

Global Tropics Hazards And Benefits Outlook

December 4, 2012

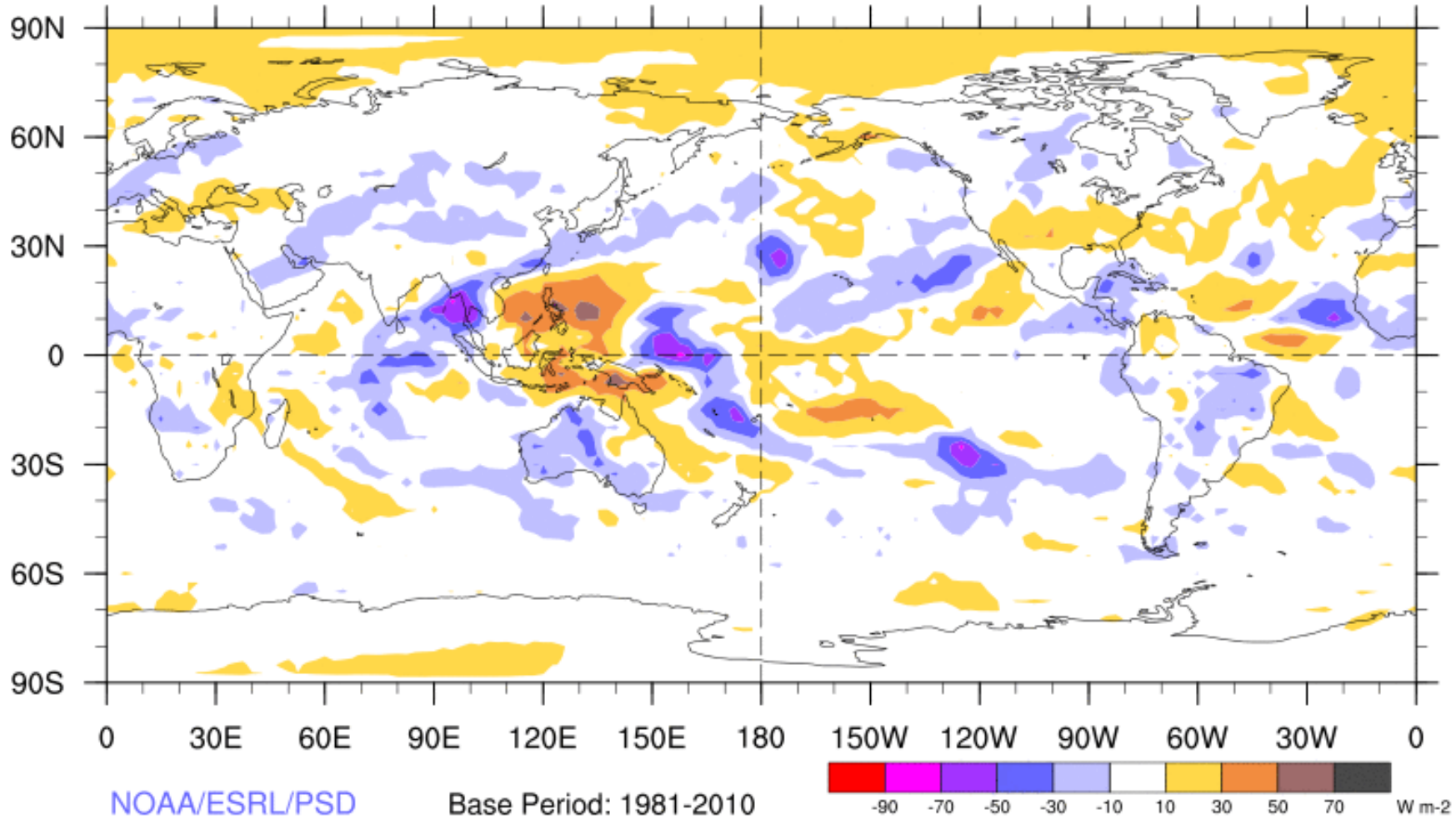
Stephen Baxter

Outline

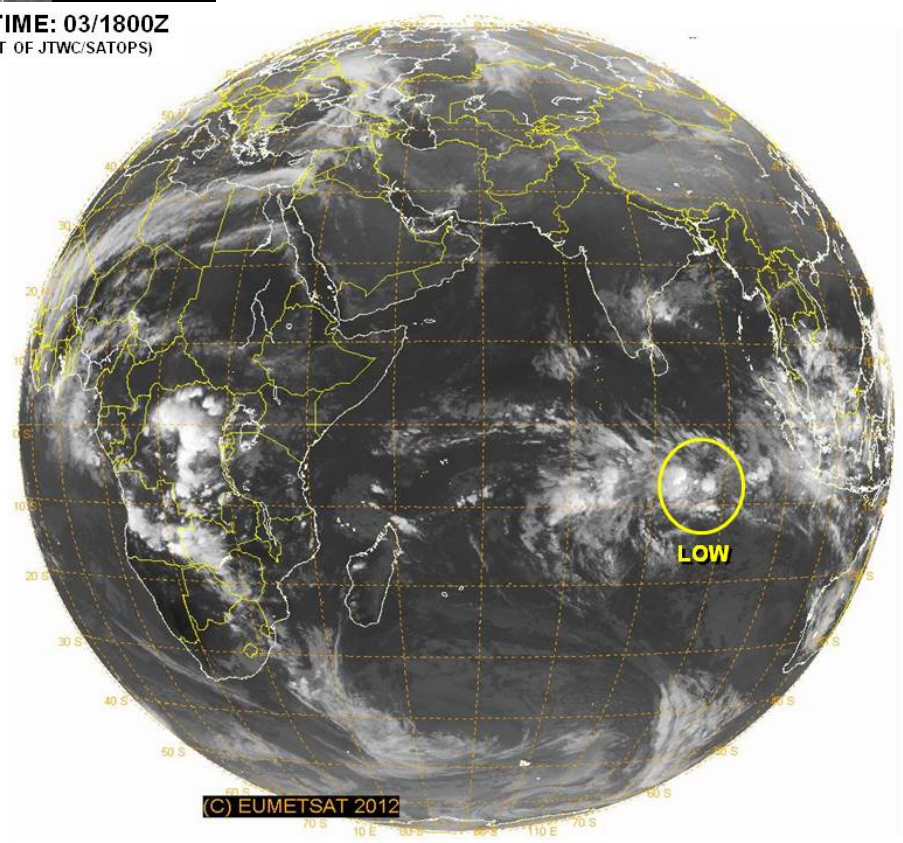
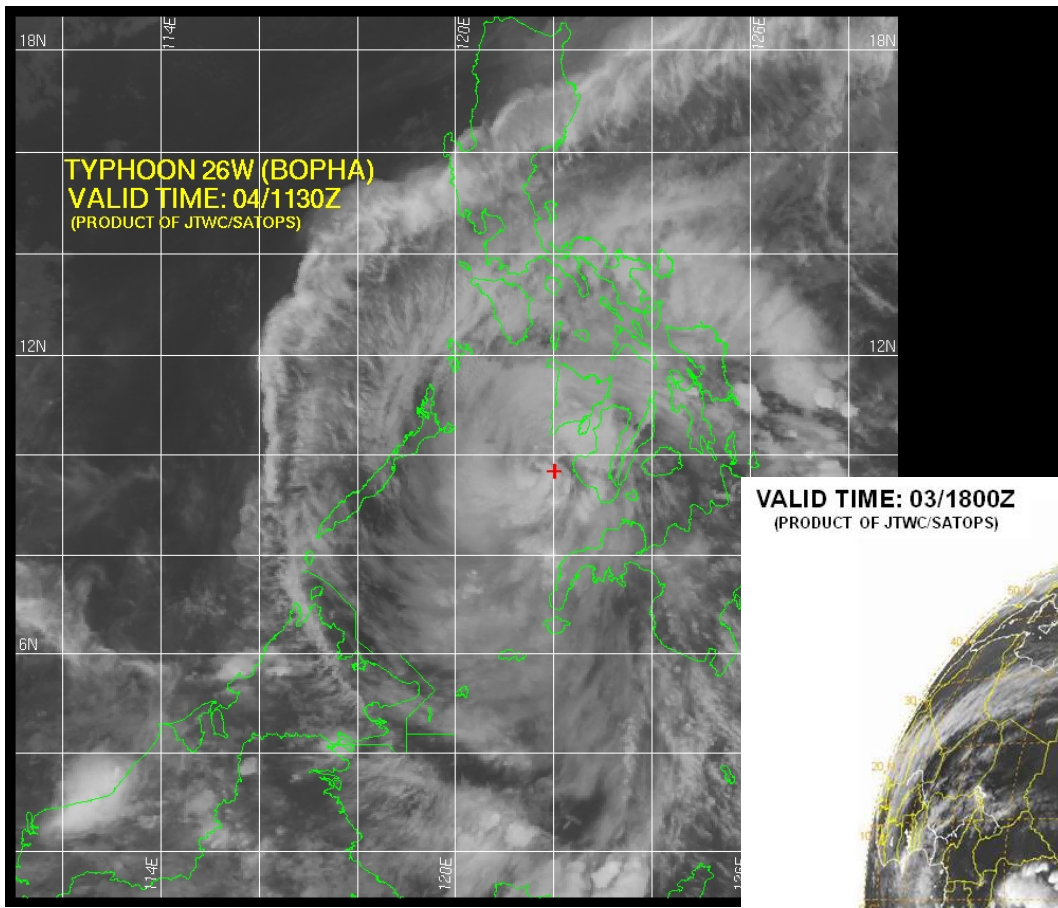
1. Review of Recent Conditions
2. Synopsis of Climate Modes
3. GTH Outlook and Forecast Discussion

7-Day Average OLR Anomaly

2012/11/24 - 2012/11/30



Tropical Cyclone Review

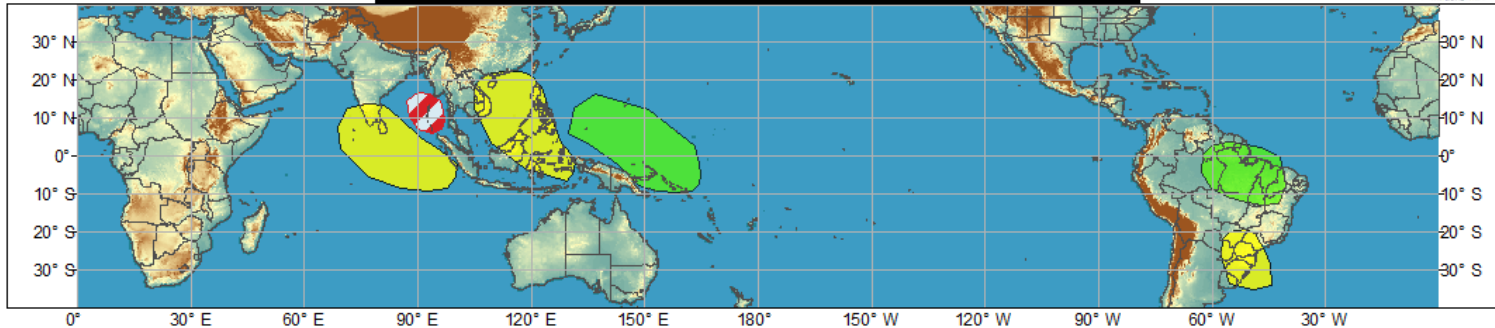




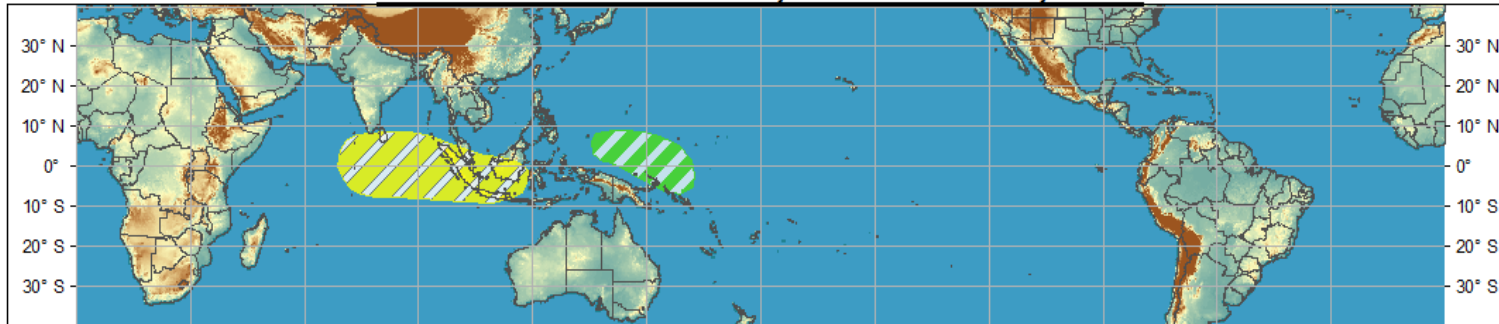
Global Tropical Hazards/Benefits Outlook - Climate Prediction Center



Week 1 - Valid: Nov 28, 2012 - Dec 04, 2012

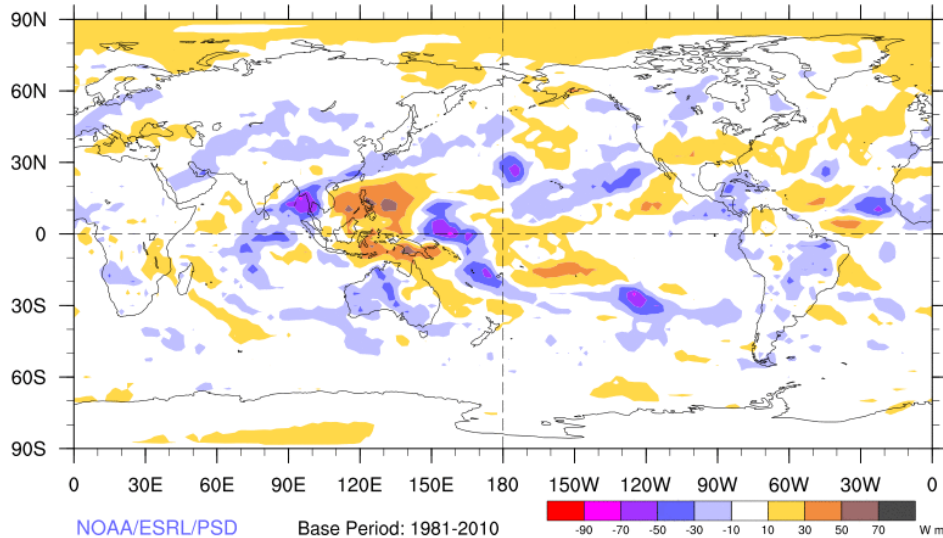


Week 2 - Valid: Nov 28, 2012 - Dec 04, 2012



7-Day Average OLR Anomaly

2012/11/24 - 2012/11/30



NOAA/ESRL/PSD

Base Period: 1981-2010

-90 -70 -50 -30 -10 10 30 50 70 W m-2

Outlook Review

Synopsis of Climate Modes

ENSO:

- ENSO-neutral conditions continue and ENSO-neutral is favored during the Northern Hemisphere winter 2012-13.

MJO and other subseasonal variability:

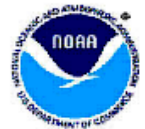
- The MJO has remained weak during the past week, though other intraseasonal modes (Kelvin wave, equatorial Rossby wave) have projected onto the Wheeler and Hendon index.
- Dynamical forecast tools are split, with some members indicating propagation through phases 3 and 4, while others support weak activity with the potential for a strengthening MJO signal in phases 1 or 2 late in the period. The later solution is seen as more likely at this point.
- An atmospheric Kelvin wave moved eastward through the equatorial Indian Ocean, while a double-barrel equatorial Rossby wave propagated westward through the Maritime Continent.

Extratropics:

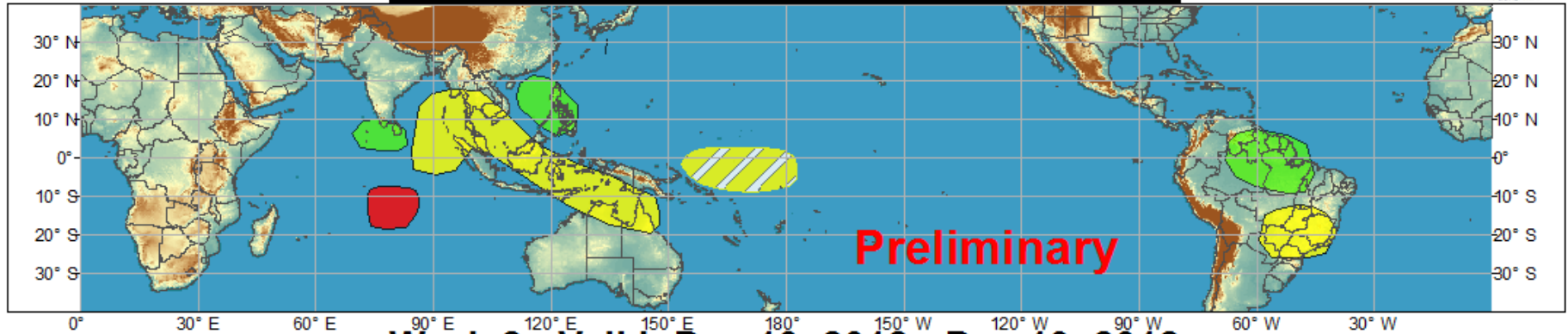
- AO/NAO forecast to be negative on average over the next two weeks. Additionally, a negative PNA pattern is expected, raising chances for cold in the Pac Northwest and northern Plains while shifting the storm track into the Mississippi and Ohio Valleys. Tropical forcing of the mid-latitudes remains unclear at this time.



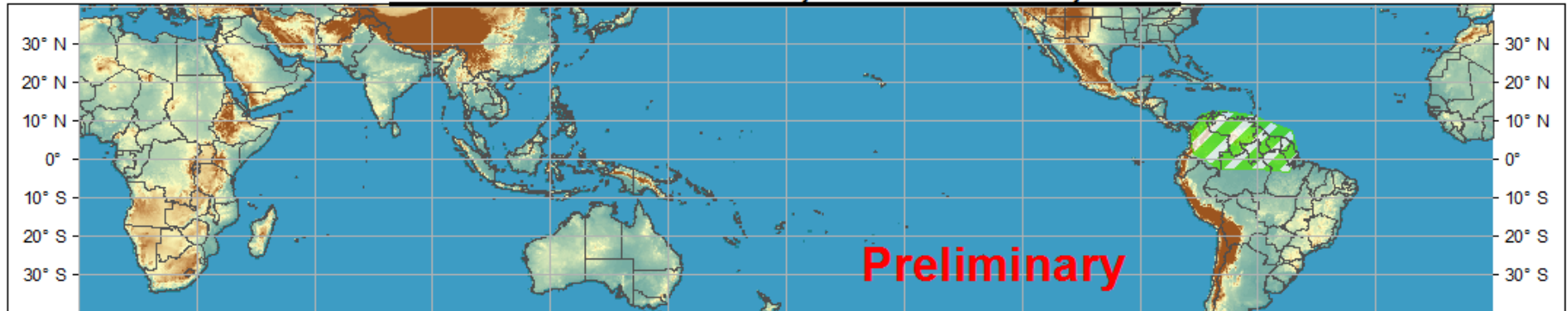
Global Tropical Hazards/Benefits Outlook - Climate Prediction Center



Week 1 - Valid: Dec 06, 2012 - Dec 12, 2012













Week 2 - Valid: Dec 13, 2012 - Dec 19, 2012



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. |

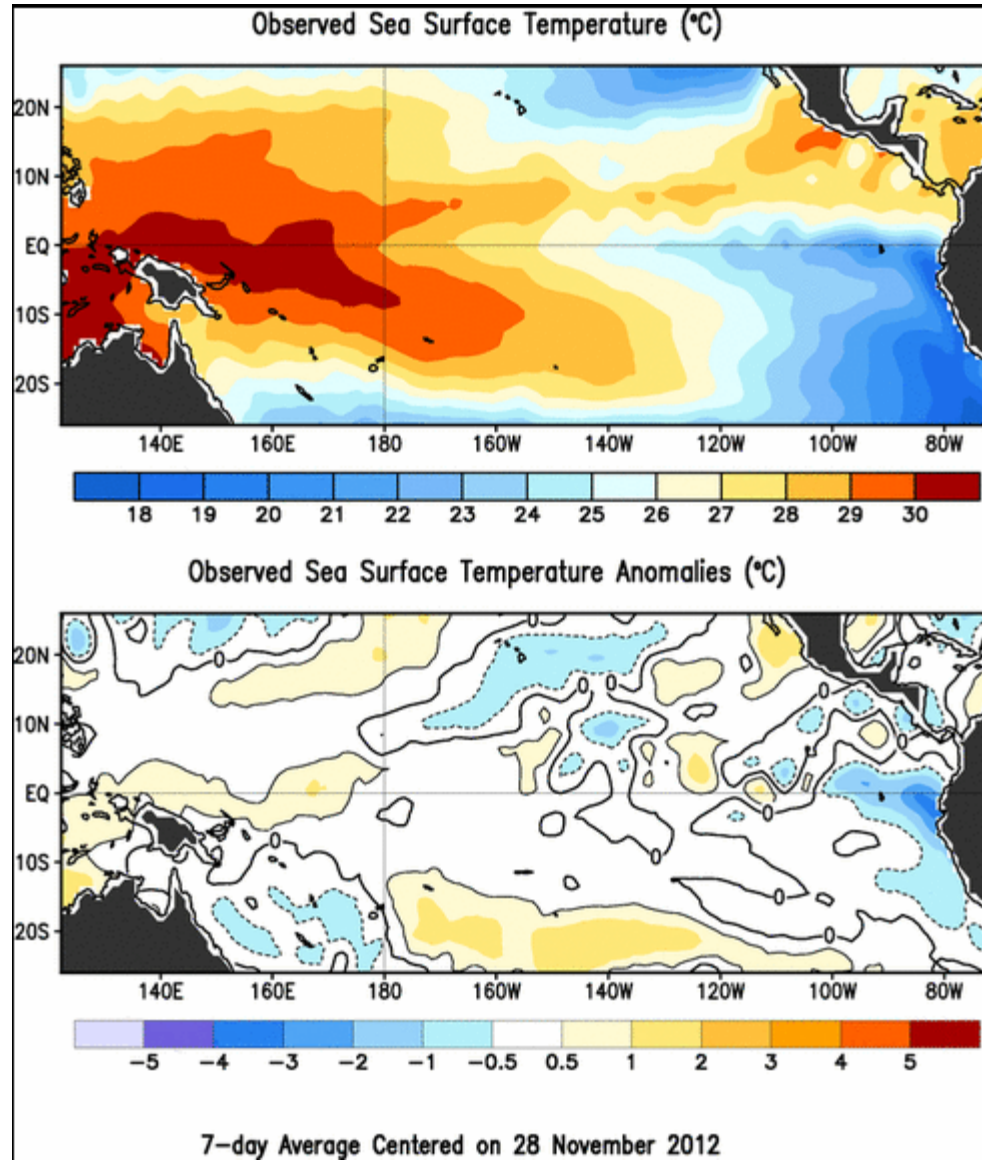
Produced: 12/04/2012

Forecaster: Baxter

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.



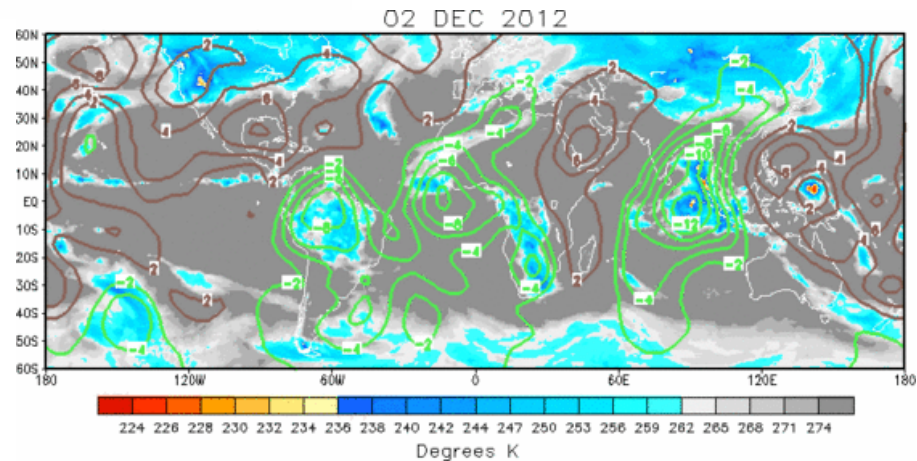
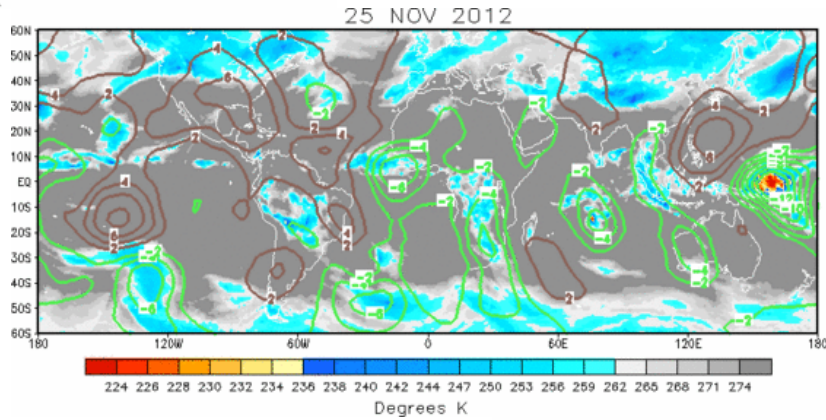
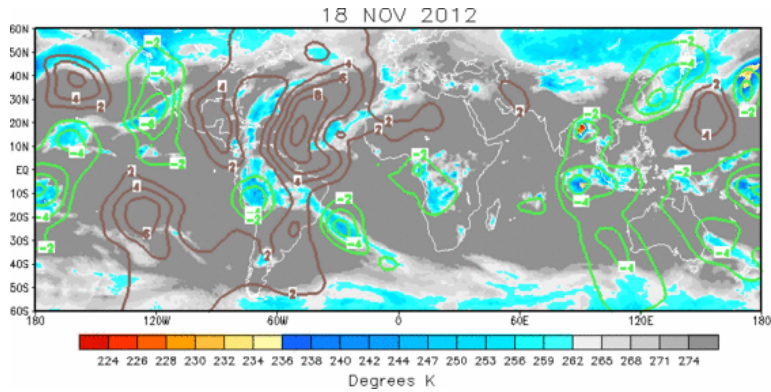
SST Observations



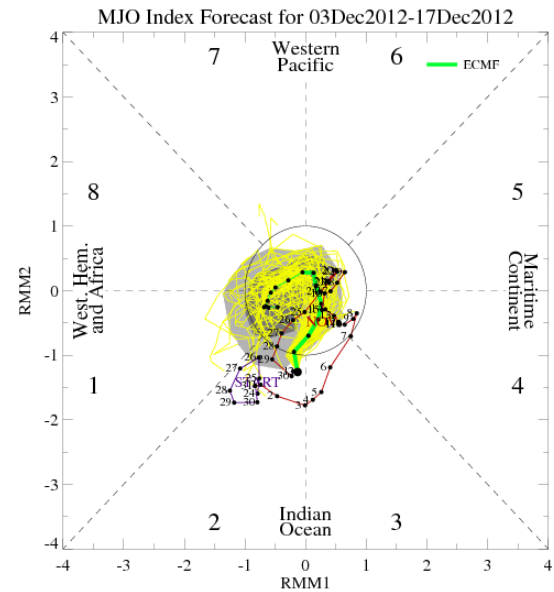
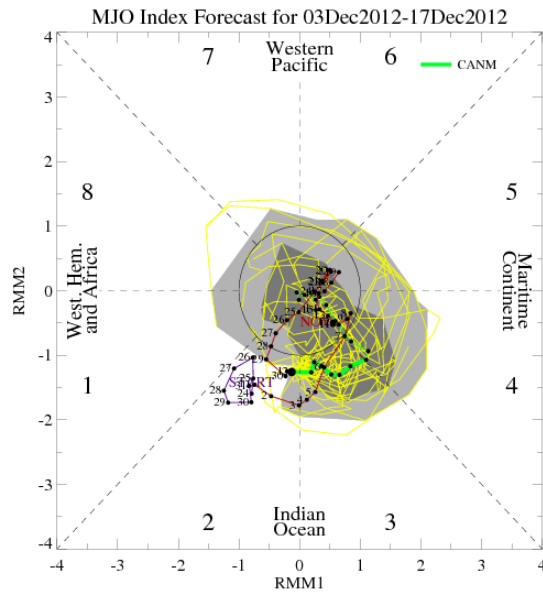
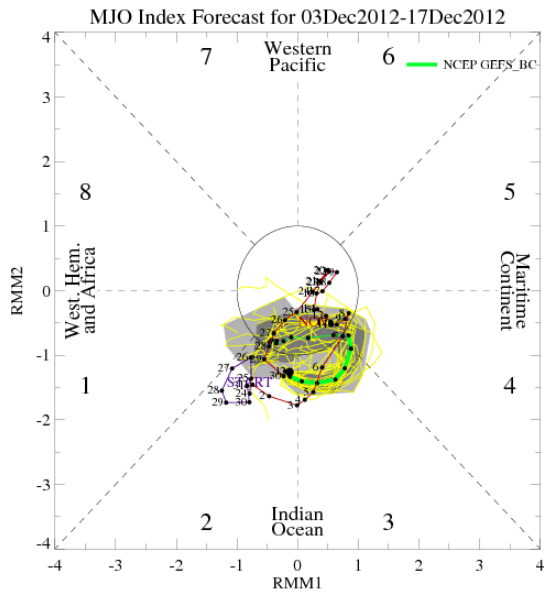
IR Satellite & 200-hpa Velocity Potential Anomalies

Green: Enhanced Divergence

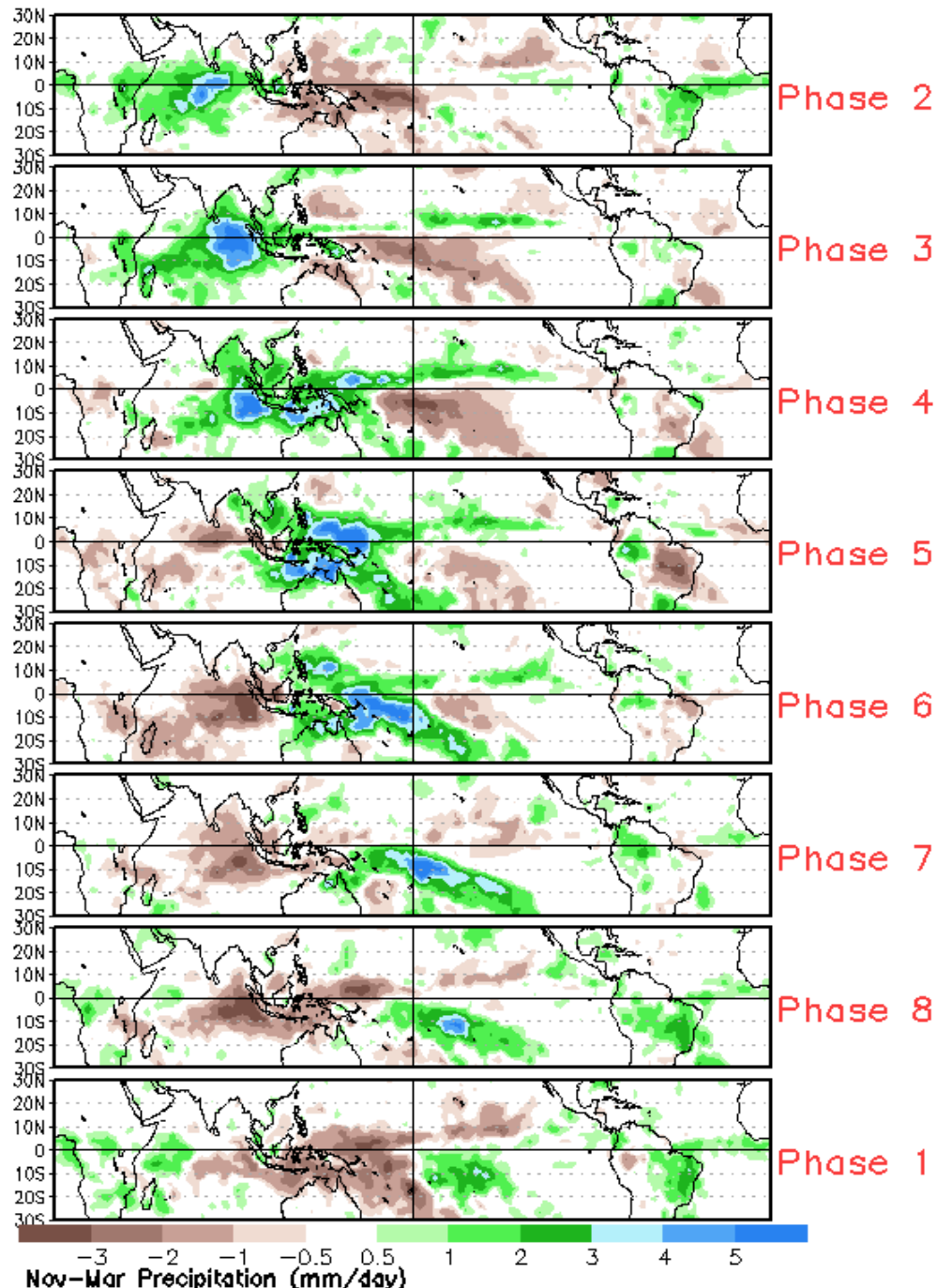
Brown: Enhanced Convergence



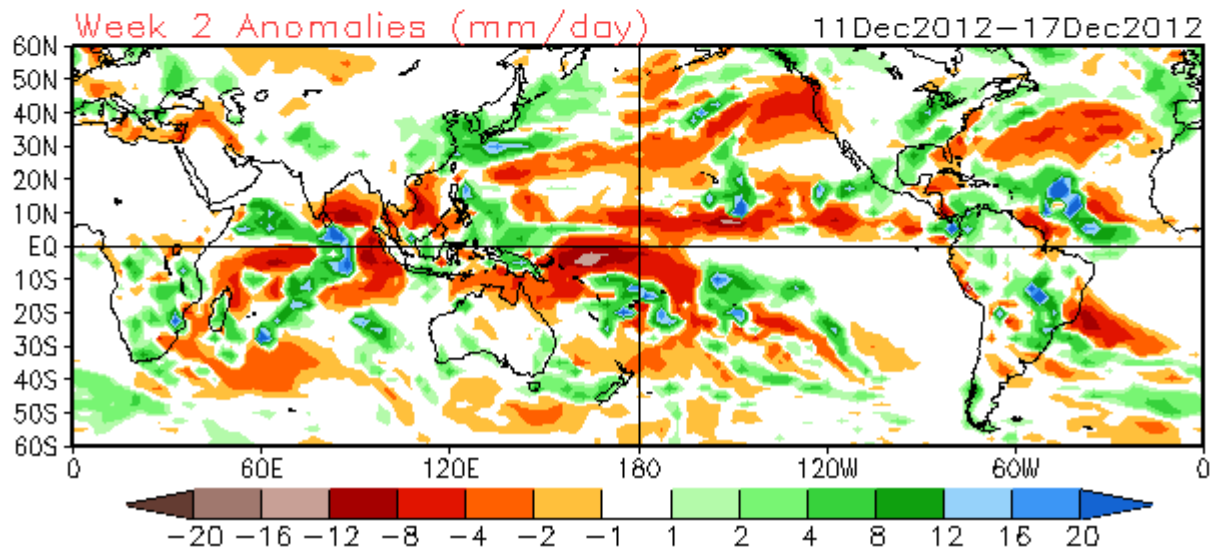
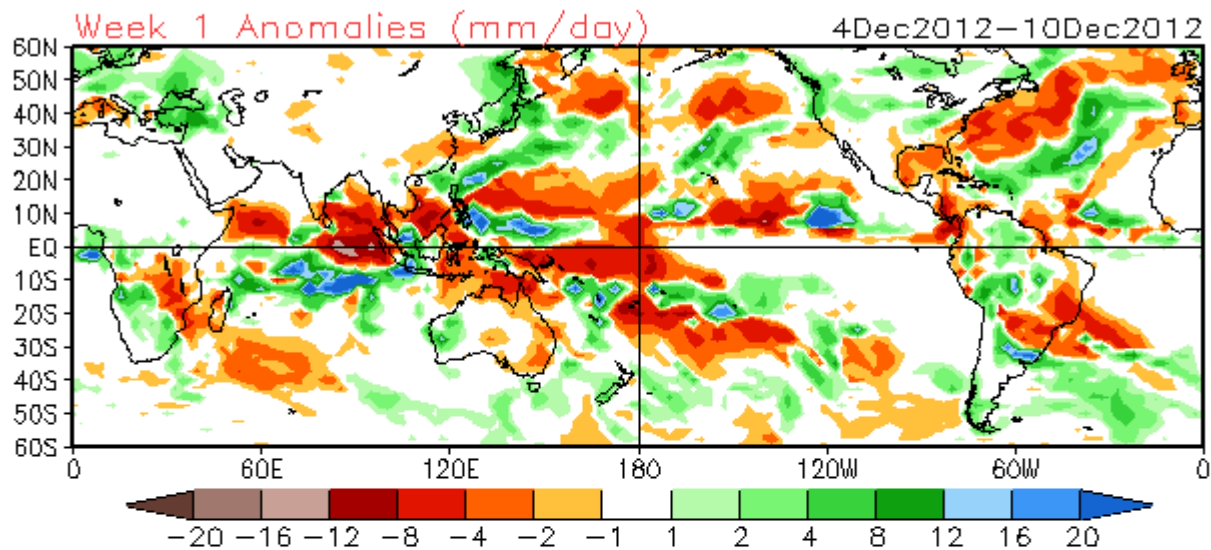
MJO Observation/Forecast



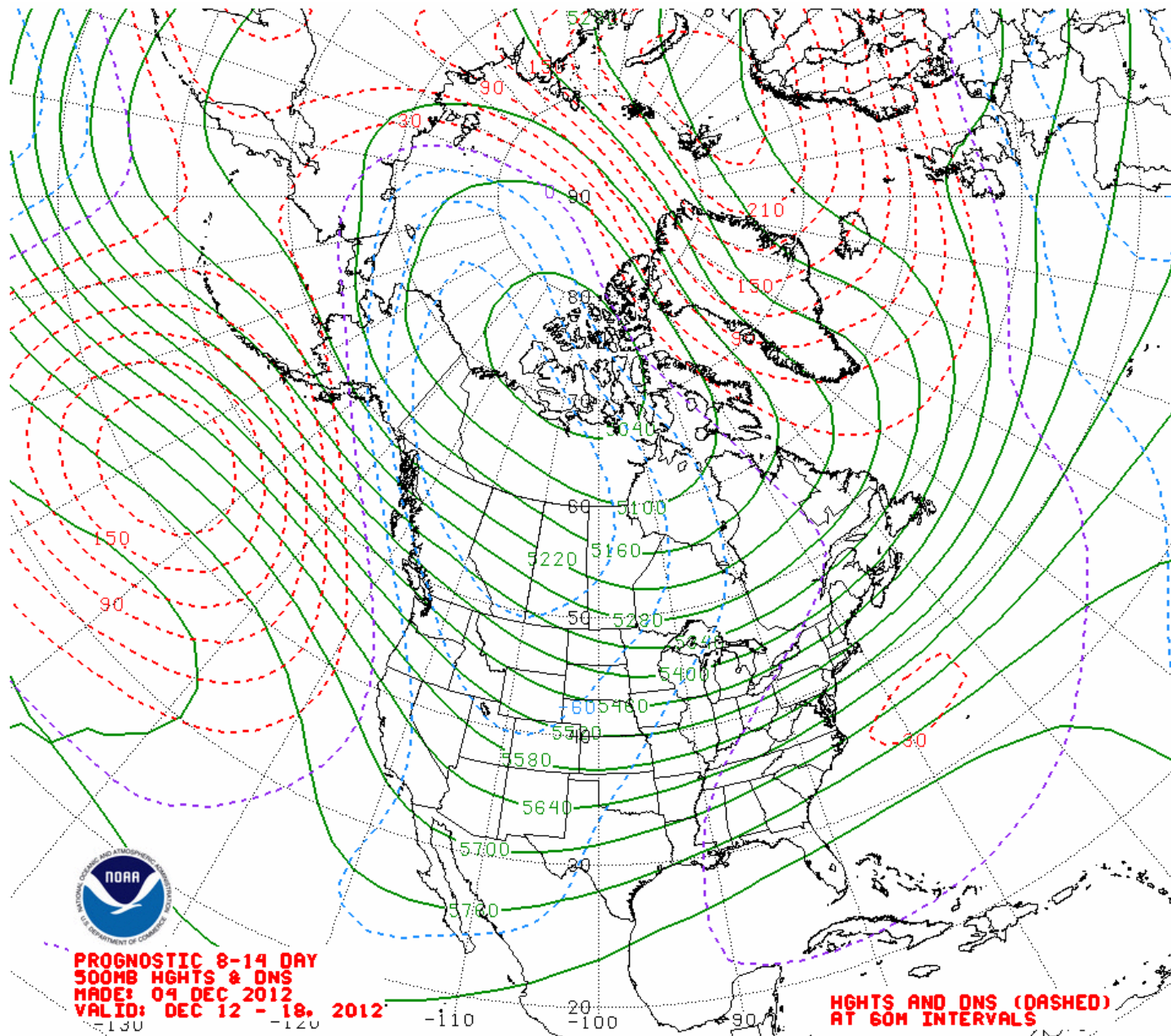
Average Conditions when the MJO is present (Nov-Mar)



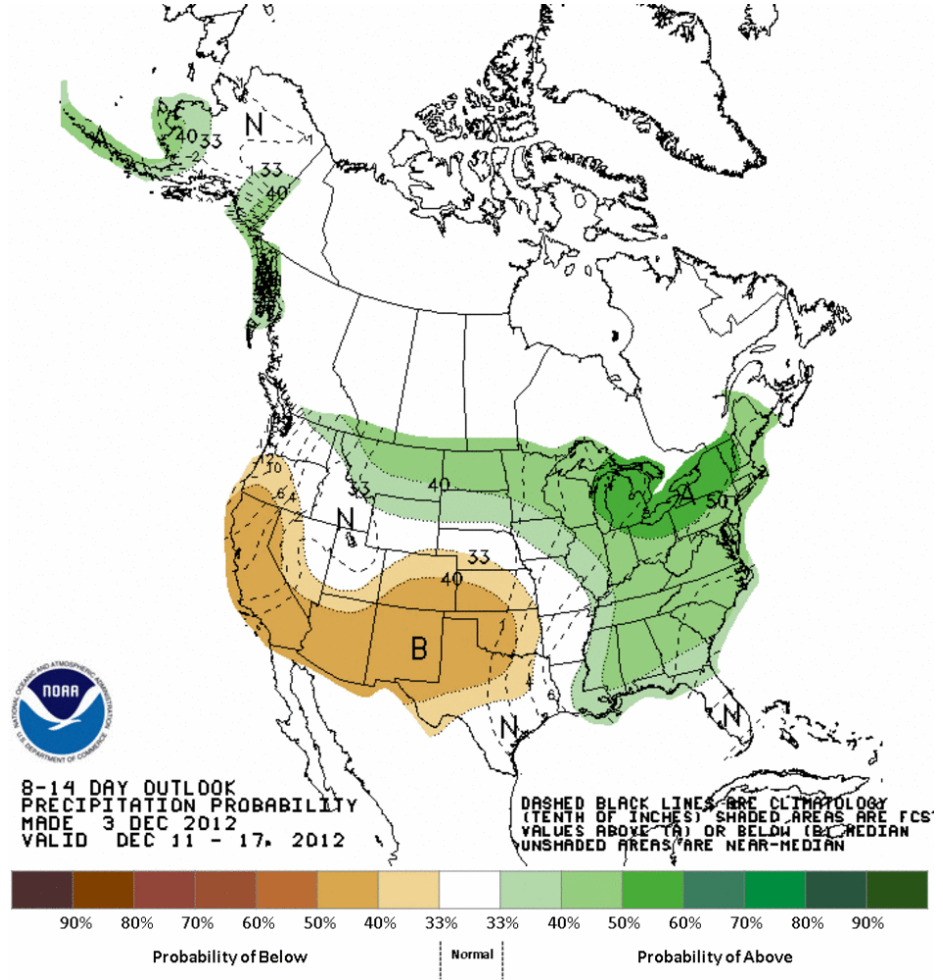
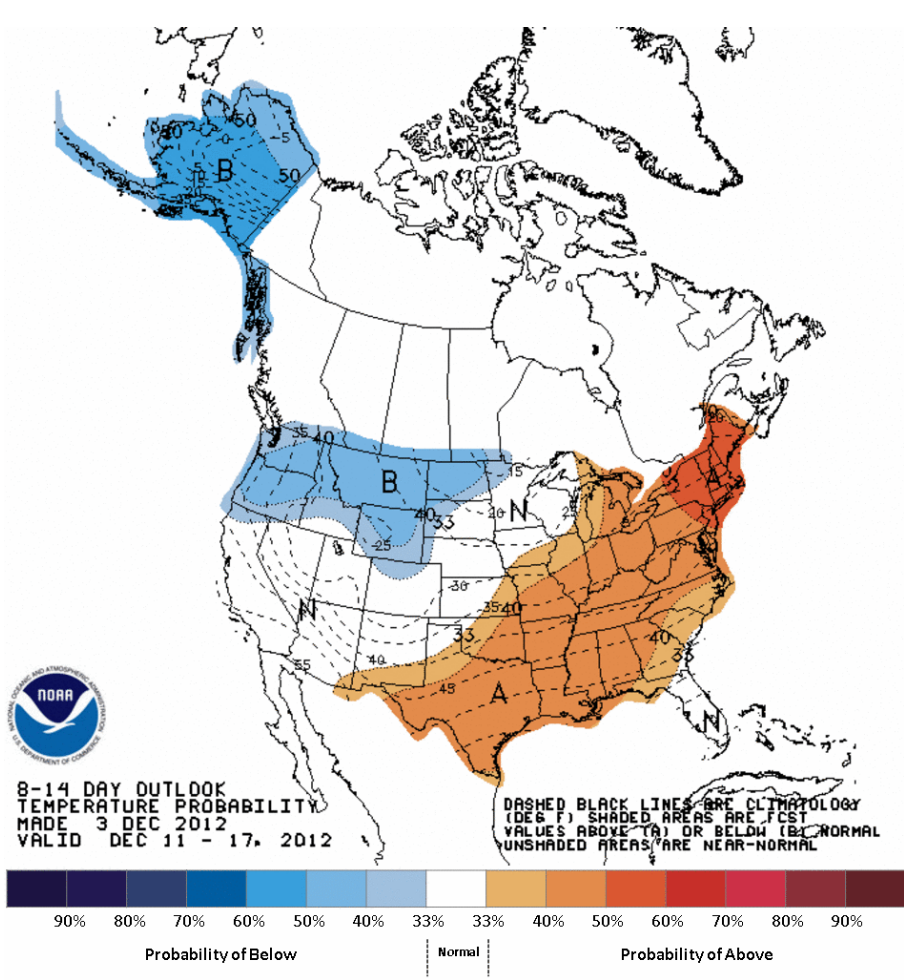
CFSv2 Weeks 1 & 2 Precipitation
16 Member Ensemble Mean Forecast from 03Dec2012



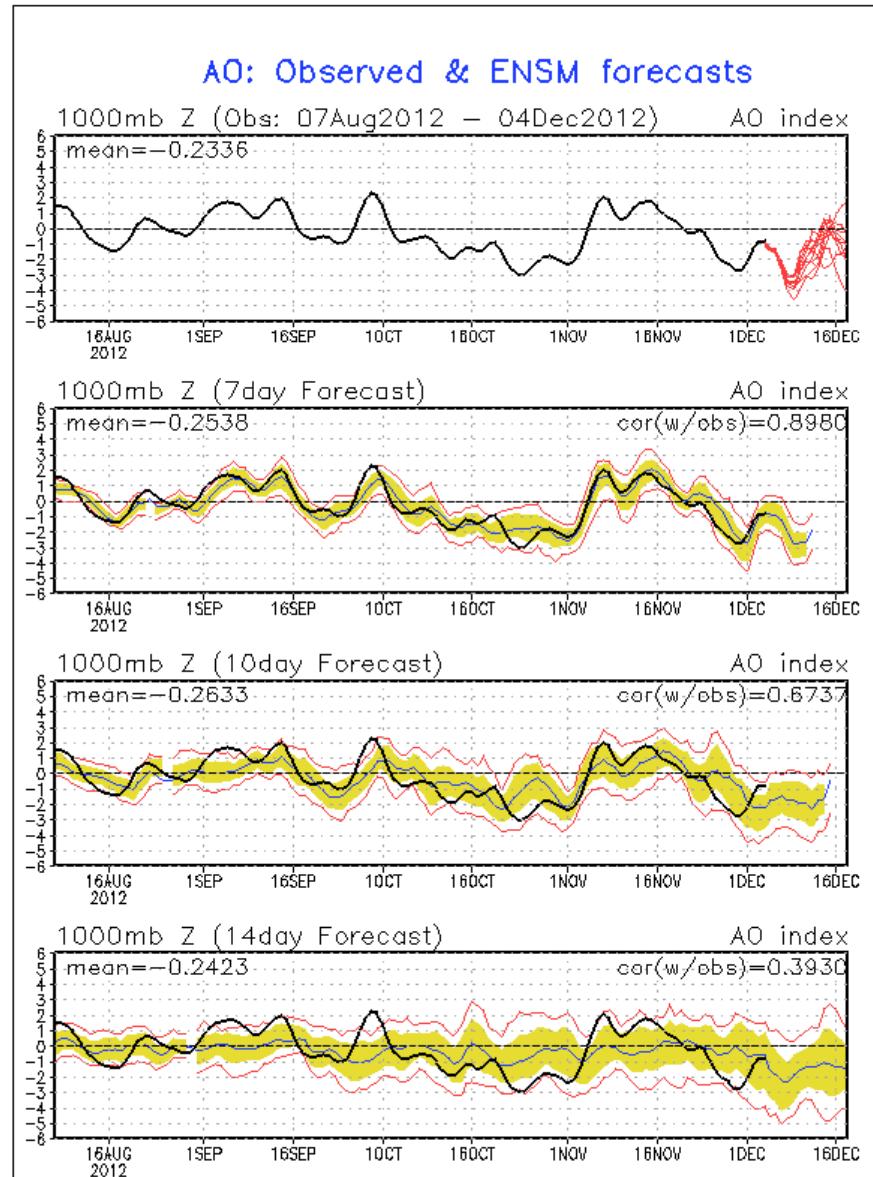
Week 2 500-hPa Manual Chart



Week 2 -- Temperature and Precipitation

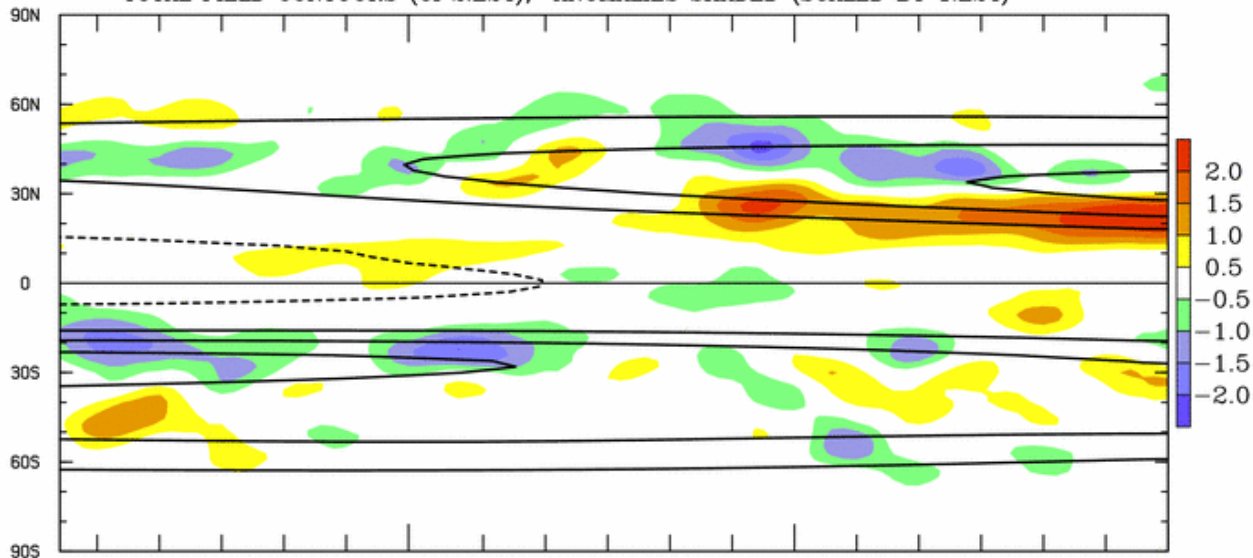


Recent AO Observations and GEFS Forecast

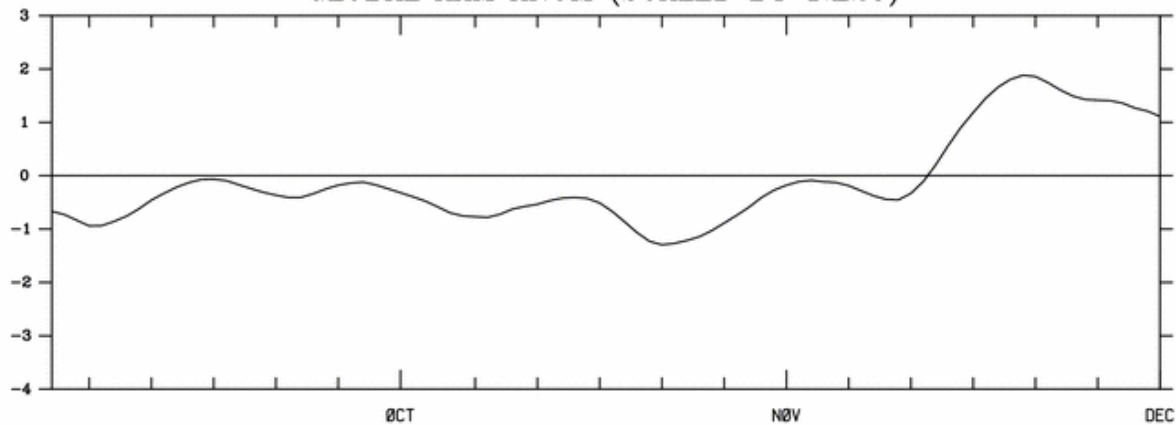


VERTICAL AND ZONAL INTEGRAL OF RELATIVE ATMOSPHERIC ANGULAR MOMENTUM

SIGMA LVLS 1-21, FROM REANALYSIS U WIND, SIGMA LEVEL DATA
TOTAL FIELD CONTOURS (CI 2.E24), ANOMALIES SHADED (SCALED BY 1.E24)



GLOBAL AAM ANOM (SCALED BY 1.E25)



BASE PERIOD 1/68-12/97

2012

LAST DAY USED 12/01/2012