

# Global Tropics Hazards And Benefits Outlook

November 12, 2013

Stephen Baxter

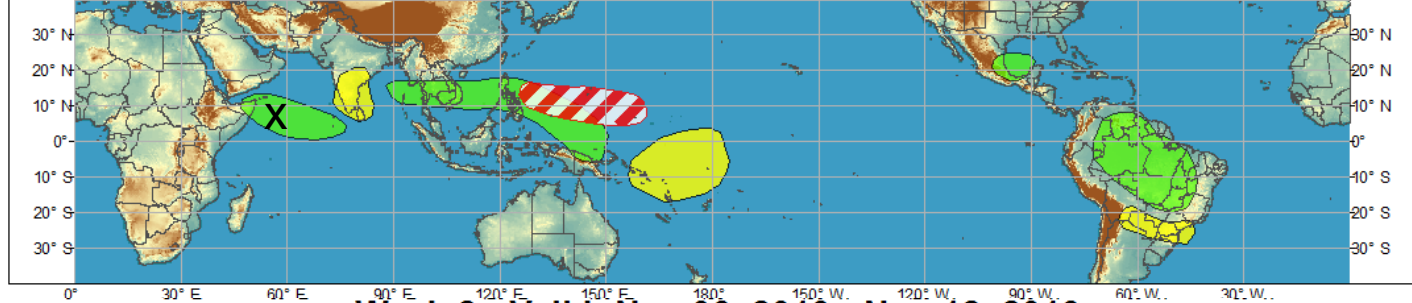
## Outline

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

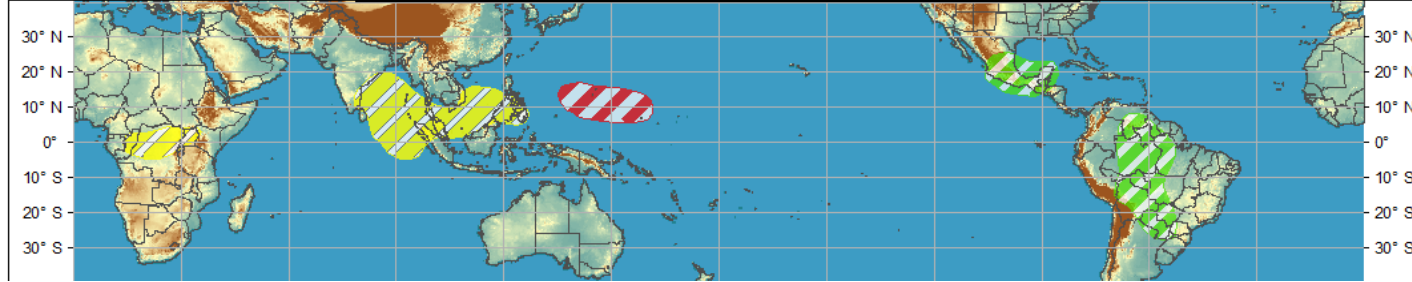
# Outlook Review



**Week 1 - Valid: Nov 06, 2013 - Nov 12, 2013**

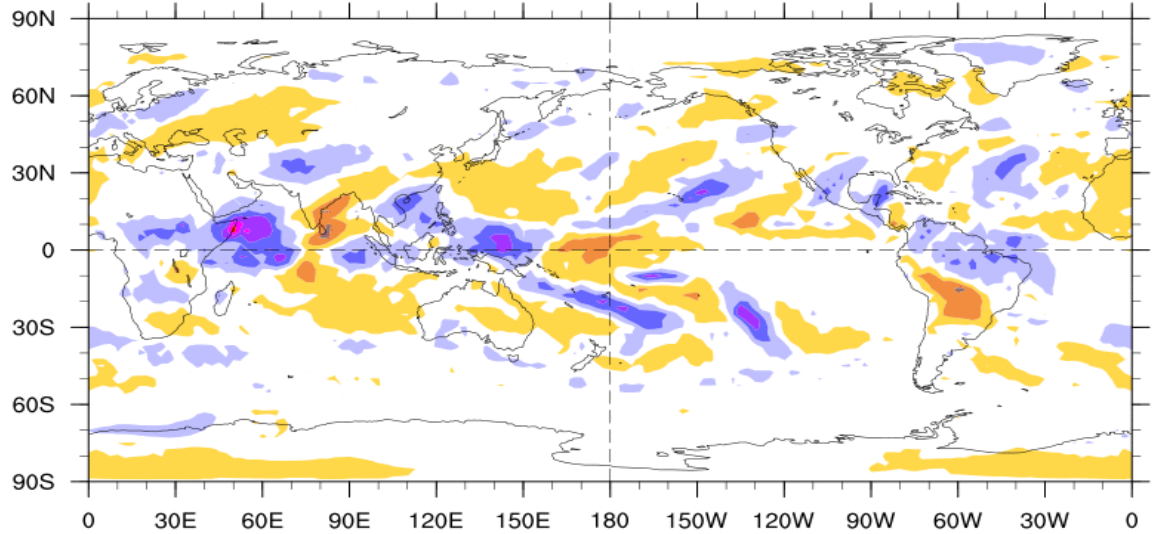


**Week 2 - Valid: Nov 06, 2013 - Nov 12, 2013**



7-Day Average OLR Anomaly

2013/11/04 - 2013/11/10



NOAA/ESRL/PSD

Base Period: 1981-2010



Cool shading  
More clouds/rain

Warm shading  
Less clouds/rain

# Synopsis of Climate Modes

## ENSO:

- ENSO-neutral is expected into the Northern Hemisphere spring 2014.

## MJO and other subseasonal tropical variability:

- The MJO propagated eastward to the Indian Ocean basin over the past week, weakening in magnitude. The future of the MJO is highly uncertain.
- Dynamical model MJO index forecasts suggest little in the way of a coherent MJO signal, likely being influenced by other tropical variability, such as atmospheric Kelvin waves. There appears to be one faster-moving envelope of convection that could propagate eastward into the West Pacific, while a more slowly evolving signal is held back across the western Indian Ocean.
- Confidence is fairly low, though the situation is likely to resolve over the next one to two weeks, at which time a more certain forecast of MJO evolution will be possible.

## Extratropics:

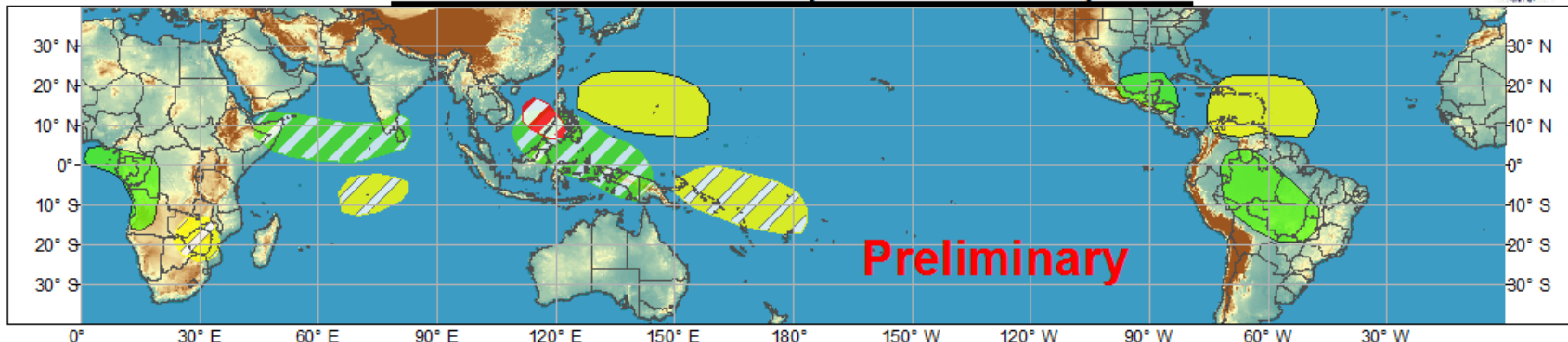
- The extended range forecast for the U.S. is not influenced greatly by the MJO or coherent ENSO modes.
- The AO is currently forecast to turn neutral and possibly negative over the next one to two weeks.
- There is some tendency in the Week-2 ensemble means of establishing a Wave-4 global pattern with most extended (Weeks 3&4) ensemble systems showing higher *potential* for blocking somewhere in the North Atlantic sector.
- The evolution of the MJO will be very important for the evolution of North American climate during December.



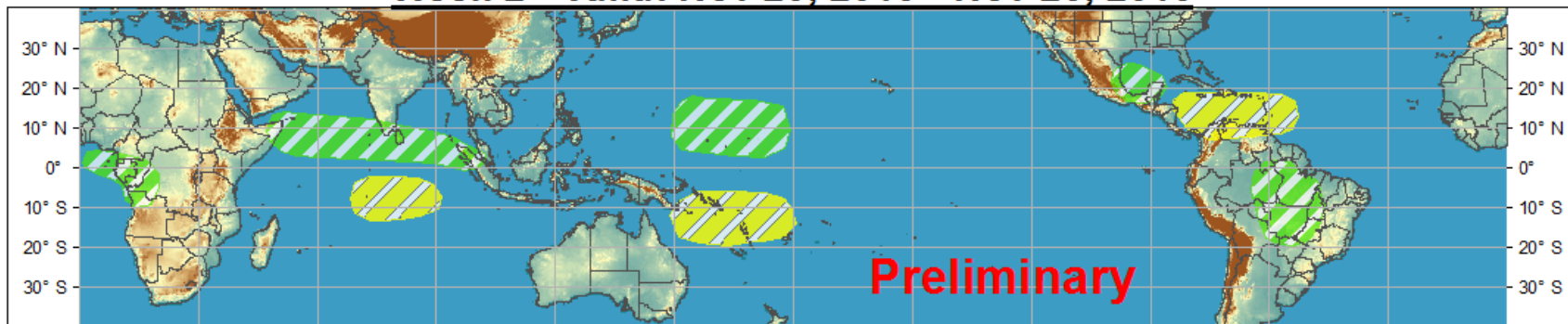
# Global Tropics Hazards and Benefits Outlook - Climate Prediction Center



## Week 1 - Valid: Nov 13, 2013 - Nov 19, 2013



## Week 2 - Valid: Nov 20, 2013 - Nov 26, 2013



Produced: 11/12/2013

Forecaster: Baxter

### 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**



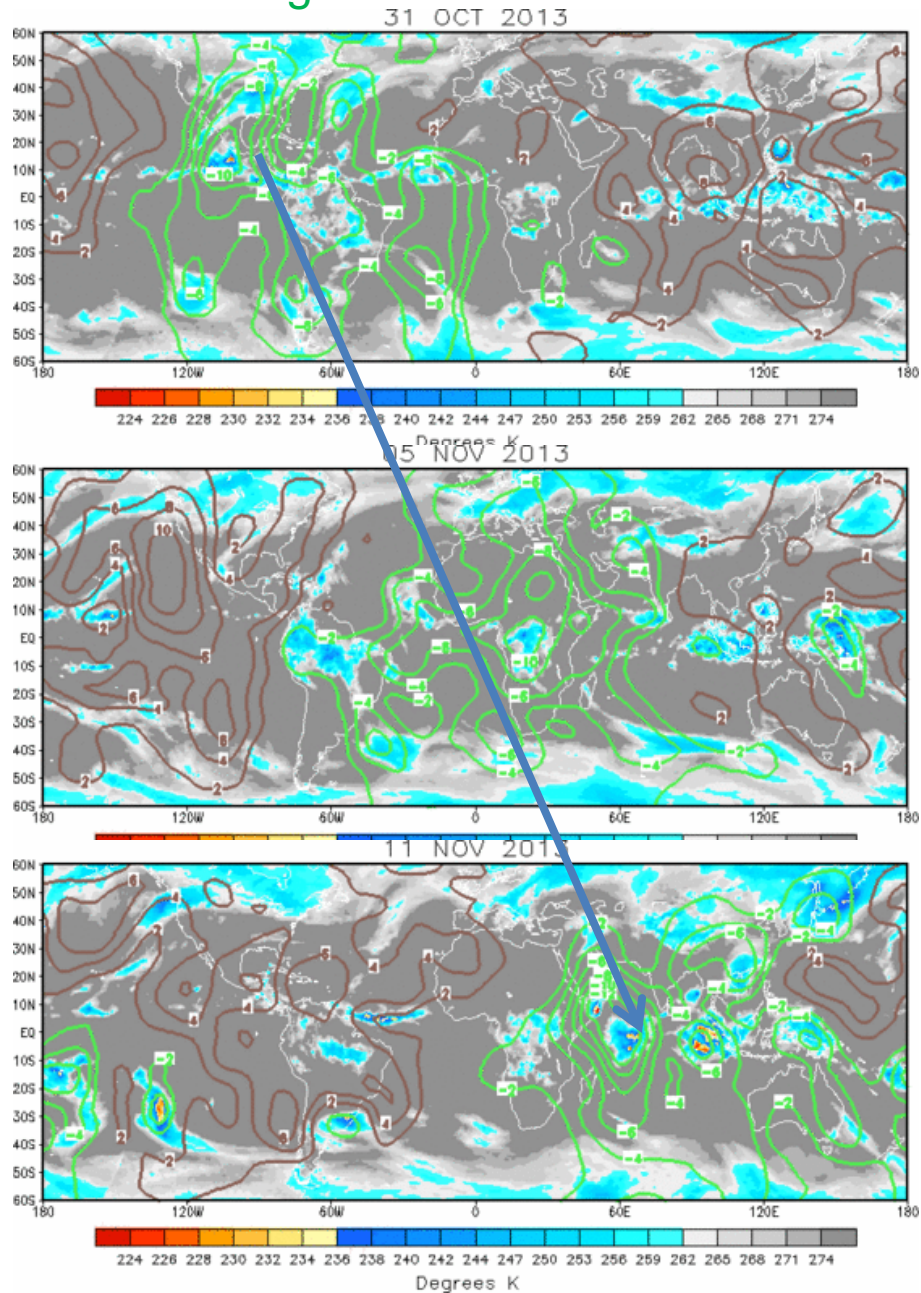
7-day mean temperatures in the lower third of the historical range.

**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.**

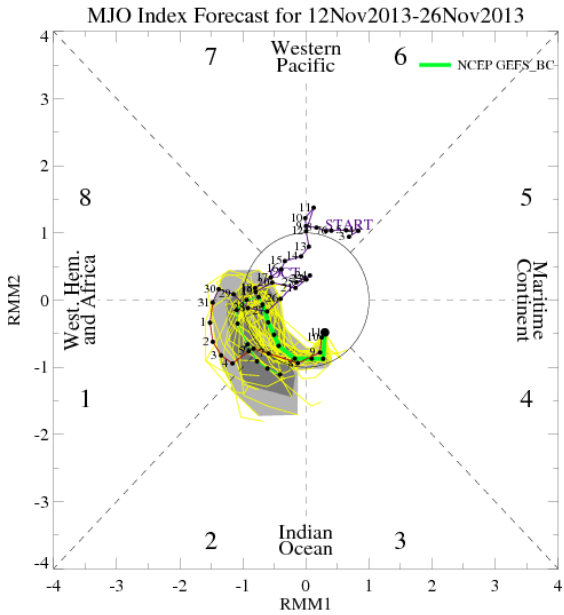


# IR Satellite & 200-hpa Velocity Potential Anomalies

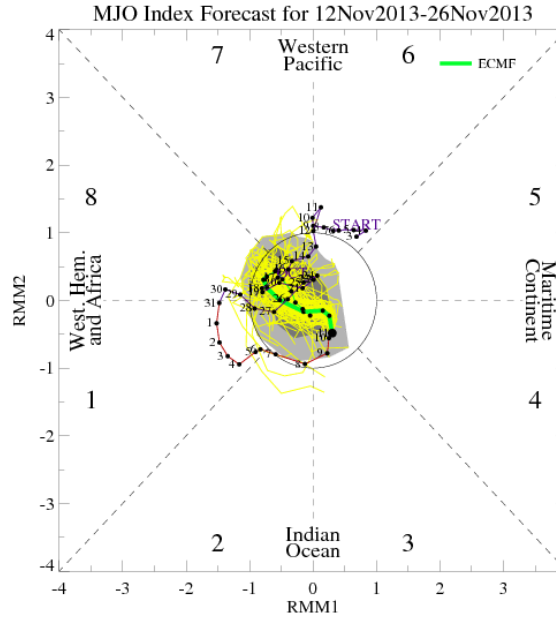
Green: Enhanced Divergence    Brown: Enhanced Convergence



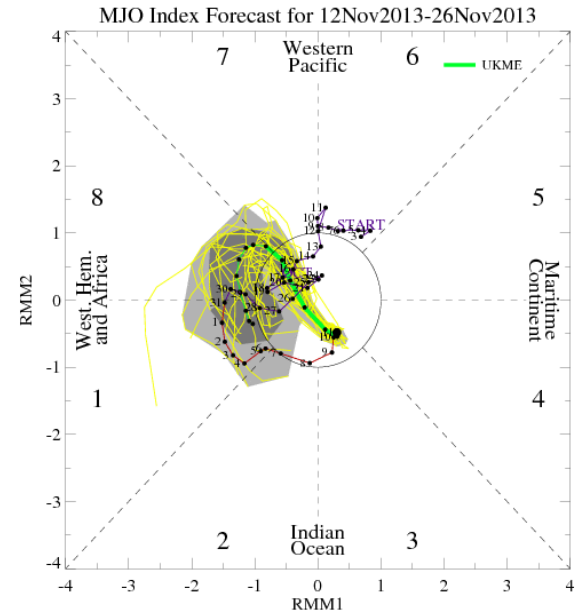
# MJO Observation/Forecast



GFS

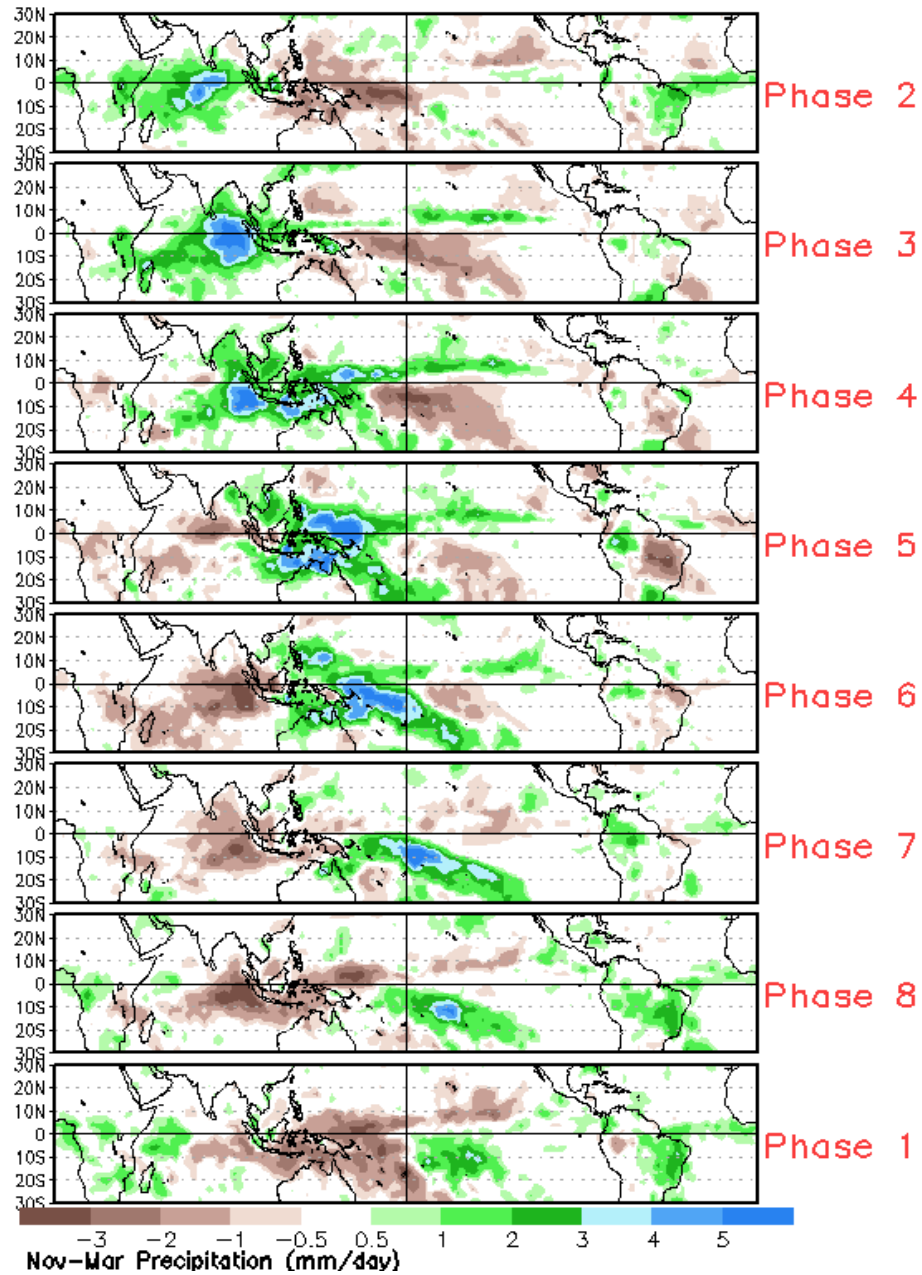


ECMWF

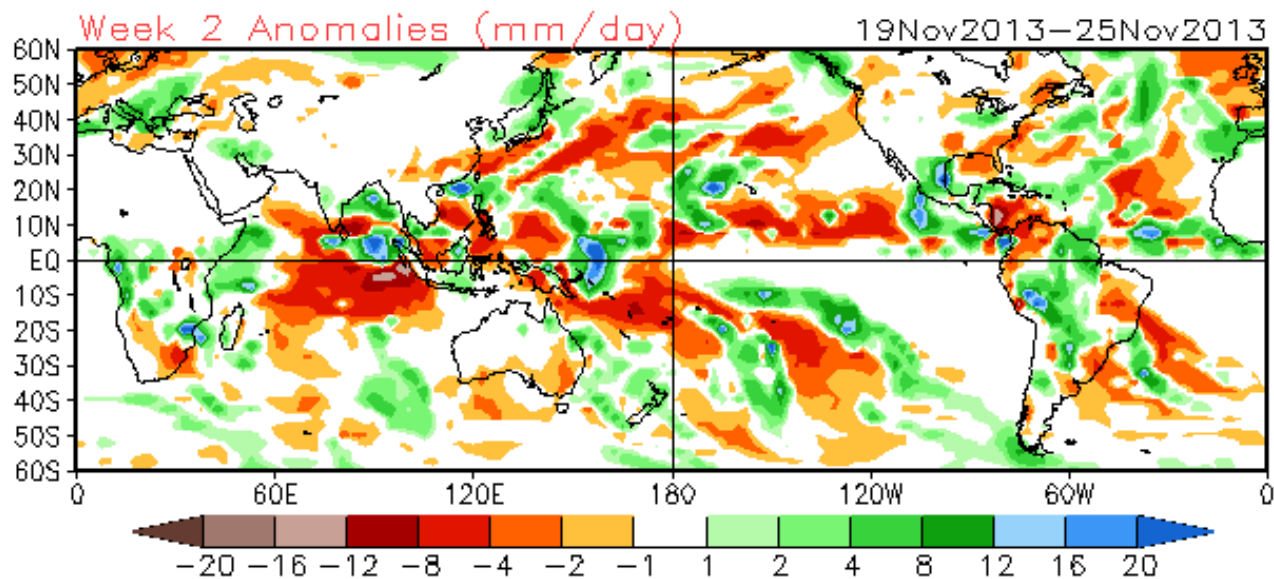
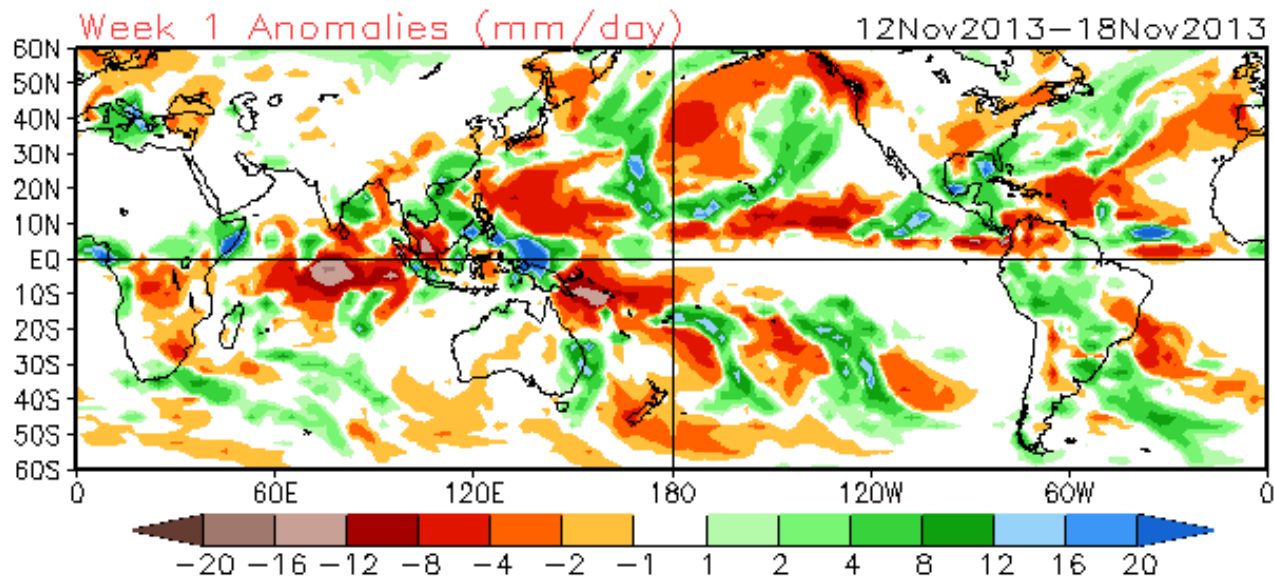


UKMET

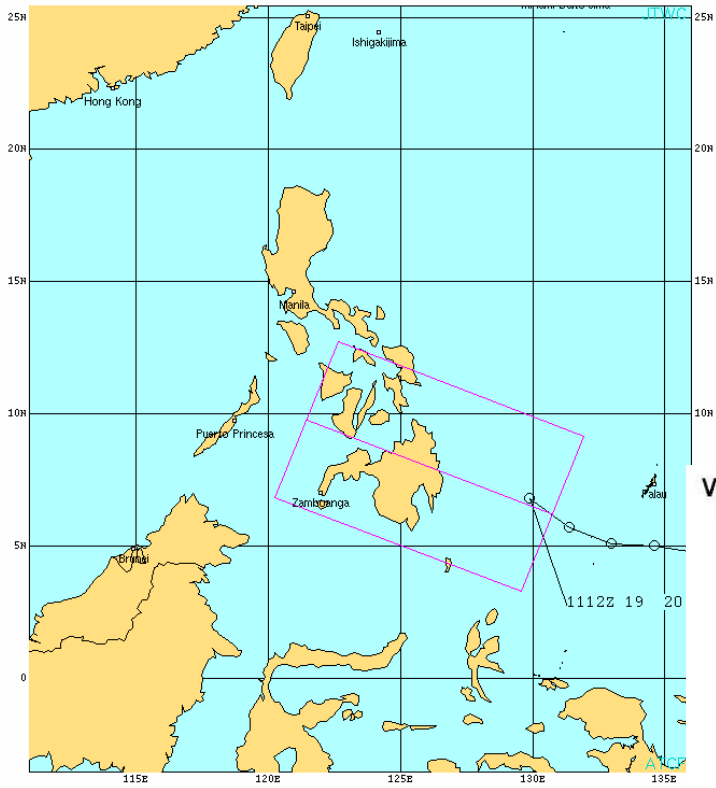
# Average Conditions when the MJO is present (Nov-Mar)



CFSv2 Weeks 1 & 2 Precipitation  
16 Member Ensemble Mean Forecast from 11Nov2013

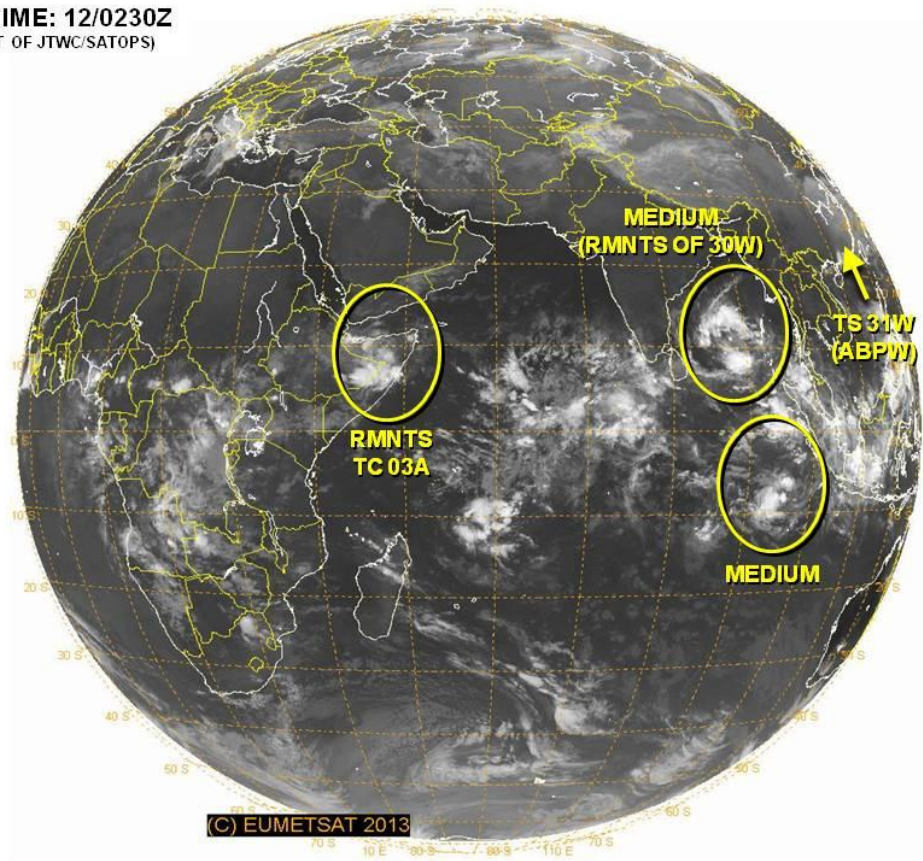






TROPICAL CYCLONE FORMATION ALERT  
 WPN21 PGTW 111700  
 111200Z POSITION: NEAR 6.5N 123.5E  
 MOVING NORTHWESTWARD AT 15 KNOTS  
 MAXIMUM SUSTAINED WINDS: 18 TO 23 KNOTS

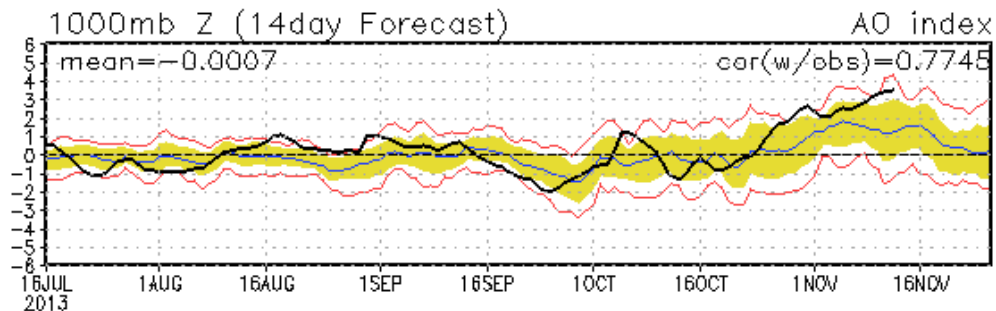
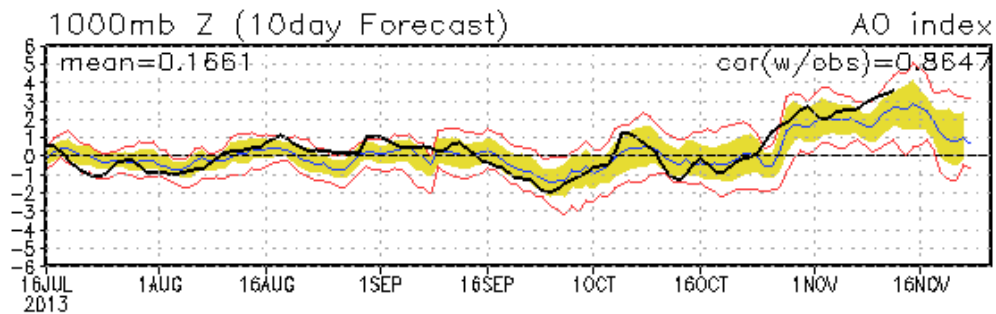
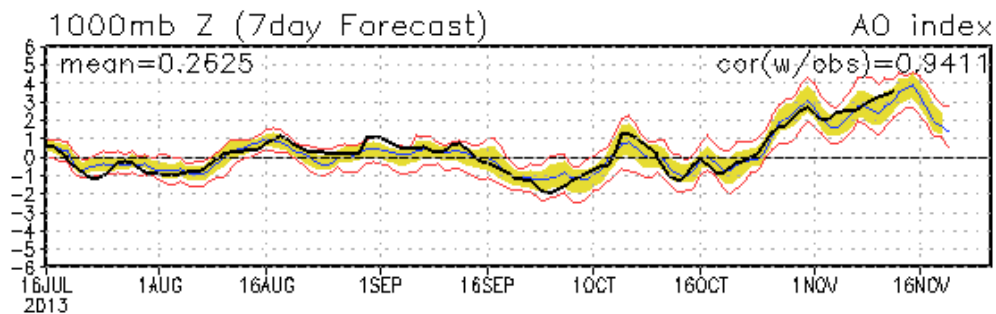
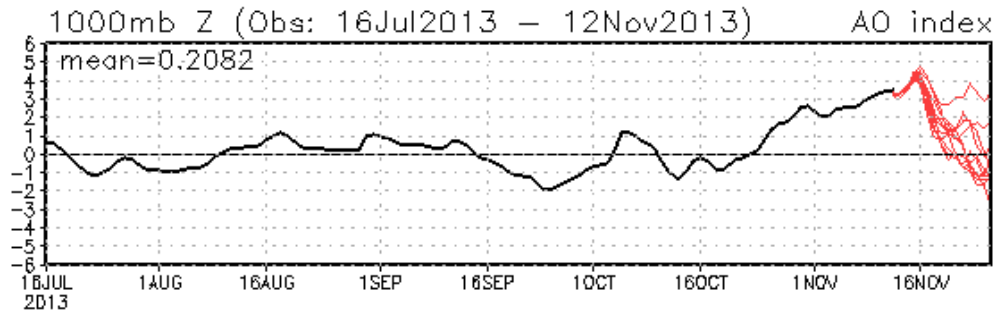
**VALID TIME: 12/0230Z**  
 (PRODUCT OF JTWC/SATOPS)

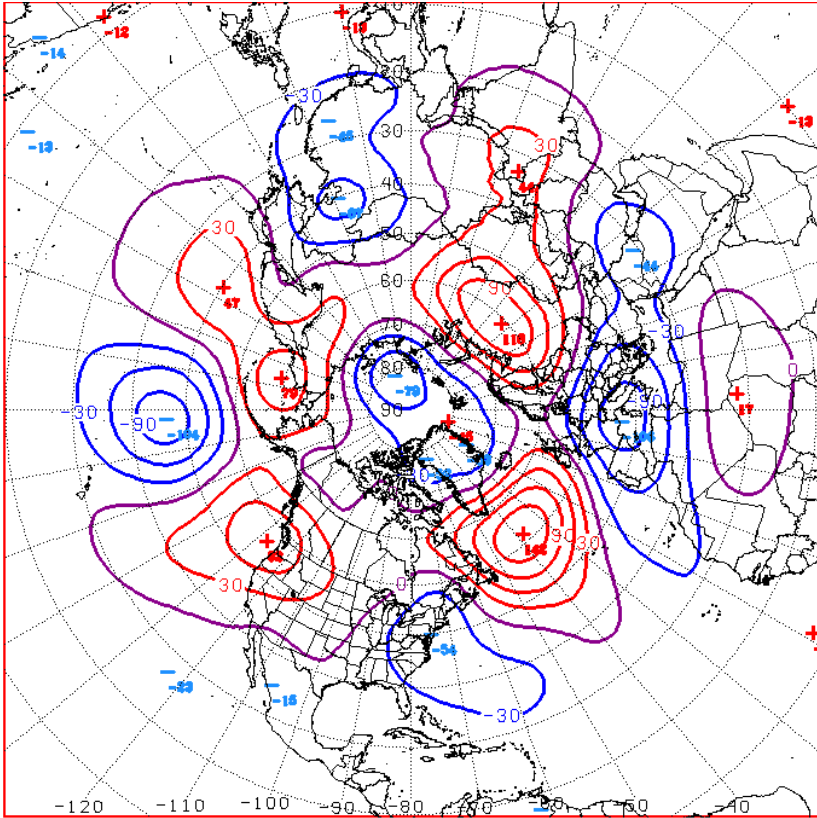


(C) EUMETSAT 2013

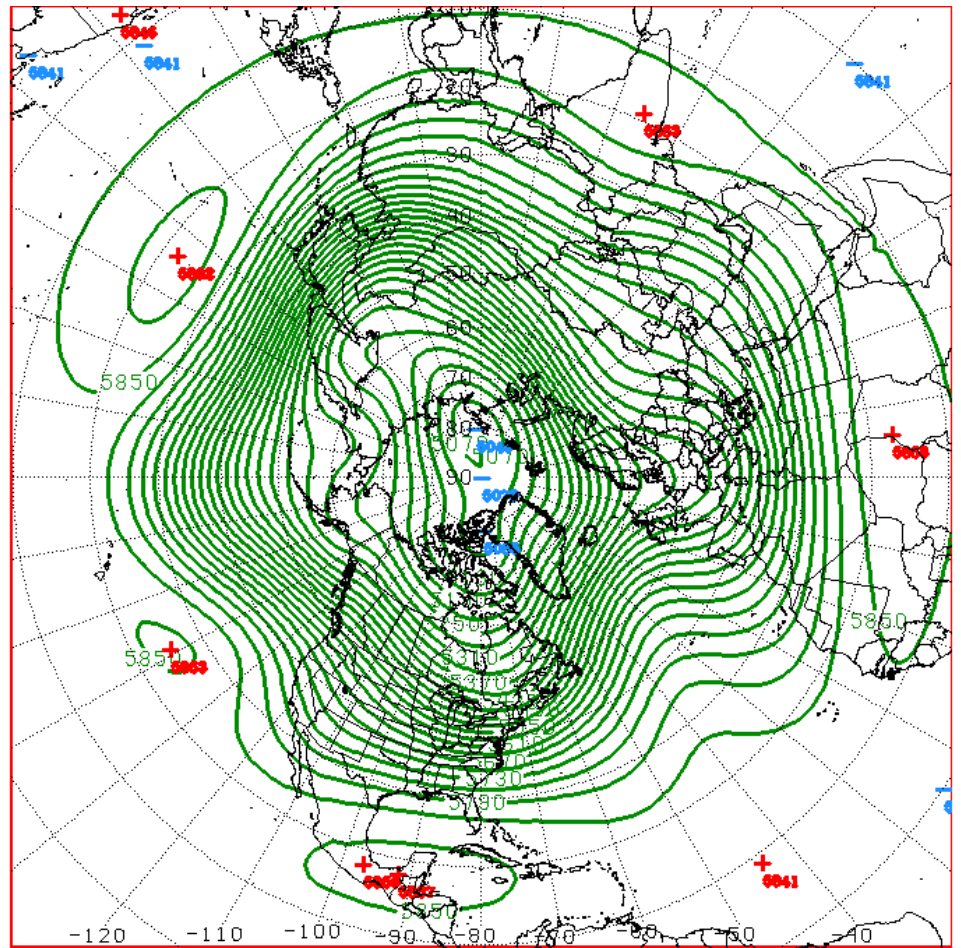
# Connections to U.S. Impacts

## AO: Observed & ENSM forecasts



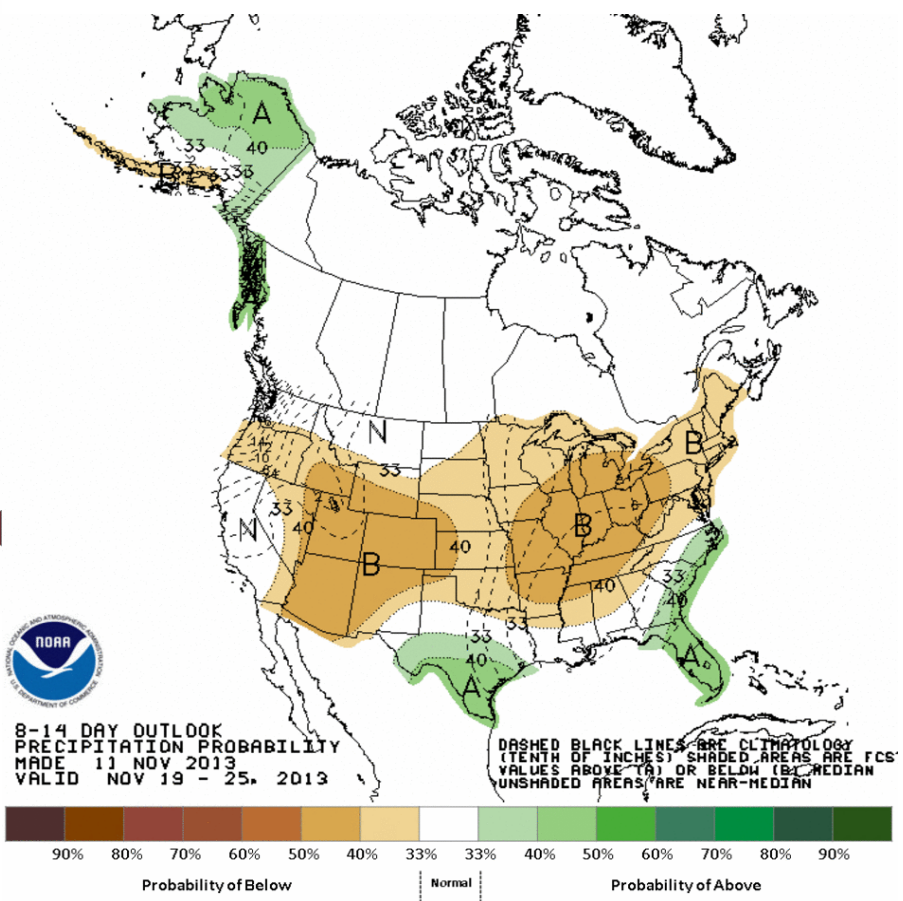
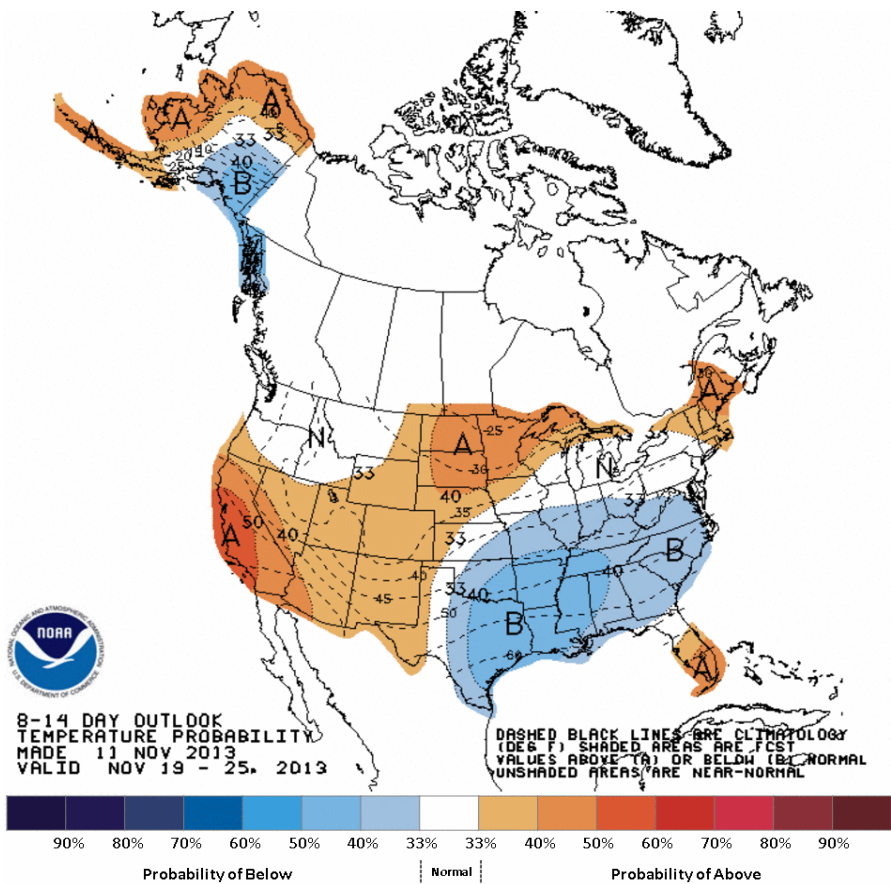


D+11 500 MB ANOMALIES FROM 00Z ECMM  
 CPC MAP MADE NOV 12 2013 1145 UTC CNTD NOV 23 2013



D+11 500 MB HEIGHTS FROM 00Z ECMM  
 CPC MAP MADE NOV 12 2013 1144 UTC CNTD NOV 23 2013

# Week 2 – Temperature and Precipitation

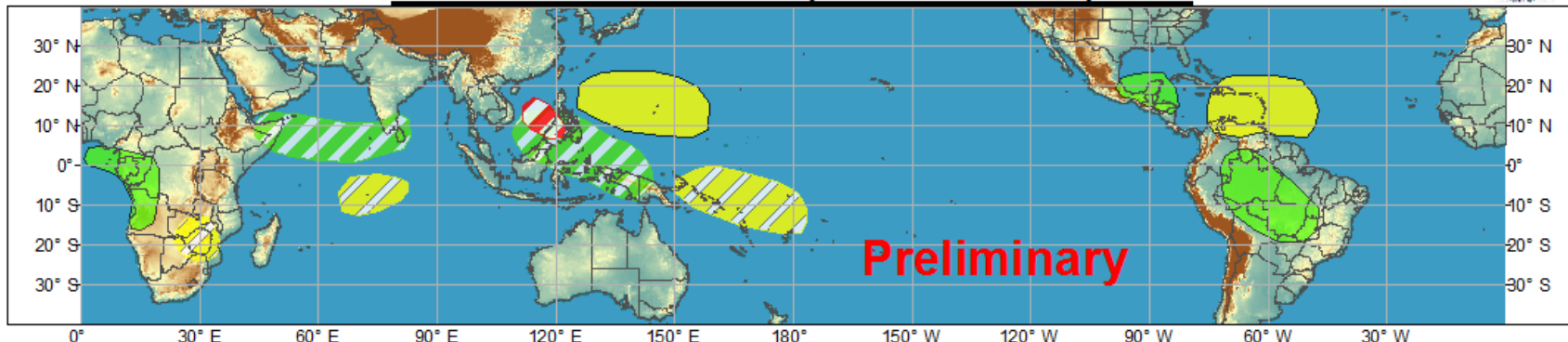




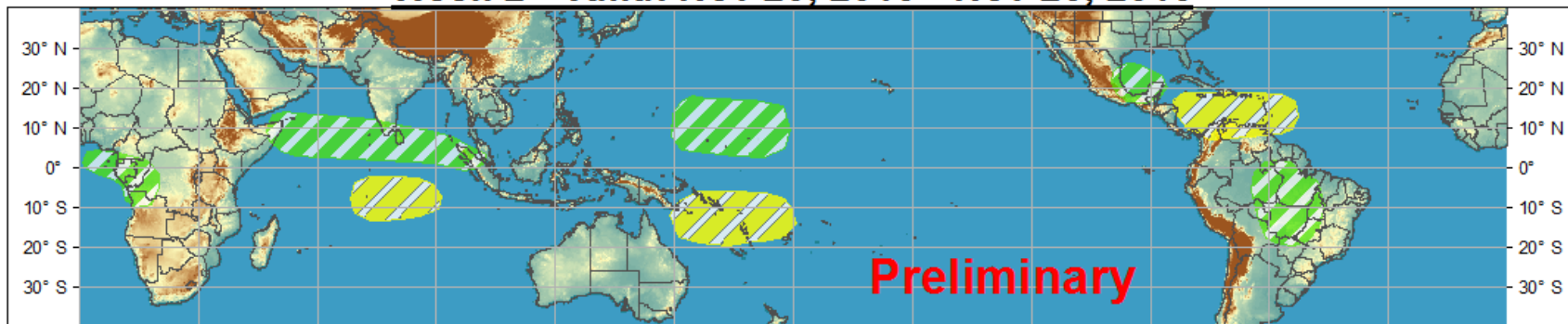
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