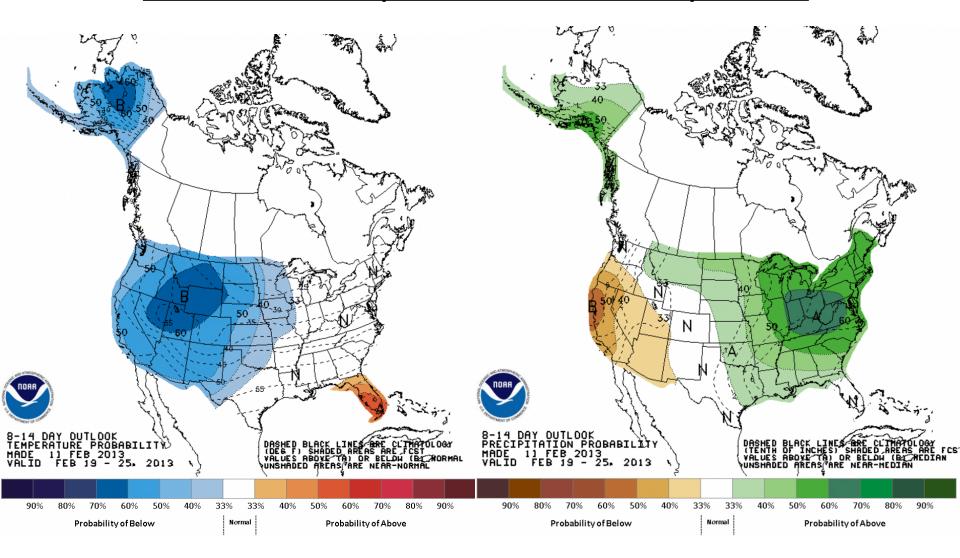
GFS Tropical Cyclone Guidance

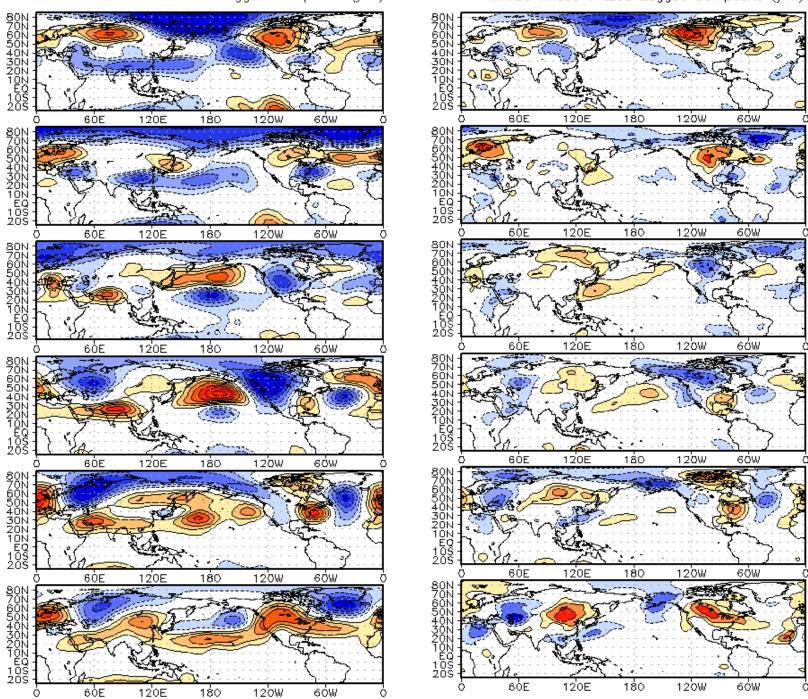


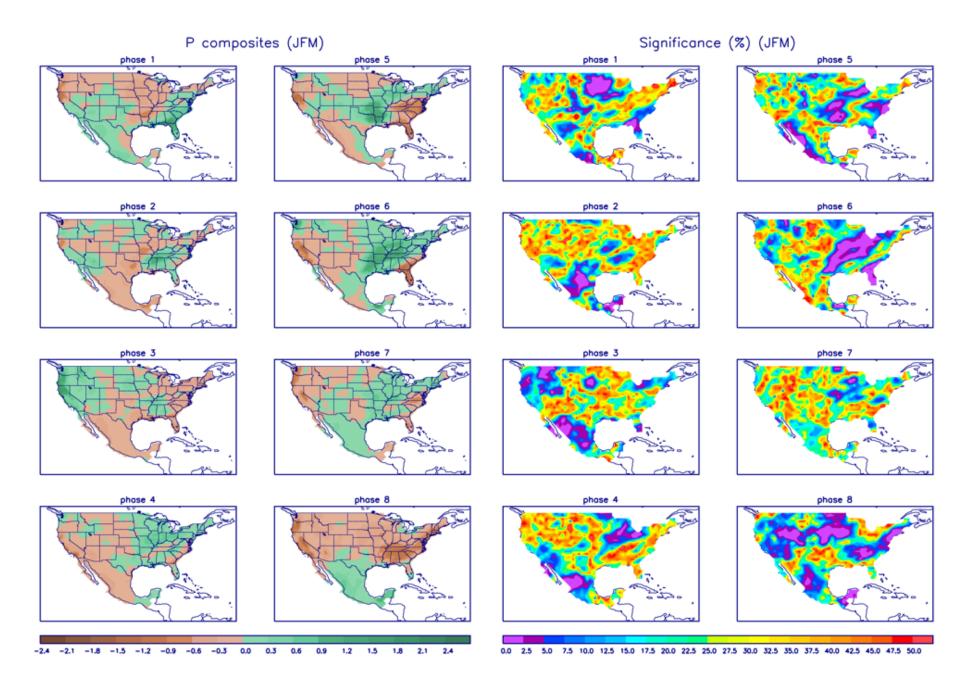
Week 2 500-hPa Manual Chart



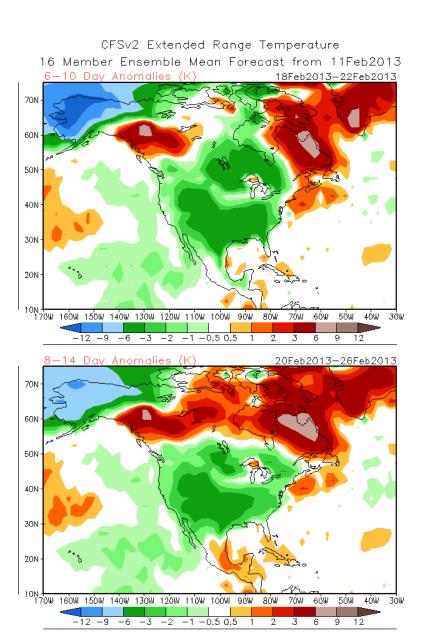
Week 2 - Temperature and Precipitation

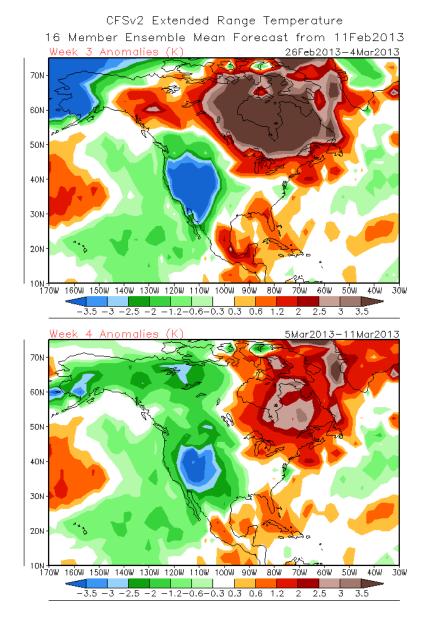






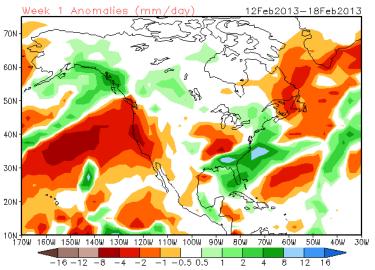
CFS U.S. Temperature

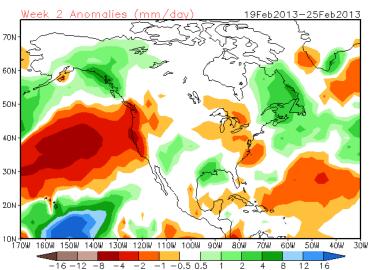




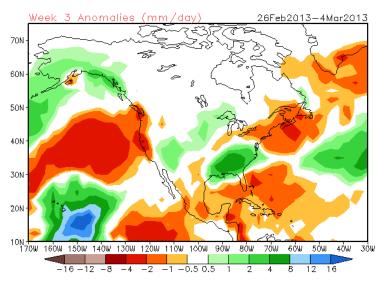
CFS U.S. Precipitation

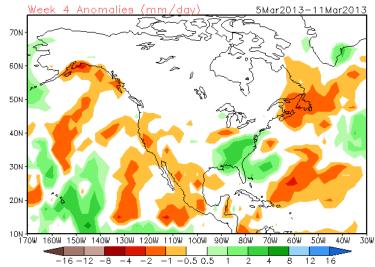
CFSv2 Weeks 1 & 2 Precipitation 16 Member Ensemble Mean Forecast from 11Feb2013





CFSv2 Weeks 3 & 4 Precipitation 16 Member Ensemble Mean Forecast from 11Feb2013



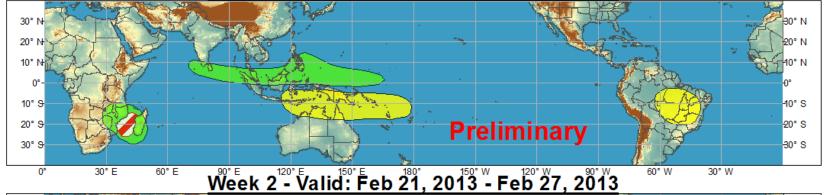


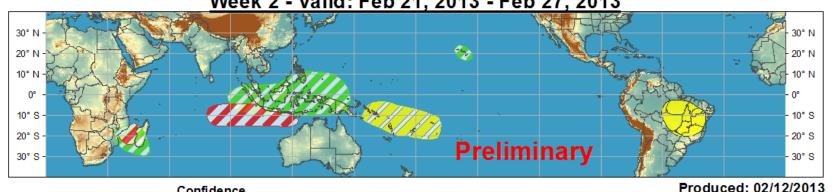


Global Tropical Hazards/Benefits Outlook - Climate Prediction Center



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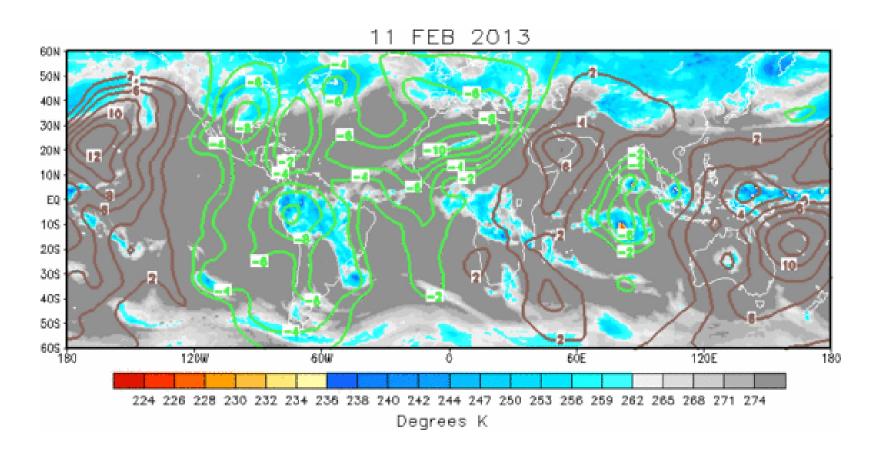


Forecaster: Gottschalck

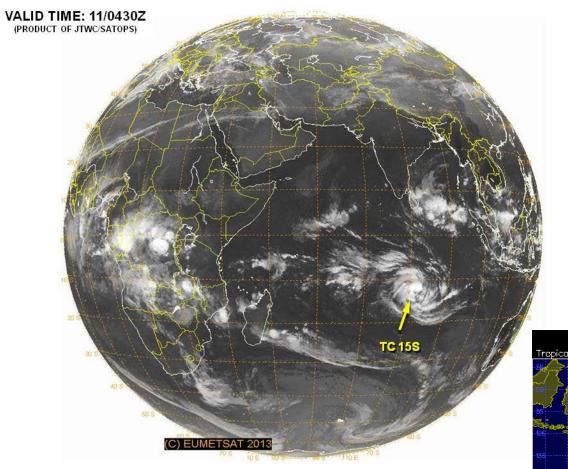


IR Satellite & 200-hpa Velocity Potential Anomalies

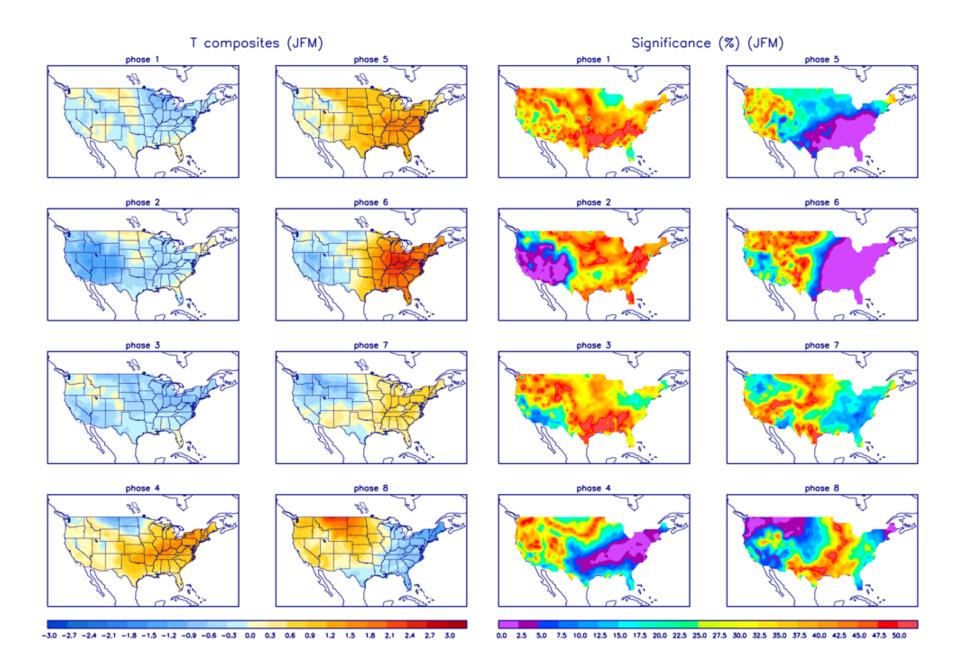
Green: Enhanced Divergence Brown: Enhanced Convergence



Tropical Cyclone Review







Normalized GPH anomaly (65°N-90°N)

