

Global Tropics Hazards And Benefits Outlook

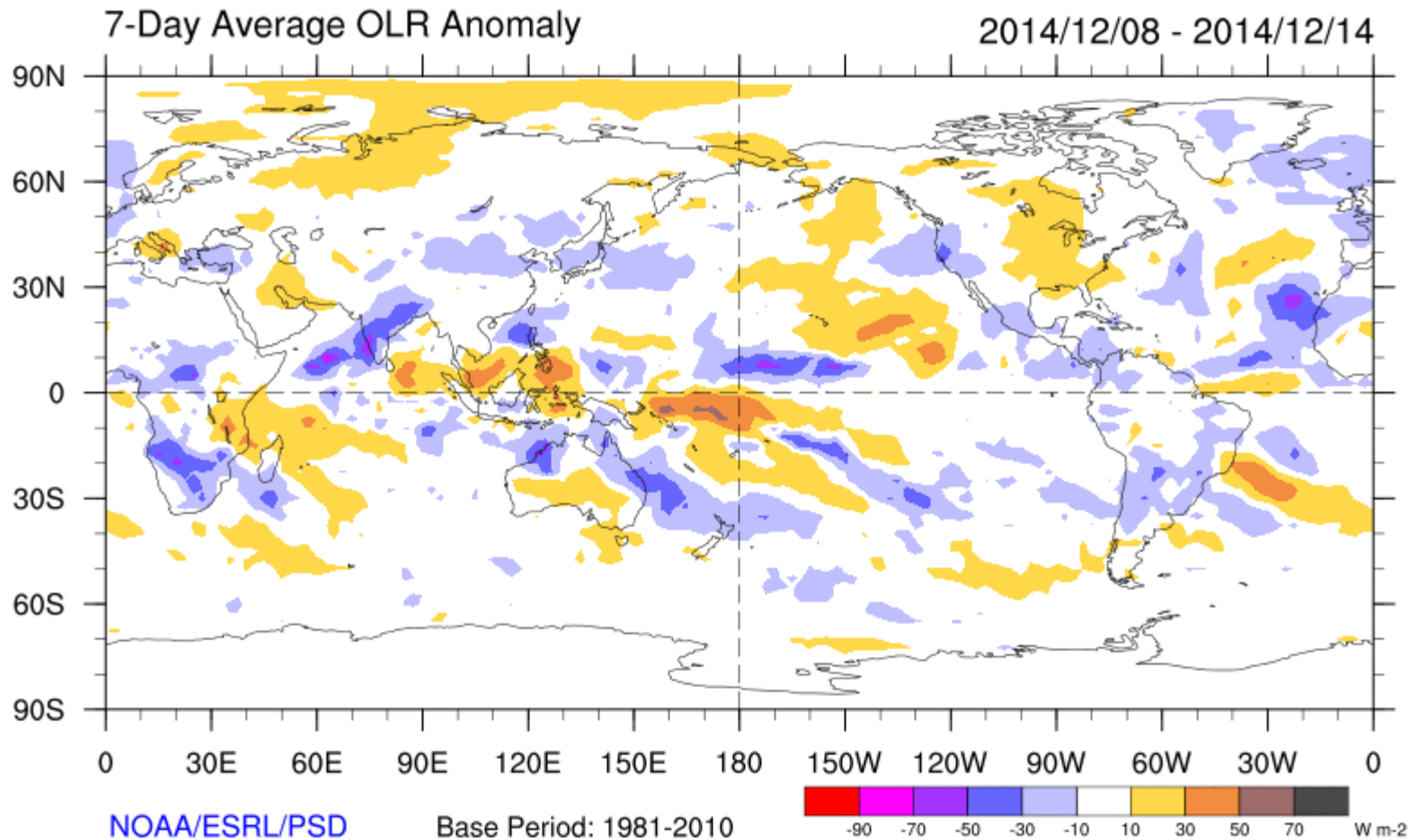
December 16, 2014

Jon Gottschalck

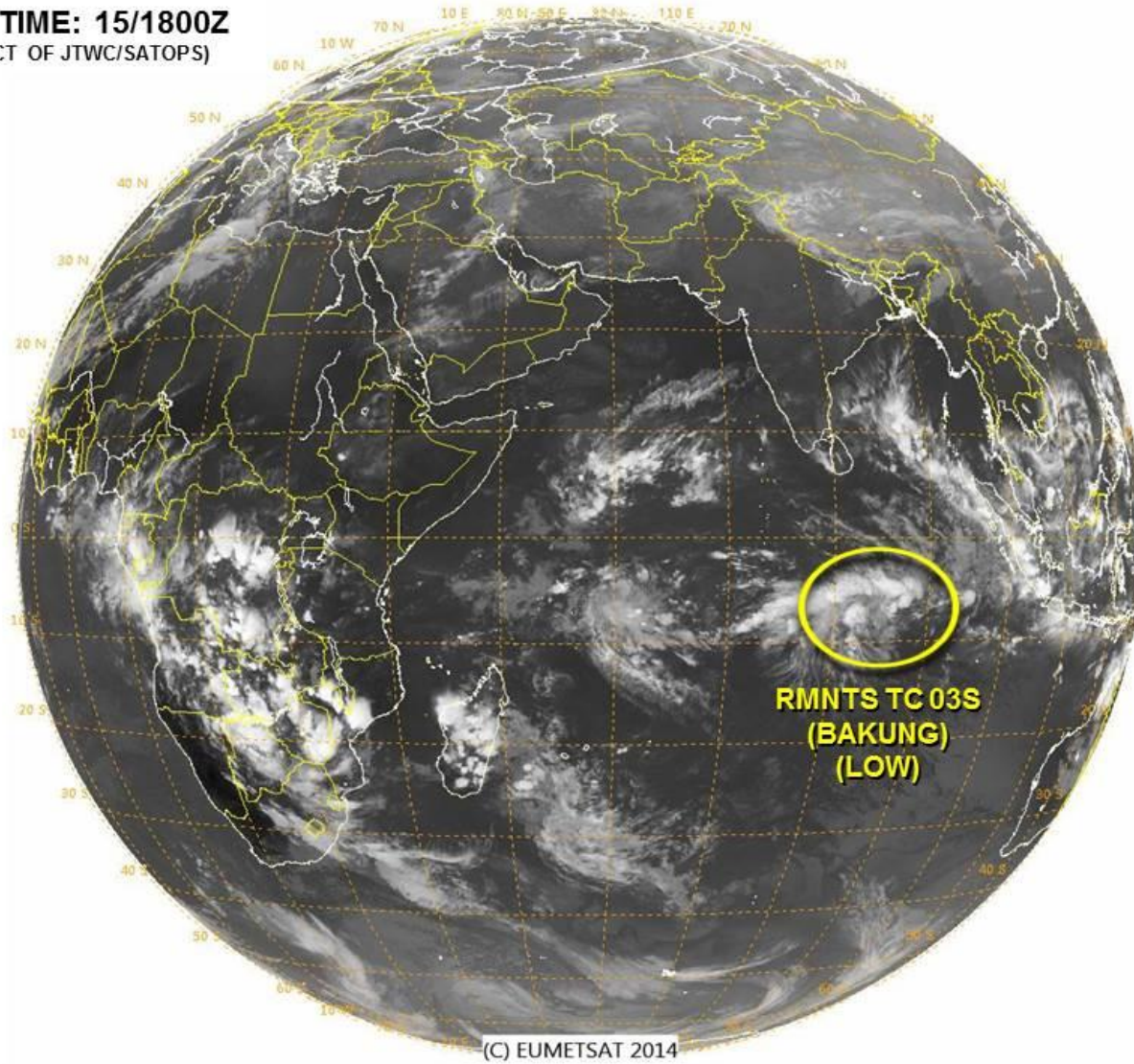
Outline

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

Review of anomalous convection



VALID TIME: 15/1800Z
(PRODUCT OF JTWC/SATOPS)

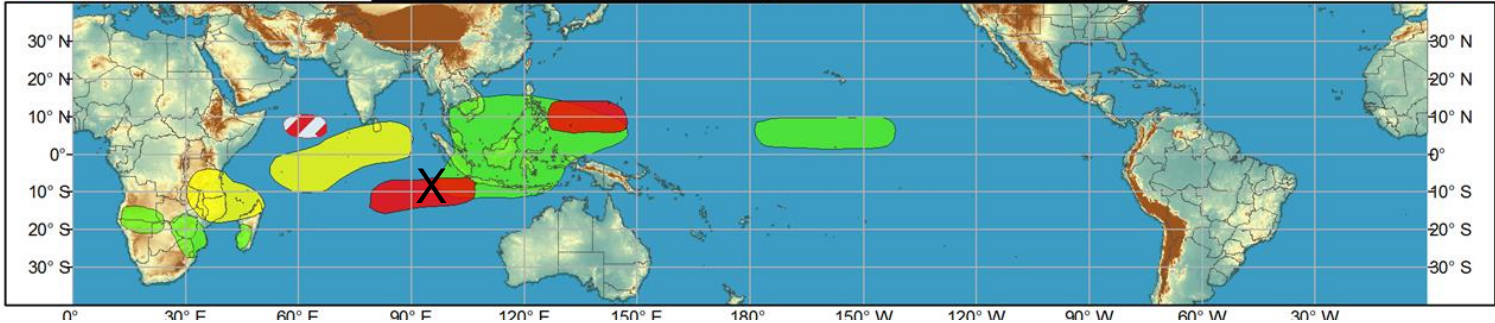


Tropical cyclone Bakung was short lived during the past week

Outlook Review



Week 1 - Valid: Dec 10, 2014 - Dec 16, 2014

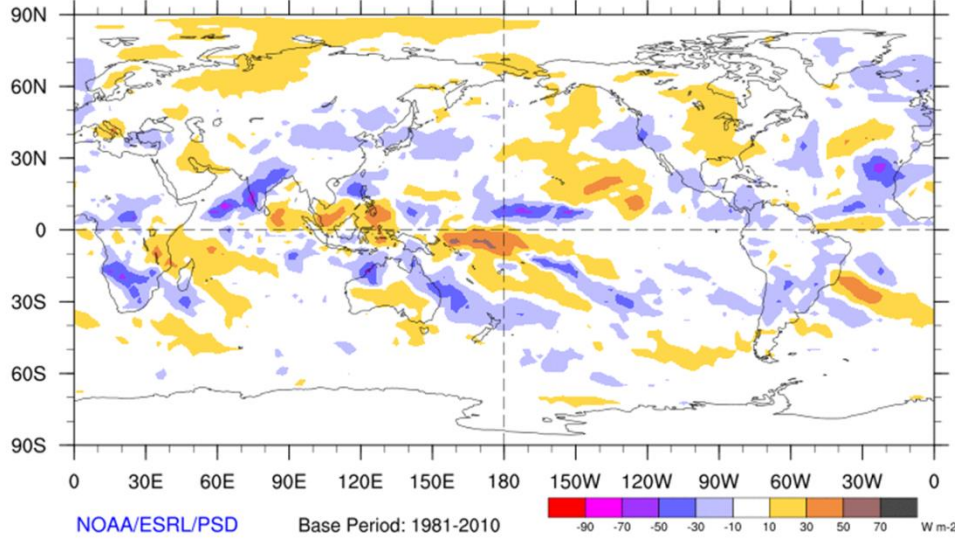


Week 2 - Valid: Dec 10, 2014 - Dec 16, 2014



7-Day Average OLR Anomaly

2014/12/08 - 2014/12/14



Cool shading
More clouds/rain

Warm shading
Less clouds/rain

Synopsis of Climate Modes

ENSO:

- ENSO-neutral conditions currently remain in place. There is a 65% chance that El Niño conditions will be present during the Northern Hemisphere winter and last into spring 2015.

MJO and other subseasonal tropical variability:

- The MJO weakened during the past week although a fast, upper-level signal is still evident.
- Most dynamical model MJO index forecasts depict a weak signal during Week-1 with increase in amplitude in the Indian Ocean during Week-2.

Extratropics:

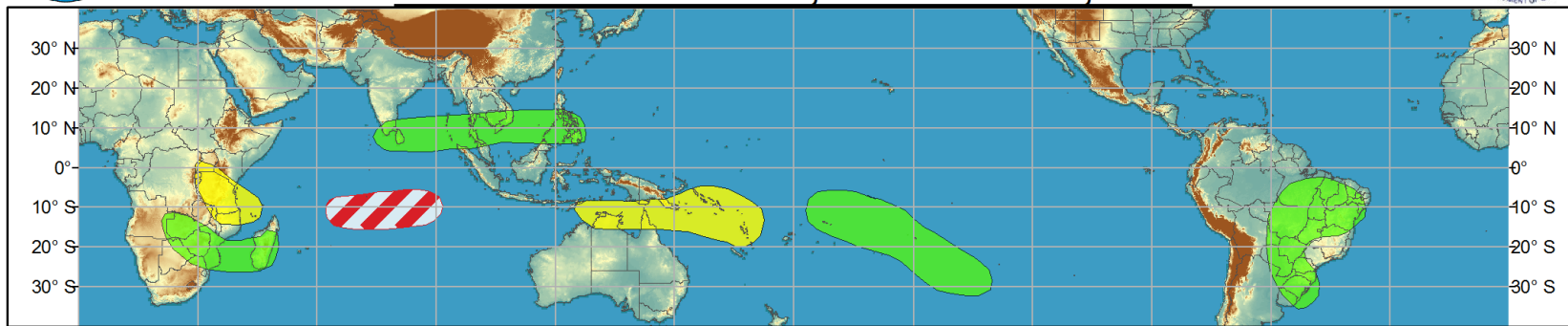
- A pattern shift appears underway during the Week-2 period with more ridging off the West coast and troughing across the eastern CONUS.
- AO tending closer to zero/weakly negative later during Week-2.
- It is quite difficult to ascertain impacts to the U.S. thereafter until we see if and how organized renewed enhanced convection in the Indian Ocean becomes during Week-2.



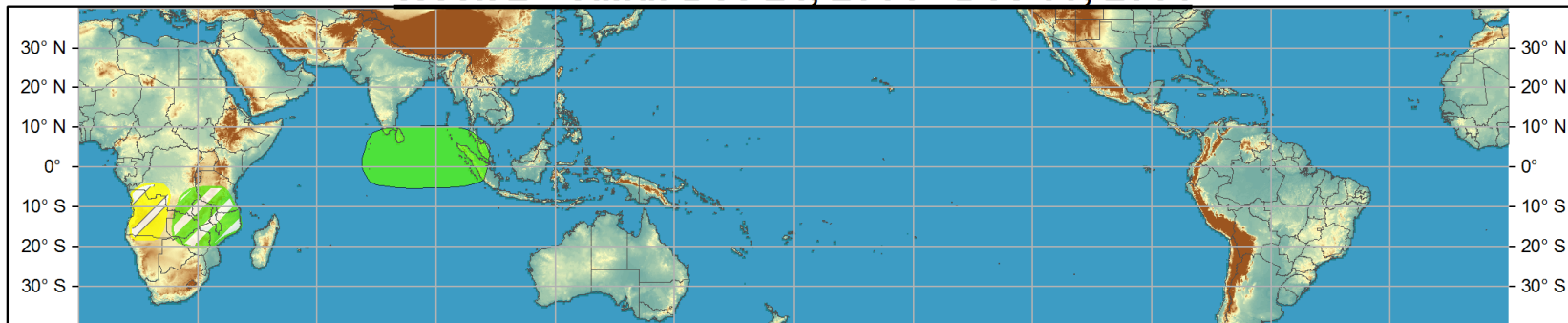
Global Tropics Hazards and Benefits Outlook - Climate Prediction Center



Week 1 - Valid: Dec 17, 2014 - Dec 23, 2014



Week 2 - Valid: Dec 24, 2014 - Dec 30, 2014



Confidence
High Moderate

- Tropical Cyclone Formation** Development of a tropical cyclone (tropical depression - TD, or greater strength).
- Above-average rainfall** Weekly total rainfall in the upper third of the historical range.
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- Above-normal temperatures** 7-day mean temperatures in the upper third of the historical range.
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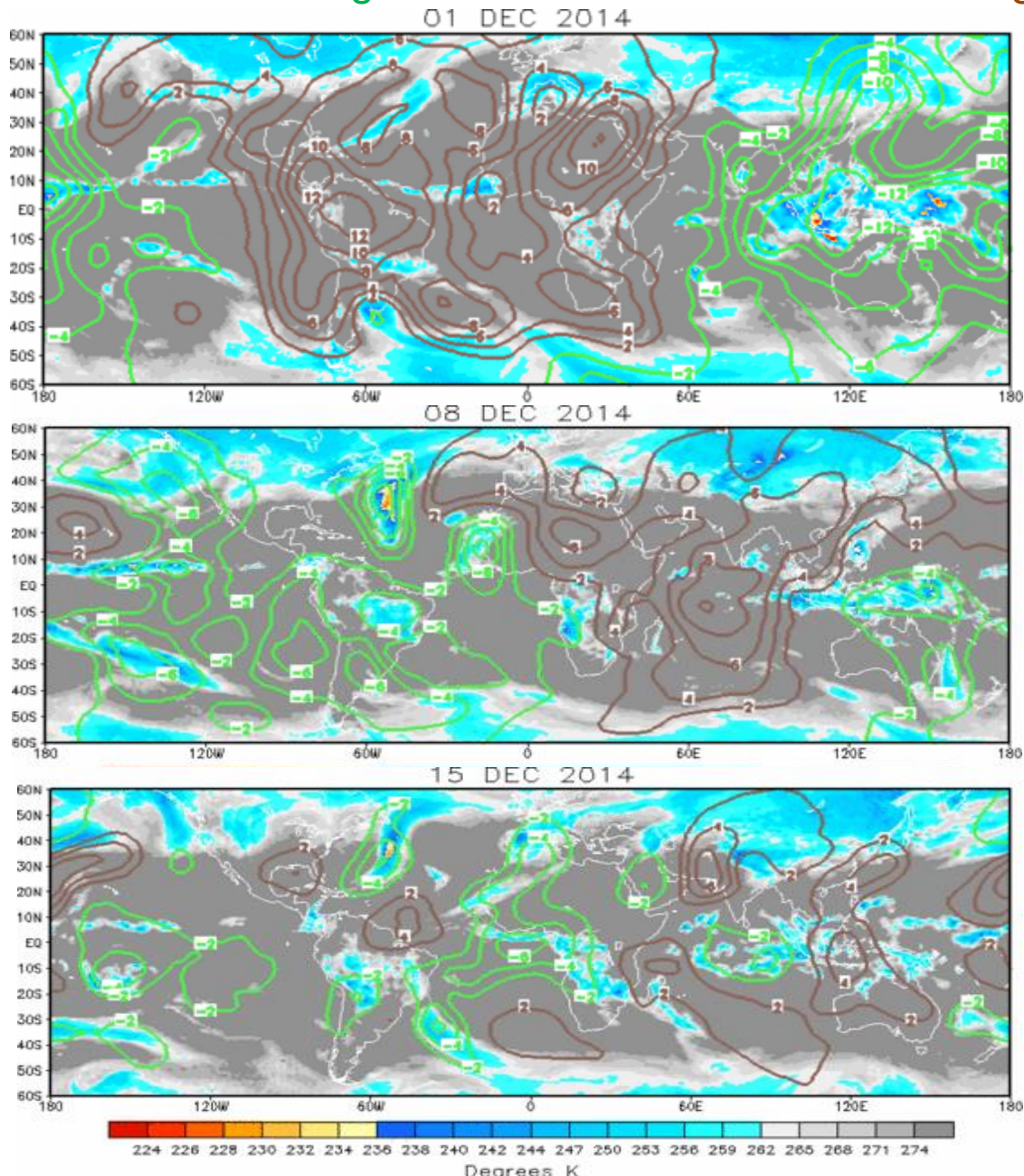
Produced: 12/16/2014
Forecaster: Gottschalck

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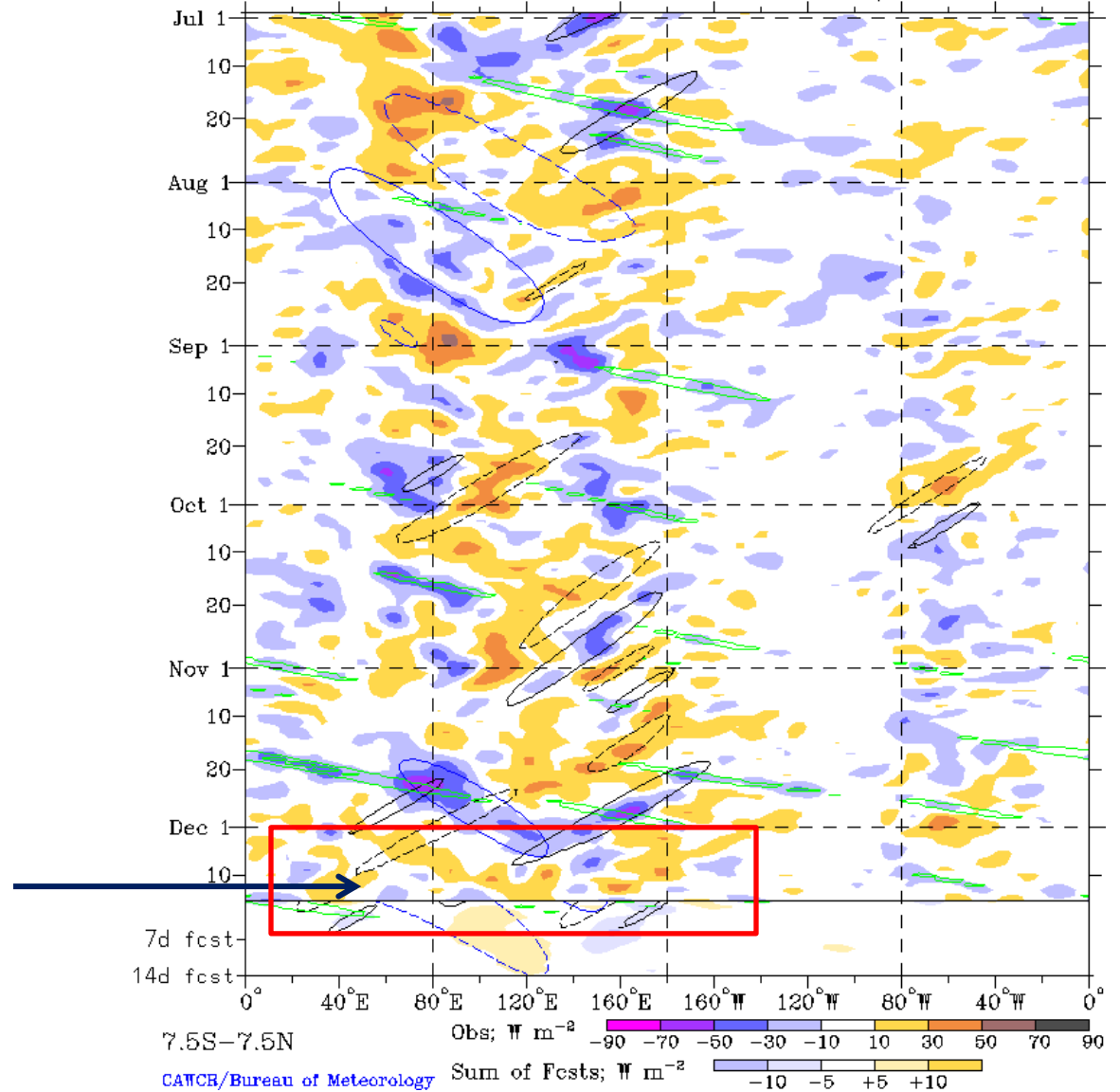


IR Satellite & 200-hpa Velocity Potential Anomalies

Green: Enhanced Divergence Brown: Enhanced Convergence

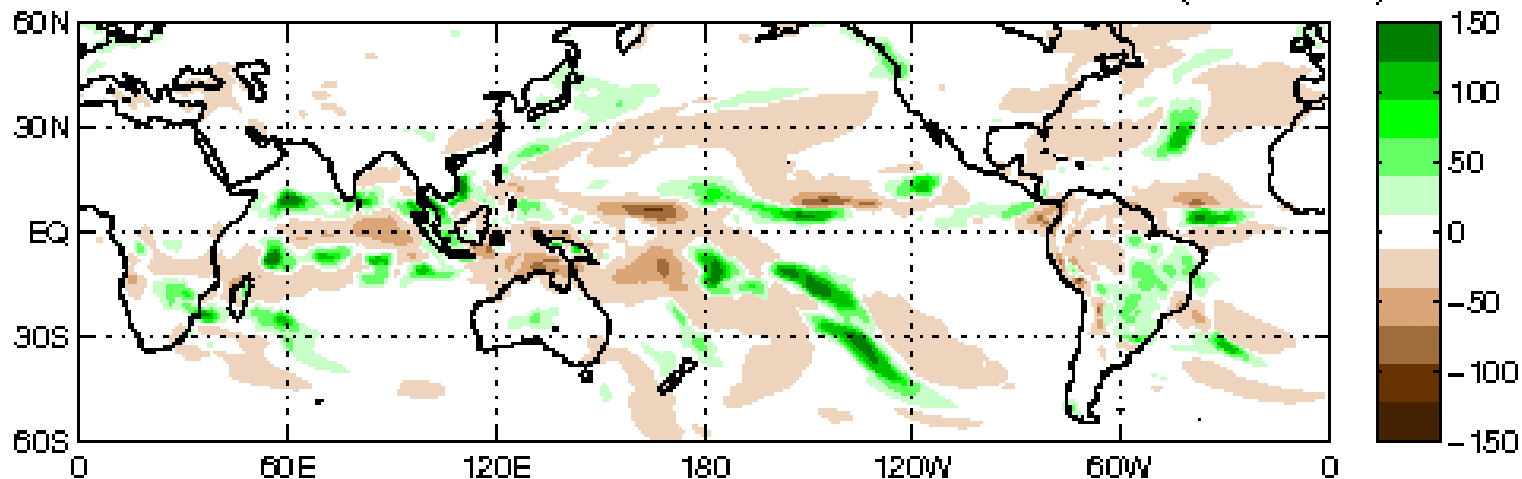


Real-time filtering superimposed upon 1-2-1 filt, R21, OLR Anoms
 MJO blue CINT=10; n1ER black CINT=10; Kelvin green CINT=15
 Negative contours solid, positive dashed (excluding Kelvin)
 30-Jun-2014 to 15-Dec-2014 + 14 days

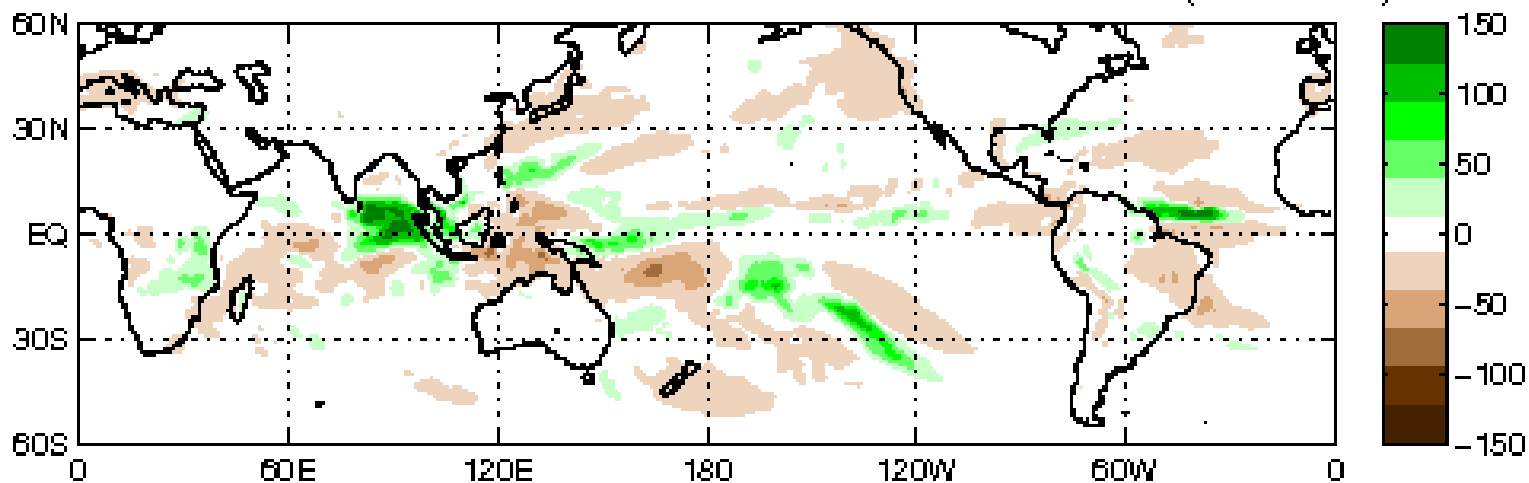


Weak signals from
 subseasonal modes
 of variability

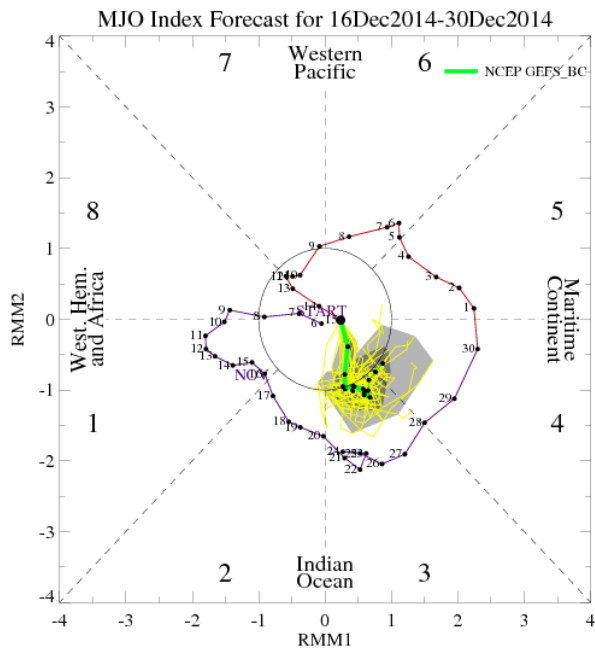
CFS: Anom. PREC Week: 1: 16-Dec-2014 to 22-Dec-2014 (mm/week)



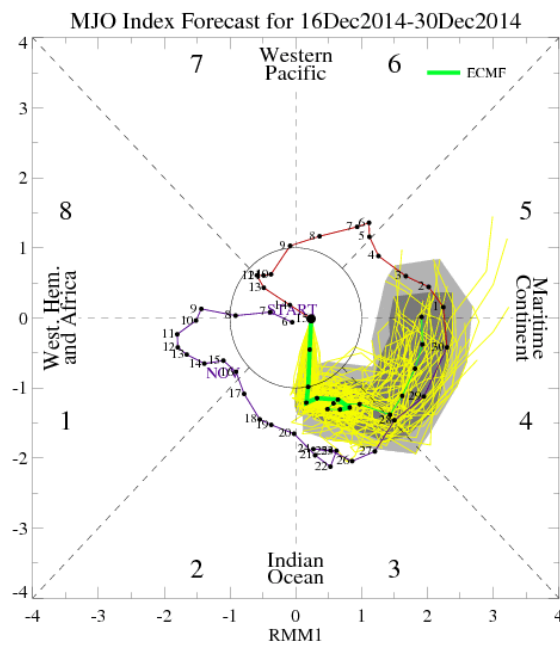
CFS: Anom. PREC Week: 2: 23-Dec-2014 to 29-Dec-2014 (mm/week)



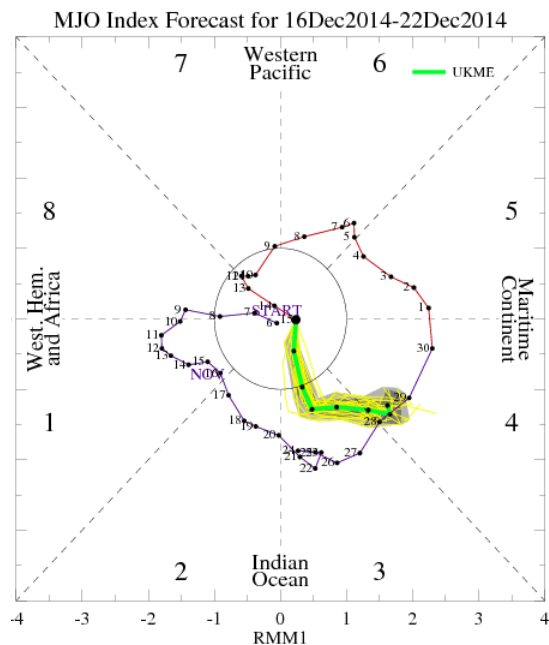
MJO Observation/Forecast



GFS

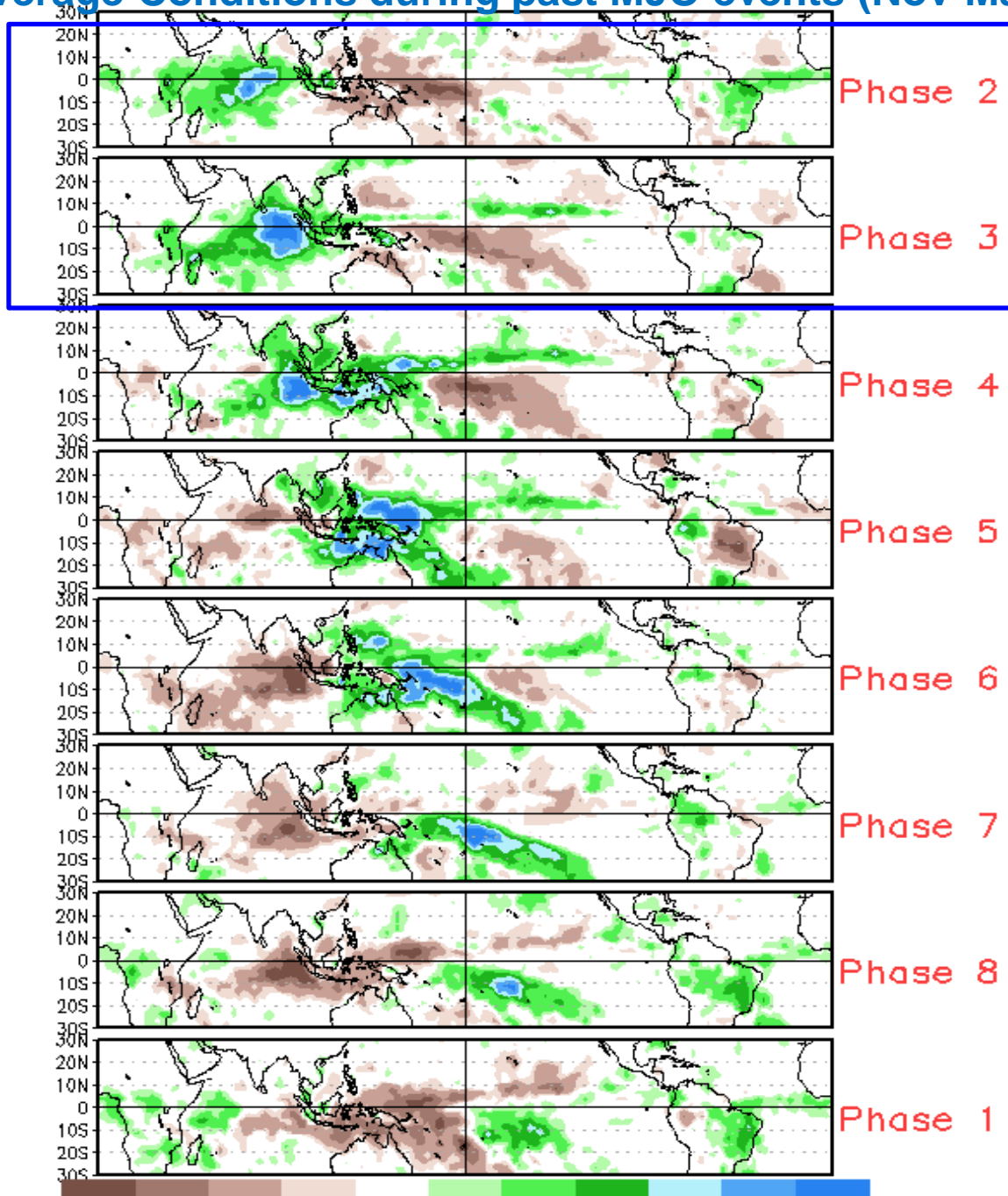


ECMWF



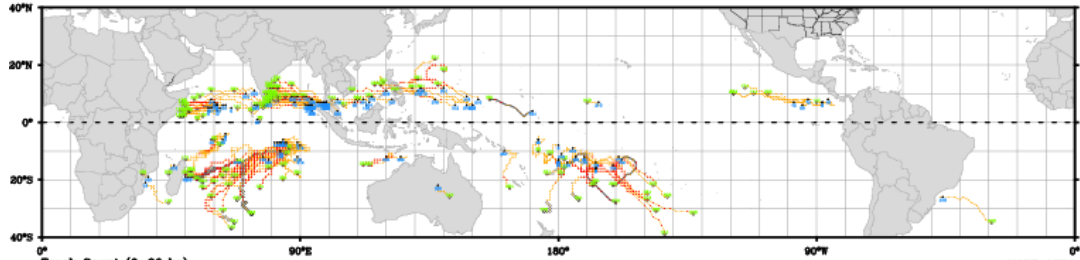
UKMET

Average Conditions during past MJO events (Nov-Mar)

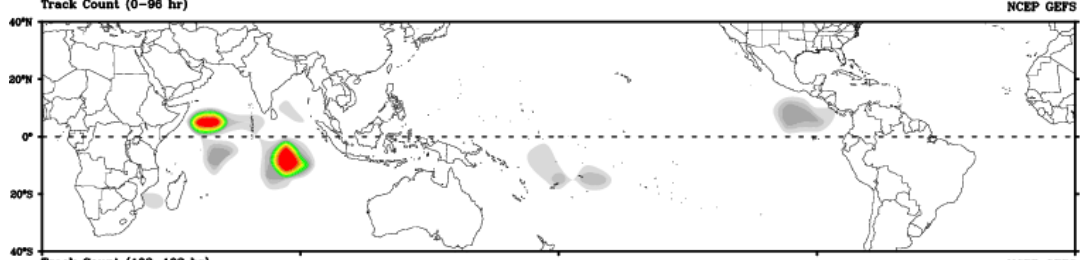


CWB TC Tracker for NCEP GEFS (Fuzzy_AllCriteria)

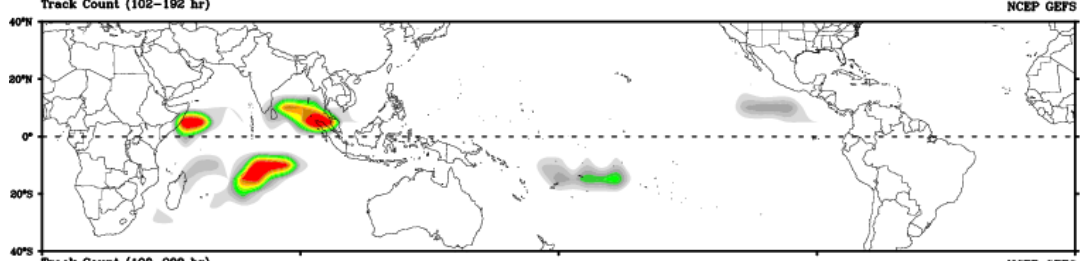
TC Track(0-384 hr) 2014121600 NCEP GEFS



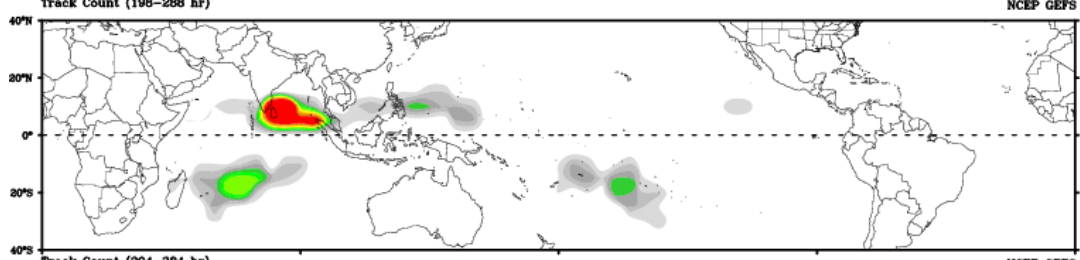
Days 1-4



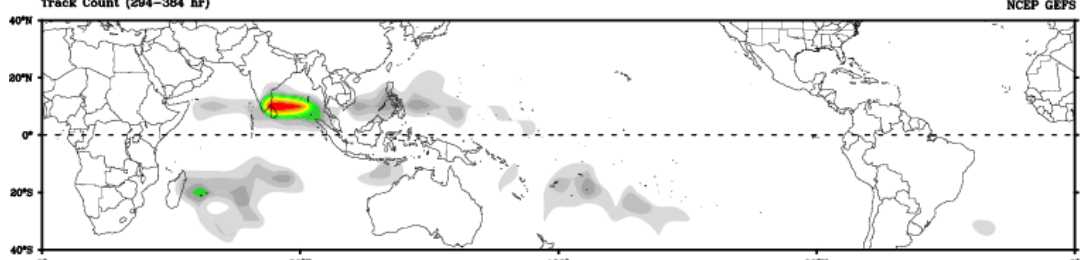
Day 5-8



Day 9-12



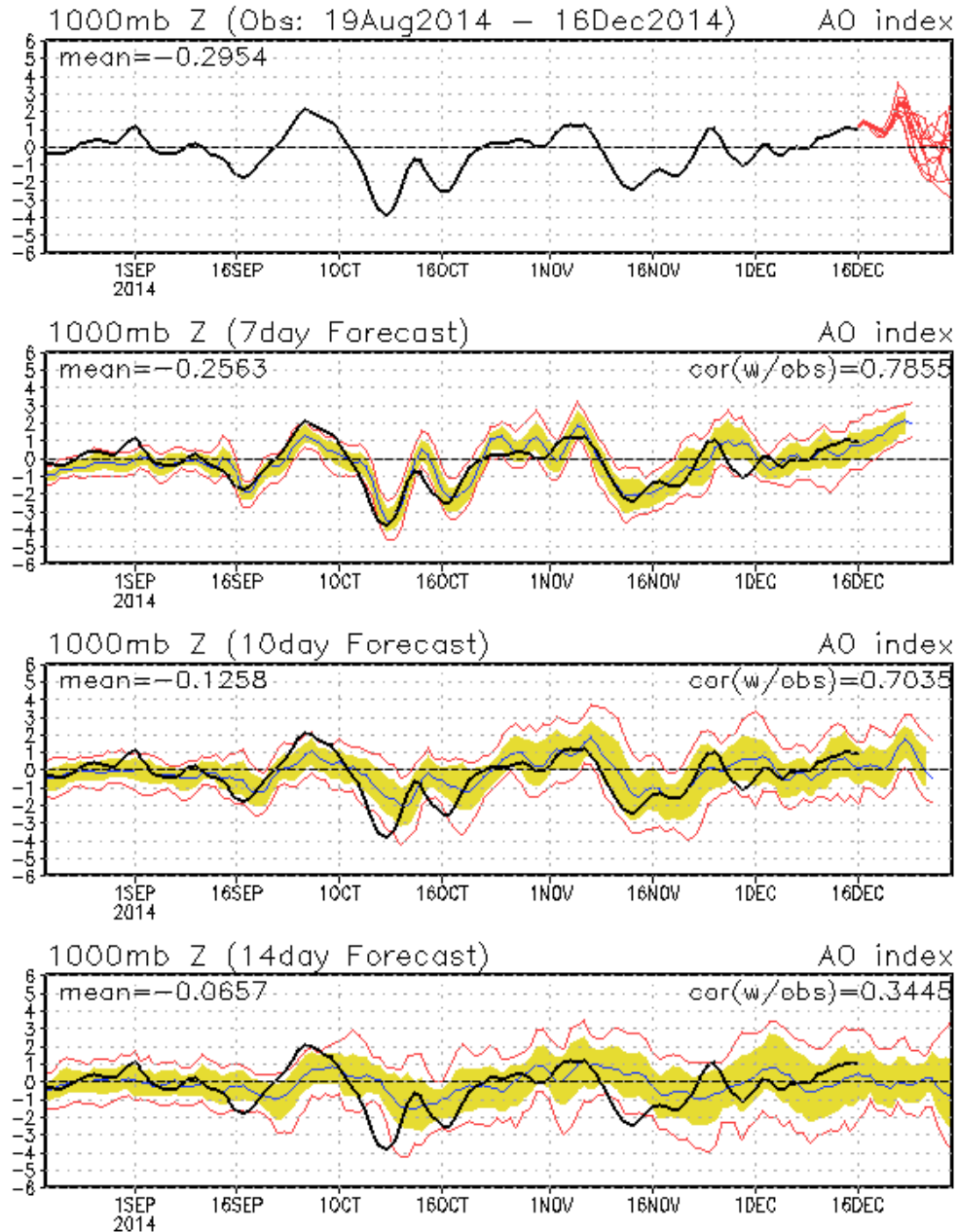
Day 13-16

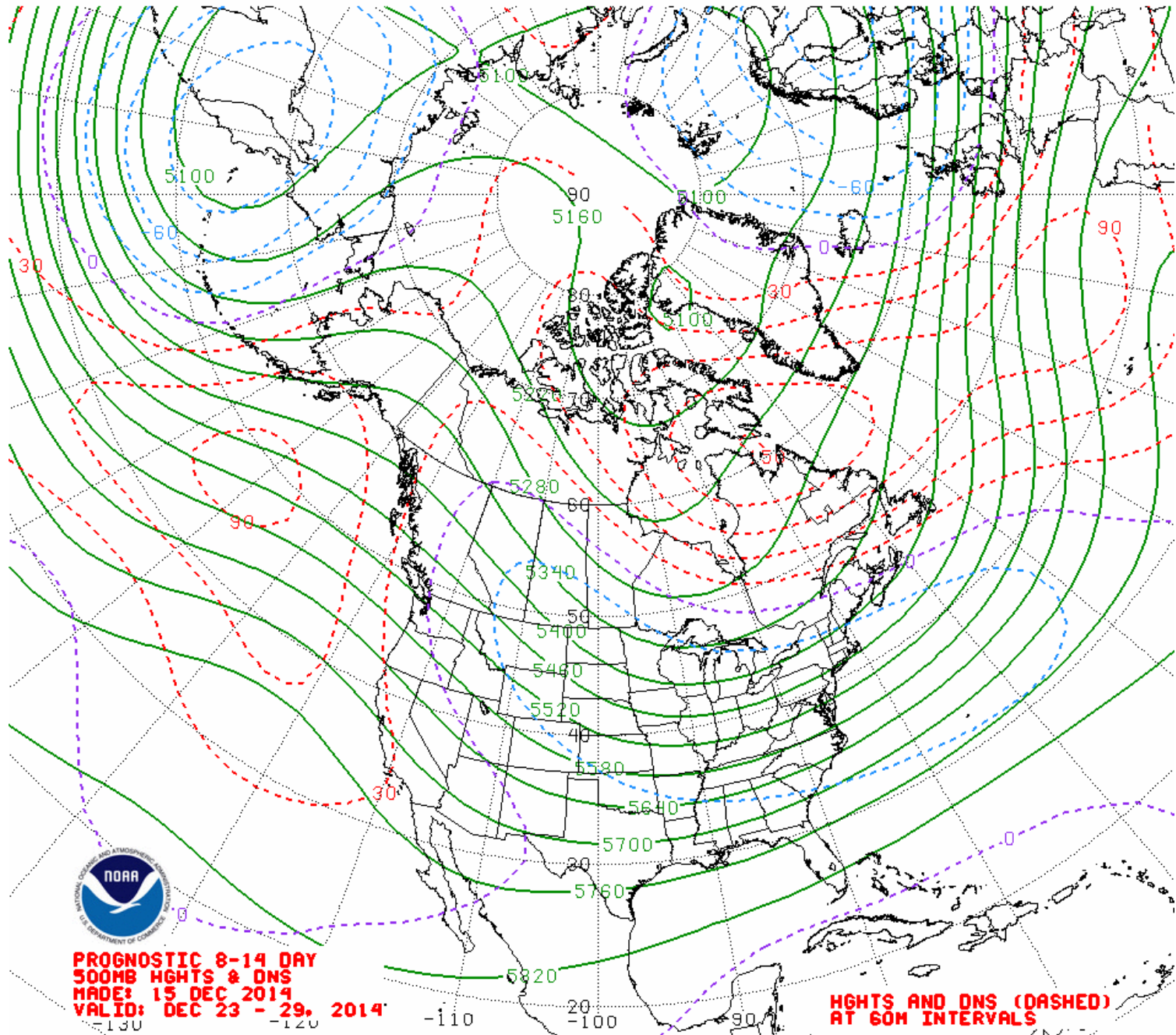


Track Count

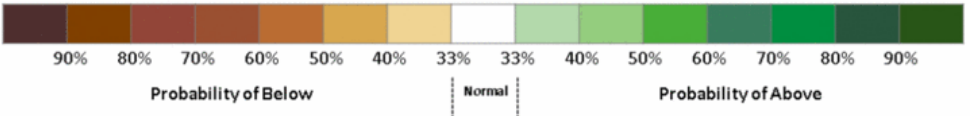
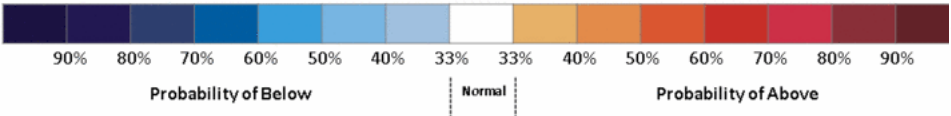
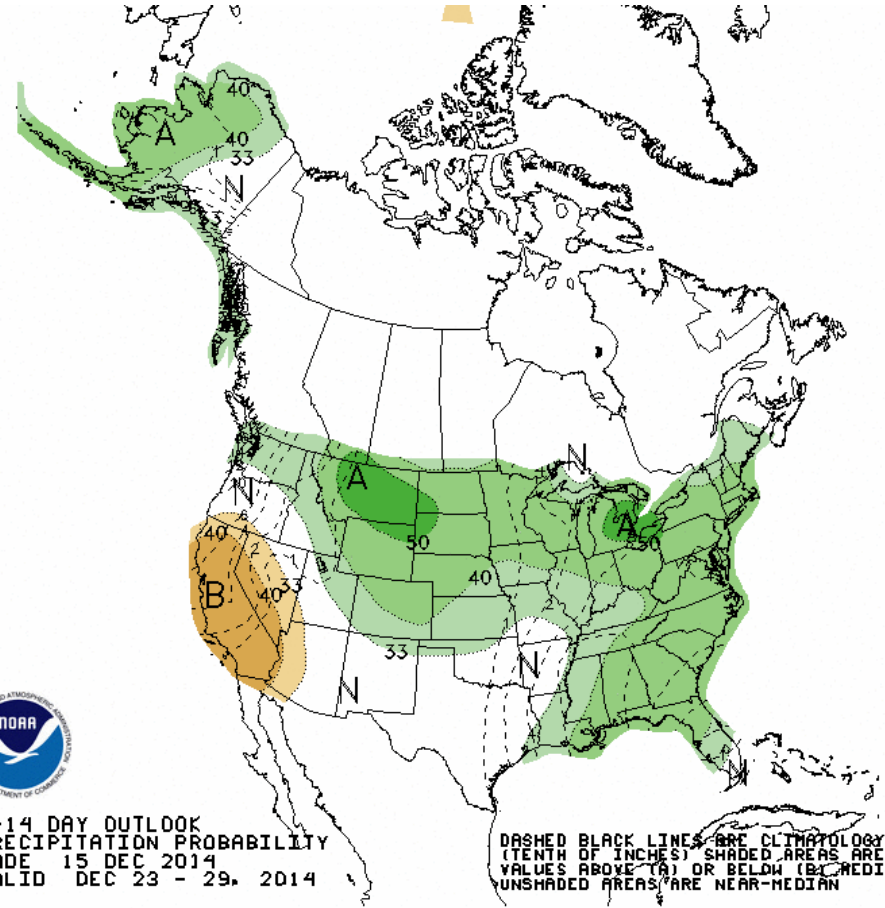
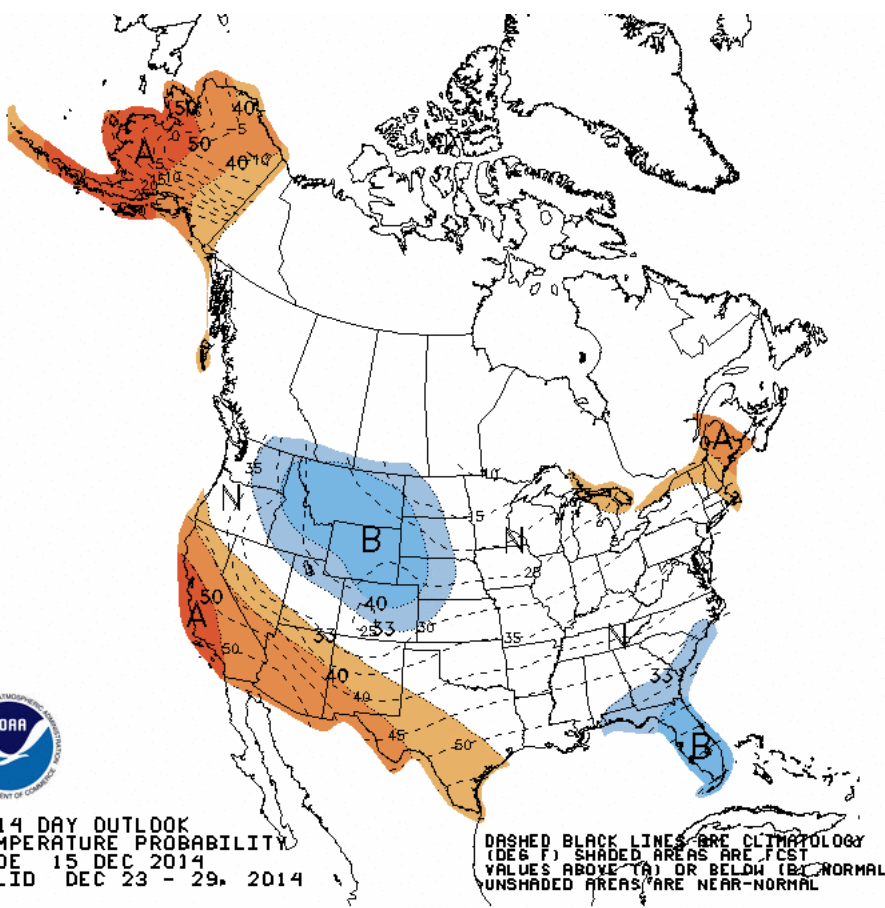
Connections to U.S. Impacts

AO: Observed & ENSM forecasts





Week 2 – Temperature and Precipitation

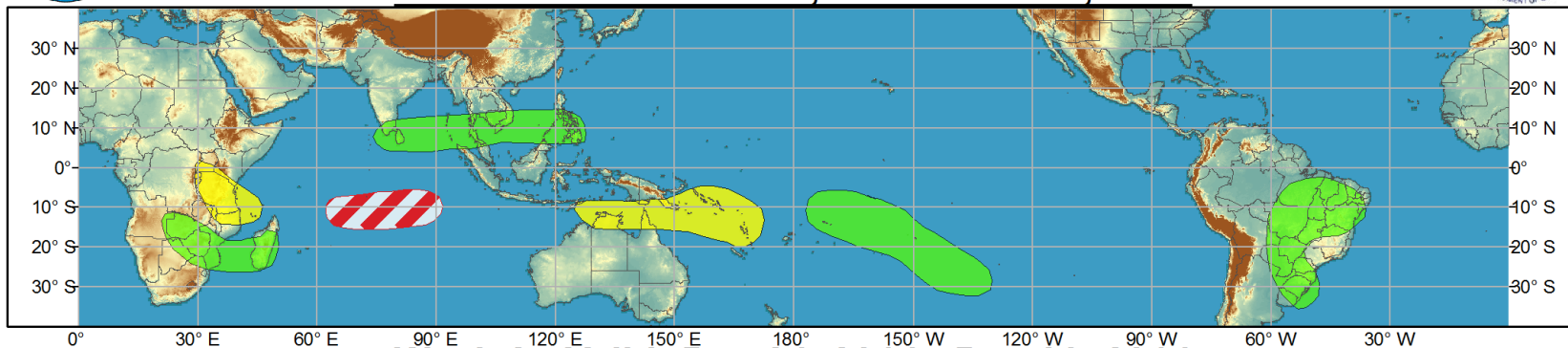




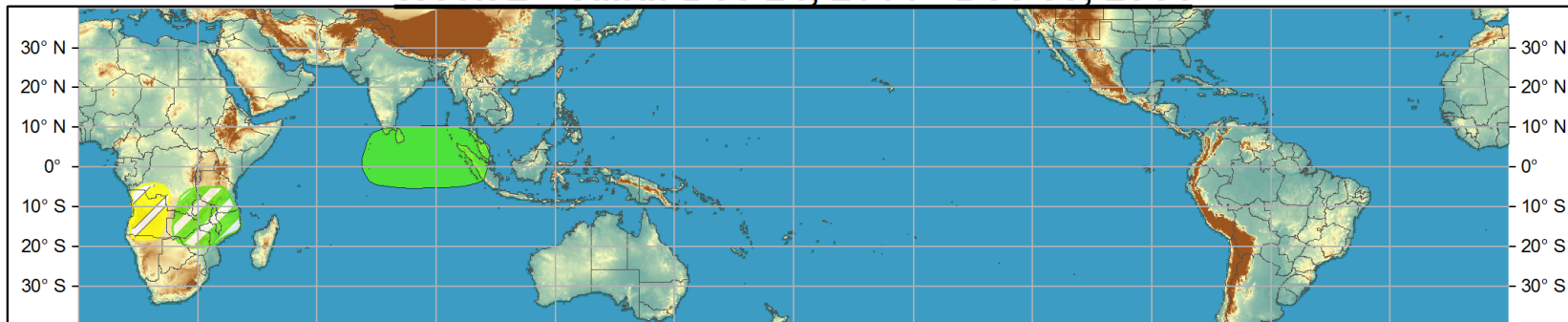
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