

# Global Tropics Hazards And Benefits Outlook

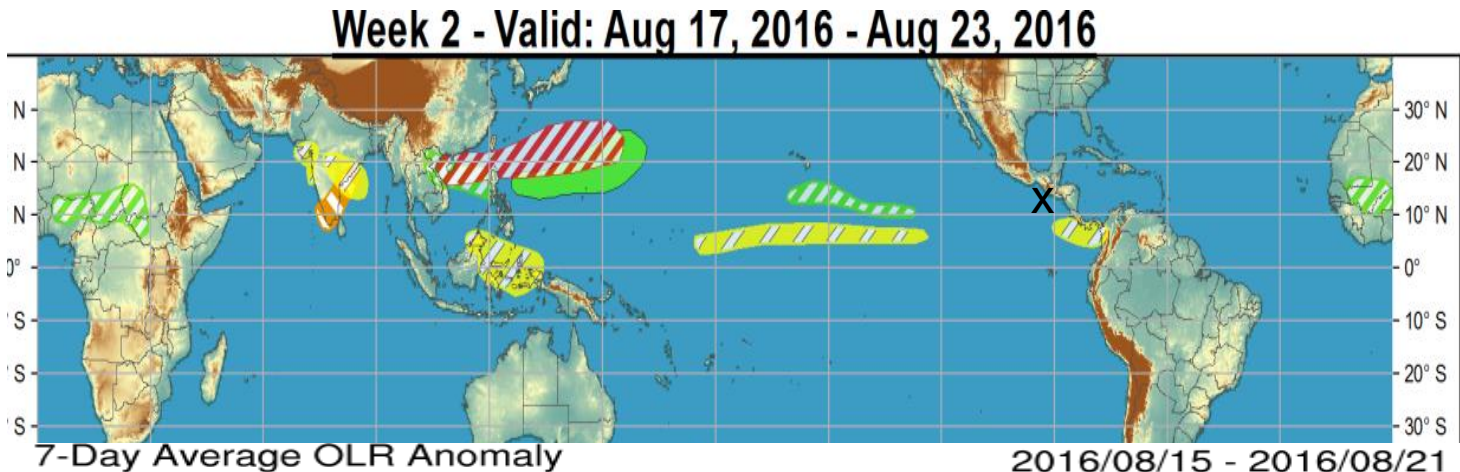
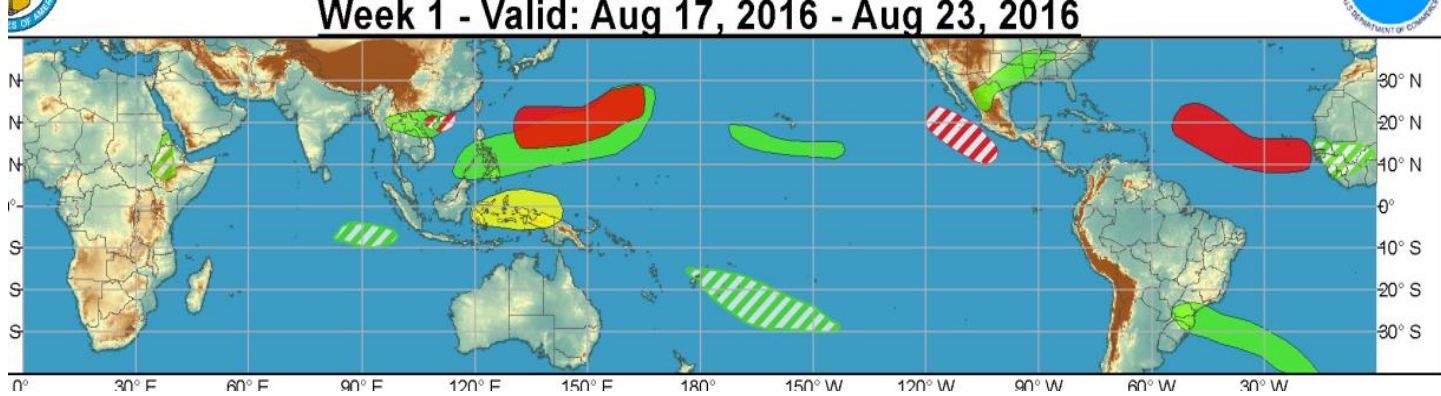
August 23, 2016

Anthony Artusa

## Outline

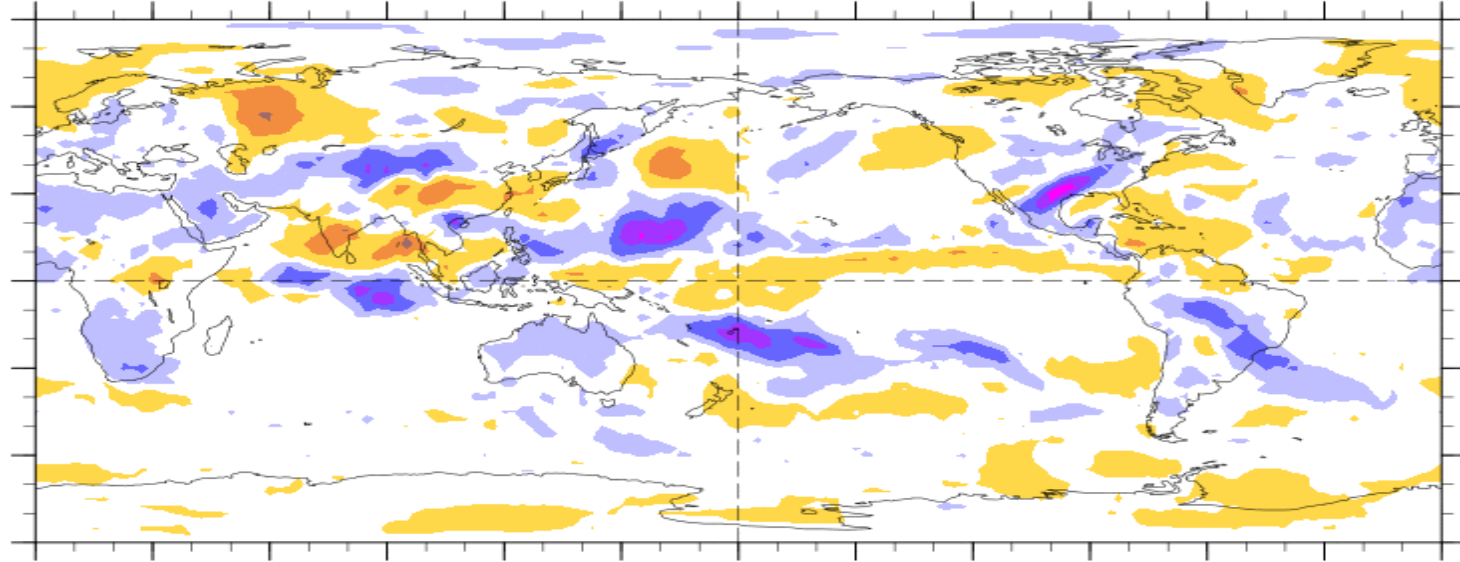
1. Review of Recent Conditions
2. Synopsis of Climate Modes
3. GTH Outlook and Forecast Discussion
4. Connections to U.S. Impacts

# Outlook Review

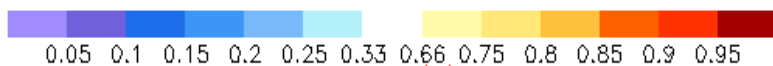
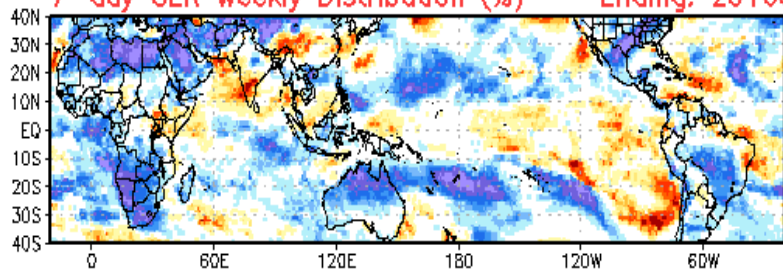


Cool shading  
More clouds/rain

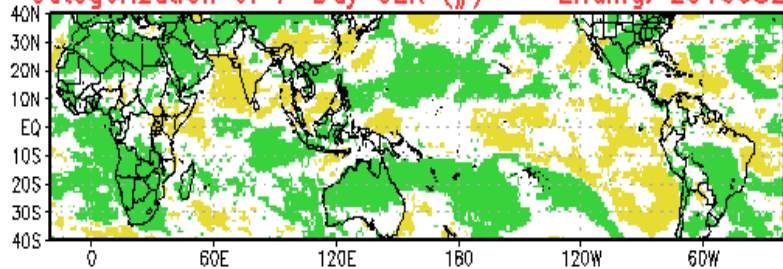
Warm shading  
Less clouds/rain



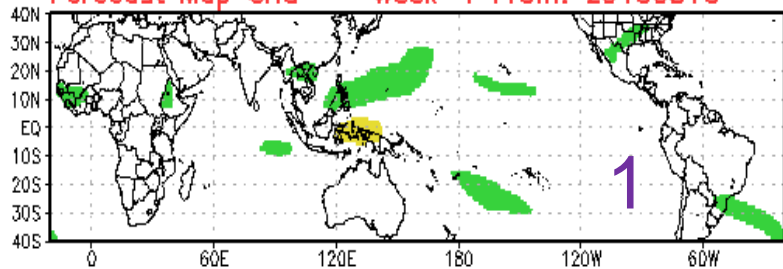
7-day OLR Weekly Distribution (%) -- Ending: 20160823



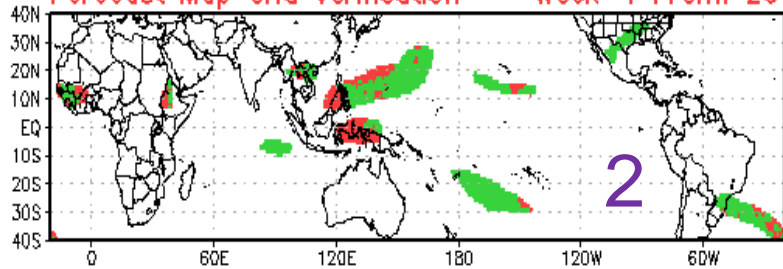
Categorization of 7-Day OLR (#) -- Ending: 20160823



Forecast Map Grid -- Week-1 From: 20160816

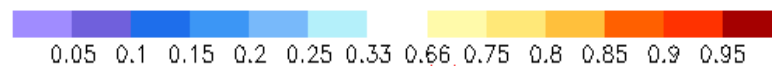
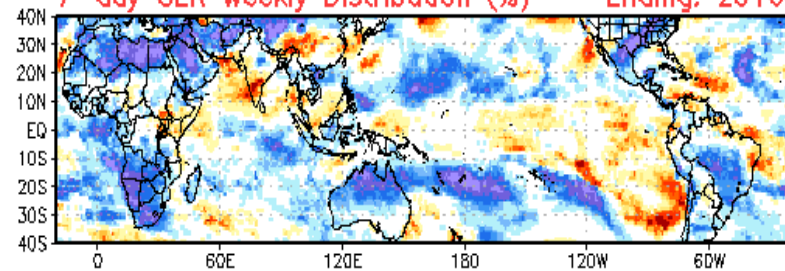


Forecast Map Grid Verification -- Week-1 From: 20160816

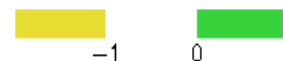
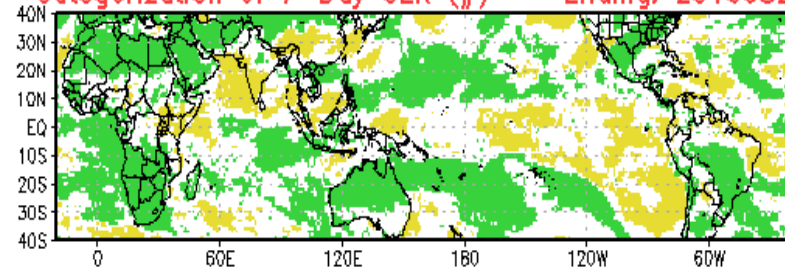


Hit: Green, Miss: Red  
Heidke Skill Score: 58.0155

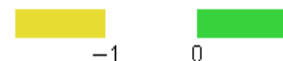
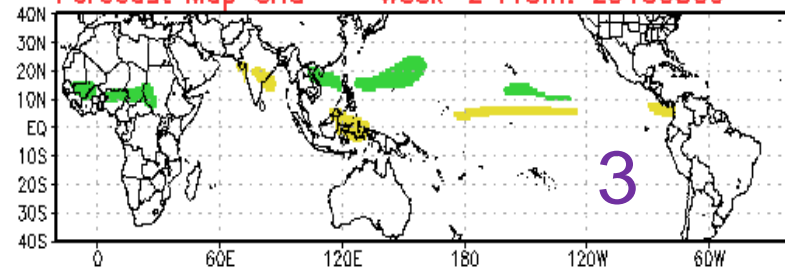
7-day OLR Weekly Distribution (%) -- Ending: 20160823



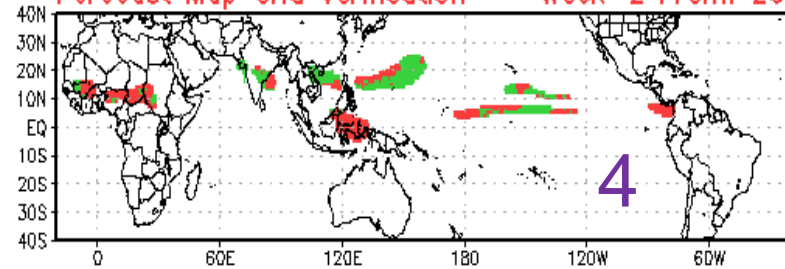
Categorization of 7-Day OLR (#) -- Ending: 20160823



Forecast Map Grid -- Week-2 From: 20160809



Forecast Map Grid Verification -- Week-2 From: 20160809



Hit: Green, Miss: Red  
Heidke Skill Score: 15.9475

# Synopsis of Climate Modes

## ENSO:

- [La Niña Watch](#)

**La Niña is favored to develop during August - October 2016, with about a 55-60% chance of La Niña during the fall and winter 2016-17.**

## MJO and other subseasonal tropical variability:

- Enhanced phase of MJO/Tropical Storm Aliasing/Monsoon Trough over western North Pacific
- Dynamical models indicate signal will remain over western North Pacific through Week-2, & either weaken or remain a similar intensity
- Difficult to determine partial contributions from MJO/Tropical Storm Aliasing/Monsoon Trough

## Extratropics:

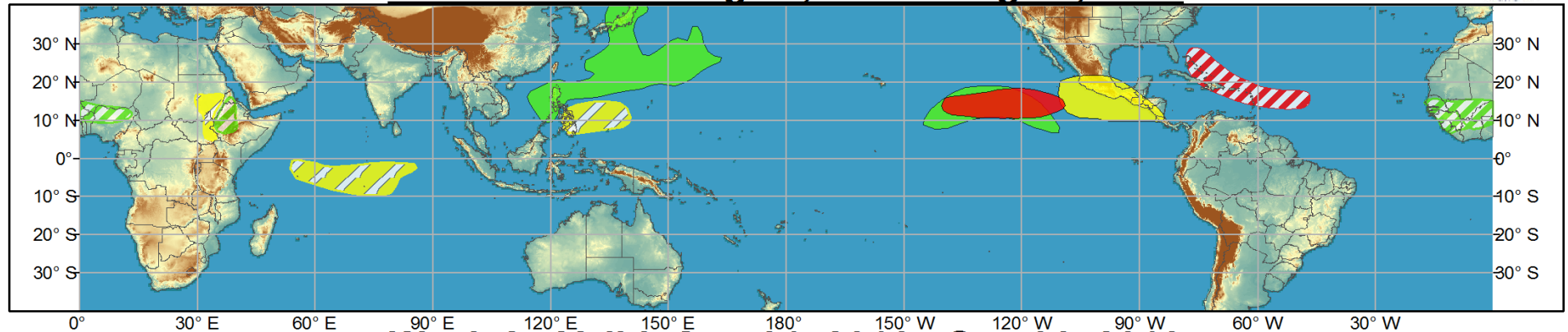
- The extended range temperature and precipitation forecasts for the CONUS are not likely to be impacted by the MJO.



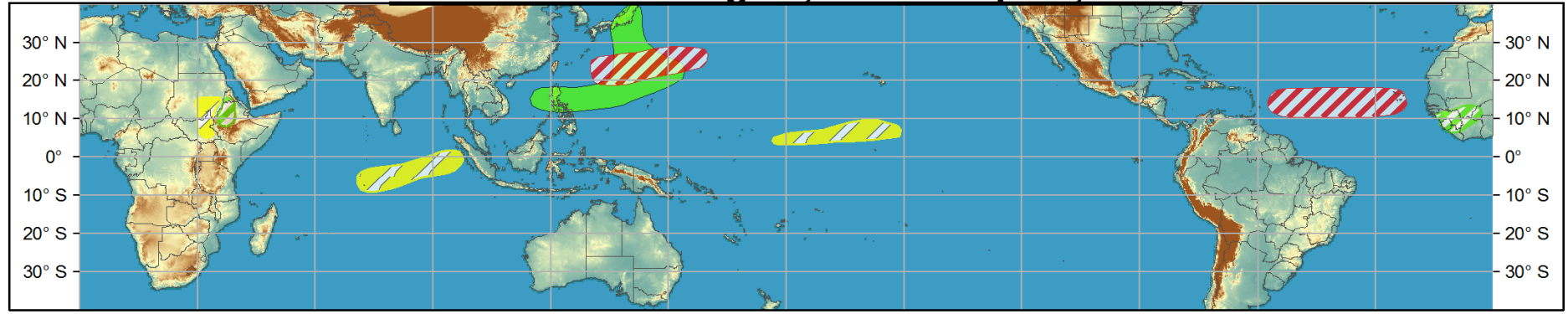


# Global Tropics Hazards and Benefits Outlook - Climate Prediction Center

## Week 1 - Valid: Aug 24, 2016 - Aug 30, 2016



## Week 2 - Valid: Aug 31, 2016 - Sep 06, 2016



**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.
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Produced: 08/23/2016  
Forecaster: Artusa

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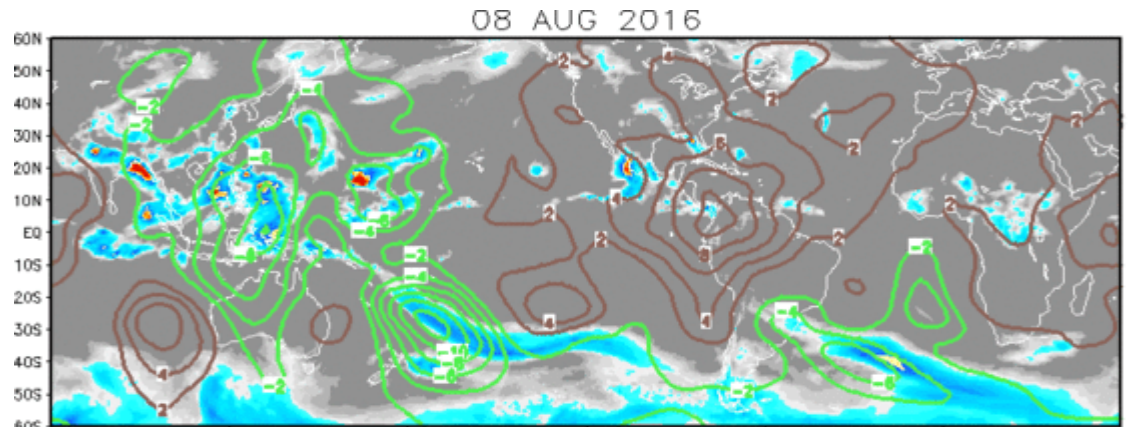


# IR Satellite & 200-hpa Velocity Potential Anomalies

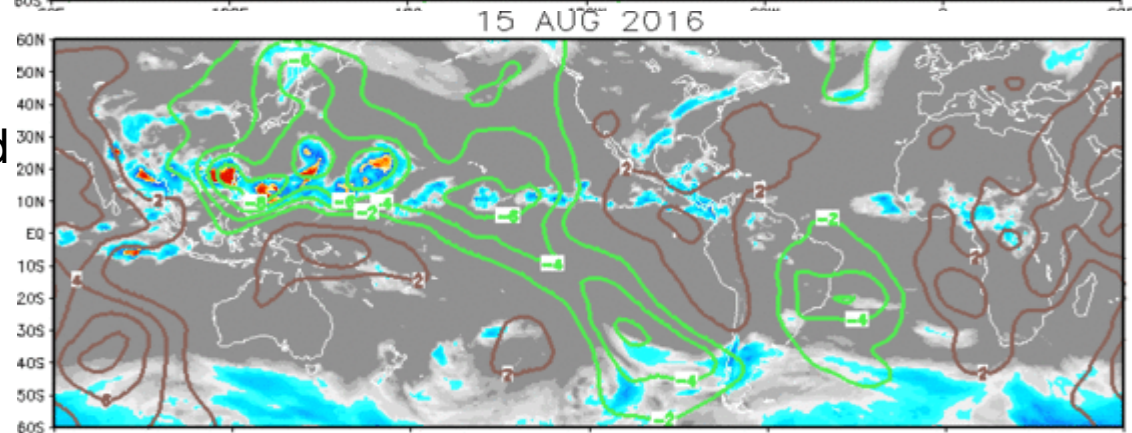
Green: Enhanced Divergence

Brown: Enhanced Convergence

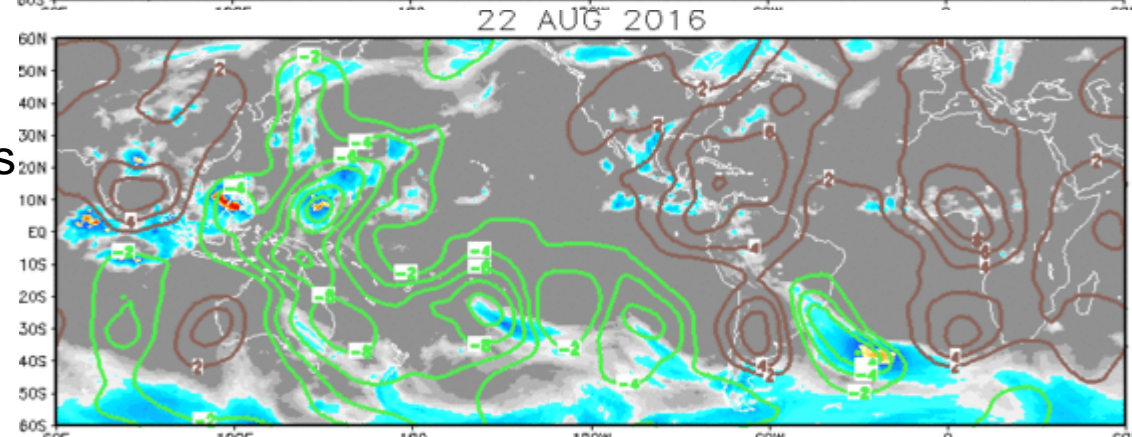
In general, a Wave-2-like pattern



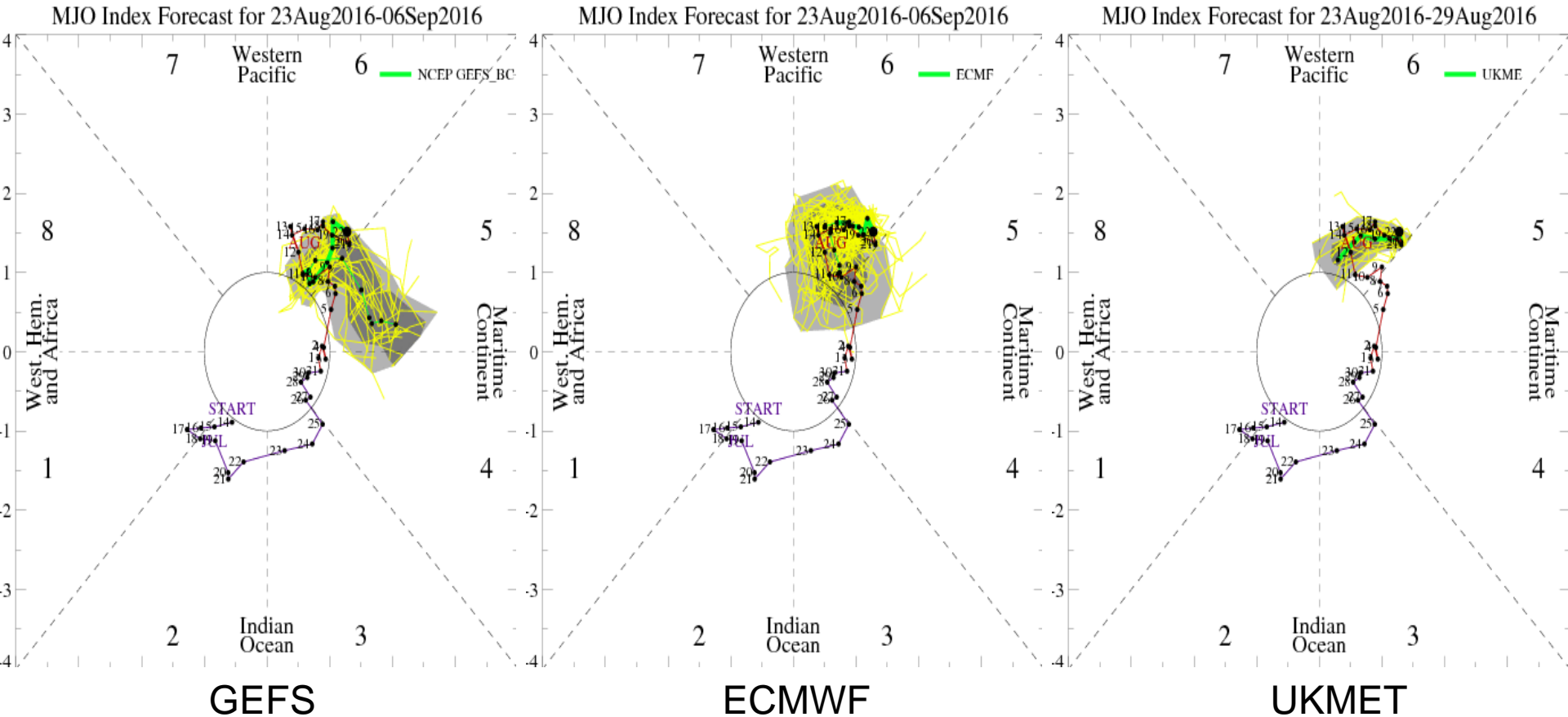
Enhanced convection over tropical North Pacific & around S. America.... Suppressed convection elsewhere.



Appearing to coalesce towards a Wave-1-like pattern with enhanced divergence over Pacific/Maritime Continent.

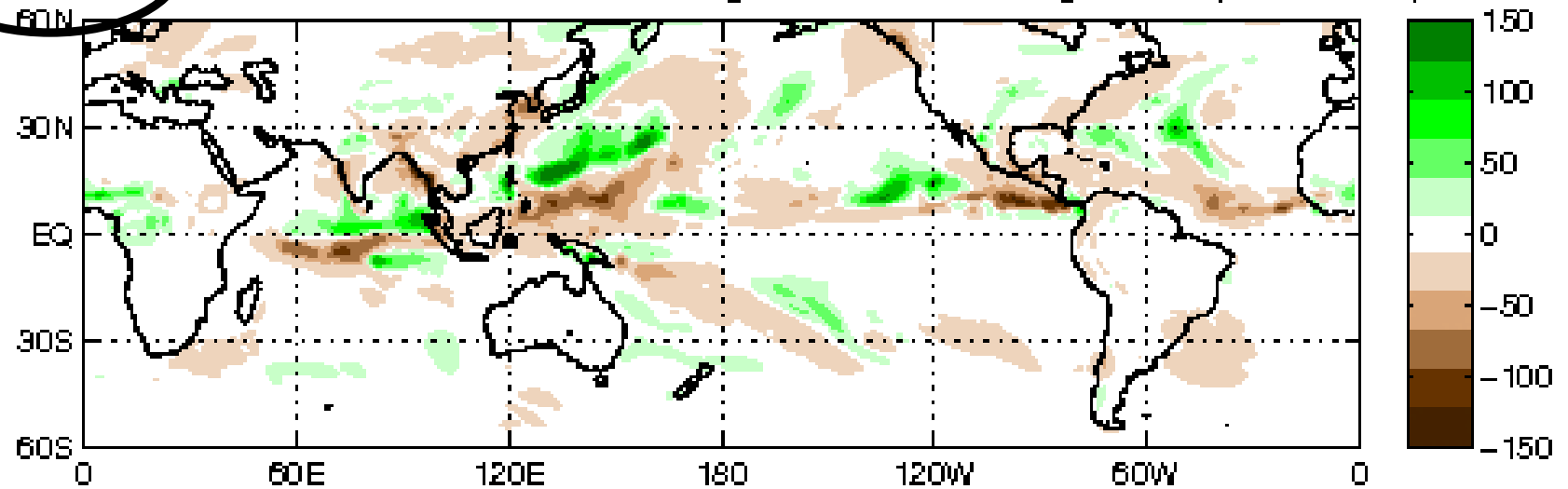


# MJO Observation/Forecast

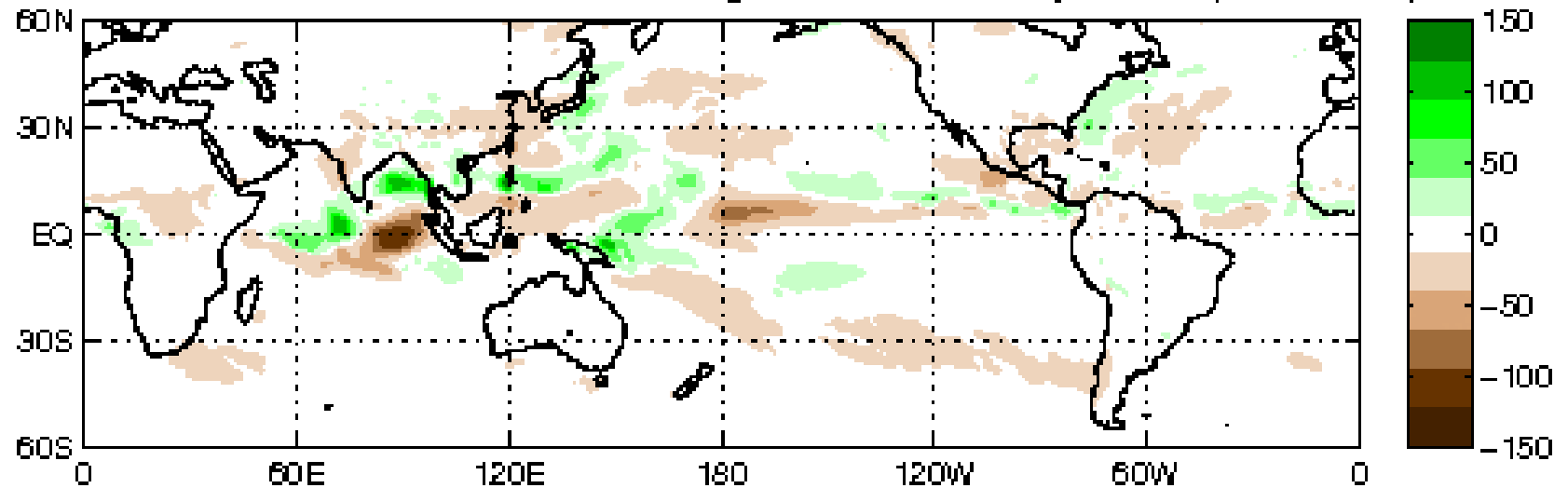


Wheeler-Hendon based analyses of model forecasts indicate a continued signal for Weeks 1&2 over the western North Pacific, with little if any eastward propagation, and similar amplitude.

**CFS: Anom. PREC Week: 1: 24-Aug-2016 to 30-Aug-2016 (mm/week)**



**CFS: Anom. PREC Week: 2: 31-Aug-2016 to 06-Sep-2016 (mm/week)**





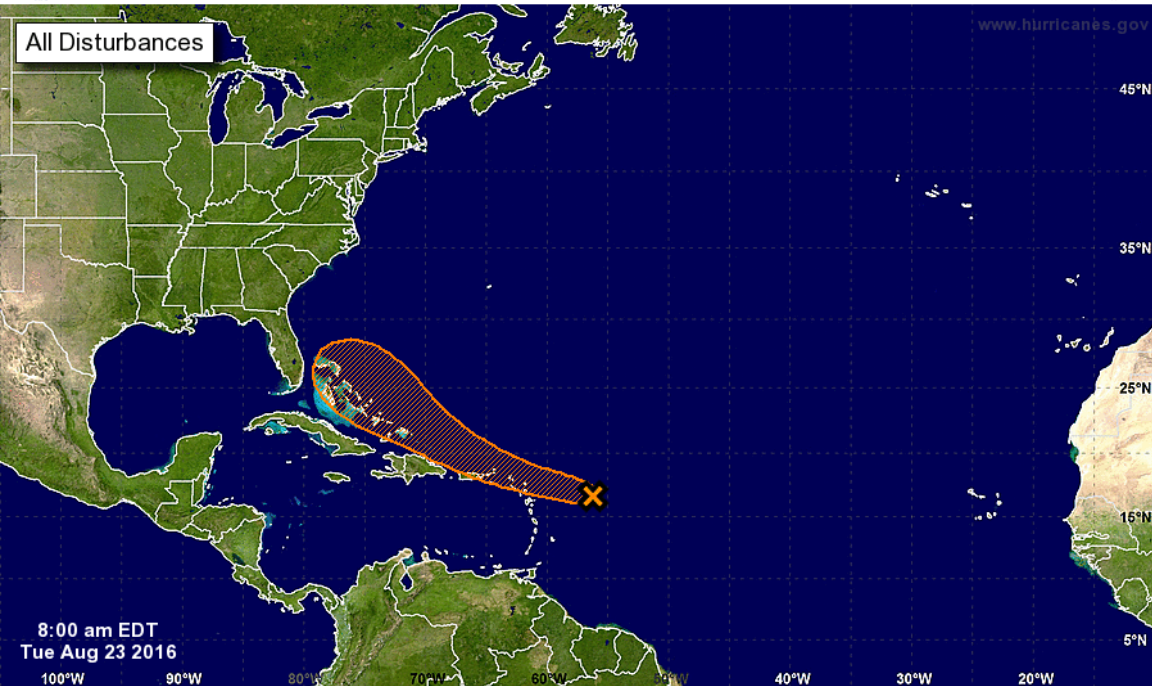


# Five-Day Graphical Tropical Weather Outlook

National Hurricane Center Miami, Florida



## Graphical Tropical Weather Outlook



8:00 am EDT  
Tue Aug 23 2016

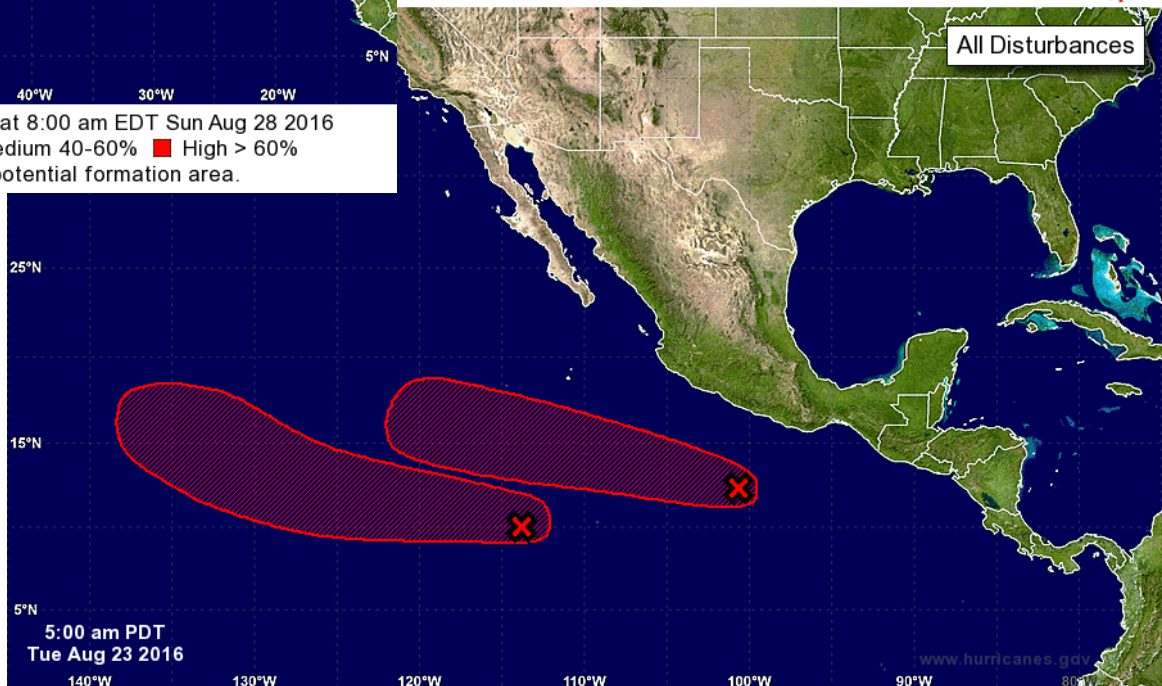
Tropical Cyclone Formation Potential for the Five-Day Period Ending at 8:00 am EDT Sun Aug 28 2016

Chance of Cyclone Formation in Five Days: ■ Low < 40% ■ Medium 40-60% ■ High > 60%

X indicates current disturbance location; shading indicates potential formation area.

## Graphical Tropical Weather Outlook

National Hurricane Center Miami, Florida



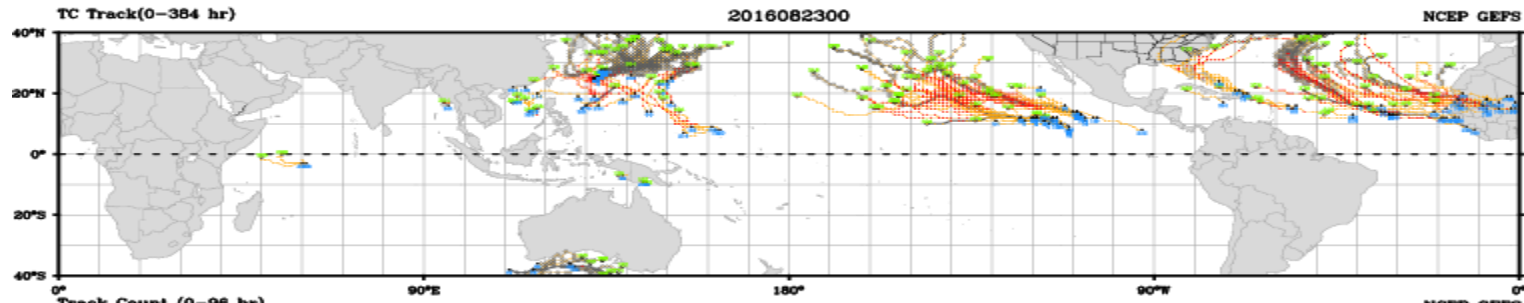
All Disturbances

5:00 am PDT  
Tue Aug 23 2016

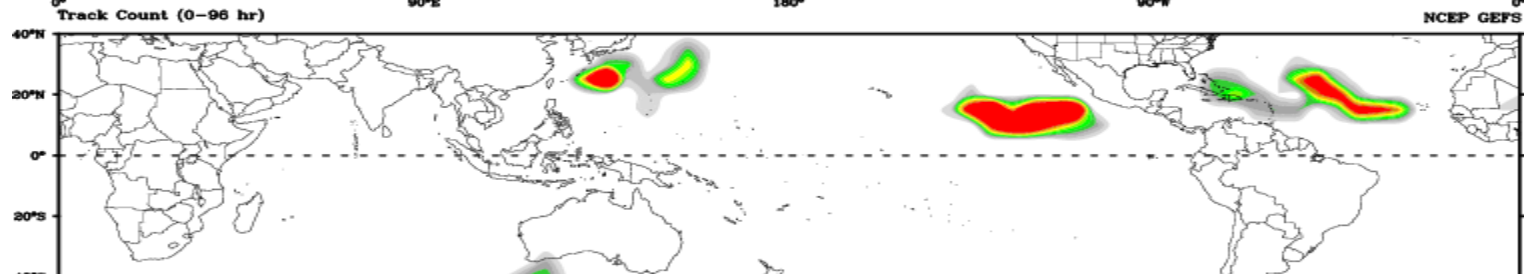
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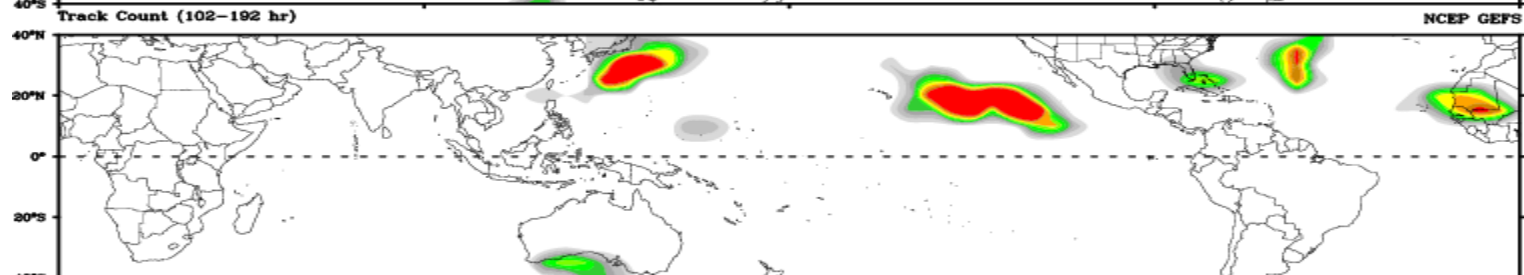
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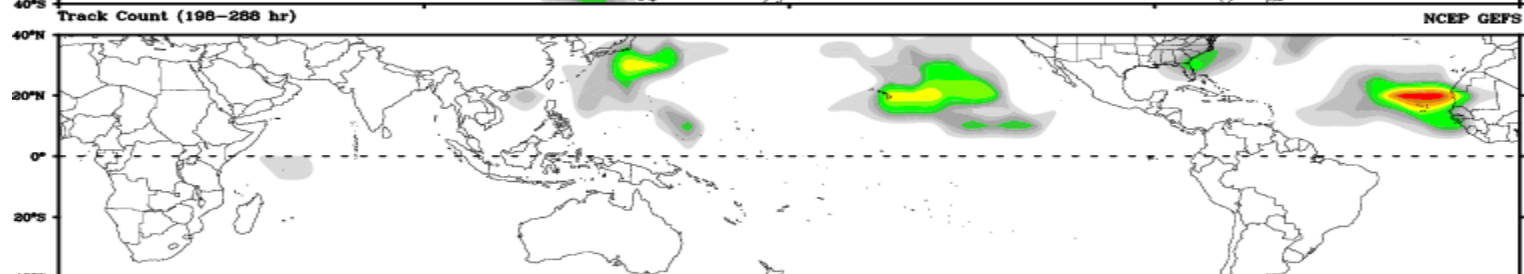
Days 1-4



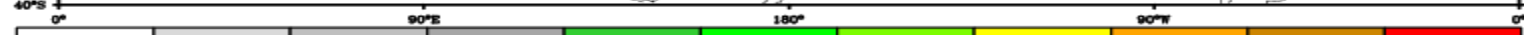
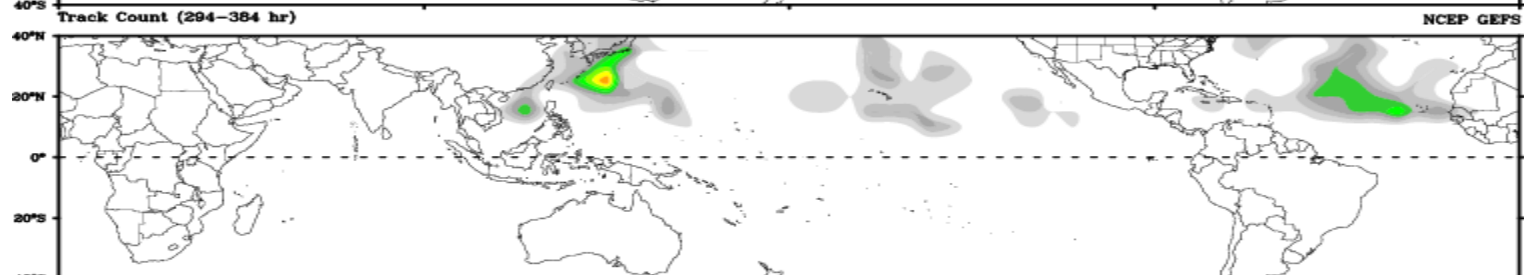
Day 5-8



Day 9-12

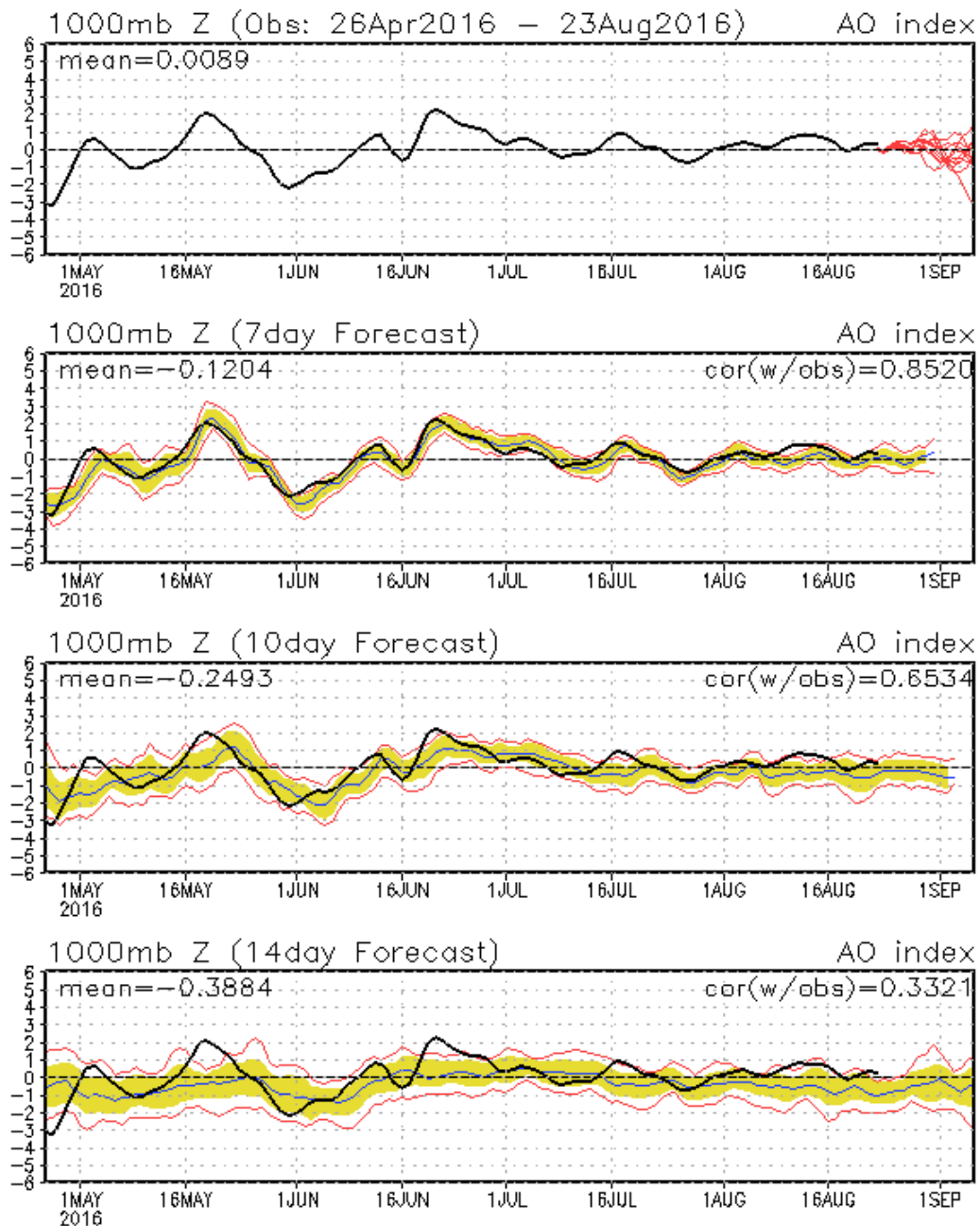


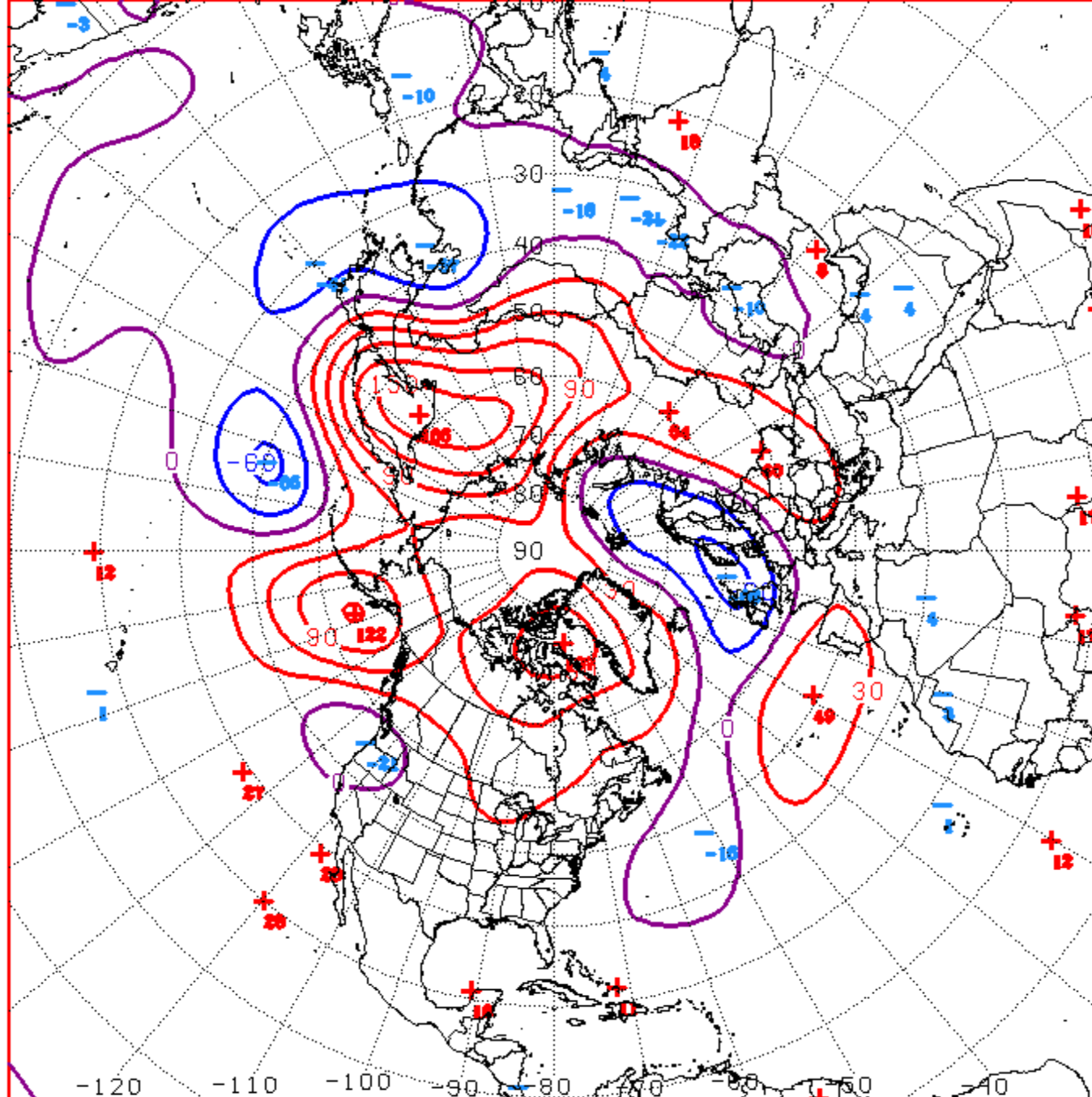
Day 13-15



# Connections to U.S. Impacts

## AO: Observed & ENSM forecasts

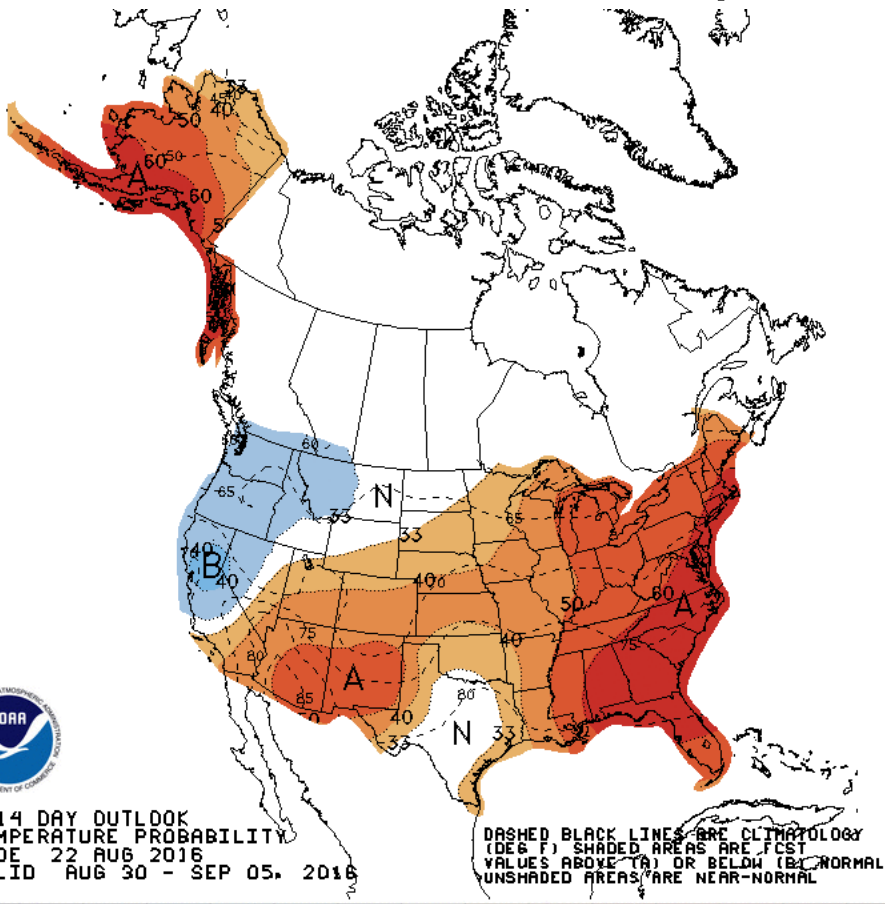




D+11 500 MB ANOMALIES FROM ALZ ENSM  
 CPC MAP MADE AUG 23 2016 1344 UTC CNTD SEP 03 2016

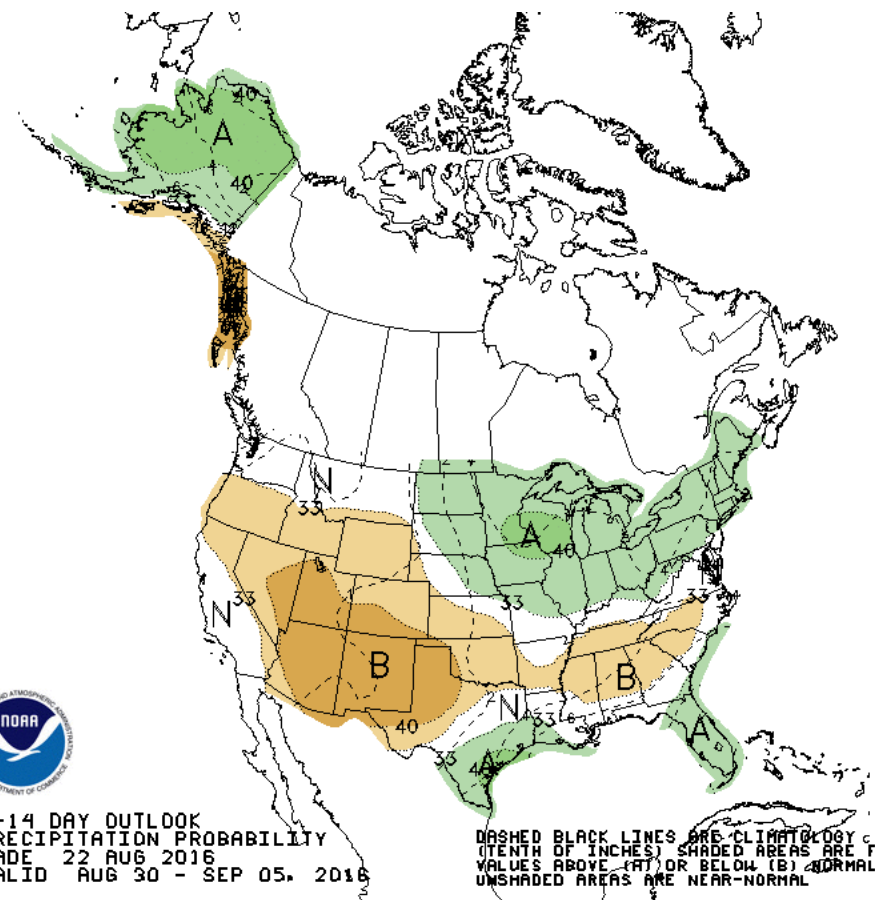
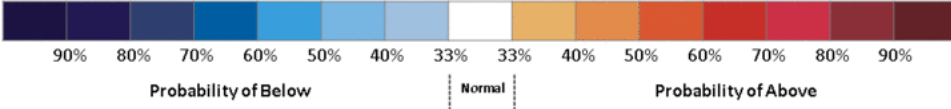


# Week 2 – Temperature and Precipitation



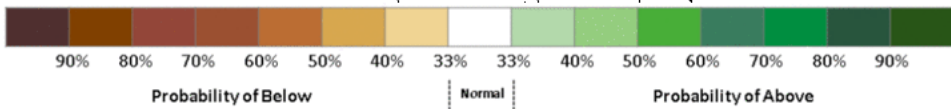
8-14 DAY OUTLOOK  
TEMPERATURE PROBABILITY  
MADE 22 AUG 2016  
VALID AUG 30 - SEP 05, 2016

DASHED BLACK LINES ARE CLIMATOLOGY (DEG F). SHADED AREAS ARE FCST VALUES ABOVE (A) OR BELOW (B) NORMAL. UNSHADED AREAS ARE NEAR-NORMAL



8-14 DAY OUTLOOK  
PRECIPITATION PROBABILITY  
MADE 22 AUG 2016  
VALID AUG 30 - SEP 05, 2016

DASHED BLACK LINES ARE CLIMATOLOGY (TENTH OF INCHES). SHADED AREAS ARE FCST VALUES ABOVE (A) OR BELOW (B) NORMAL. UNSHADED AREAS ARE NEAR-NORMAL

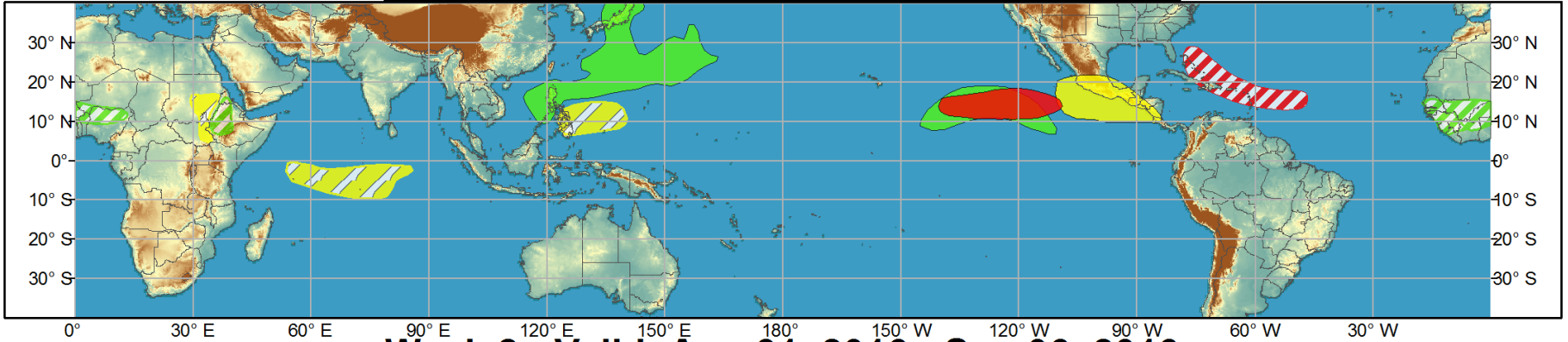




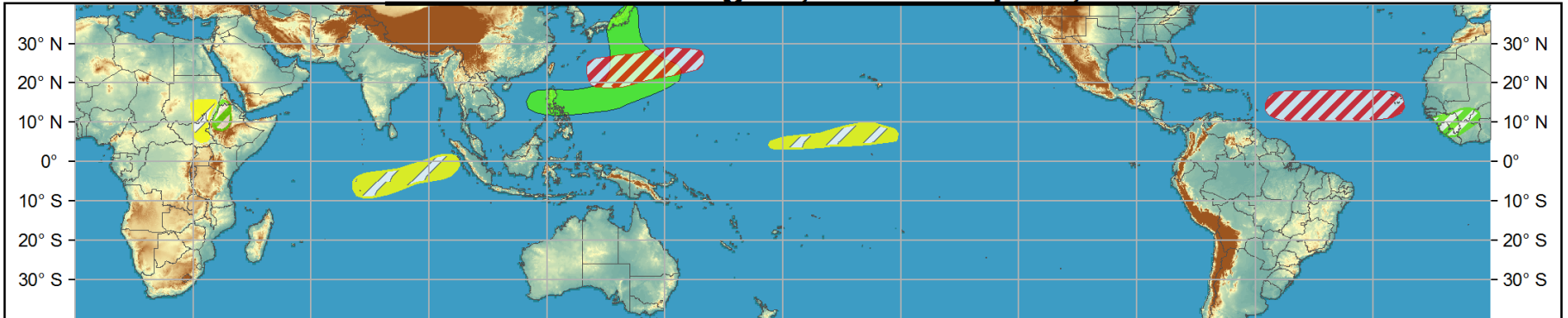
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