Global Tropics Hazards And Benefits Outlook

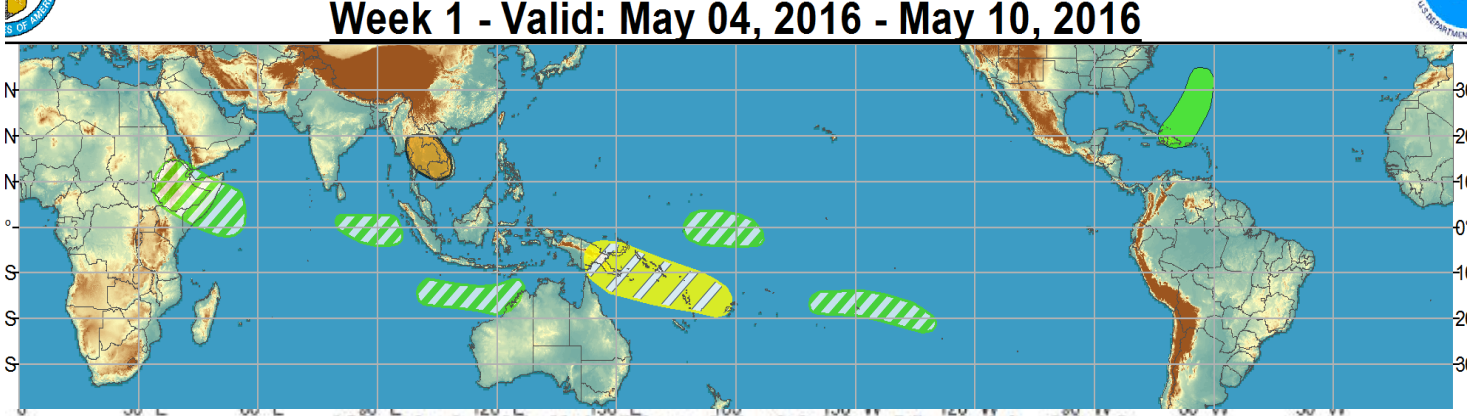
May 10, 2016

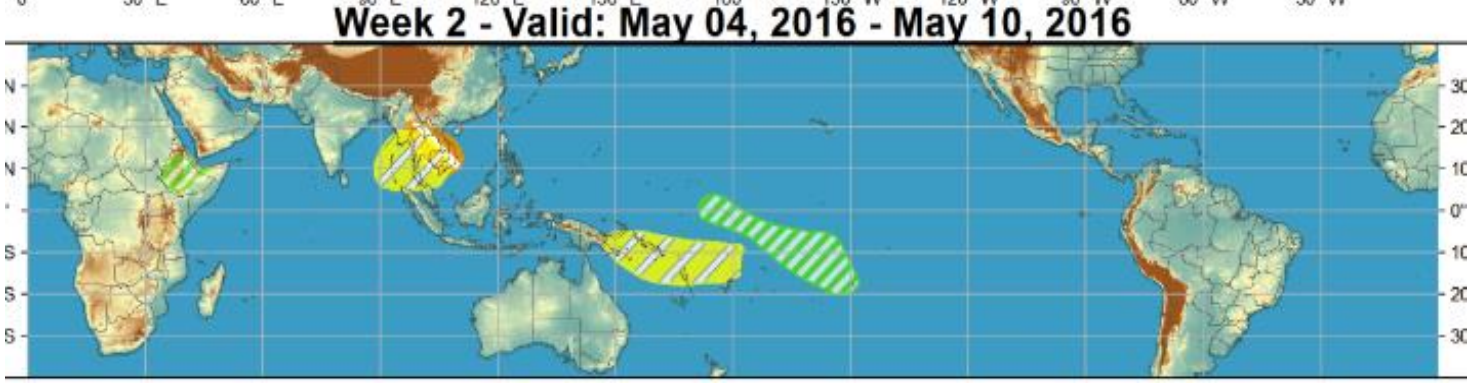
Anthony Artusa

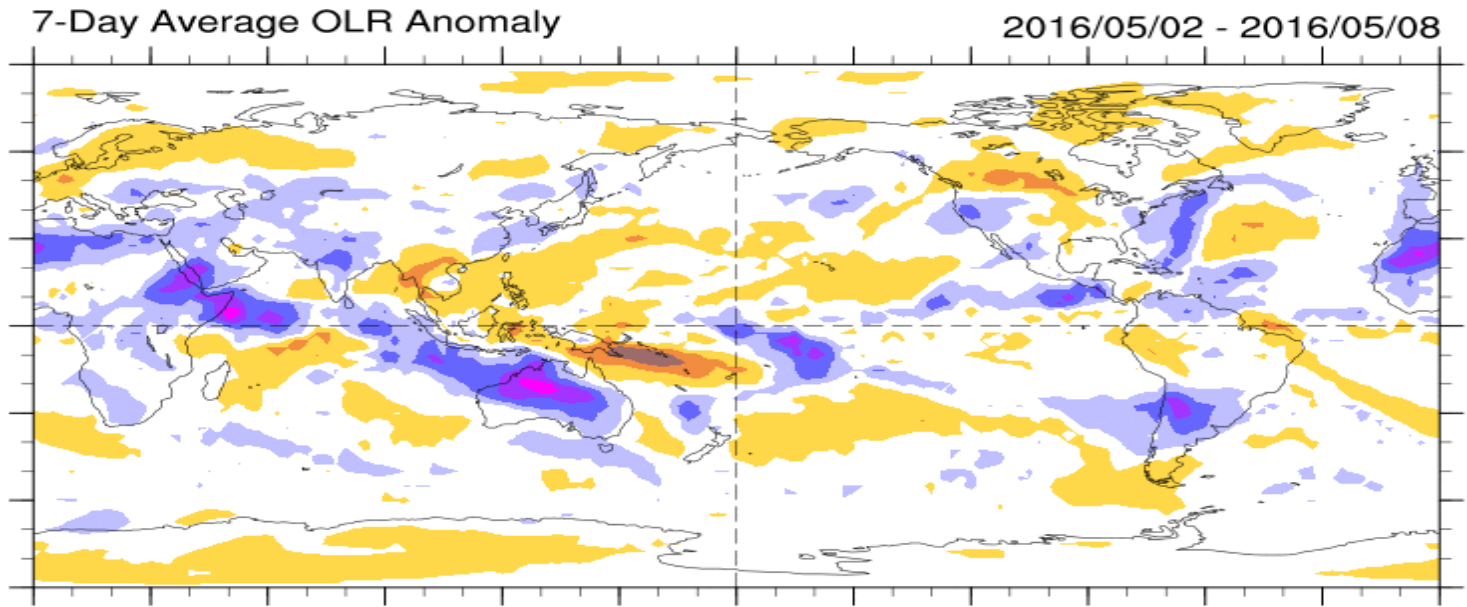
Outline

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

Outlook Review



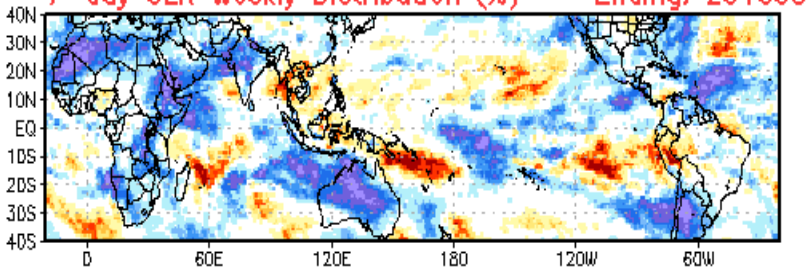




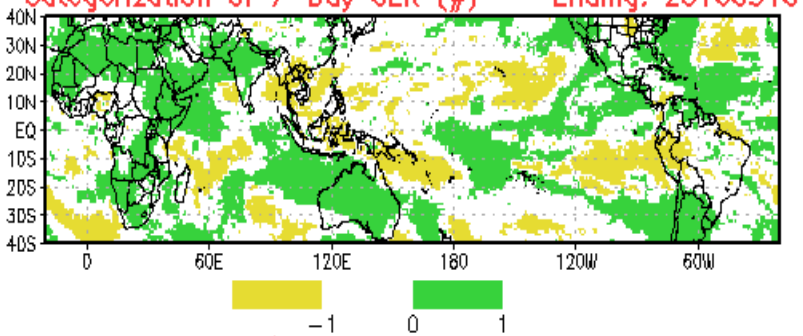
Cool shading
More clouds/rain

Warm shading
Less clouds/rain

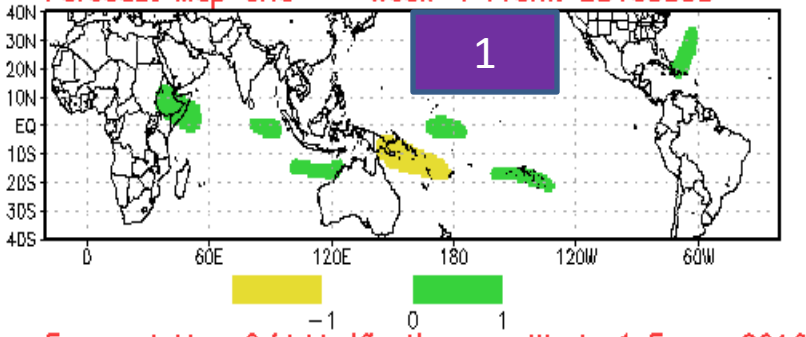
7-day OLR Weekly Distribution (%) -- Ending: 20160510



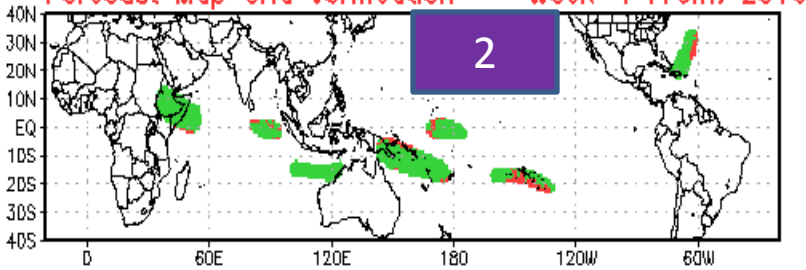
Categorization of 7-Day OLR (#) -- Ending: 20160510



Forecast Map Grid -- Week-1 From: 20160503

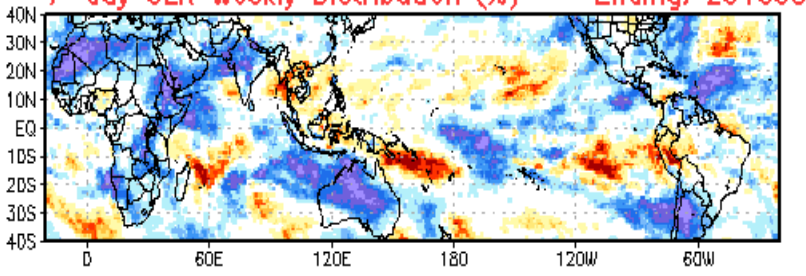


Forecast Map Grid Verification -- Week-1 From: 20160503



Hit: Green, Miss: Red
Heidke Skill Score: 82.0177

7-day OLR Weekly Distribution (%) -- Ending: 20160510



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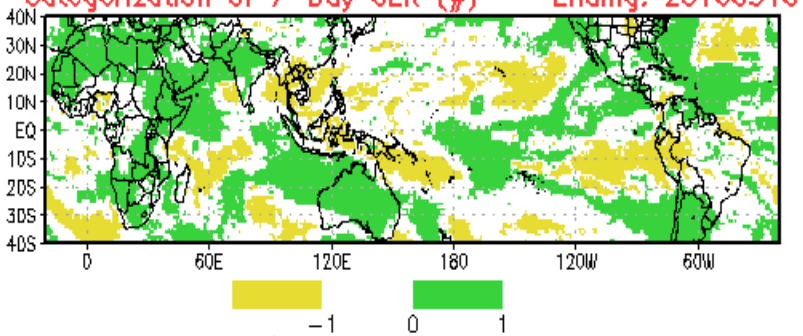
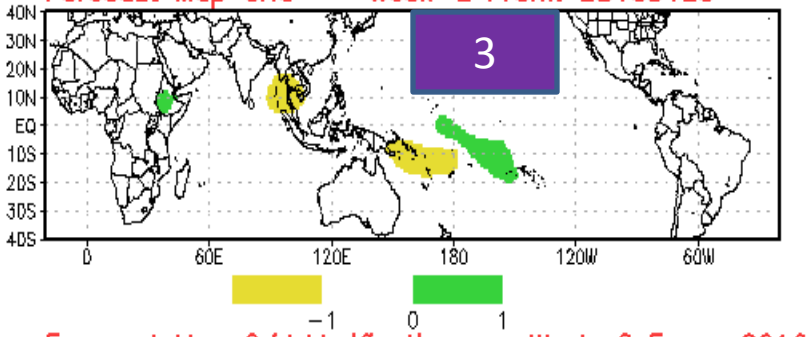
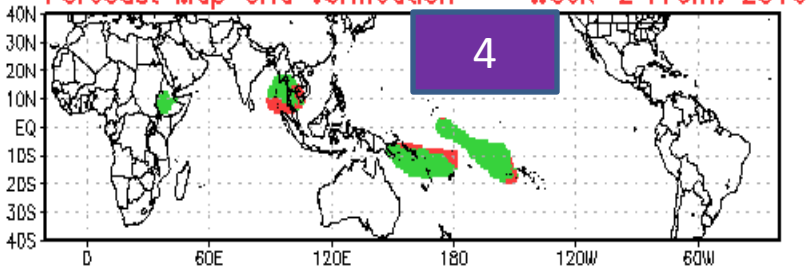


Forecast Map Grid -- Week-2 From: 20160426



Forecast Map Grid Verification -- Week-2 From: 20160426



Hit: Green, Miss: Red
Heidke Skill Score: 71.2335

Synopsis of Climate Modes

ENSO:

•La Nina Watch in effect as of 14 April 2016

ENSO Neutral likely during late spring/early summer 2016; possible La Nina conditions to develop during second half of year. El Nino is weakening, though large area of +30 C SSTs still exists over central & western South Pacific (0-15S, 140E-140W). More than sufficient to sustain convection.

MJO and other subseasonal tropical variability:

• In general, MJO indices are indicating a weak pattern.

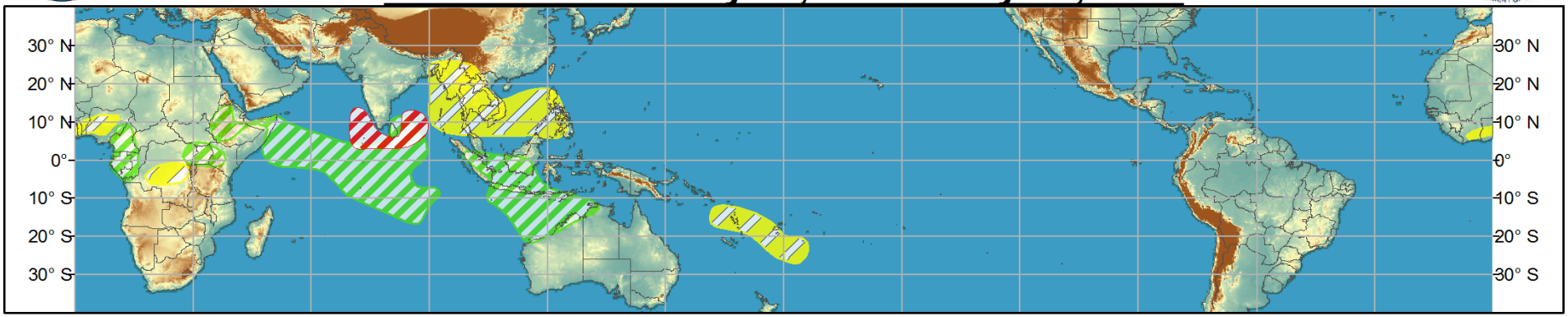
• Most dynamical and statistical model MJO index forecasts depict increasing amplitude of the RMM index over the Indian Ocean during the next two weeks.

Extratropics:

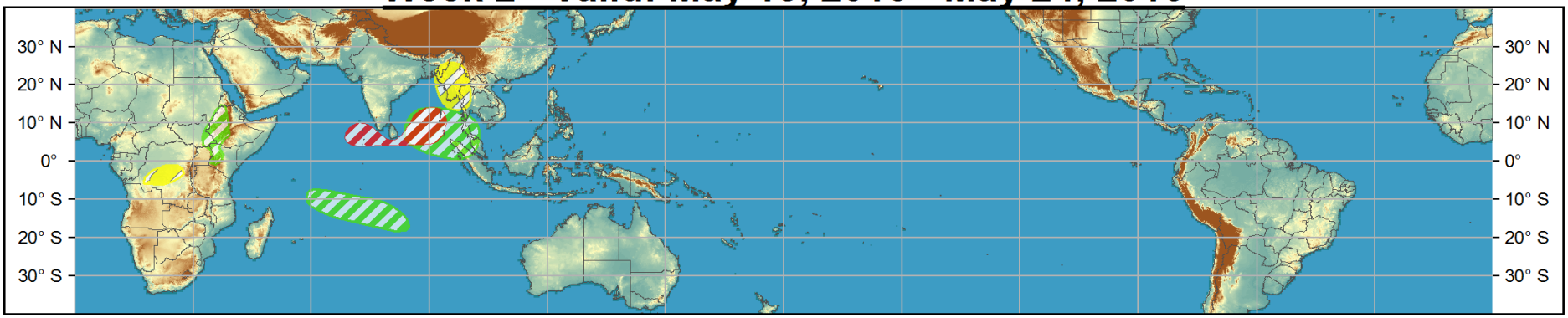
• The extended range temperature and precipitation forecasts for the U.S. are not likely to be impacted by the MJO, but more likely impacted by mid-latitude frontal/cyclonic activity and the waning El Nino.

Global Tropics Hazards and Benefits Outlook - Climate Prediction Center

Week 1 - Valid: May 11, 2016 - May 17, 2016



Week 2 - Valid: May 18, 2016 - May 24, 2016



Produced: 05/10/2016

Forecaster: Artusa

	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.
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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

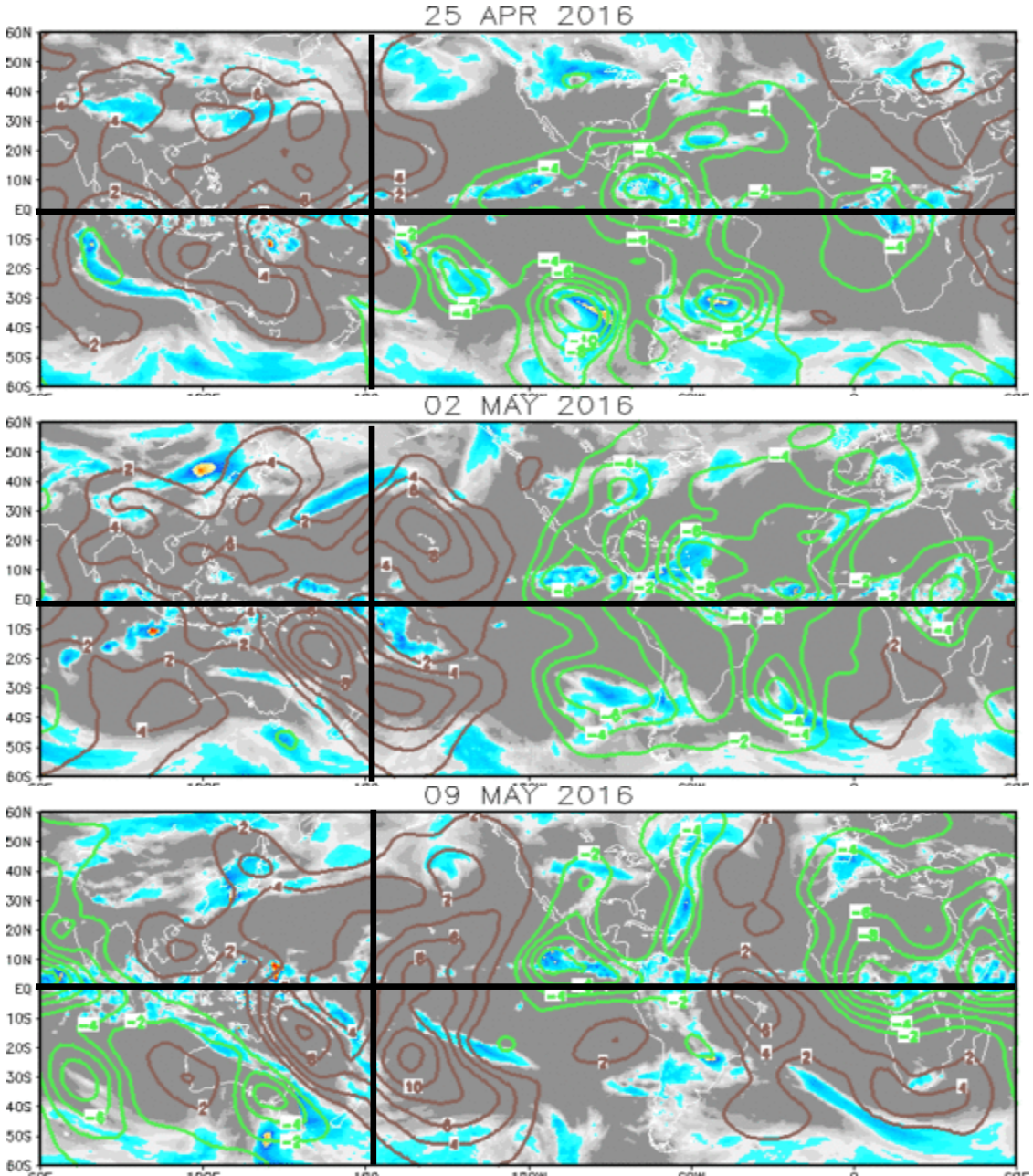
IR Satellite & 200-hpa Velocity Potential Anomalies

Green: Enhanced Divergence Brown: Enhanced Convergence

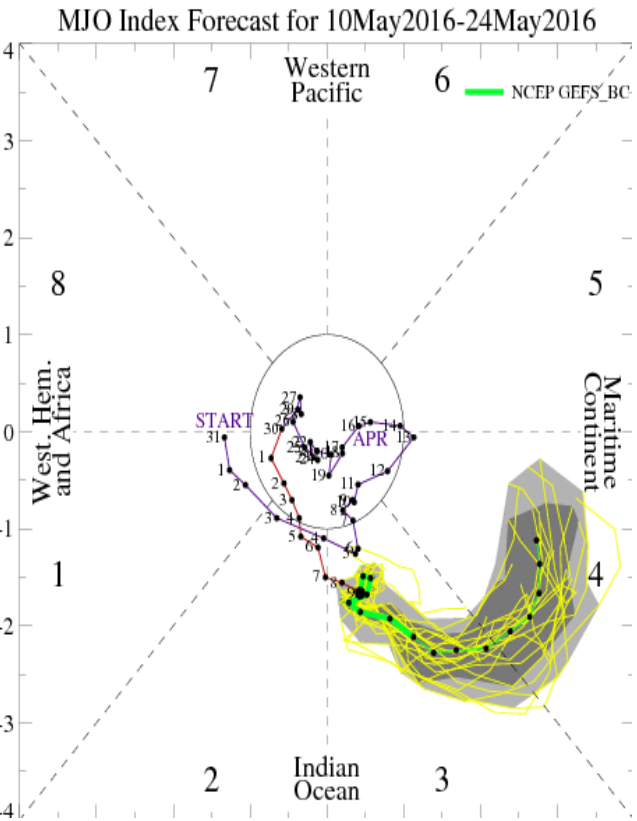
Enhanced upper-level divergence northeast and east of Australia; tied to SPCZ

Upper-level divergence from Americas to Europe/Africa;

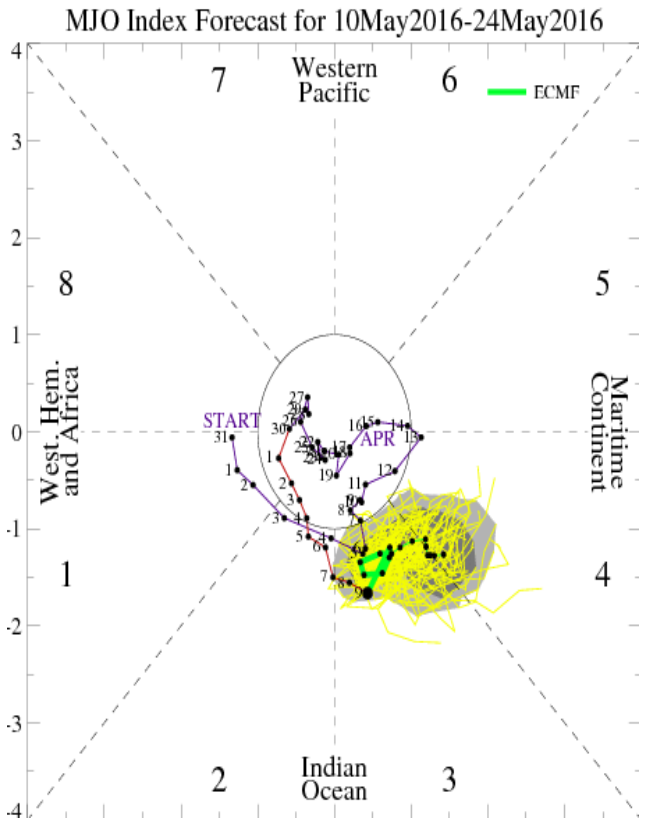
Wave-2 pattern



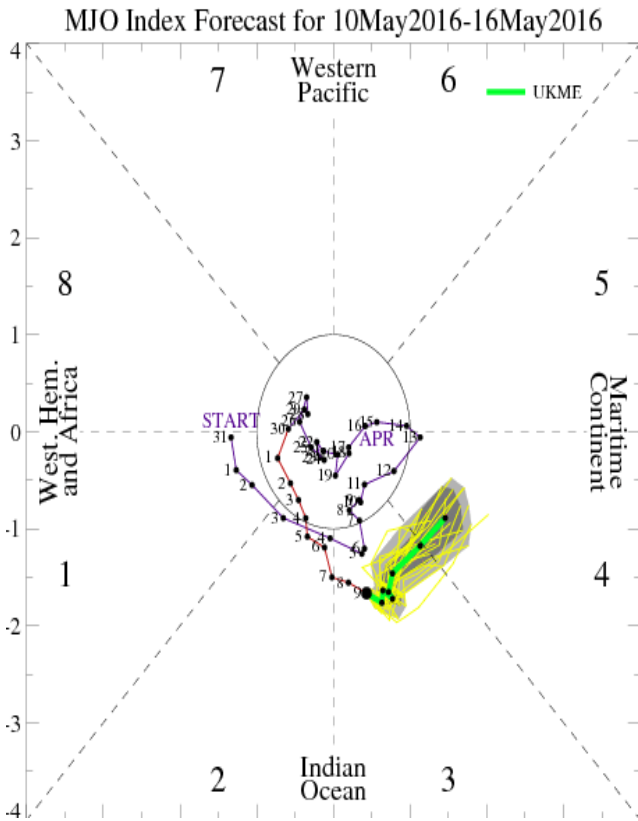
MJO Observation/Forecast



GEFS

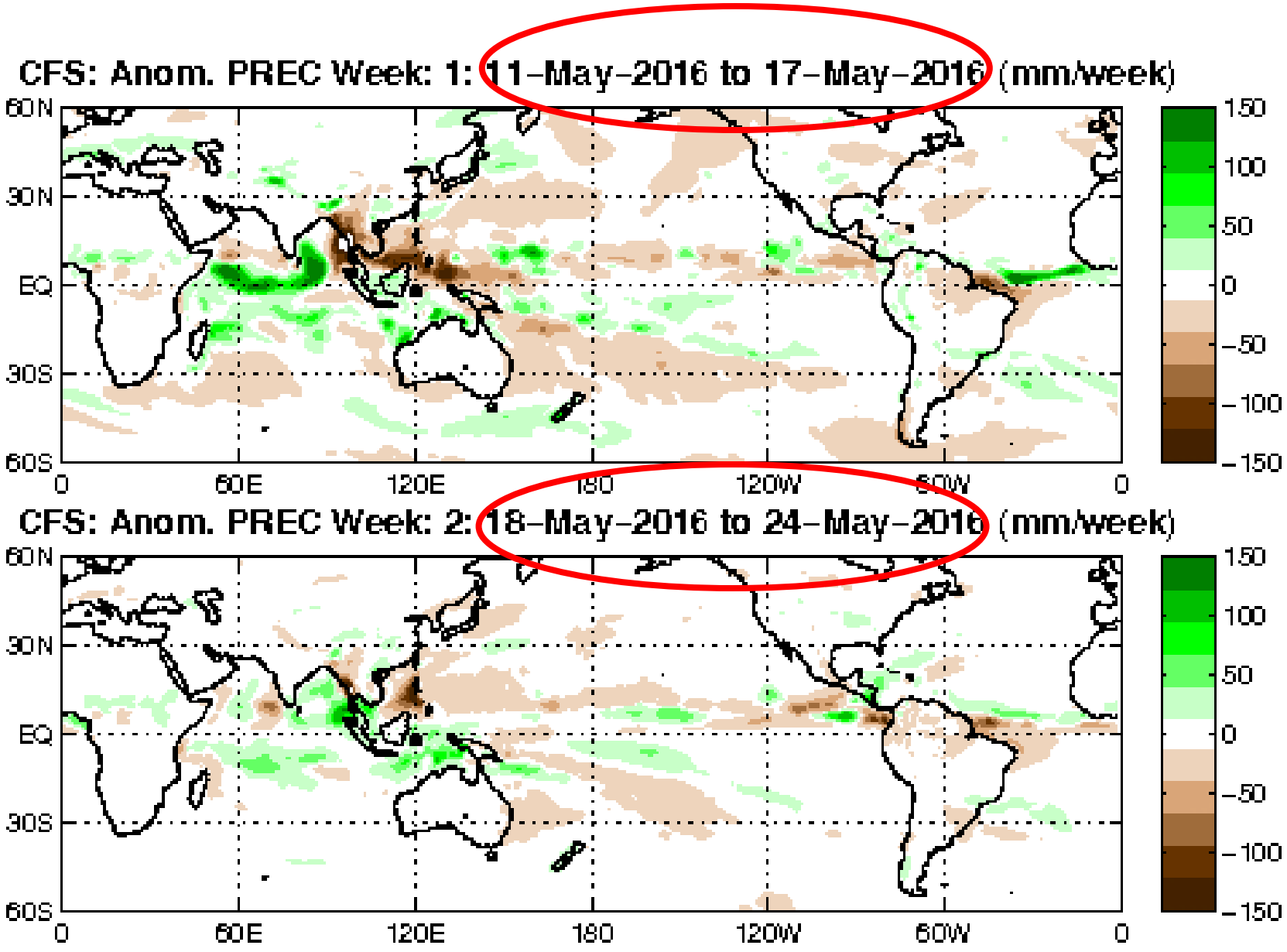


ECMWF

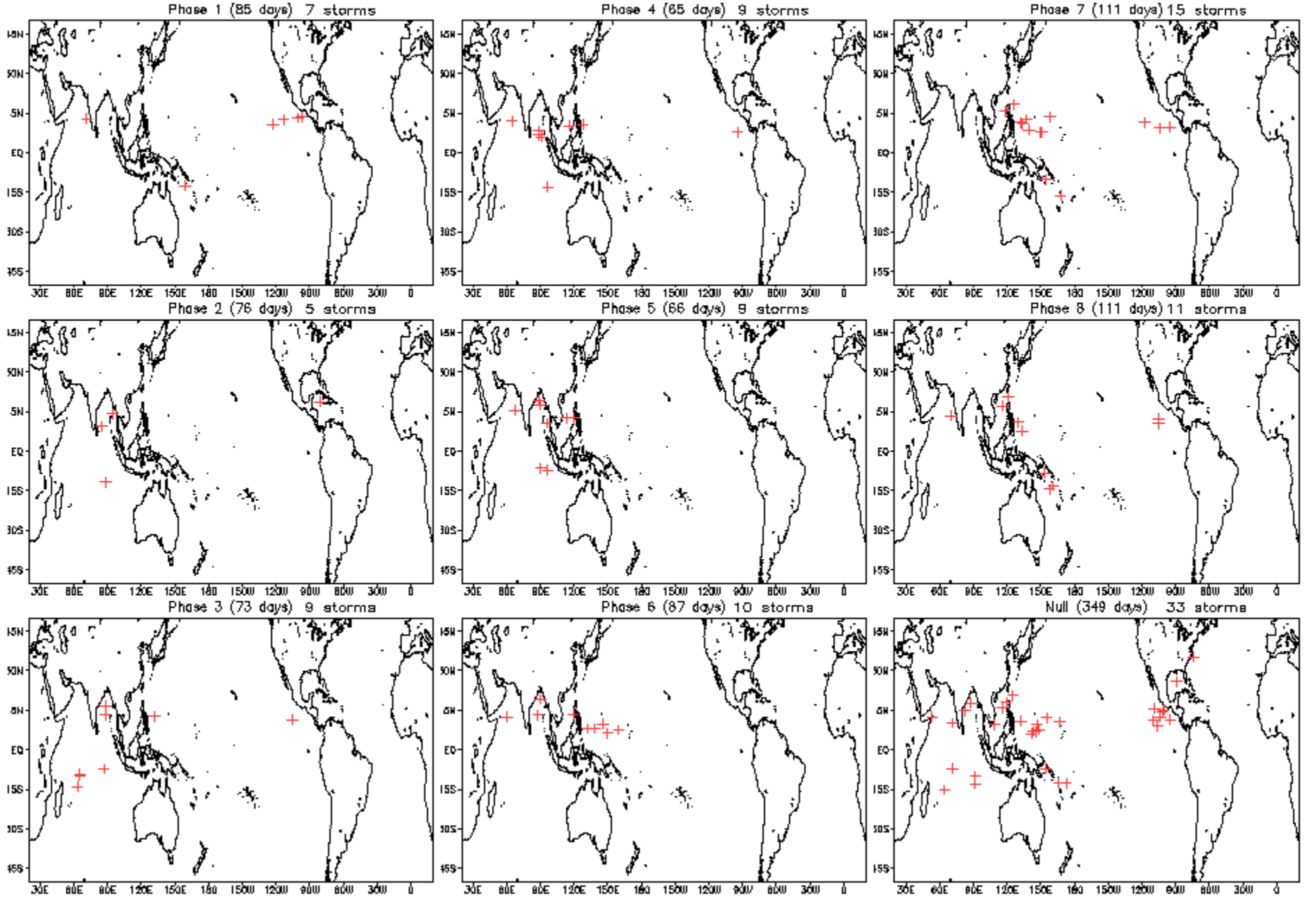


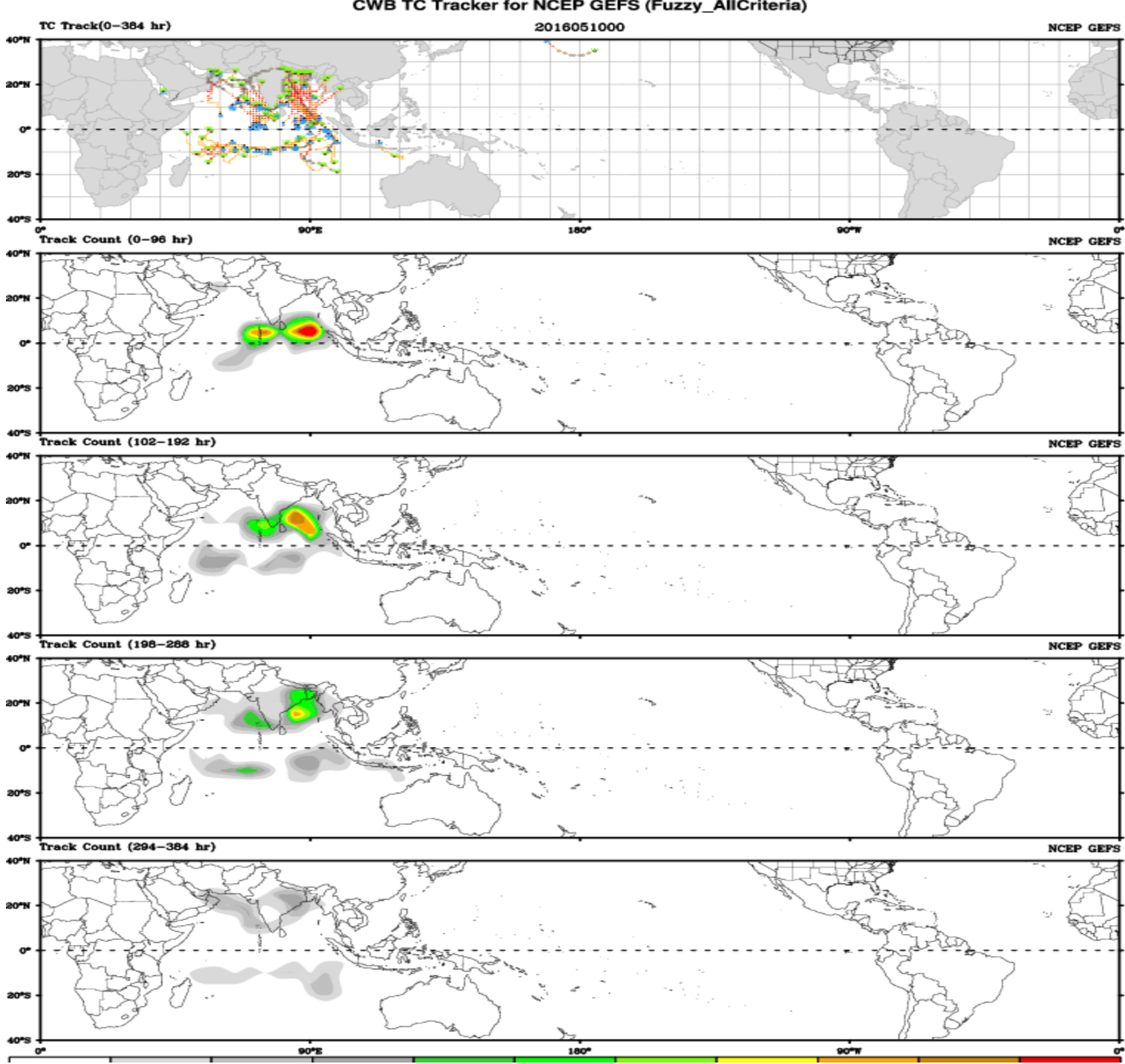
UKMET

Wheeler-Hendon based analyses of model forecasts indicate an increase in amplitude of the RMM index during the next 1-2 weeks (especially the GEFS). ECMWF suggests a weaker and more uncertain MJO signal.


CFS: Anom. PREC Week: 1: 11-May-2016 to 17-May-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: 18-May-2016 to 24-May-2016 (mm/week)
60N
30N
EQ
30S
60S
0
60E
120E
180
120W
60W
0
150
100
50
0
-50
-100
-150

May Tropical Storm Formation by MJO phase





Days 1-4

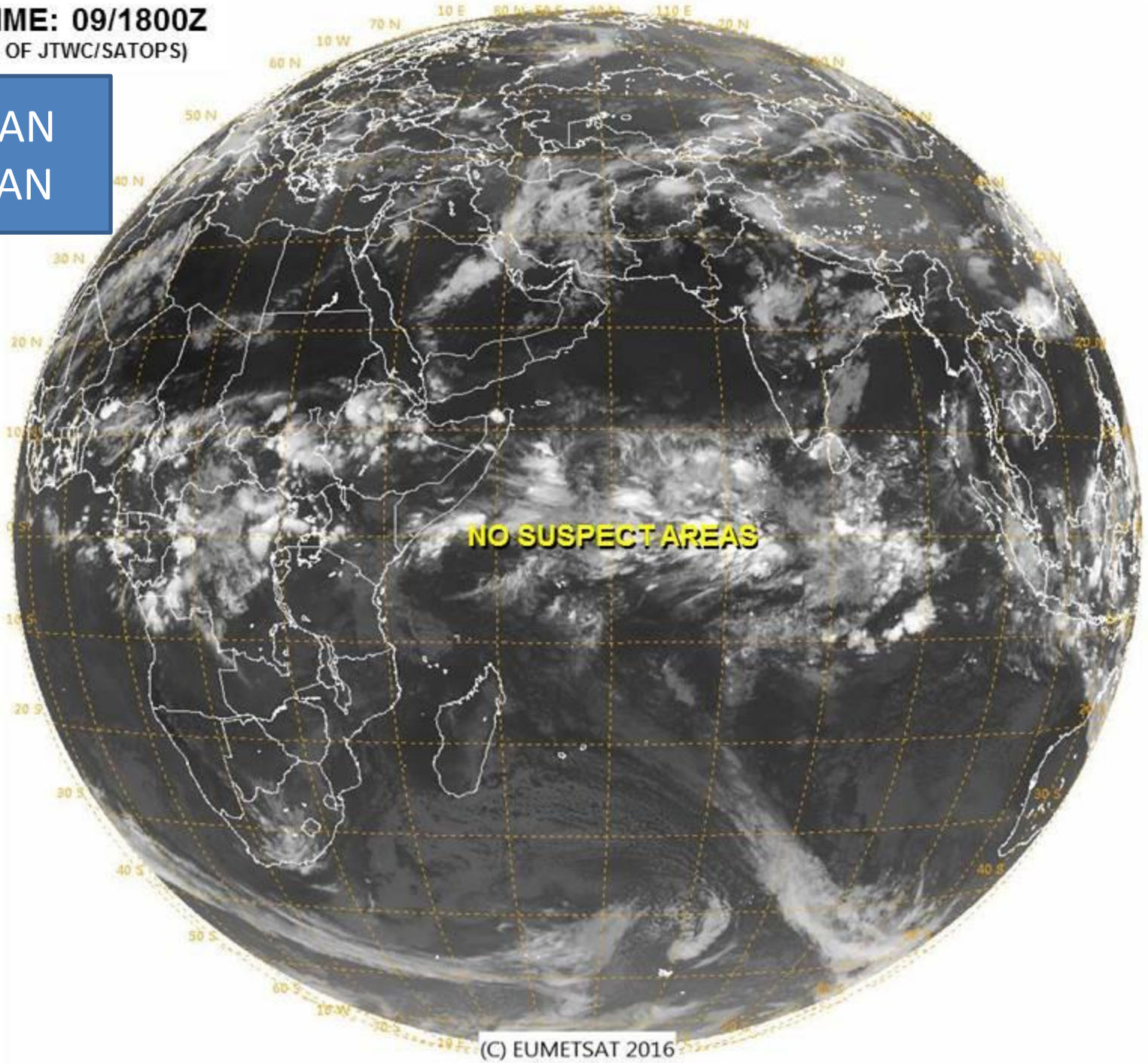
Day 5-8

Day 9-12

Day 13-15

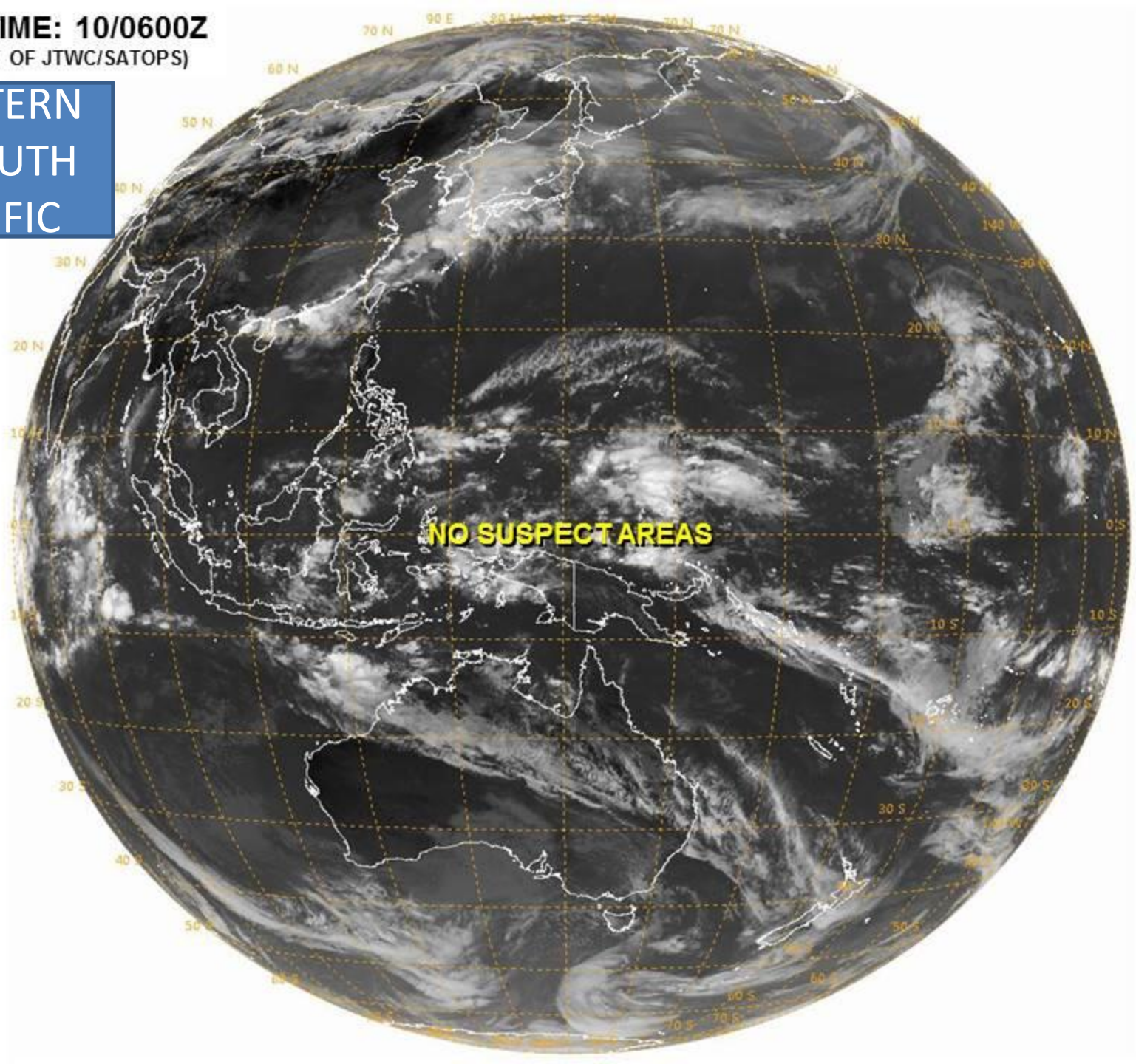
VALID TIME: 09/1800Z
(PRODUCT OF JTWC/SATOPS)

INDIAN OCEAN



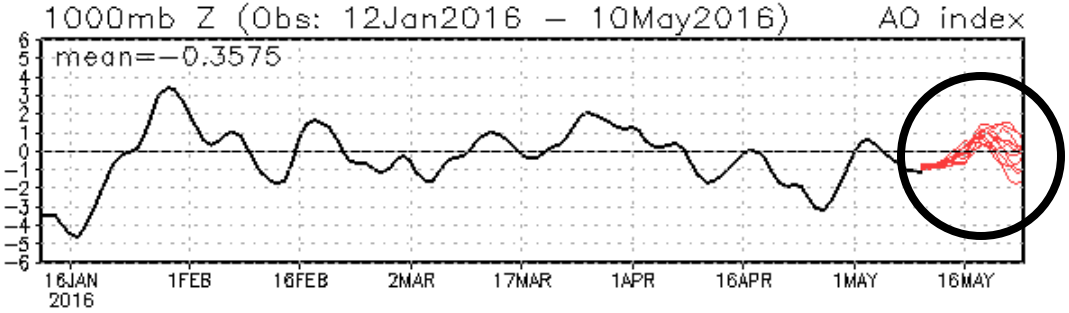
VALID TIME: 10/0600Z
(PRODUCT OF JTWC/SATOPS)

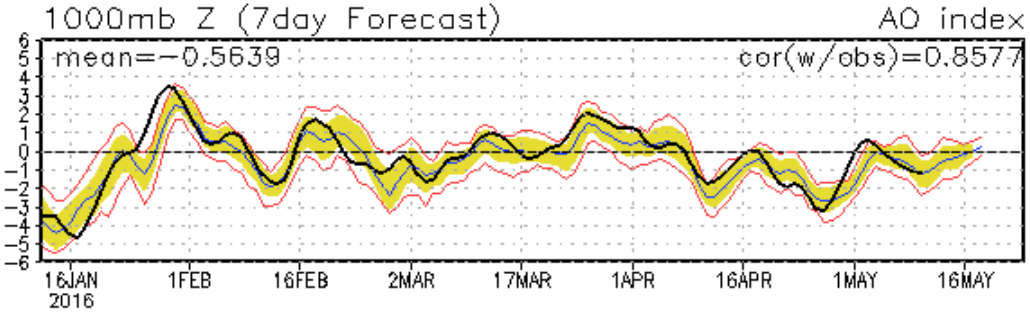
WESTERN & SOUTH PACIFIC

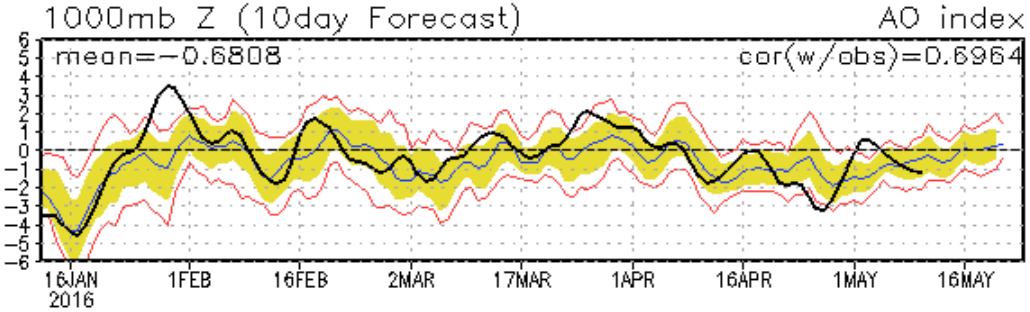


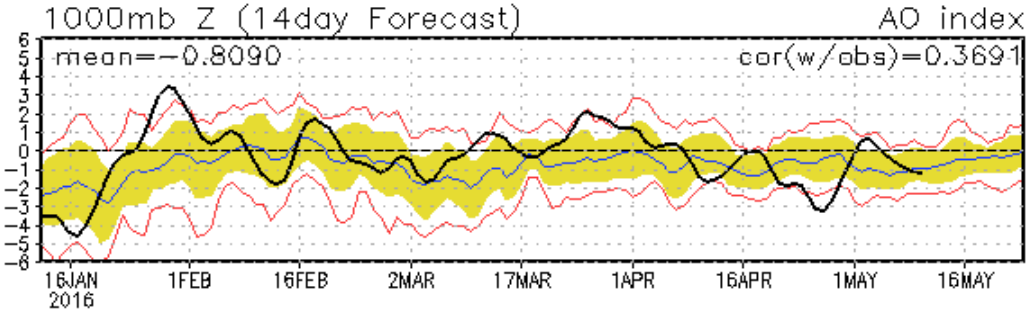
Connections to U.S. Impacts

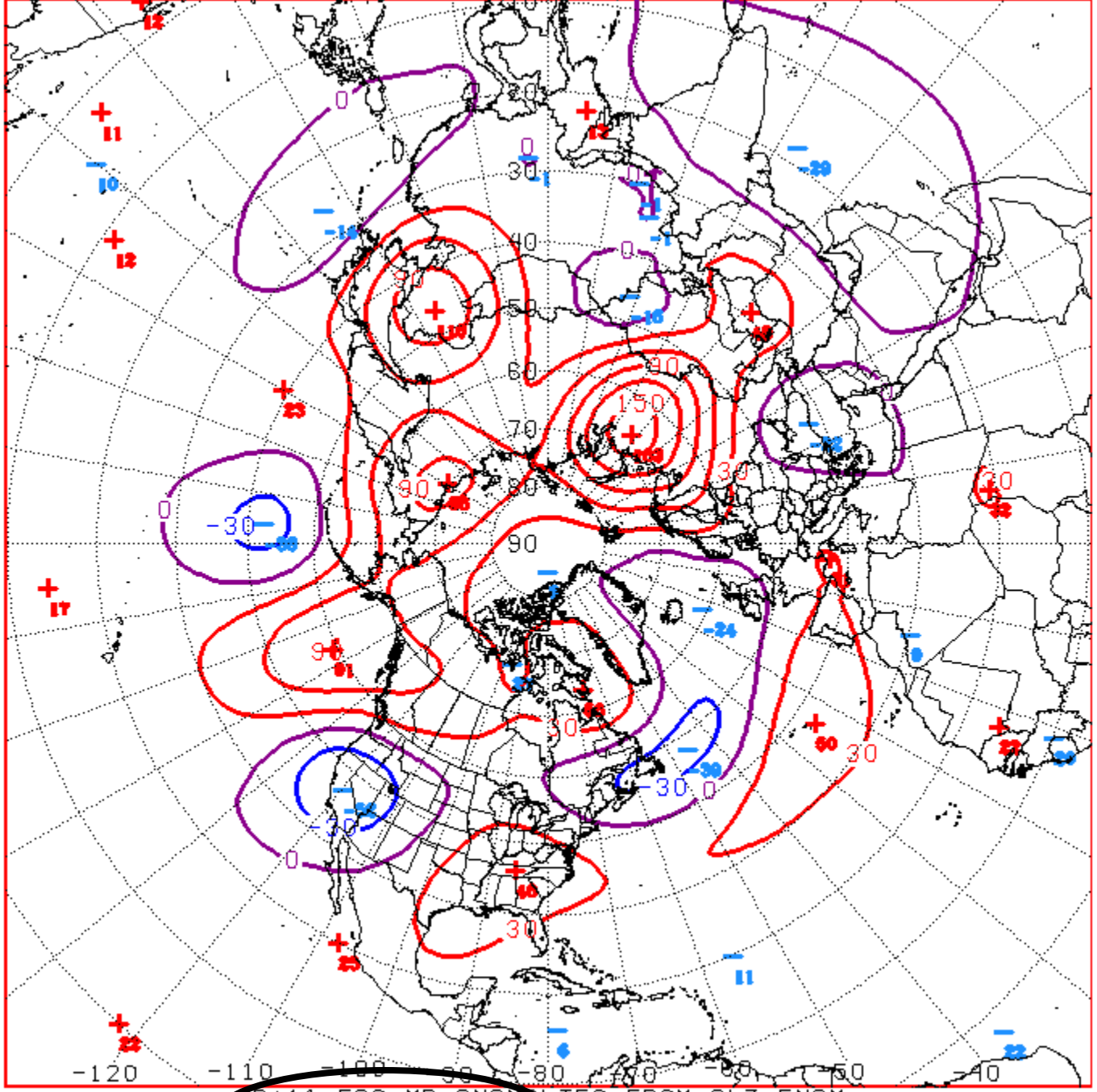
AO: Observed & ENSM forecasts





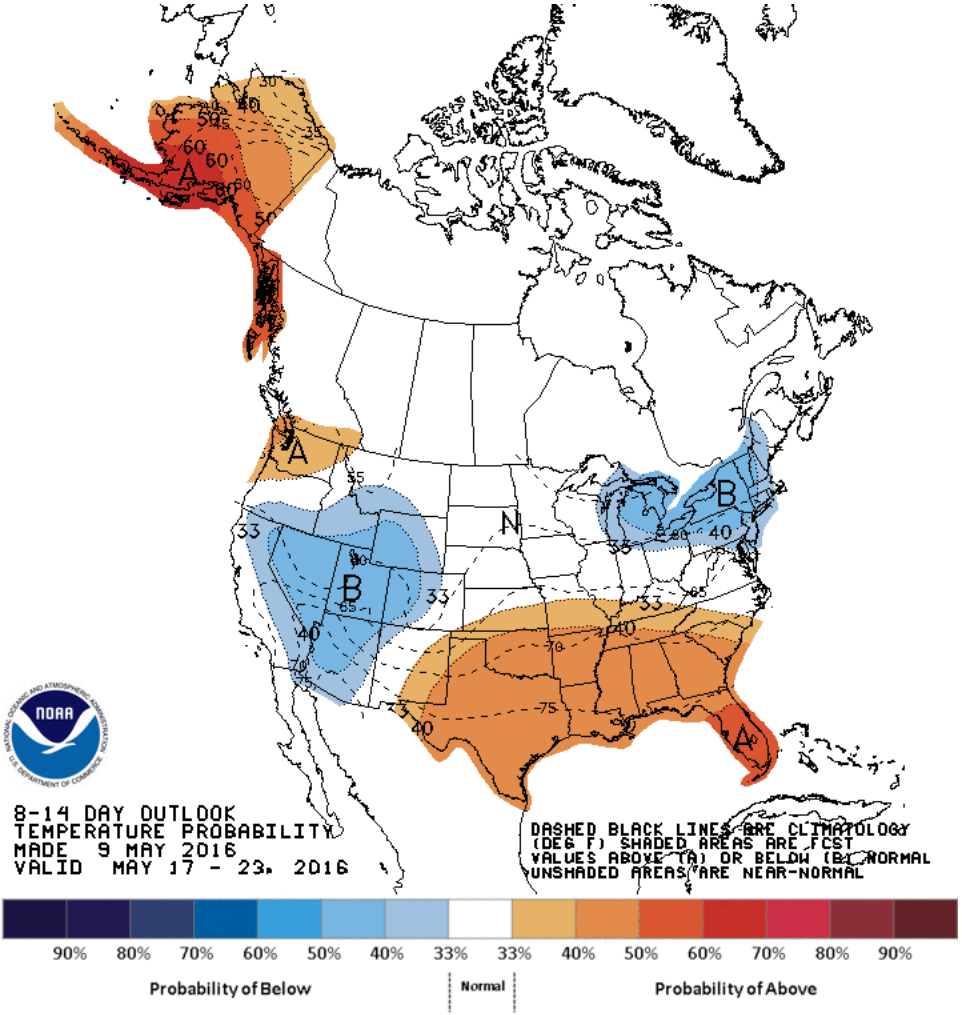


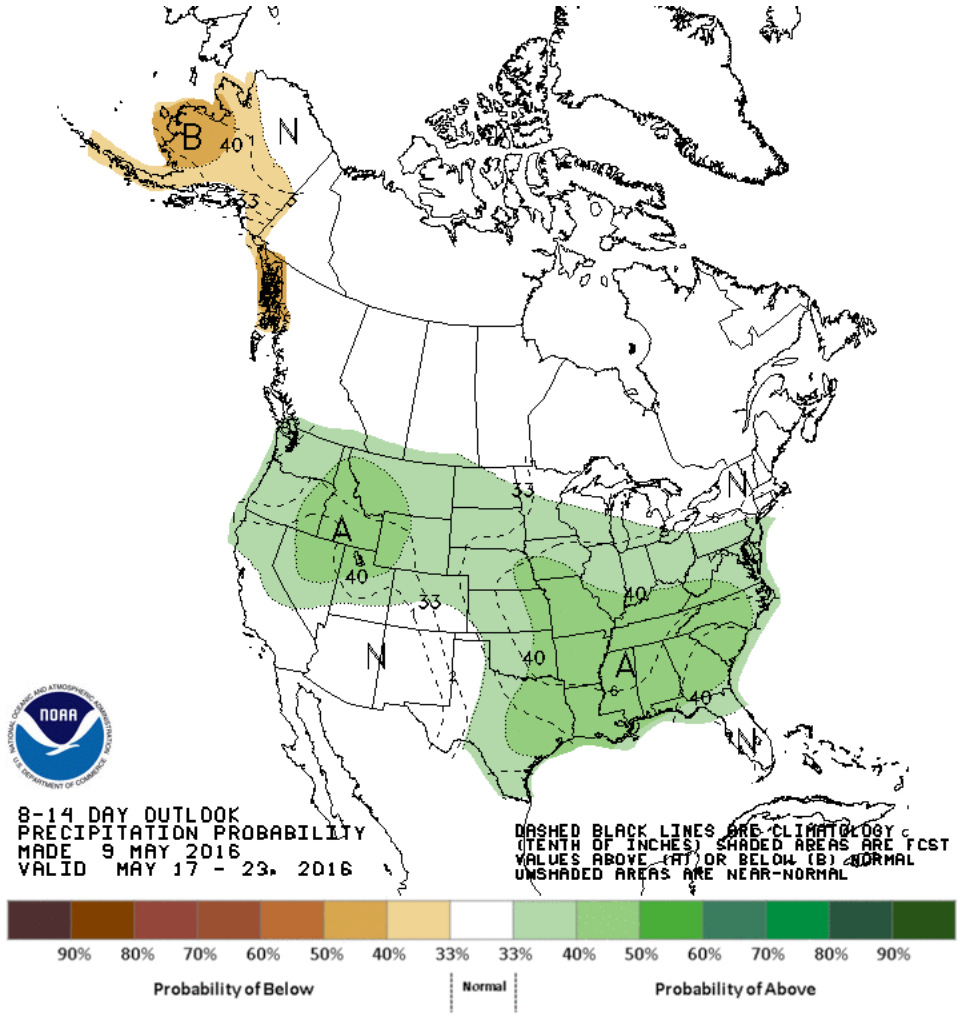




D+11 500 MB ANOMALIES FROM ALZ ENSM
CPC MAP MADE MAY 10 2016 1328 UTC CNTD MAY 21 2016

Week 2 – Temperature and Precipitation





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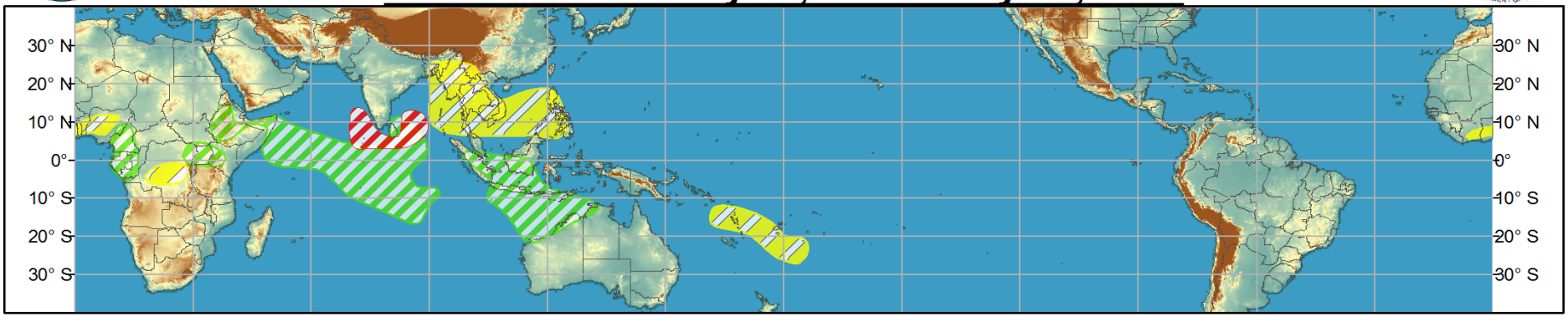

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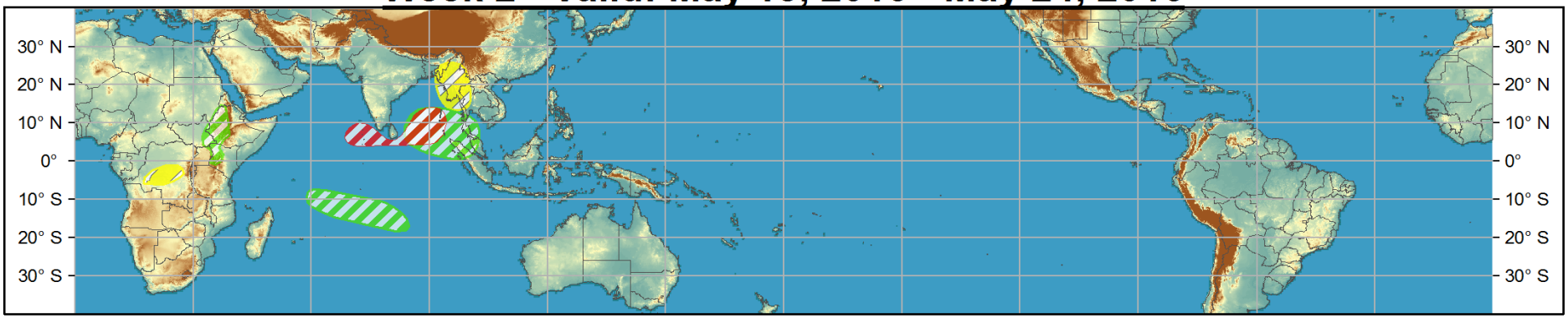

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