Global Tropics Hazards And Benefits Outlook

October 25, 2016

Dan Harnos

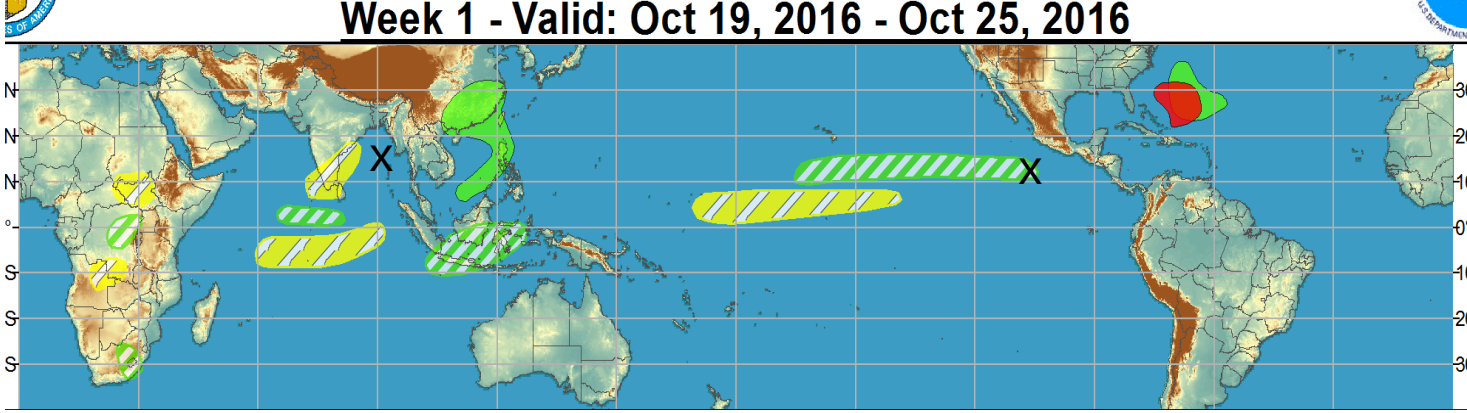
Outline

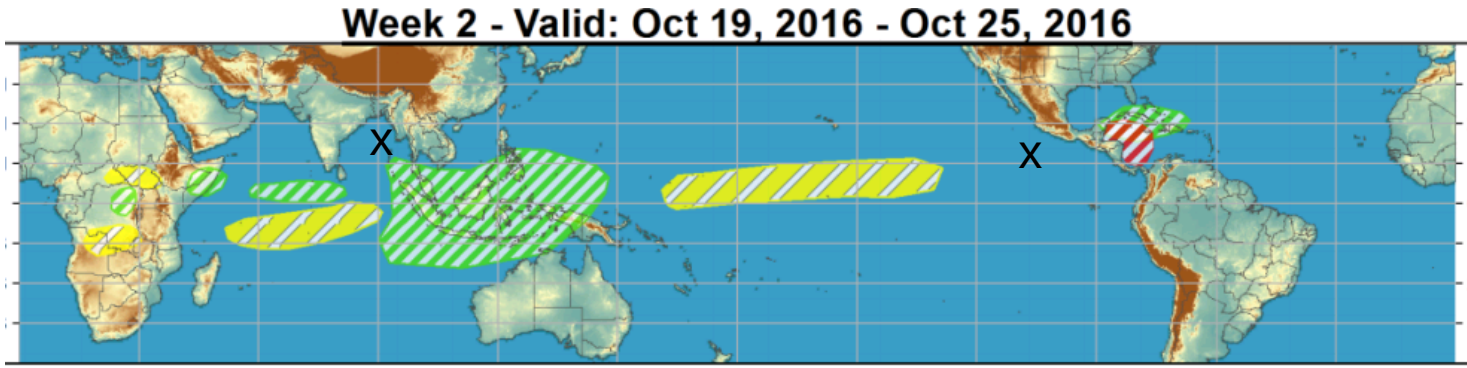
1. Review of Recent Conditions
2. Synopsis of Climate Modes
3. GTH Outlook and Forecast Discussion
4. Connections to U.S. Impacts

Outlook Review

North Indian:
TS3 “Kyant”
45 kt

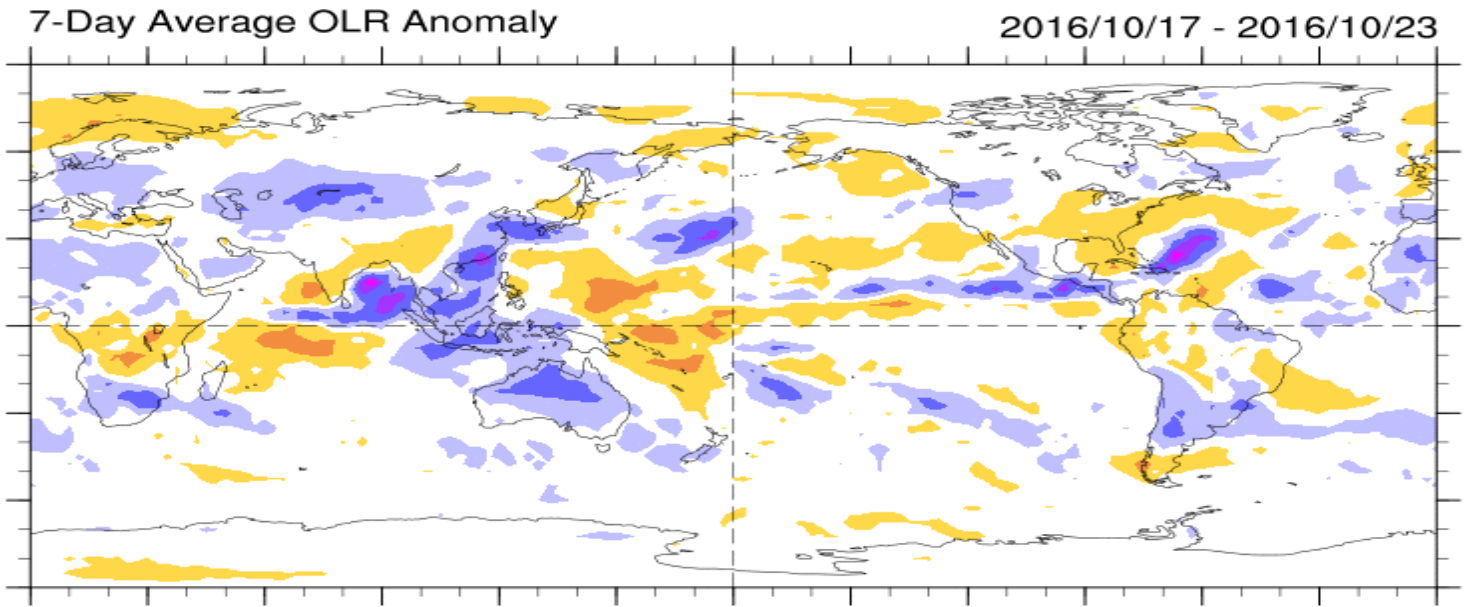
East Pacific:
Seymour
110 kt (Cat. 3)



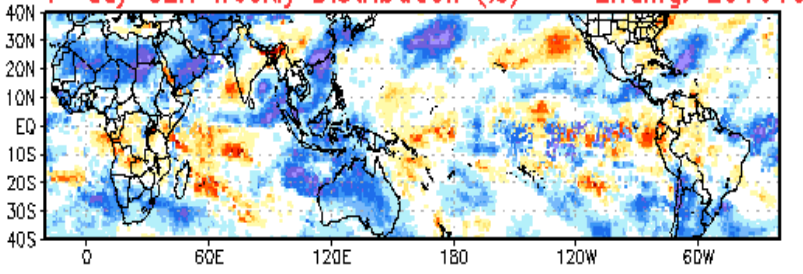


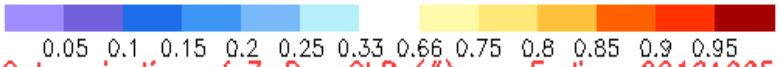
Cool shading
More clouds/rain

Warm shading
Less clouds/rain

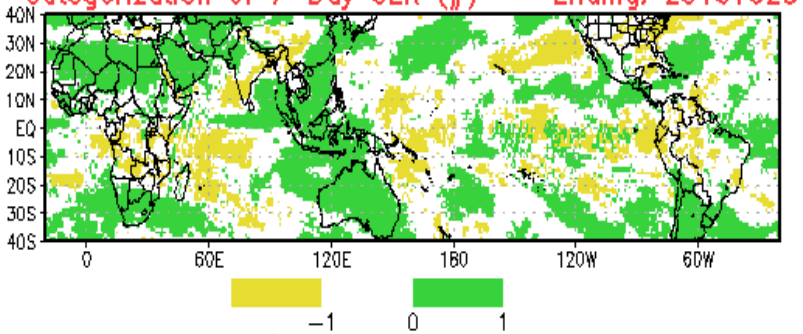


7-day OLR Weekly Distribution (%) -- Ending: 20161025

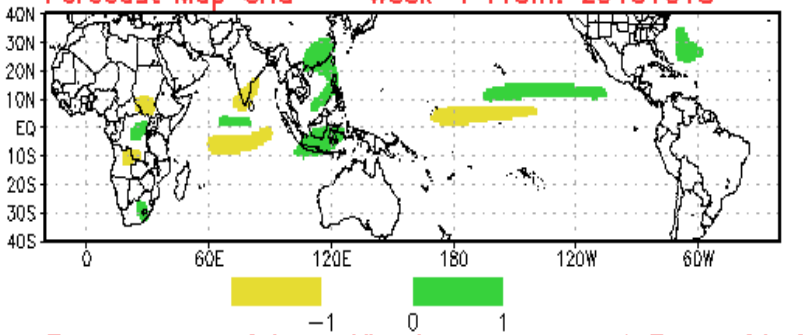




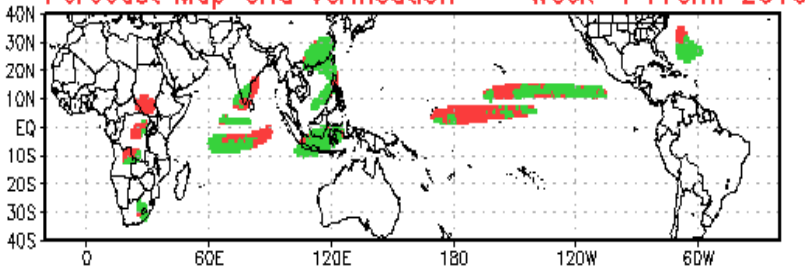
Categorization of 7-Day OLR (#) -- Ending: 20161025



Forecast Map Grid -- Week-1 From: 20161018

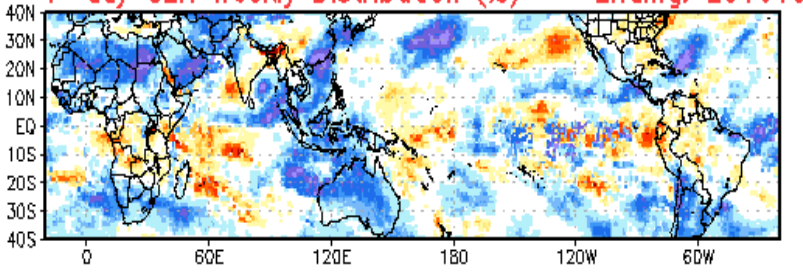


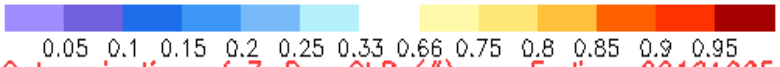
Forecast Map Grid Verification -- Week-1 From: 20161018



Hit: Green, Miss: Red
Heidke Skill Score: 44.7413

7-day OLR Weekly Distribution (%) -- Ending: 20161025





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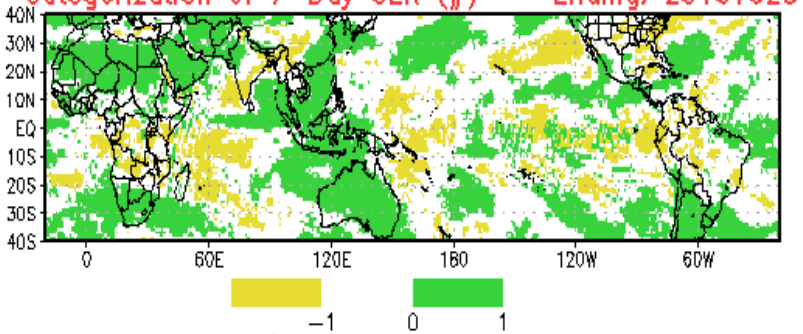
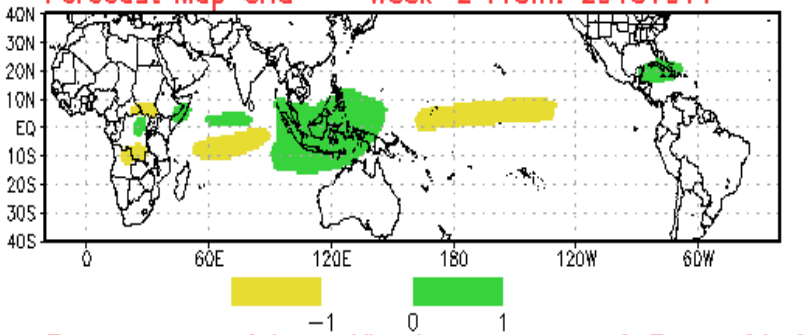
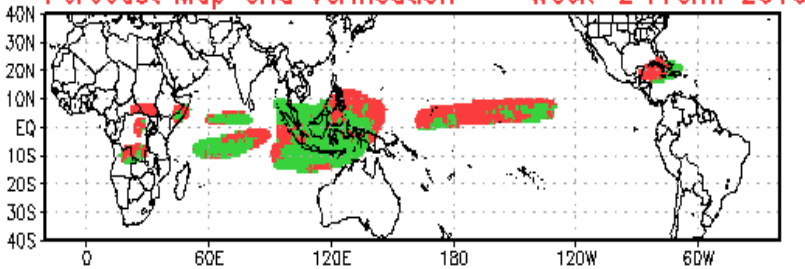


Forecast Map Grid -- Week-2 From: 20161011



Forecast Map Grid Verification -- Week-2 From: 20161011



Hit: Green, Miss: Red
Heidke Skill Score: 31.4466

Synopsis of Climate Modes

ENSO:

- **La Niña Watch**
- La Niña is favored to develop (~70% chance) during the Northern Hemisphere fall, and slightly favored to persist (~55% chance) this winter 2016-17.

MJO and other subseasonal tropical variability:

- MJO activity not present, instead low frequency modes appear to be driving the tropical circulation.

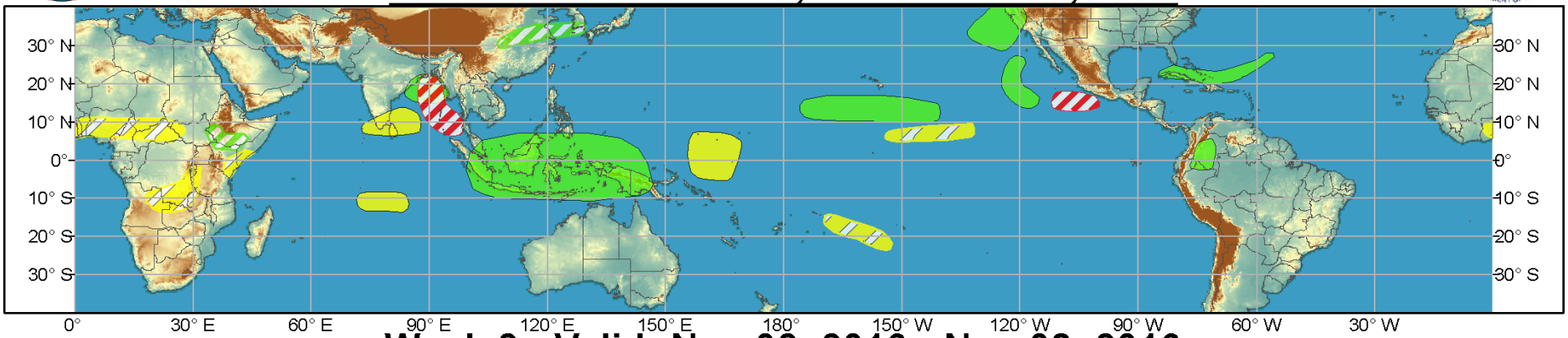
- Dynamical model guidance diverges regarding possible emergence of a potentially weak MJO over the next two weeks, but tends to suggest continued weakness of the intraseasonal signal.

Extratropics:

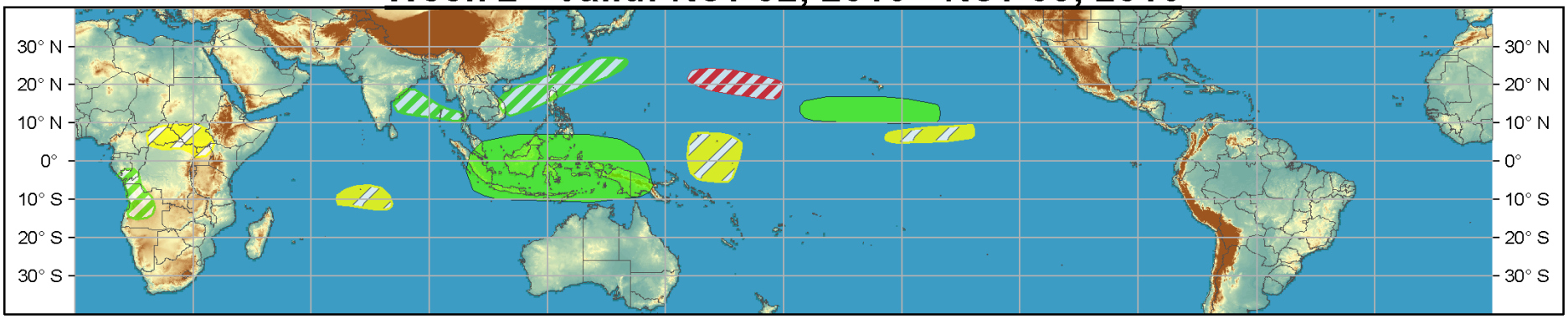
- Tropical and subtropical impacts related to the MJO are not anticipated at this time. Influences instead are expected to be driven by the low frequency state and possible tropical cyclone activity.

Global Tropics Hazards and Benefits Outlook - Climate Prediction Center

Week 1 - Valid: Oct 26, 2016 - Nov 01, 2016



Week 2 - Valid: Nov 02, 2016 - Nov 08, 2016



Produced: 10/25/2016

Forecaster: D.Harnos

	Confidence: High	Confidence: 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.
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UNIVERSITY AT ALBANY State University of New York

EARTH SYSTEM SCIENCE INTERDISCIPLINARY CENTER ESSIC UNIVERSITY OF MARYLAND

Australian Government Bureau of Meteorology

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NPS PRAESTANTIA PER SCIENTIAM

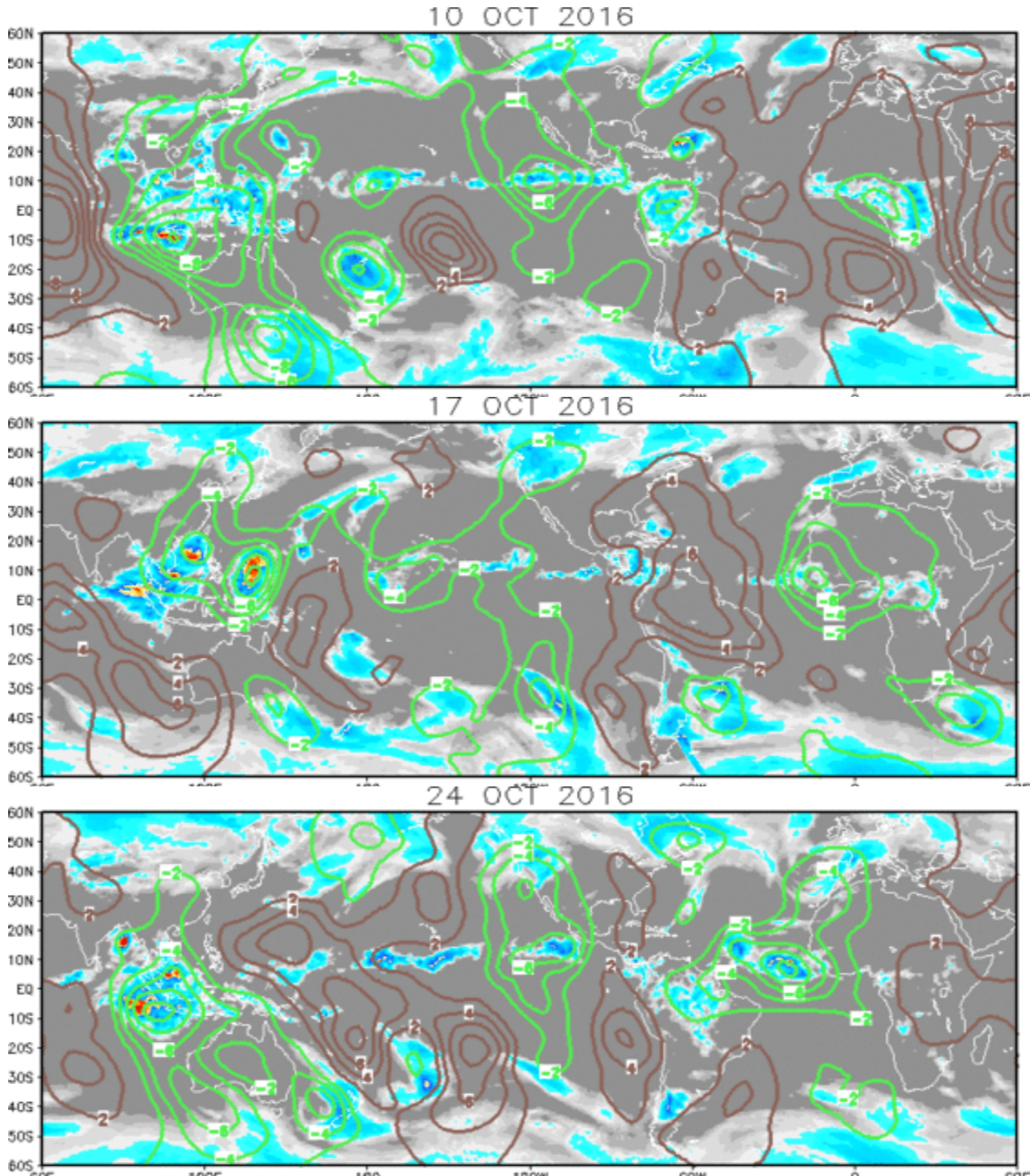
IR Satellite & 200-hpa Velocity Potential Anomalies

Green: Enhanced Divergence Brown: Enhanced Convergence

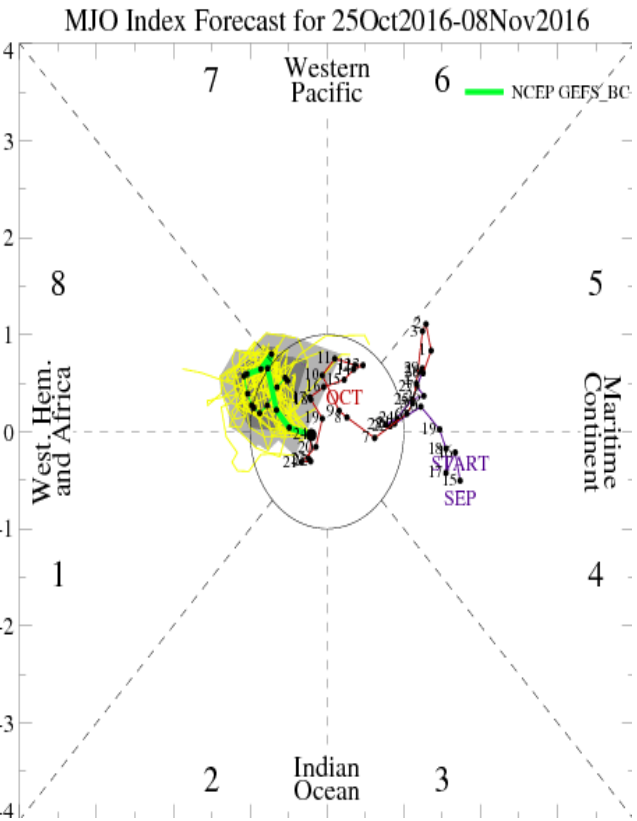
Incoherent pattern, strong anomalies associated with neg. Indian Ocean Dipole event over Maritime Continent.

Continued messy pattern, low-frequency signal and TCs over West Pacific most apparent.

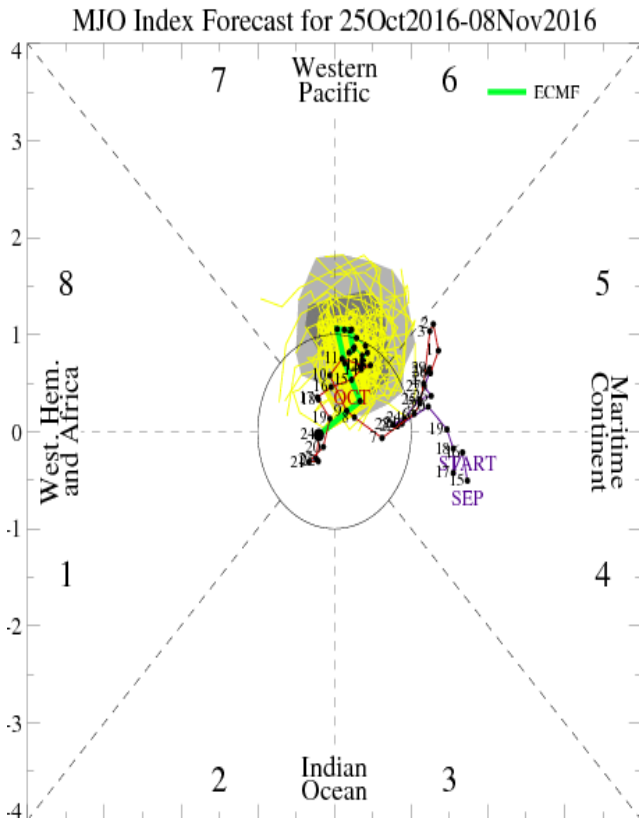
Wave-3 pattern with more coherent spatial anomalies. Still appears largely tied to the low frequency state and TC activity.



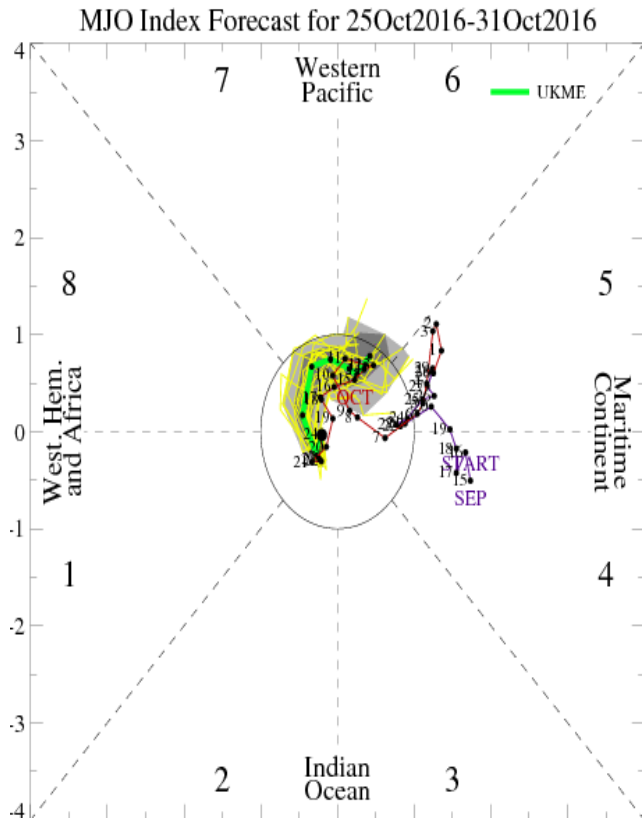
MJO Observation/Forecast



GEFS



ECMWF

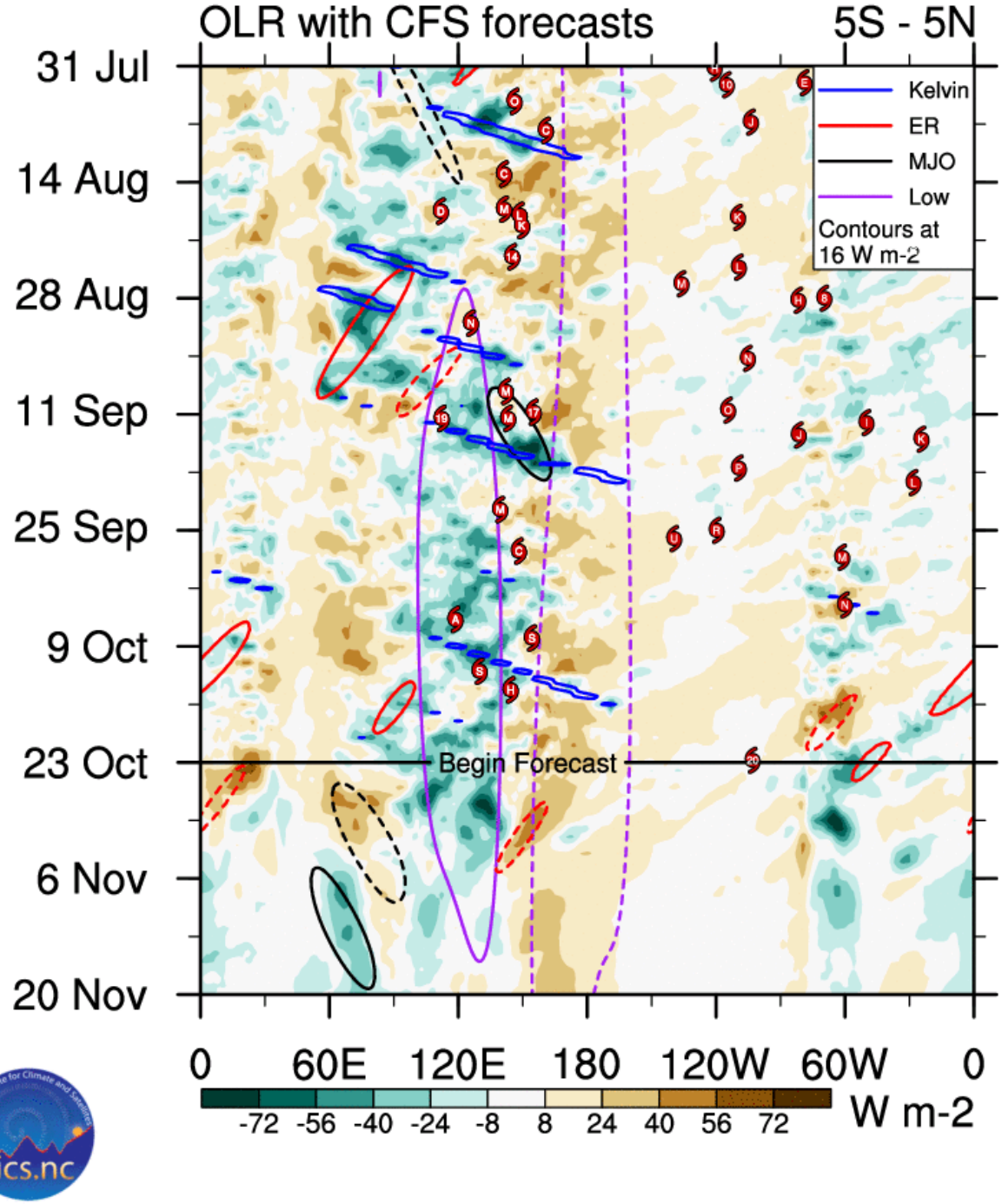


UKMET

Model guidance diverges in regards to MJO treatment. The GEFS briefly amplifies an East Pacific signal in week-2, while the ECMWF and UKMET support a possible weak MJO signal in the West Pacific during week-2.

Model spread is substantial, other guidance supports weakness in the RMM index.

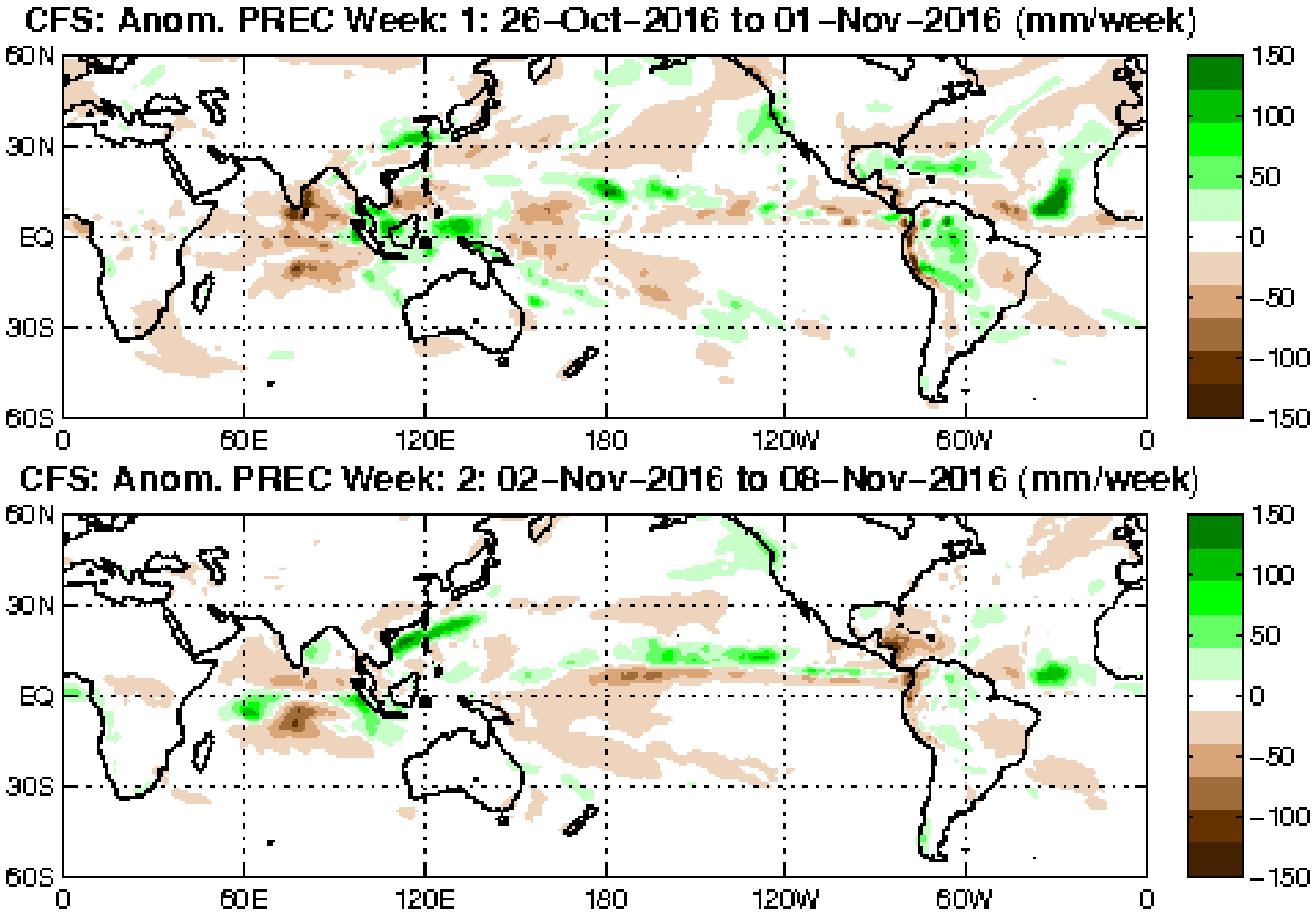
Low frequency activity most apparent. Hints of **Rossby wave** and **MJO** activity over next two weeks, although inconsistency among models.



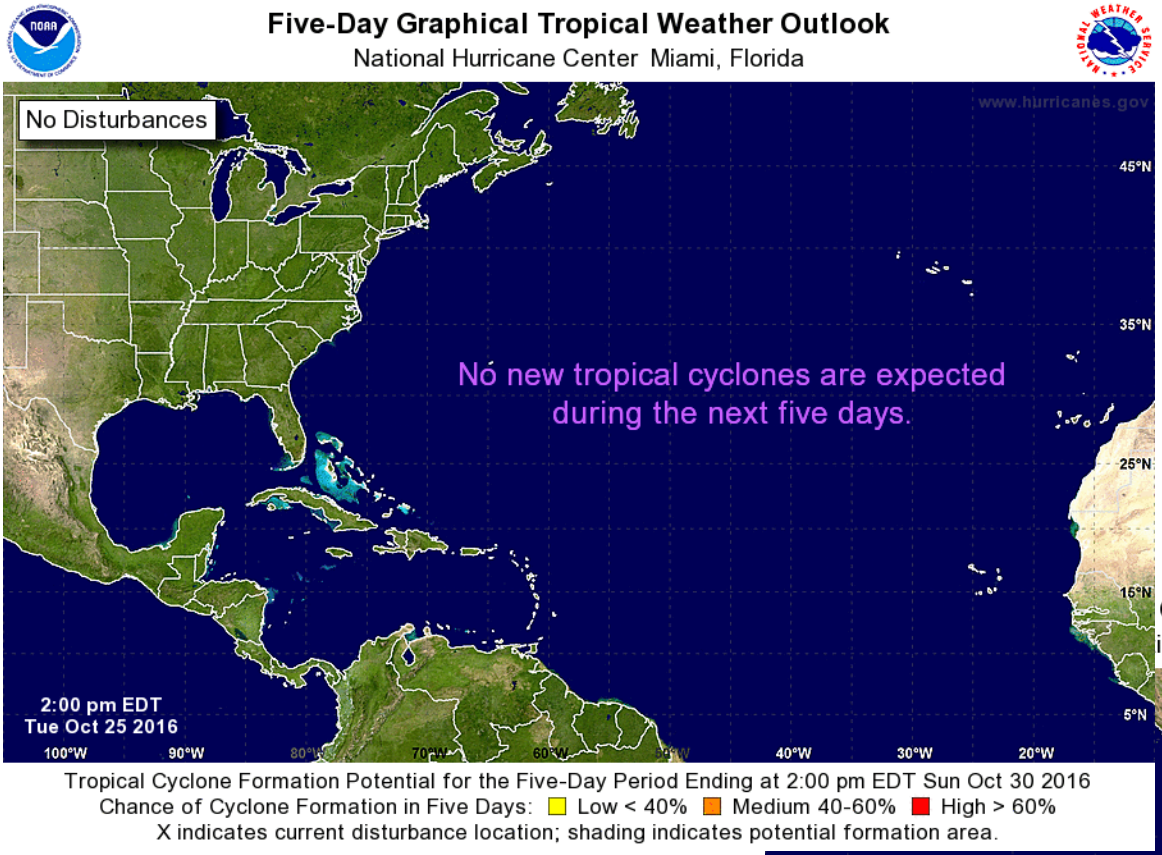
ncics.org/mjo

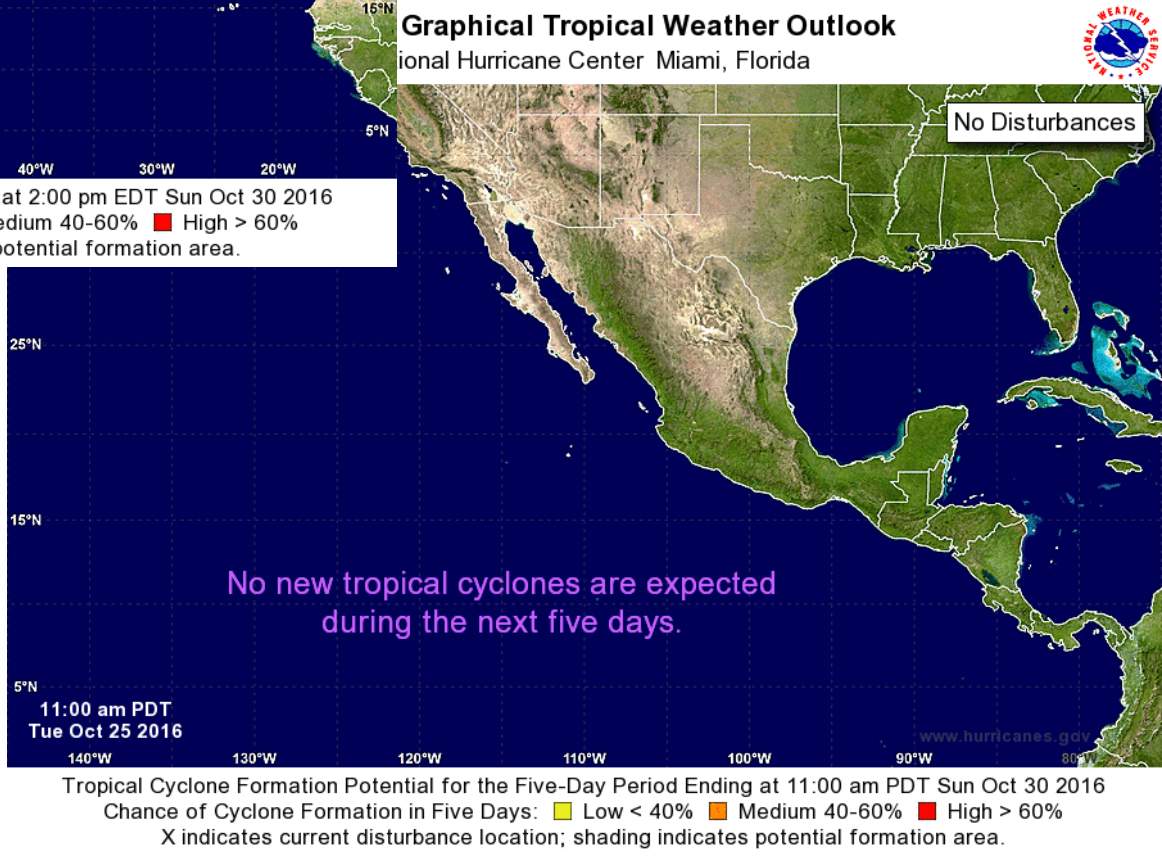
Mon 2016-10-24 1511 UTC

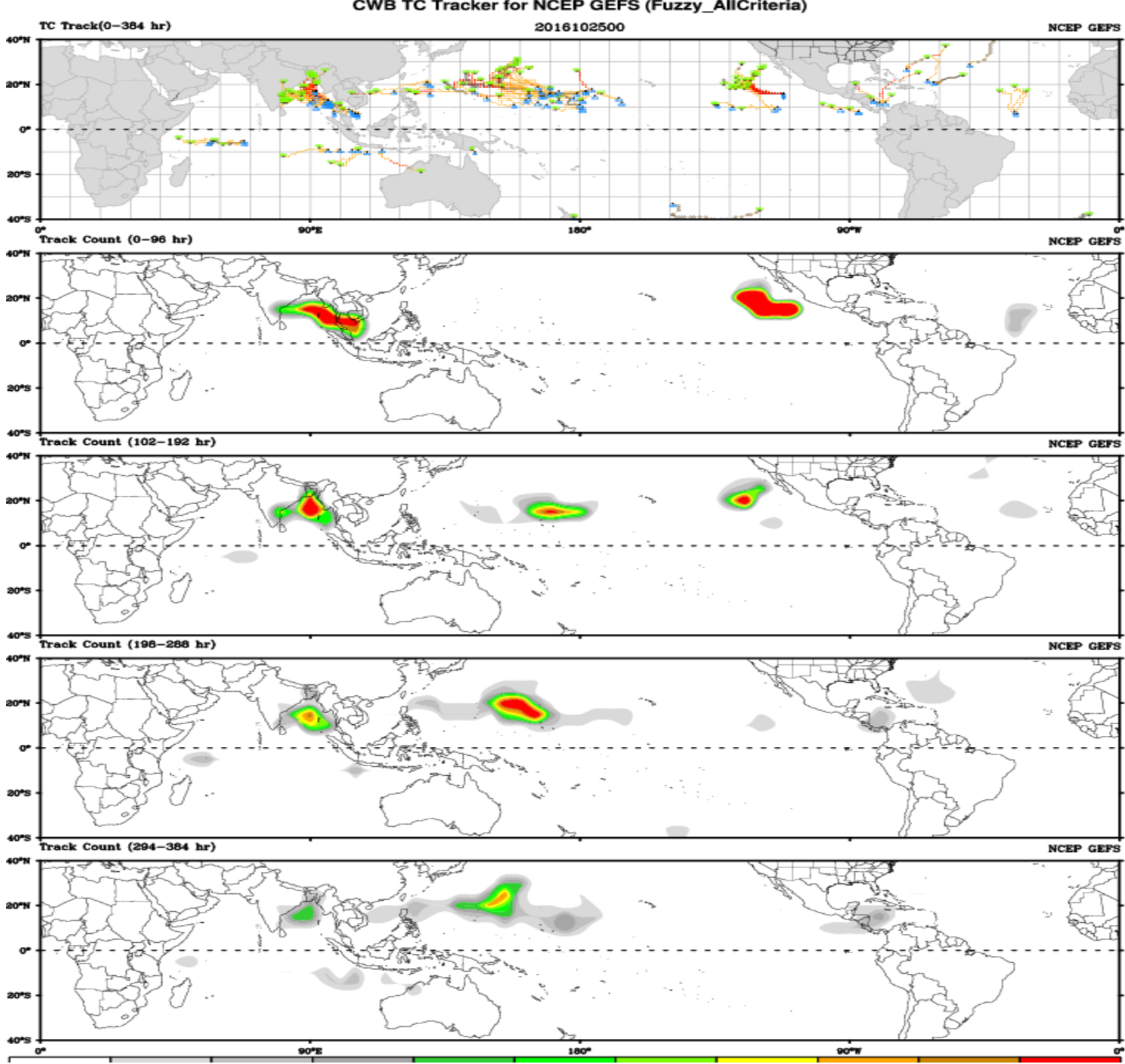
Carl Schreck (cjschrec@ncsu.edu)


CFS: Anom. PREC Week: 1: 26-Oct-2016 to 01-Nov-2016 (mm/week)
60N
30N
EQ
30S
60S
0
60E
120E
180
120W
60W
0
150
100
50
0
-50
-100
-150
CFS: Anom. PREC Week: 2: 02-Nov-2016 to 08-Nov-2016 (mm/week)
60N
30N
EQ
30S
60S
0
60E
120E
180
120W
60W
0
150
100
50
0
-50
-100
-150

Graphical Tropical Weather Outlooks







Days 1-4

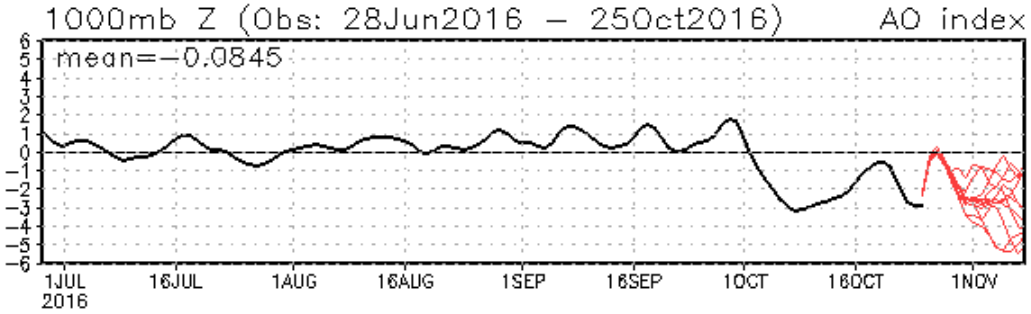
Day 5-8

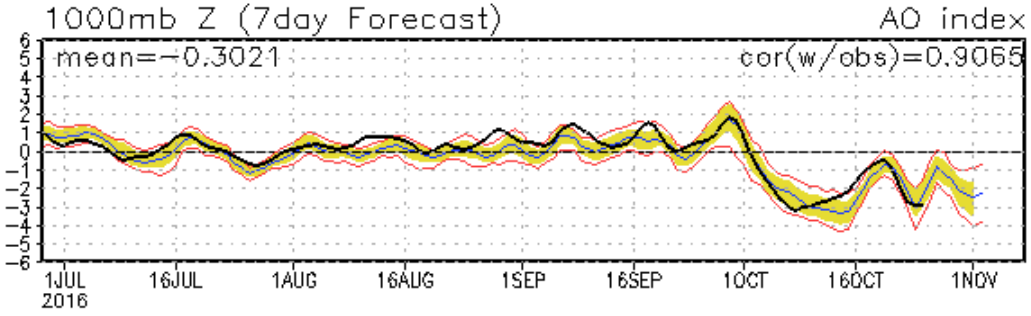
Day 9-12

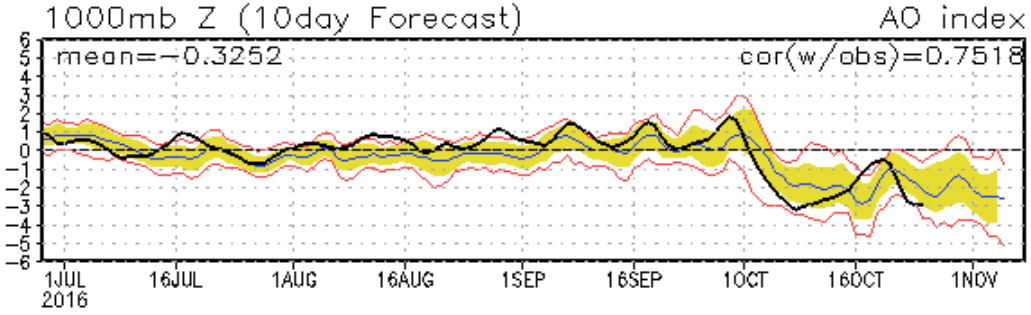
Day 13-15

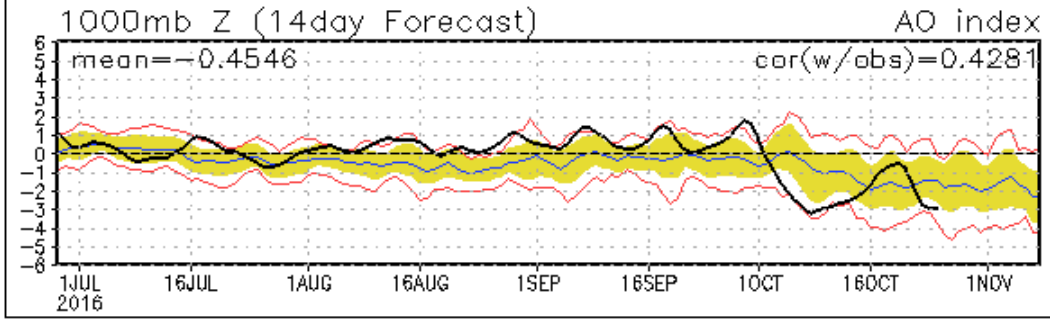
Connections to U.S. Impacts

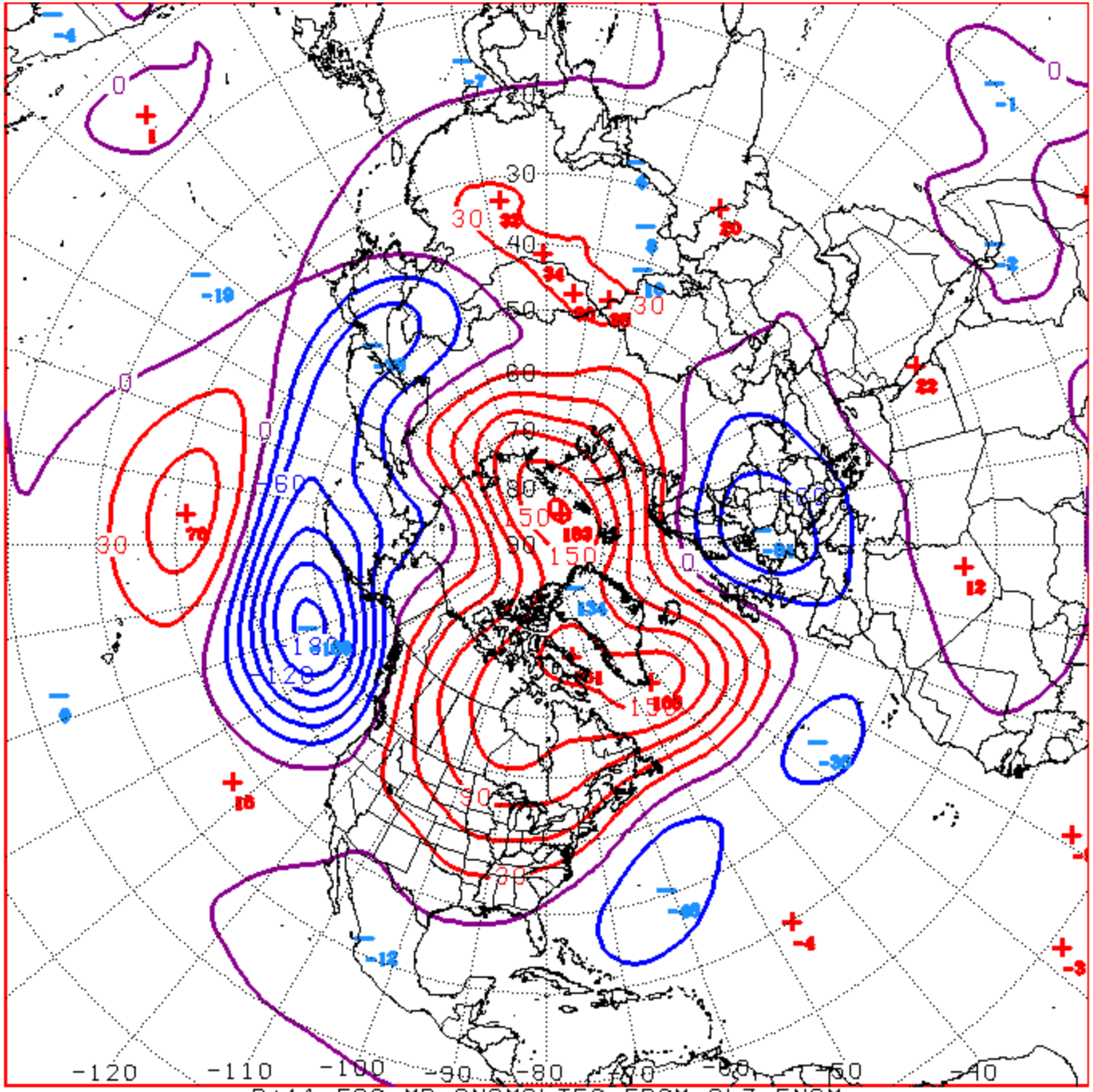
AO: Observed & ENSM forecasts





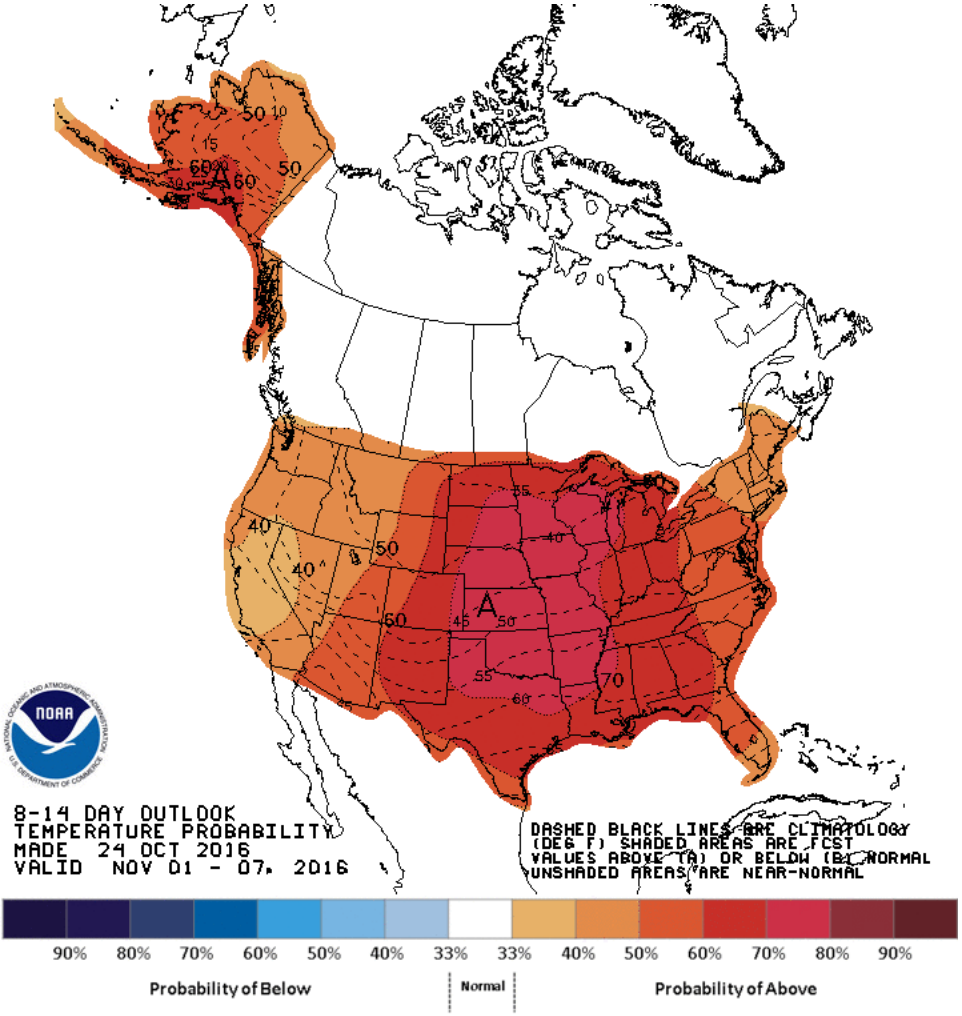


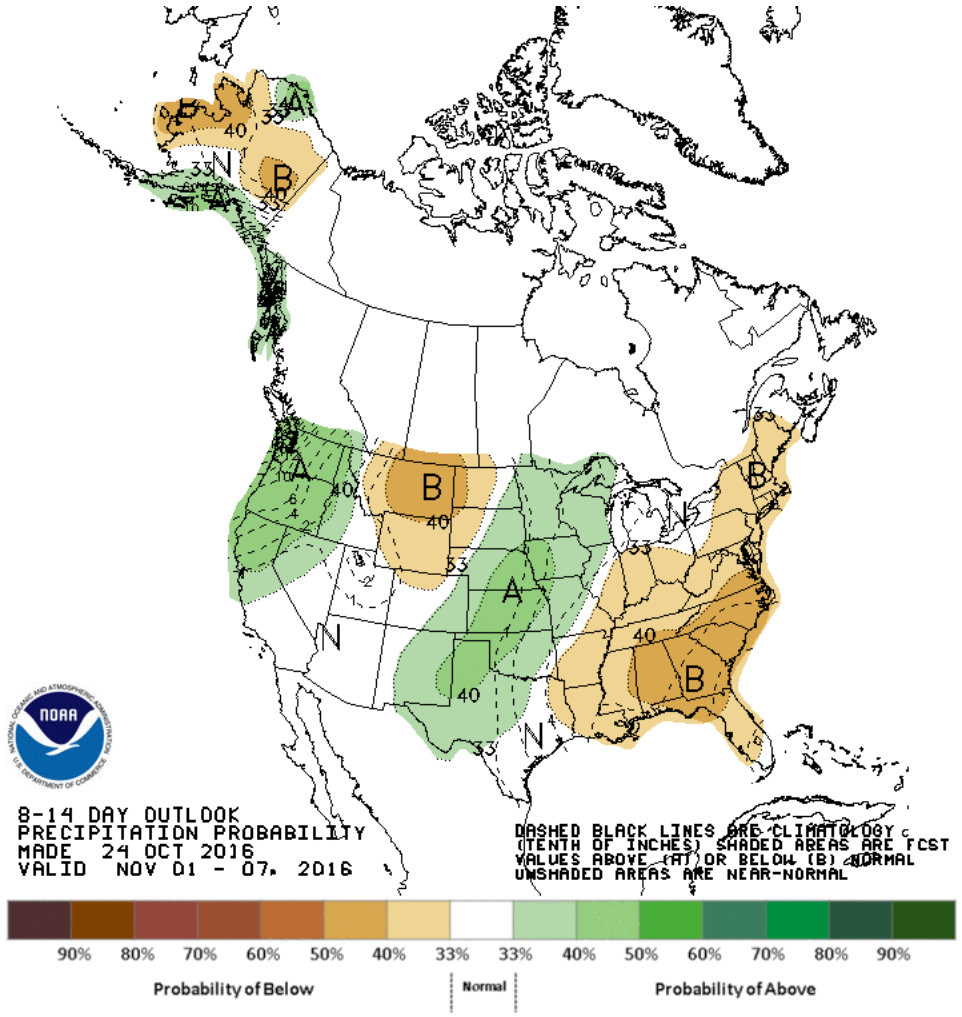




D+11 500 MB ANOMALIES FROM ALZ ENSM
CPC MAP MADE OCT 25 2016 1346 UTC CNTD NOV 05 2016

Week 2 – Temperature and Precipitation





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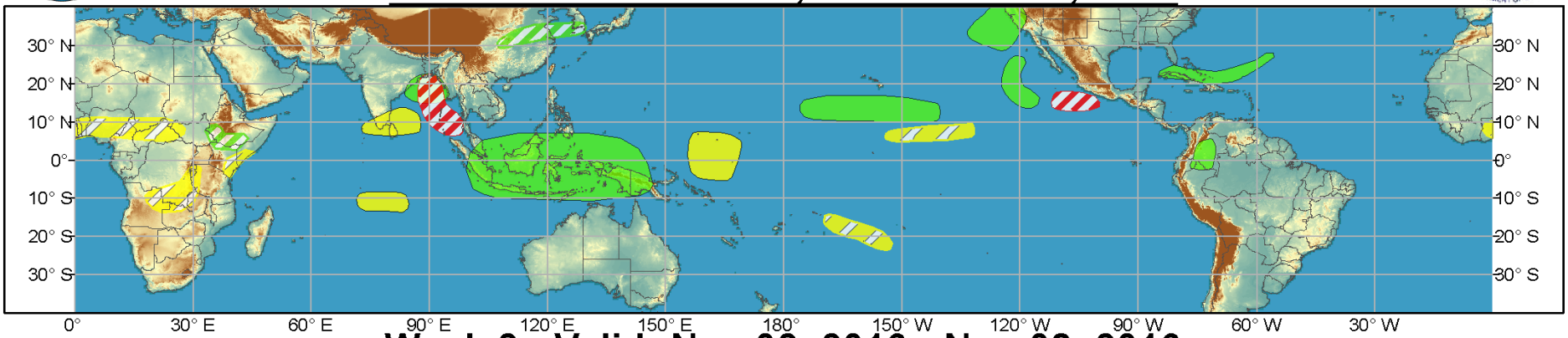

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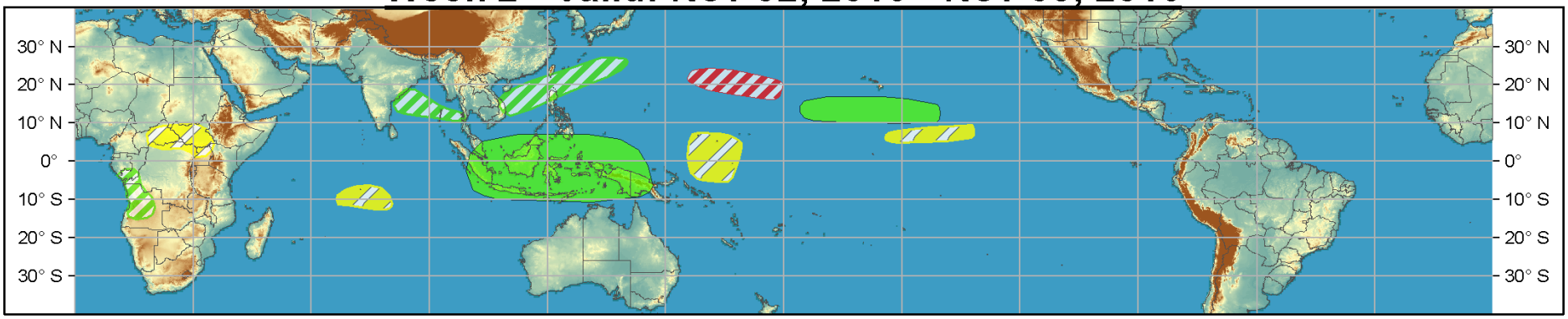

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