

Global Tropics Hazards And Benefits Outlook

December 5, 2016

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

Previous Forecast Verification

Week 1 - Valid: Nov 30, 2016 - Dec 06, 2016

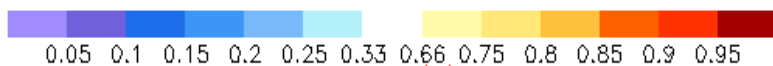
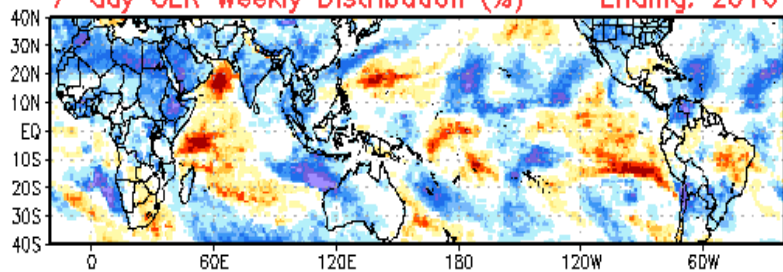


Week 2 - Valid: Nov 30, 2016 - Dec 06, 2016

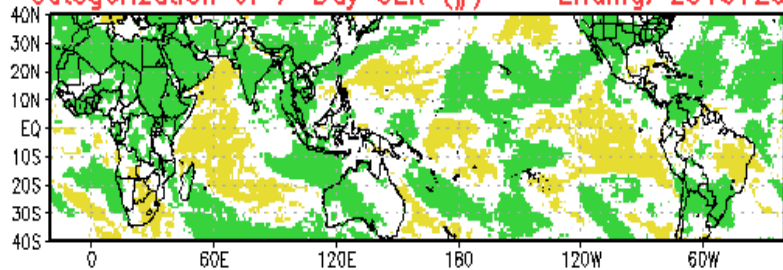


Tropical Storm Nada (29 Nov – 1 Dec 2016)

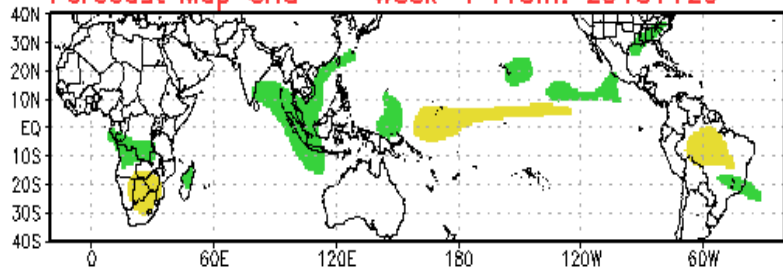
7-day OLR Weekly Distribution (%) -- Ending: 20161206



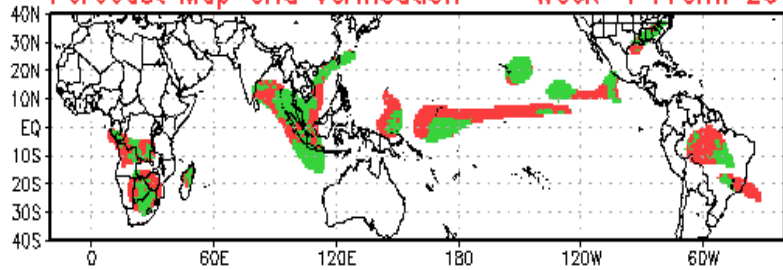
Categorization of 7-Day OLR (#) -- Ending: 20161206



Forecast Map Grid -- Week-1 From: 20161129

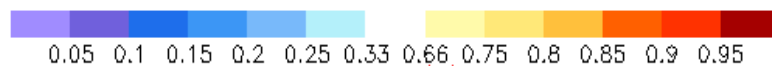
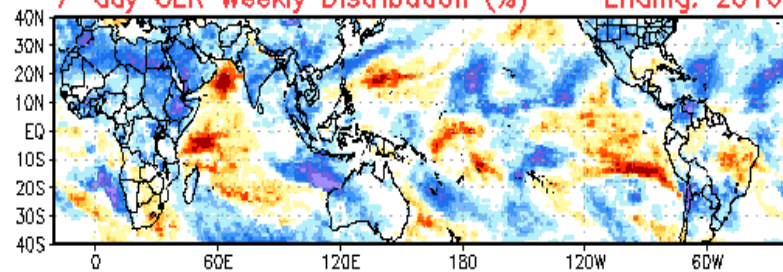


Forecast Map Grid Verification -- Week-1 From: 20161129

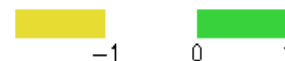
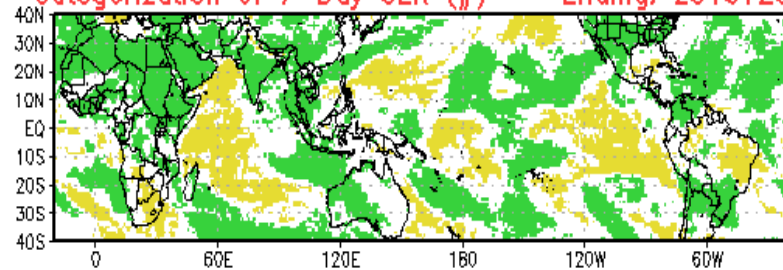


Hit: Green, Miss: Red
Heidke Skill Score: 24.5015

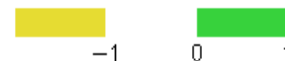
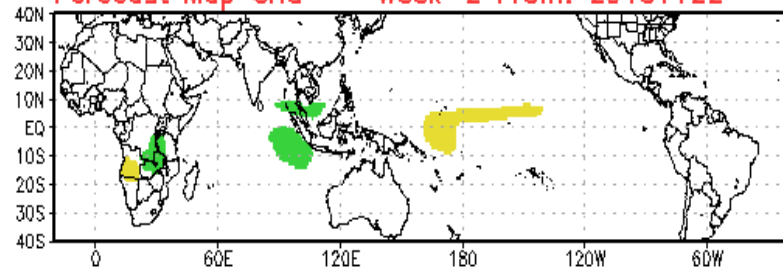
7-day OLR Weekly Distribution (%) -- Ending: 20161206



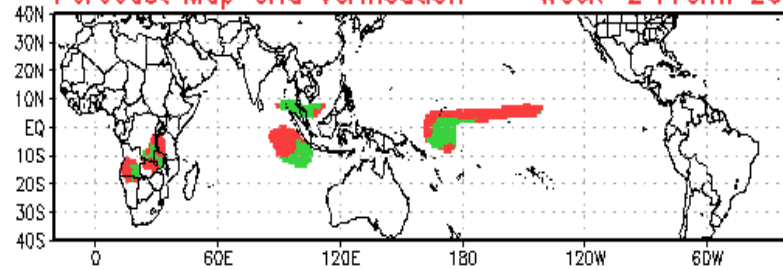
Categorization of 7-Day OLR (#) -- Ending: 20161206



Forecast Map Grid -- Week-2 From: 20161122



Forecast Map Grid Verification -- Week-2 From: 20161122



Hit: Green, Miss: Red
Heidke Skill Score: 9.9025

Synopsis of Climate Modes

ENSO:

- Current: [La Niña Advisory](#)
- Outlook: A transition to ENSO-neutral is likely during late Northern Hemisphere winter or early spring 2017.

MJO and other subseasonal tropical variability:

- The MJO remained fairly weak against a background of other patterns of tropical convective variability. The remnant enhanced phase is likely over the Maritime Continent.
- Most dynamical model MJO index forecasts indicate a weak signal over the next two weeks, though the ECMWF ensemble system suggests some propagation to the West Pacific.

Extratropics:

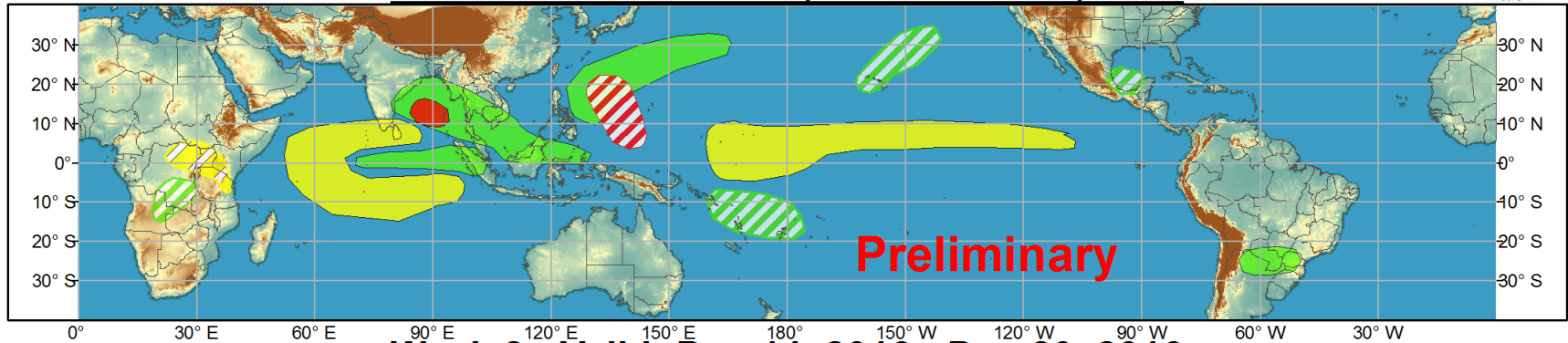
- Extratropical impacts from the MJO are not readily apparent.
- A high amplitude pattern is forecast over the next two weeks for North America, projecting strongly onto the negative phase of the North Pacific Oscillation-West Pacific pattern.



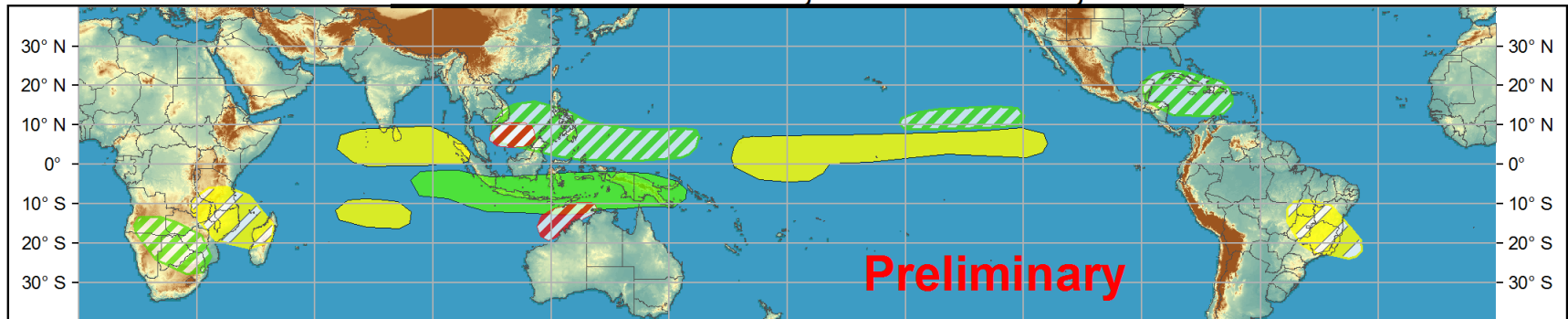
Global Tropics Hazards and Benefits Outlook - Climate Prediction Center



Week 1 - Valid: Dec 07, 2016 - Dec 13, 2016



Week 2 - Valid: Dec 14, 2016 - Dec 20, 2016



Produced: 12/06/2016

Forecaster: Baxter

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.
- 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.

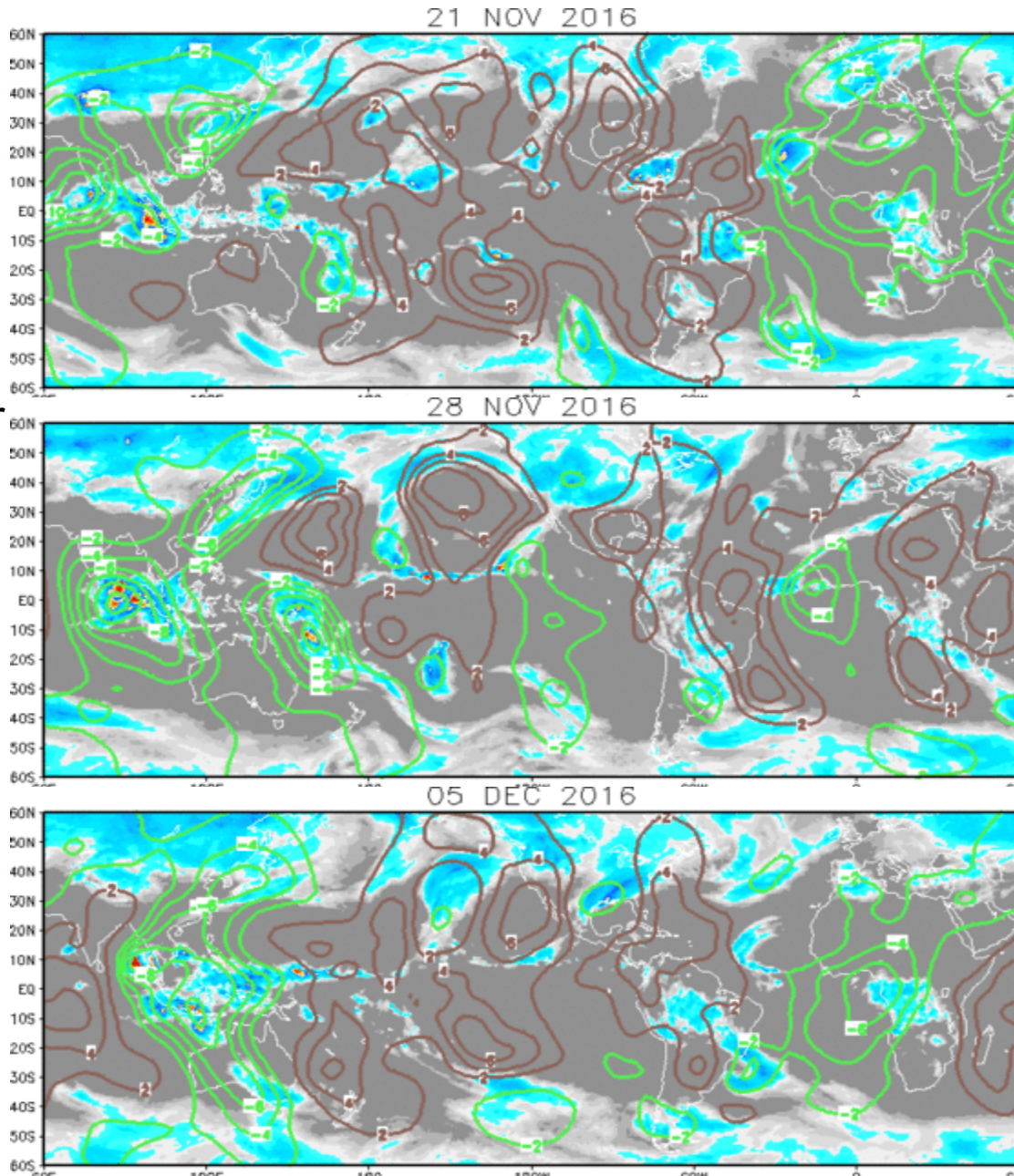
Product is updated once per week, except from 6/1 - 11/30 for the region from 120E to 0, 0 to 40N. The product targets broad scale conditions integrated over a 7-day period for US interests only. Consult your local responsible forecast agency.



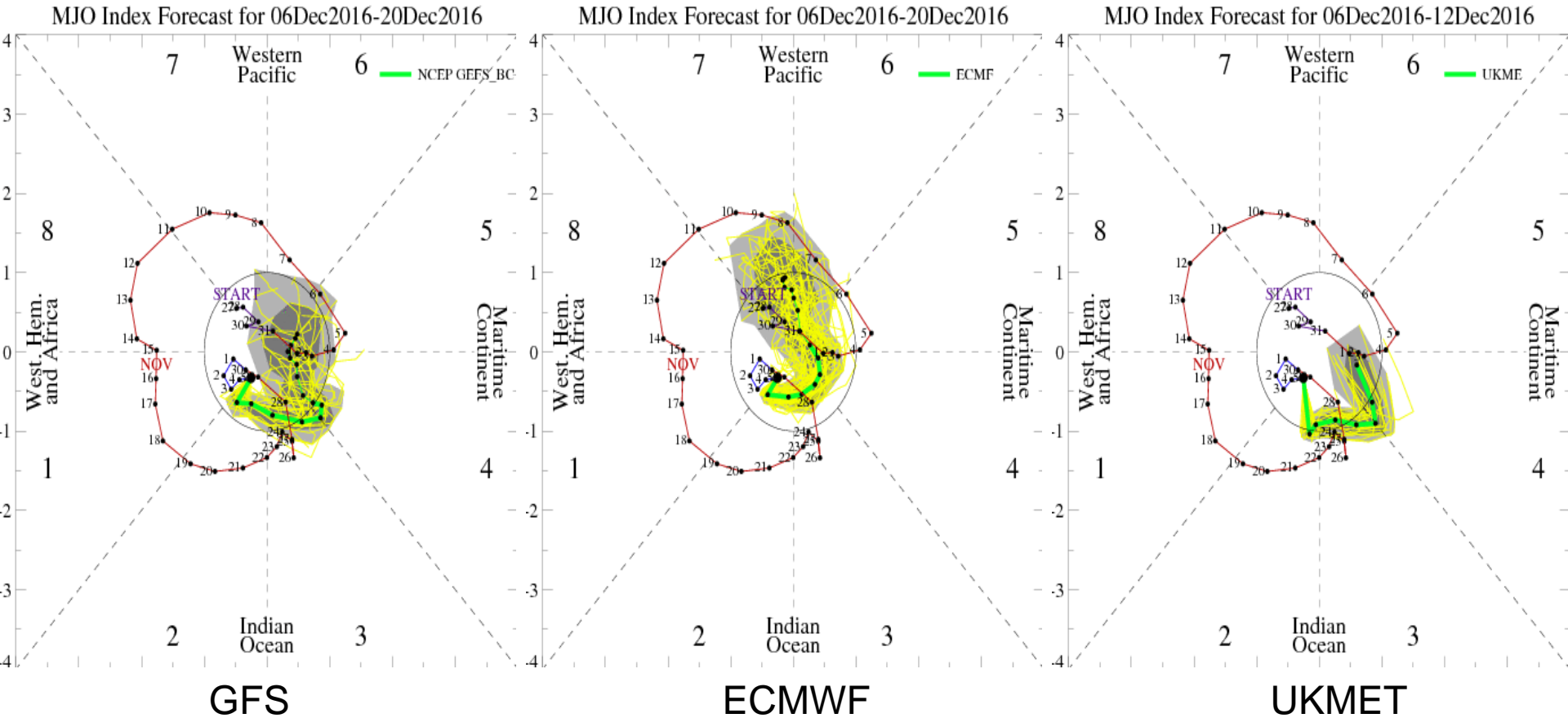
IR Satellite & 200-hpa Velocity Potential Anomalies

Green: Enhanced Divergence Brown: Enhanced Convergence

Generally stationary pattern with some eastward propagation over the eastern IO and Maritime Continent.

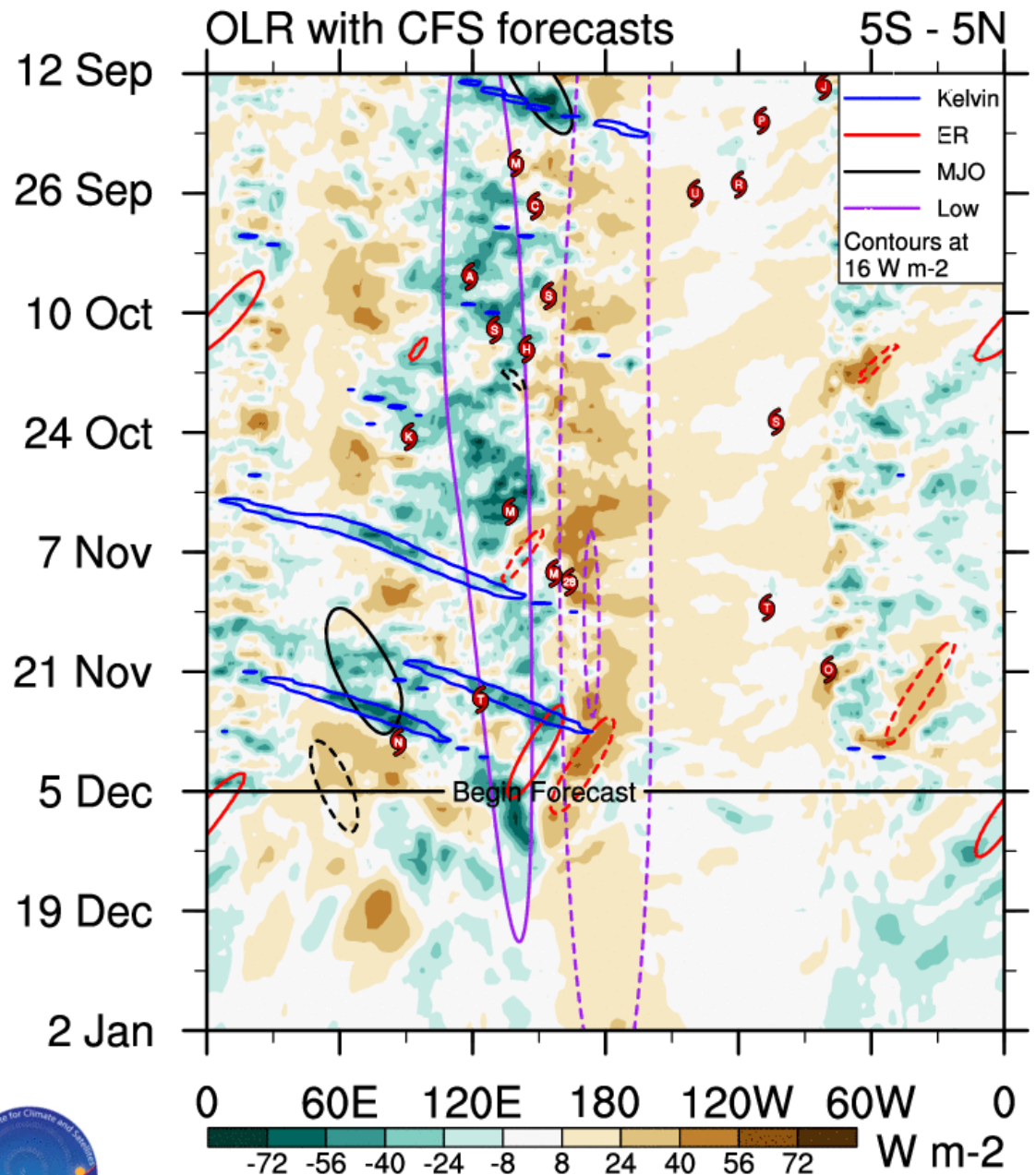


MJO Observation/Forecast

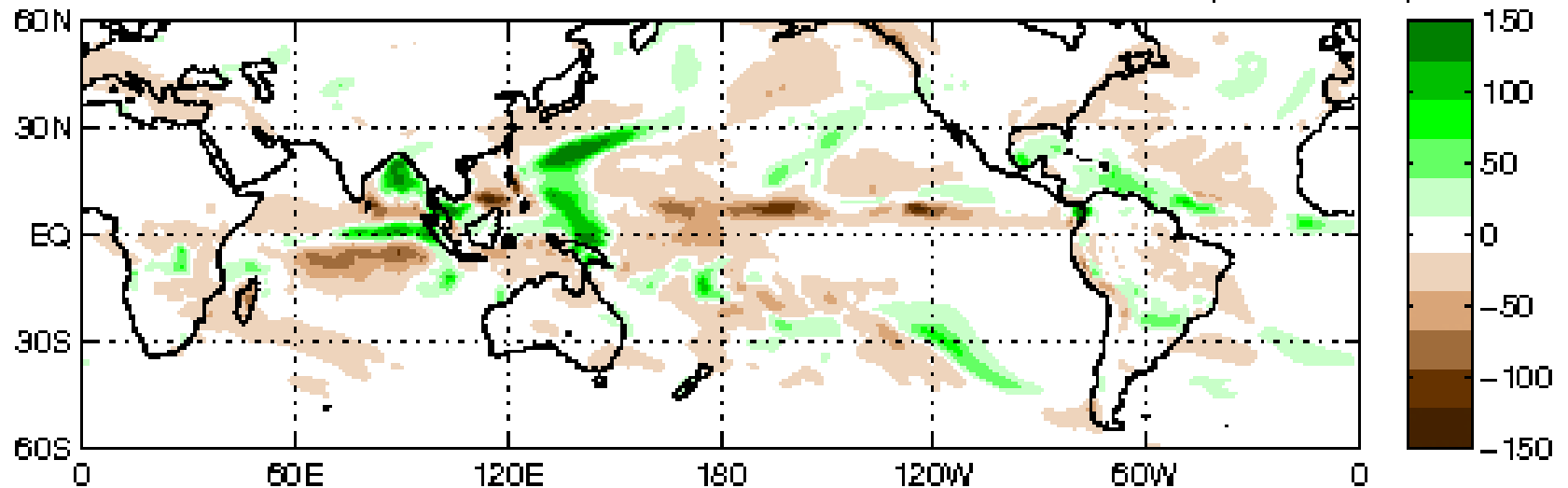


The ECMWF shows propagation of the convective envelope toward the West Pacific.

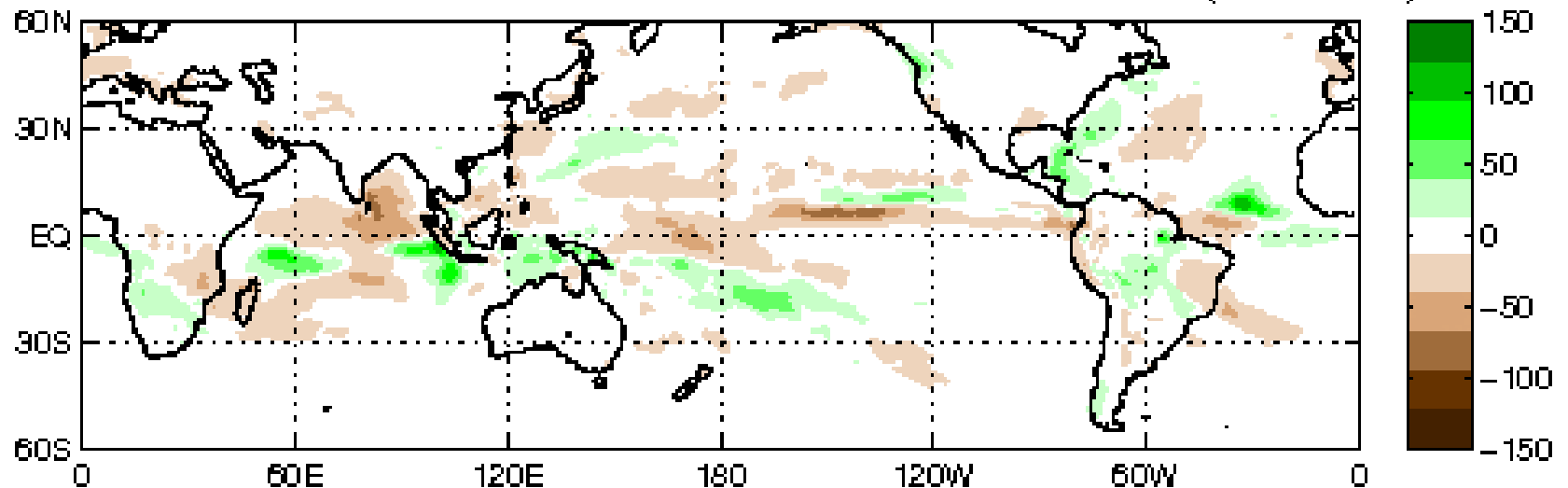
The low-frequency state is evident, as are recent Kelvin waves and westward-moving variability.

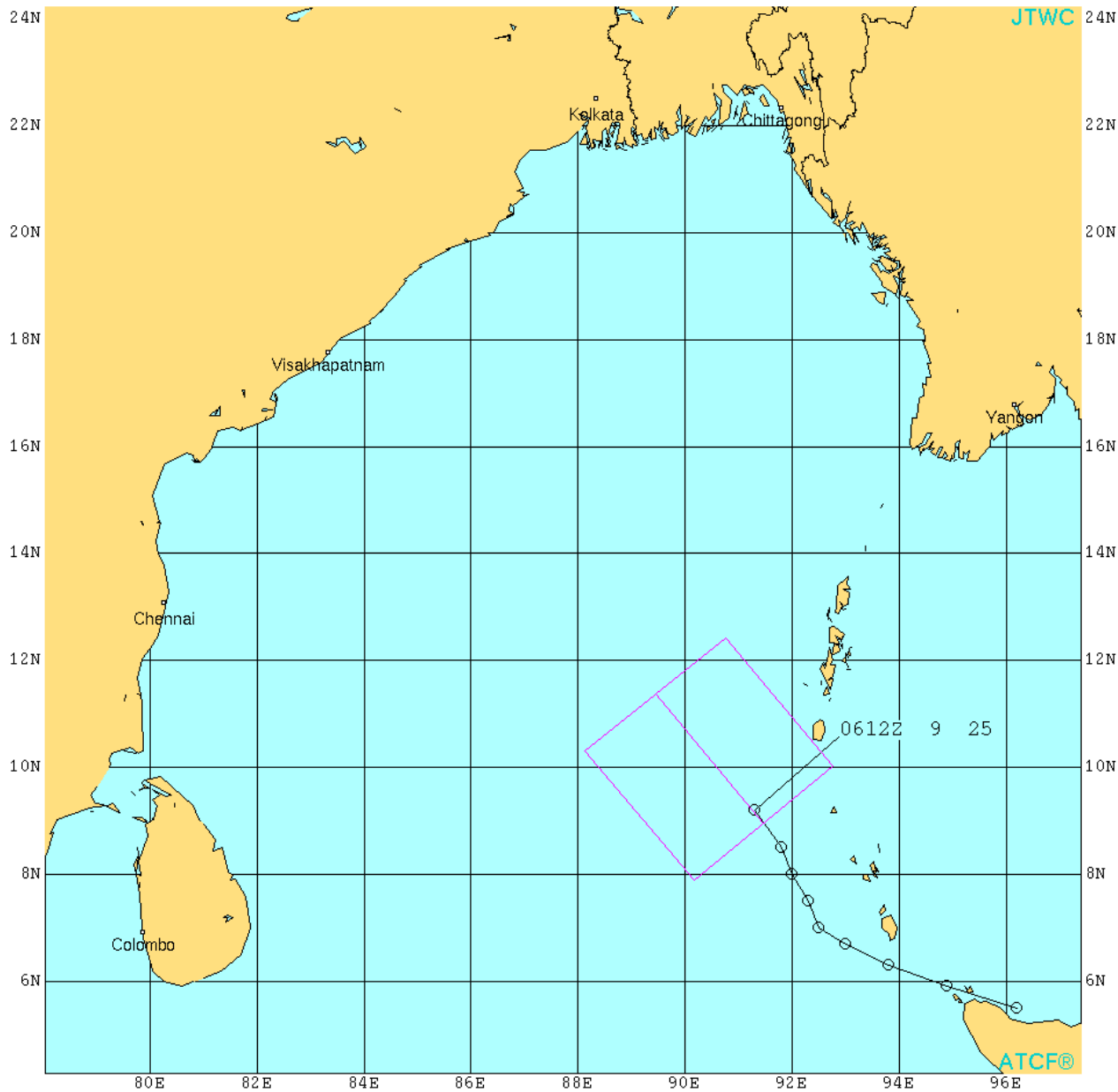


CFS: Anom. PREC Week: 1: 07-Dec-2016 to 13-Dec-2016 (mm/week)



CFS: Anom. PREC Week: 2: 14-Dec-2016 to 20-Dec-2016 (mm/week)



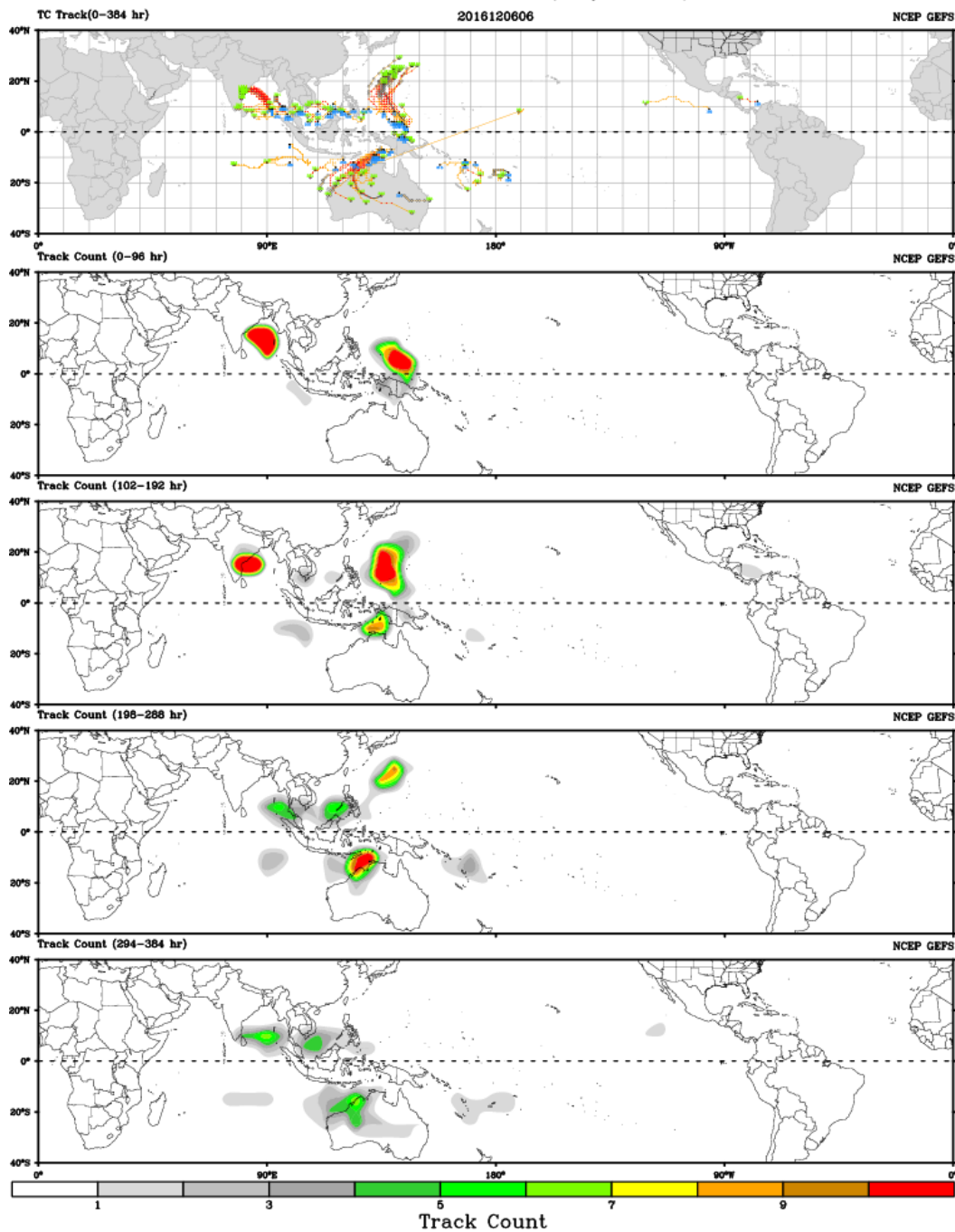


TROPICAL CYCLONE FORMATION ALERT
 WTIO21 PGTW 061600
 061200Z POSITION: NEAR 9.2N 91.3E
 MOVING NORTHWESTWARD AT 09 KNOTS
 MAXIMUM SUSTAINED WINDS: 25 TO 30 KNOTS

06122 9 25

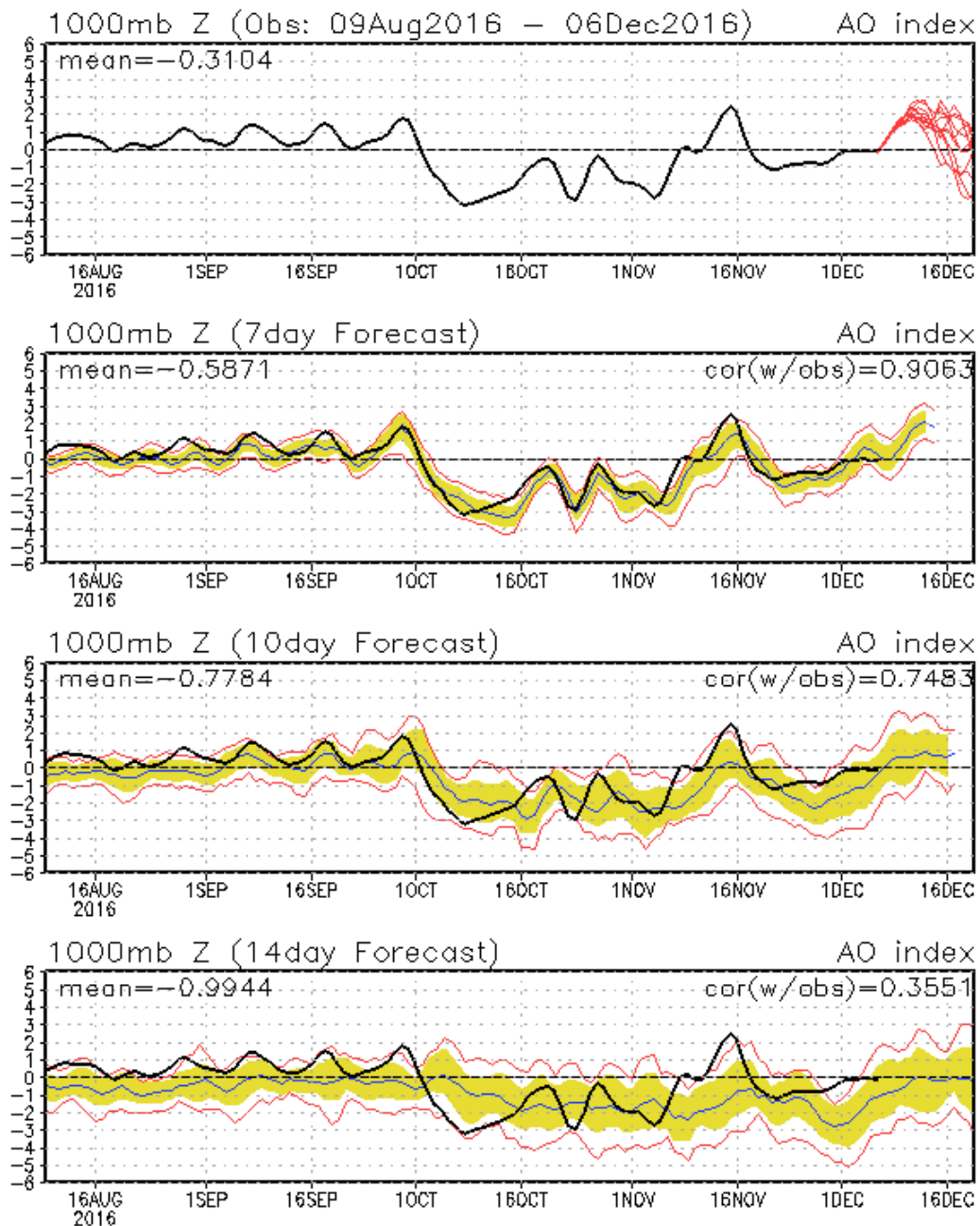


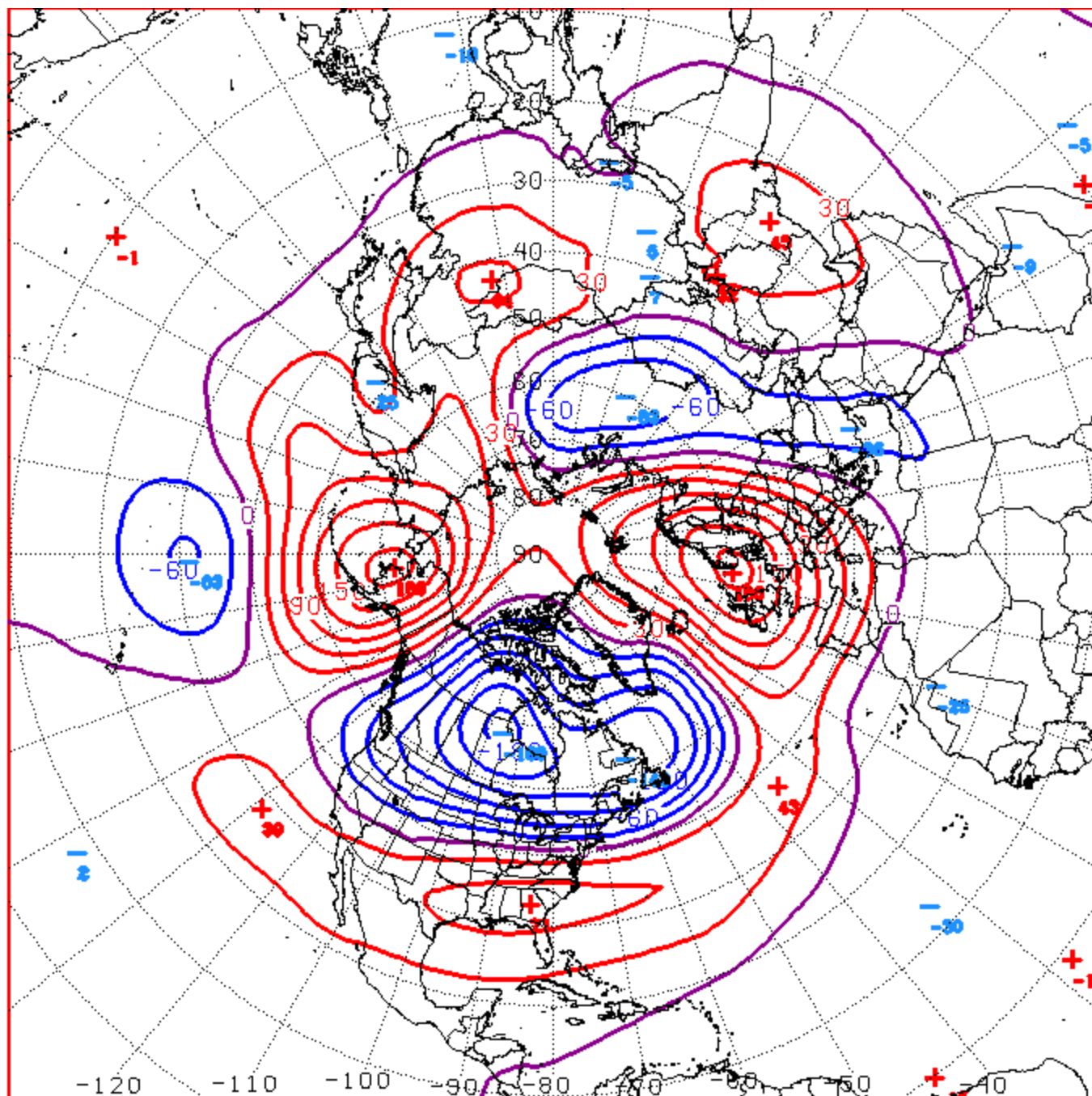
CWB TC Tracker for NCEP GEFS (Fuzzy_AllCriteria)



Connections to U.S. Impacts

AO: Observed & ENSM forecasts

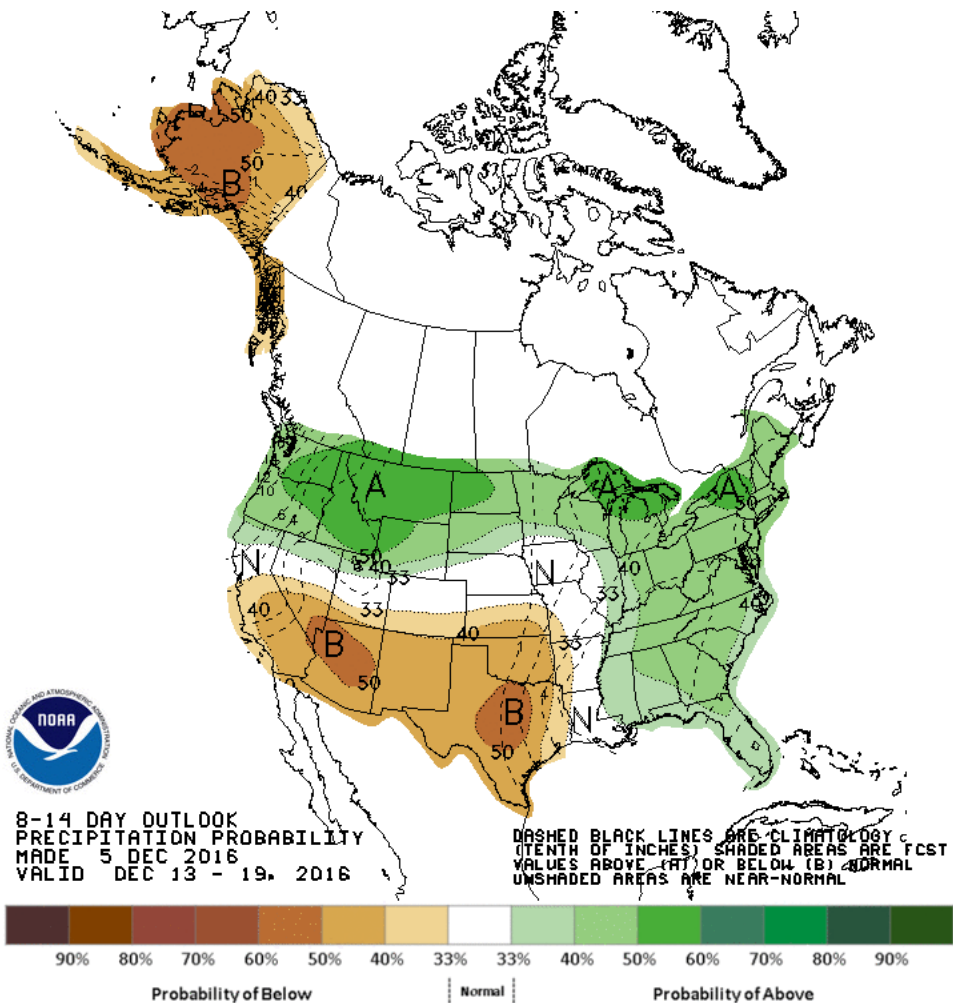
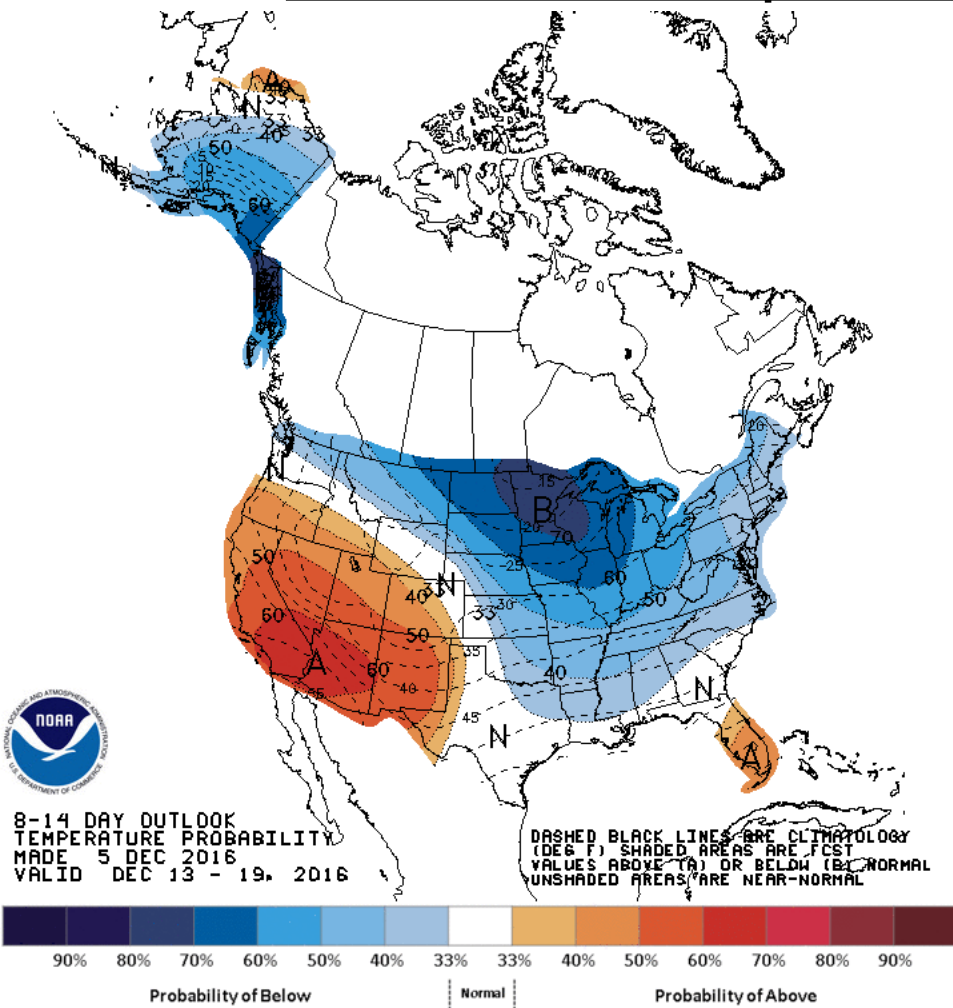




-120 -110 -100 -90 -80 -70 -60 -50 +

D+11 500 MB ANOMALIES FROM ALZ ENSM
CPC MAP MADE DEC 06 2016 1332 UTC CNTD DEC 17 2016

Week 2 – Temperature and Precipitation

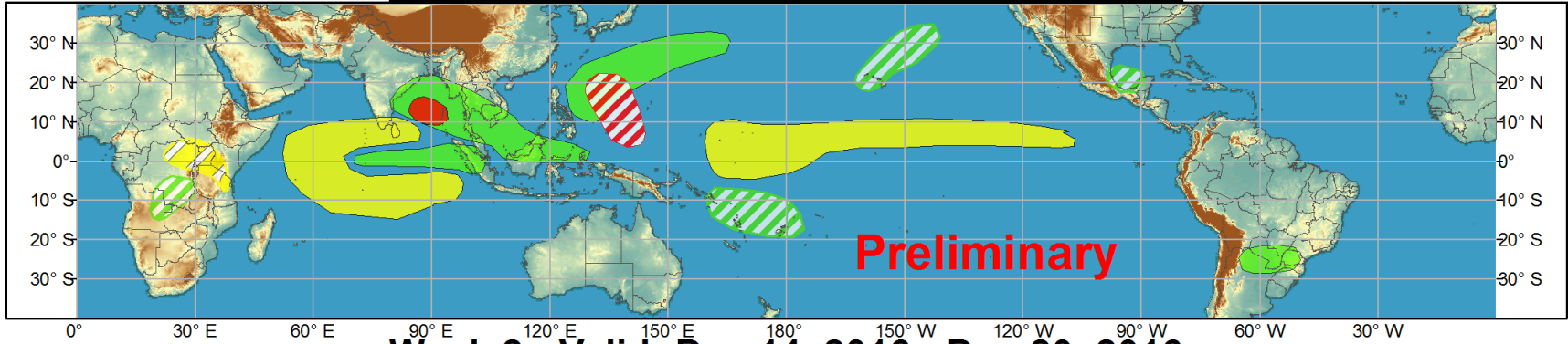




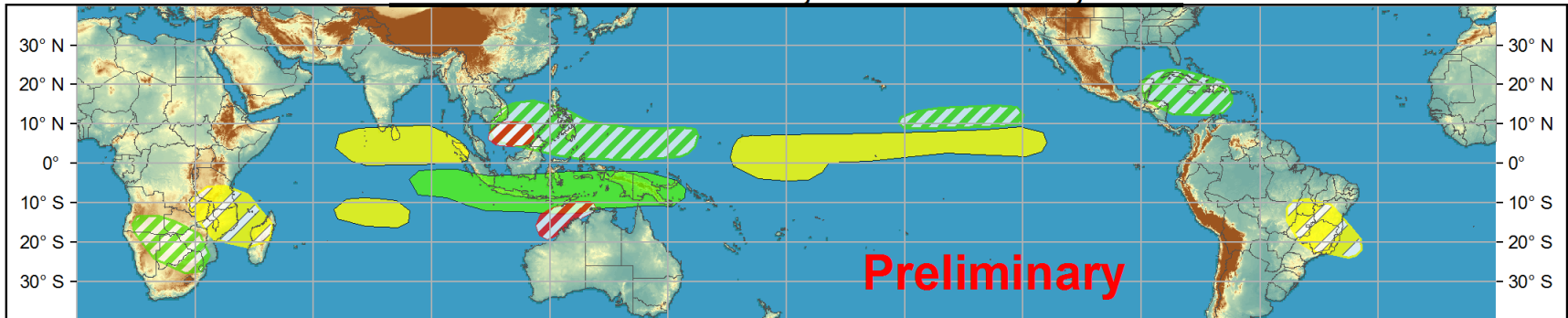
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