

# Global Tropics Hazards And Benefits Outlook

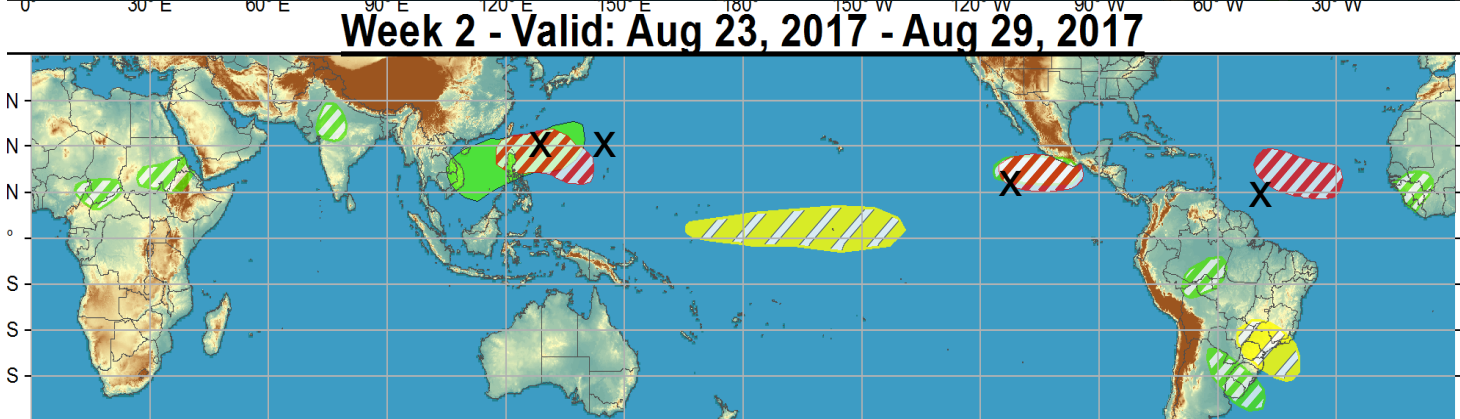
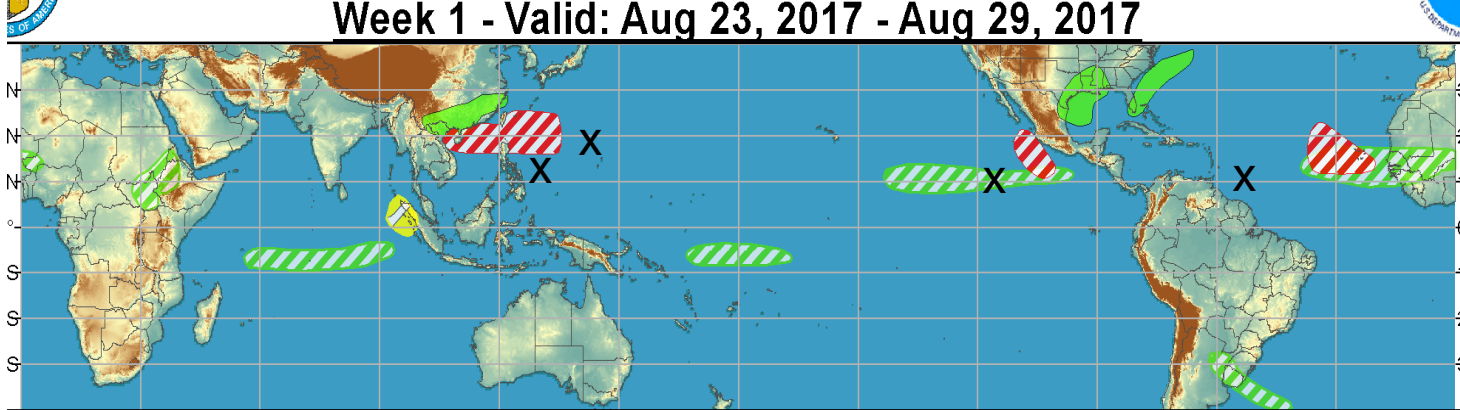
8/29/2017

Anthony Artusa

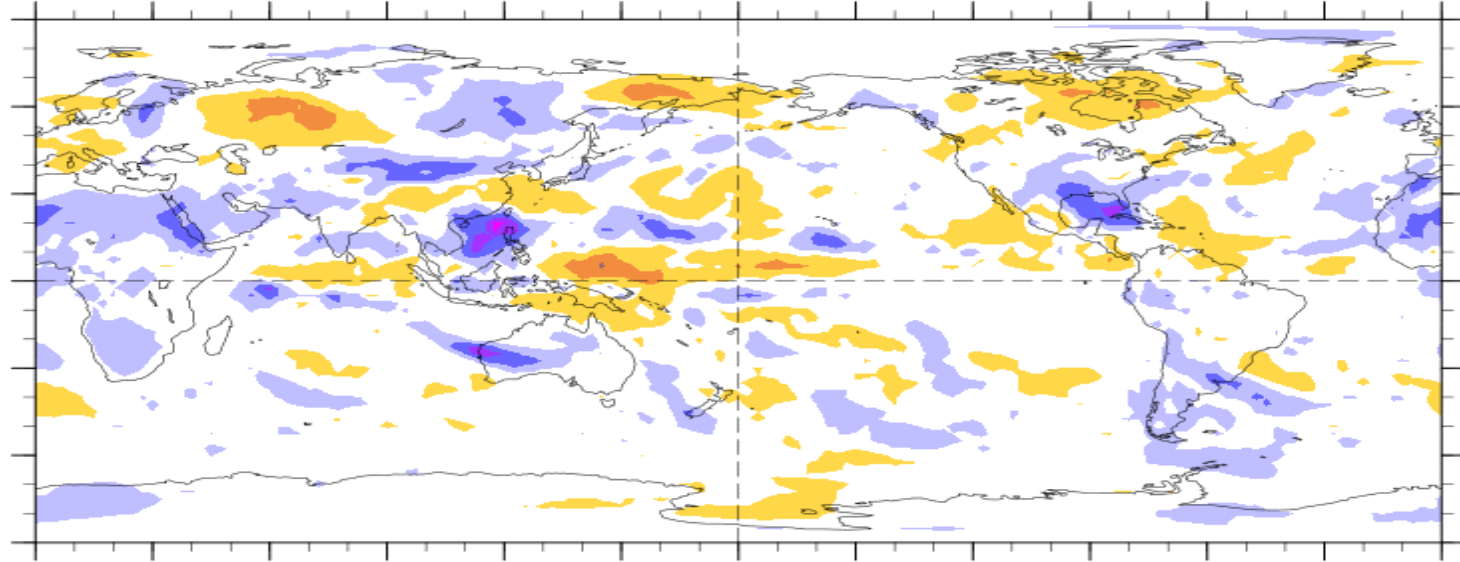
## Outline

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

# Outlook Review



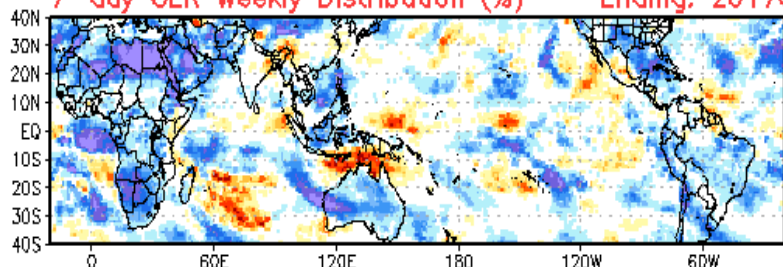
7-Day Average OLR Anomaly 2017/08/21 - 2017/08/27



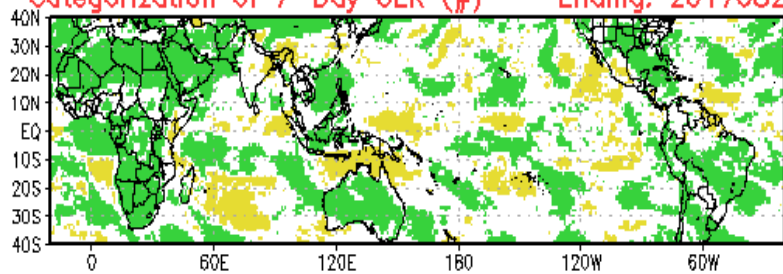
Cool shading  
More clouds/rain

Warm shading  
Less clouds/rain

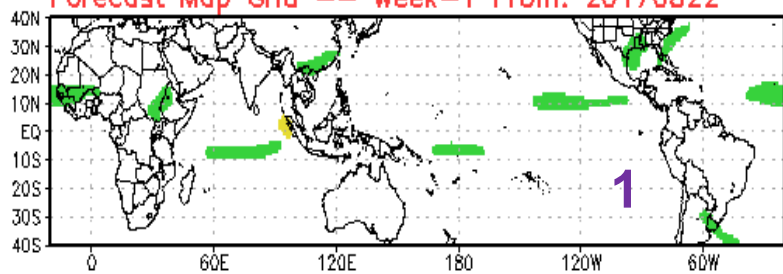
7-day OLR Weekly Distribution (%) -- Ending: 20170829



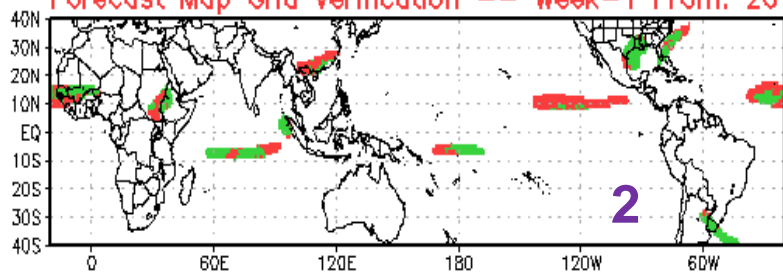
Categorization of 7-Day OLR (#) -- Ending: 20170829



Forecast Map Grid -- Week-1 From: 20170822

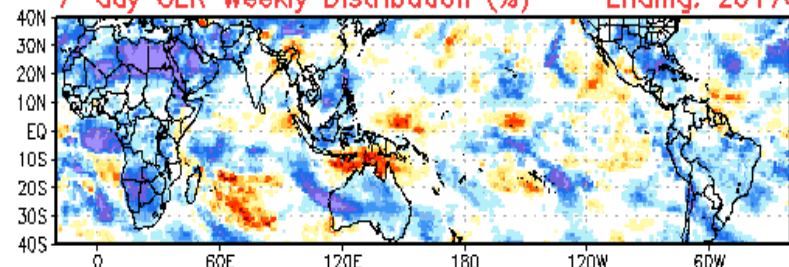


Forecast Map Grid Verification -- Week-1 From: 20170822

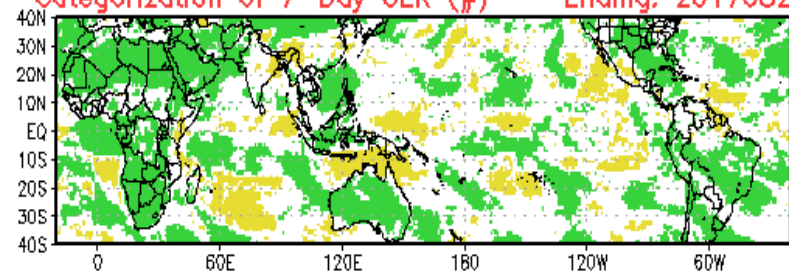


Hit: Green, Miss: Red  
Heidke Skill Score: 27.5725

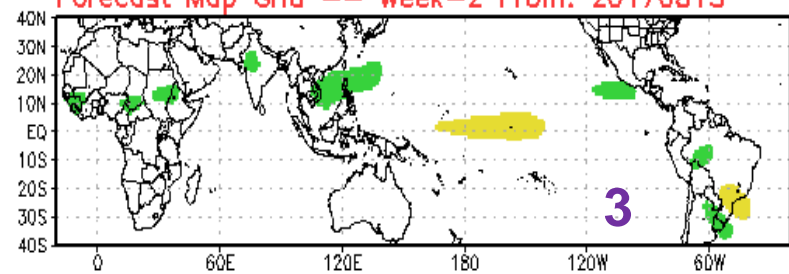
7-day OLR Weekly Distribution (%) -- Ending: 20170829



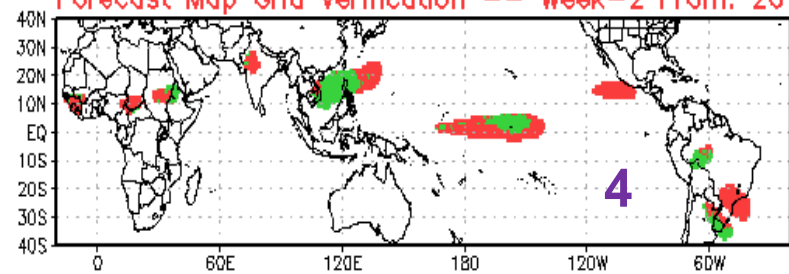
Categorization of 7-Day OLR (#) -- Ending: 20170829



Forecast Map Grid -- Week-2 From: 20170815



Forecast Map Grid Verification -- Week-2 From: 20170815



Hit: Green, Miss: Red  
Heidke Skill Score: 5.7305

# Synopsis of Climate Modes

## **ENSO:**

- ENSO-neutral is favored (85% through Sept, decreasing to ~55% during Dec-Feb 2017-18).

## **MJO and other subseasonal tropical variability:**

- The MJO remained weak; possible emergence of signal over western Indian Ocean during Week-1.
- GEFS, ECMWF & CMC dynamical model RMM forecasts indicate a rapid eastward propagation across the IO & MC, with Kelvin wave activity over east-Pac. CFS takes it westward from phase 2 to phase 8.

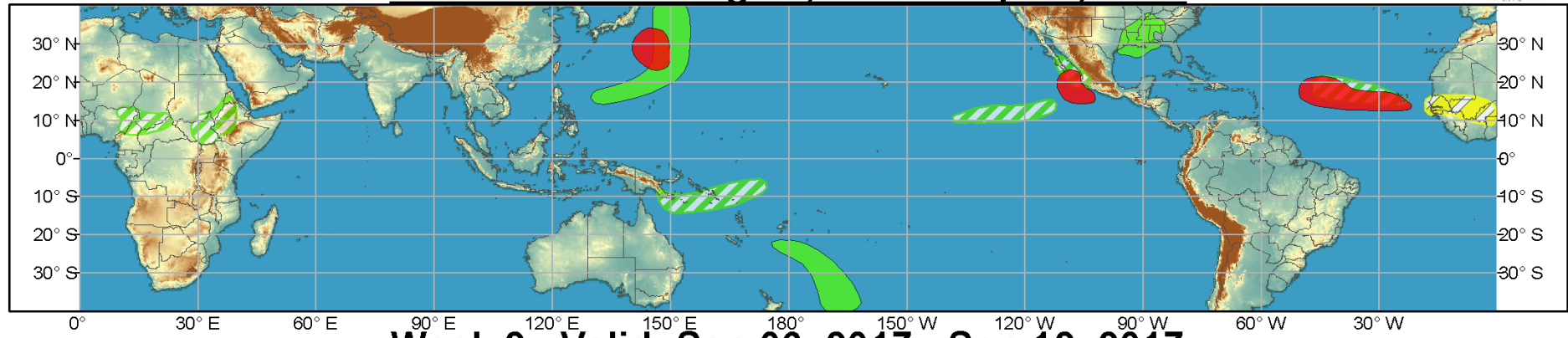
## **Extratropics:**

- The extended range temperature and precipitation forecasts for the U.S. are not likely to be directly impacted by MJO activity – but indirectly through TCs.

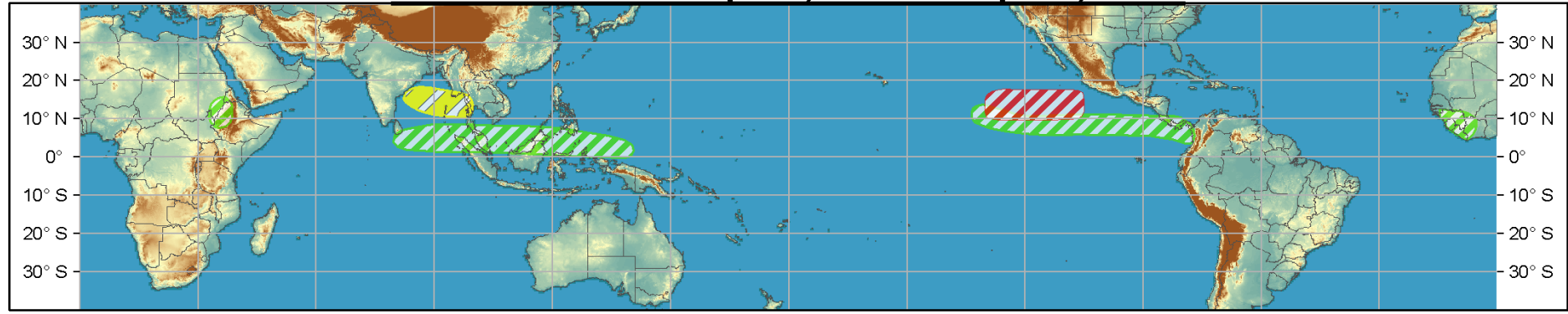


# Global Tropics Hazards and Benefits Outlook - Climate Prediction Center

## Week 1 - Valid: Aug 30, 2017 - Sep 05, 2017



## Week 2 - Valid: Sep 06, 2017 - Sep 12, 2017



### Confidence

|                            | High | Moderate |
|----------------------------|------|----------|
| Tropical Cyclone Formation |      |          |
| Above-average rainfall     |      |          |
| Below-average rainfall     |      |          |
| Above-normal temperatures  |      |          |
| Below-normal temperatures  |      |          |

Development of a tropical cyclone (tropical depression - TD, or greater strength).

Weekly total rainfall in the upper third of the historical range.

Weekly total rainfall in the lower third of the historical range.

7-day mean temperatures in the upper third of the historical range.

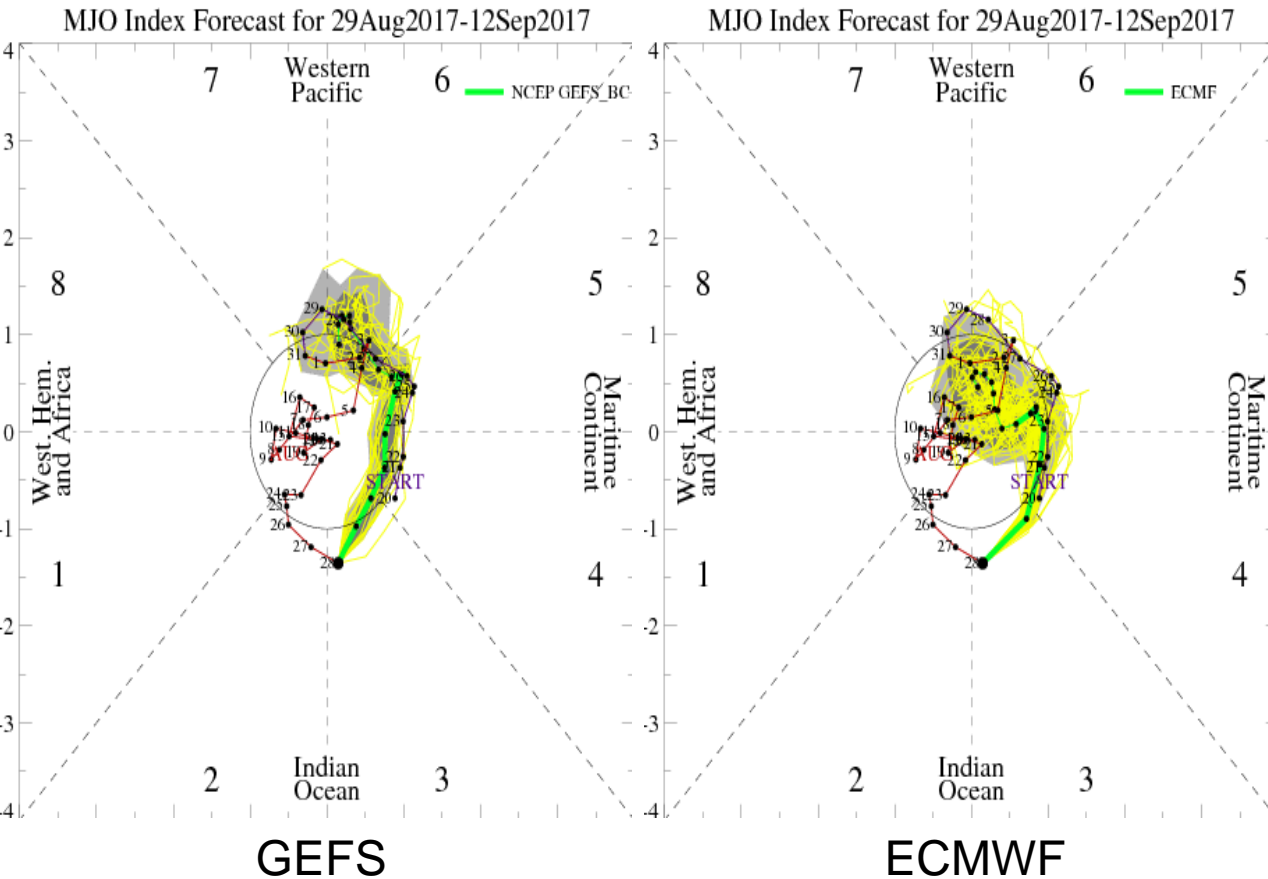
7-day mean temperatures in the lower third of the historical range.

Produced: 08/29/2017  
Forecaster: Artusa

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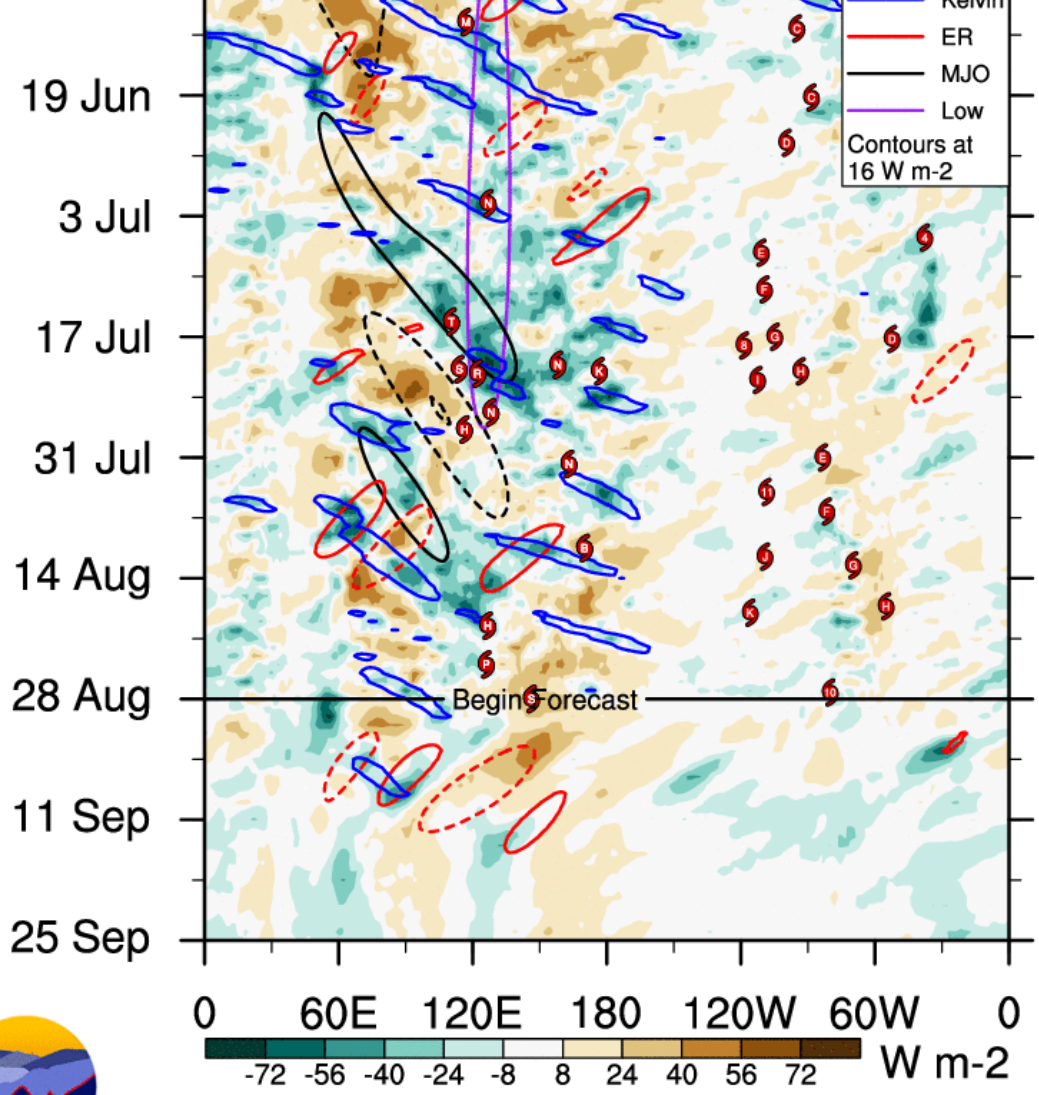
# MJO Observation/Forecast

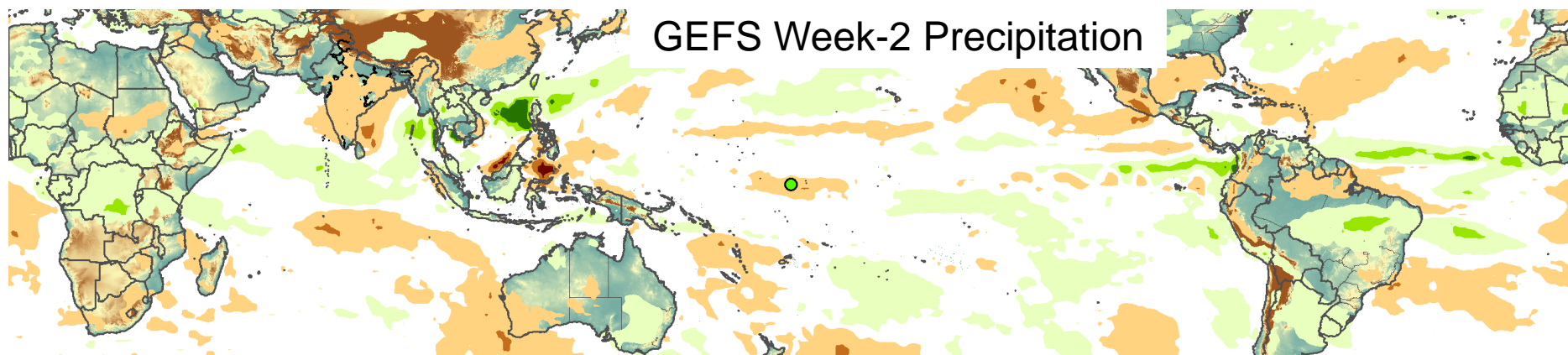
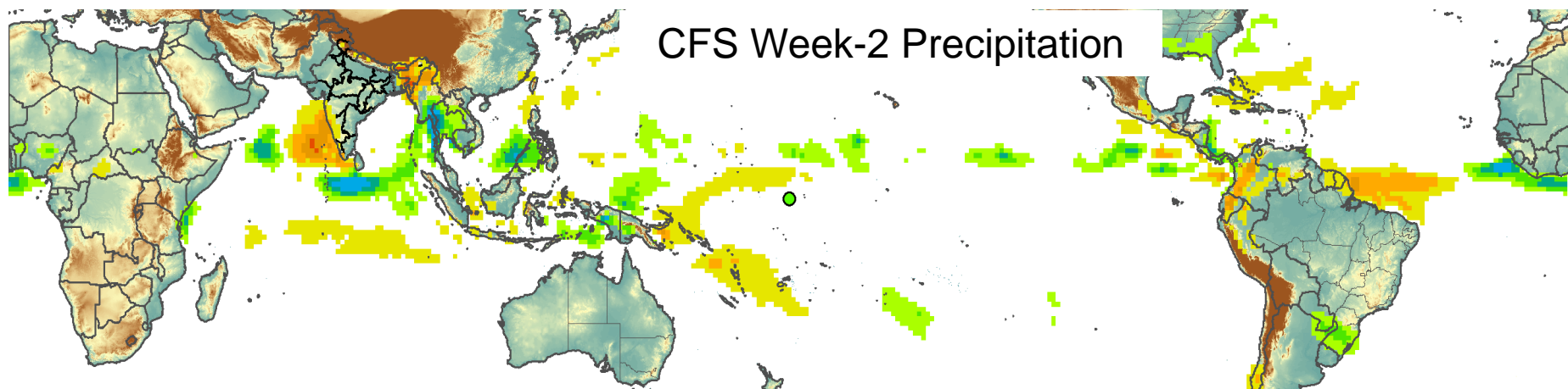
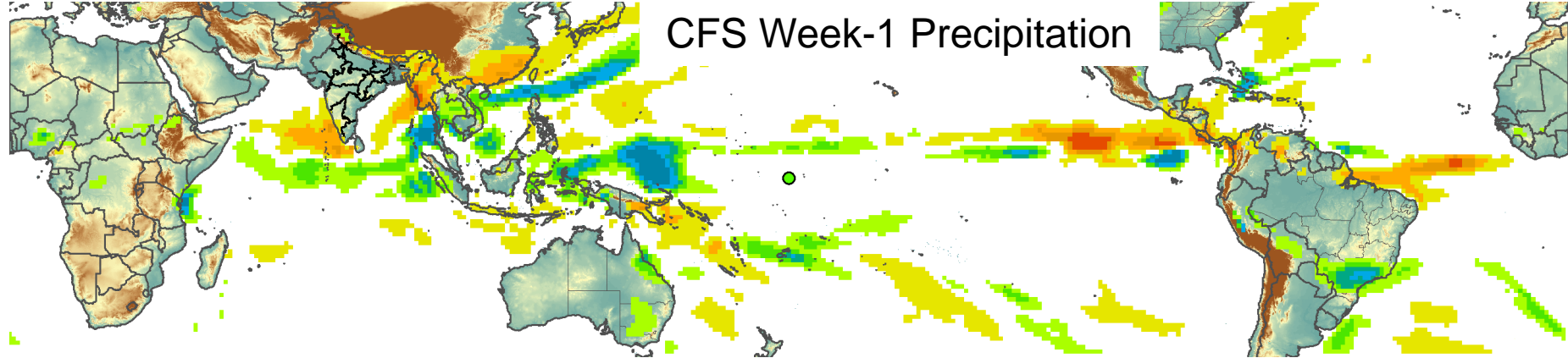


Wheeler-Hendon based analyses of model forecasts indicate propagation to the east.



MJO, Rossby wave, Kelvin wave, Low-frequency pattern have some influence



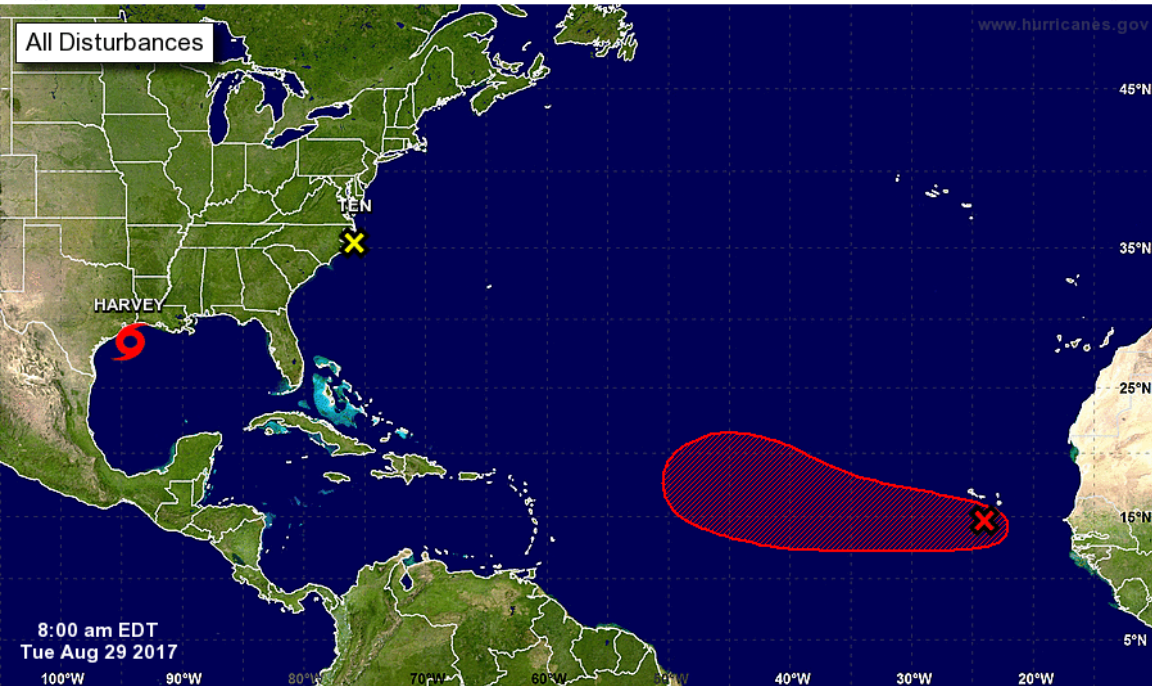






# Five-Day Graphical Tropical Weather Outlook

National Hurricane Center Miami, Florida



8:00 am EDT  
Tue Aug 29 2017

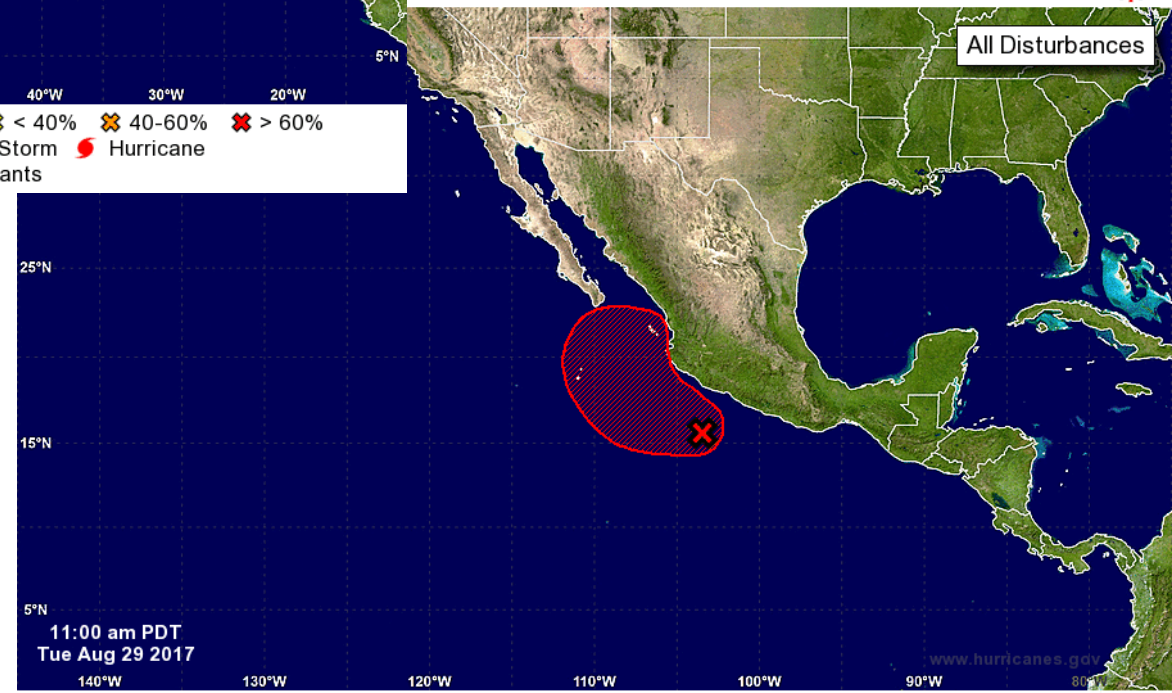
Current Disturbances and Five-Day Cyclone Formation Chance: < 40% 40-60% > 60%

Tropical or Sub-Tropical Cyclone: Depression Storm Hurricane

Post-Tropical Cyclone Remnants

# Graphical Tropical Weather Outlook

National Hurricane Center Miami, Florida



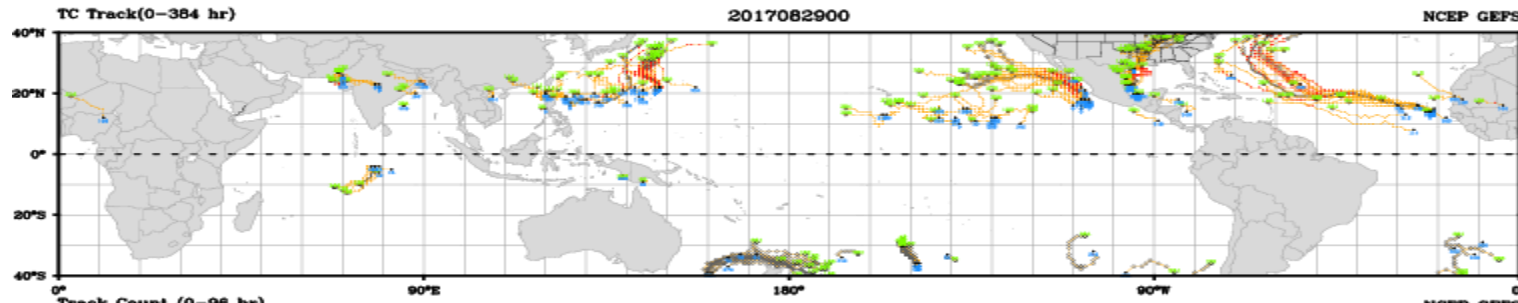
All Disturbances

11:00 am PDT  
Tue Aug 29 2017

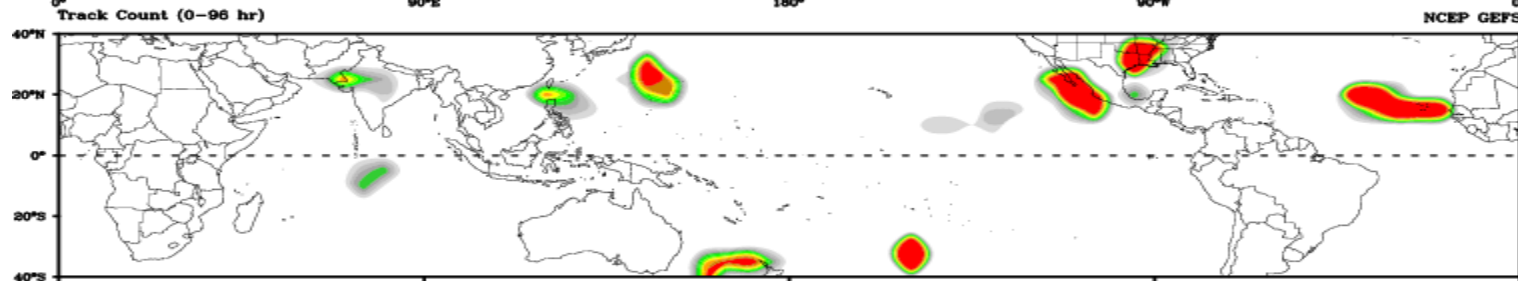
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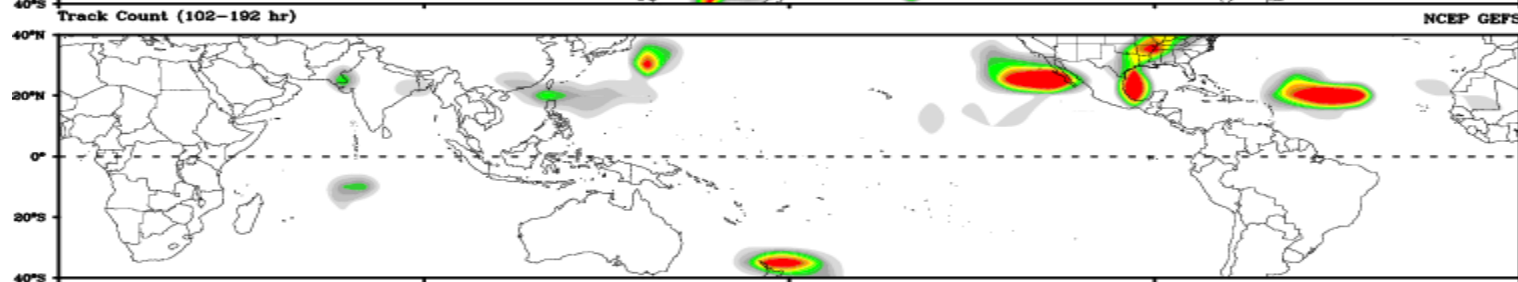
Post-Tropical Cyclone Remnants



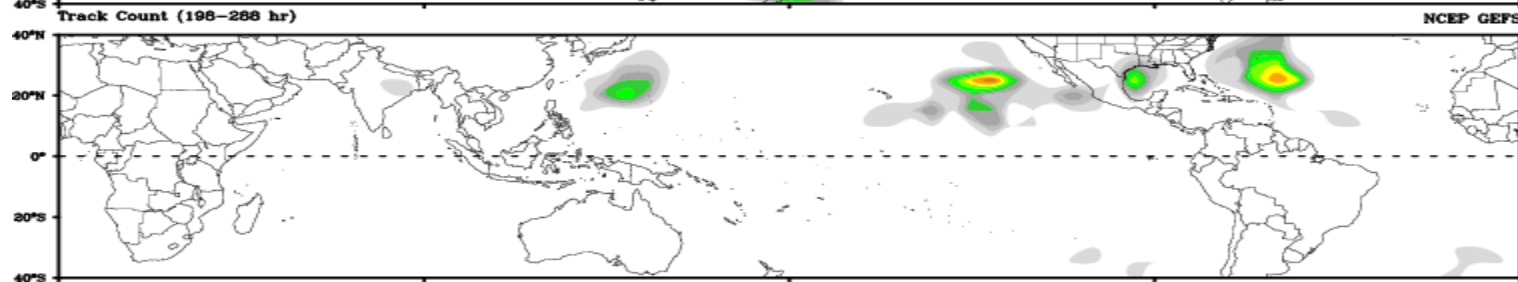
Days 1-4



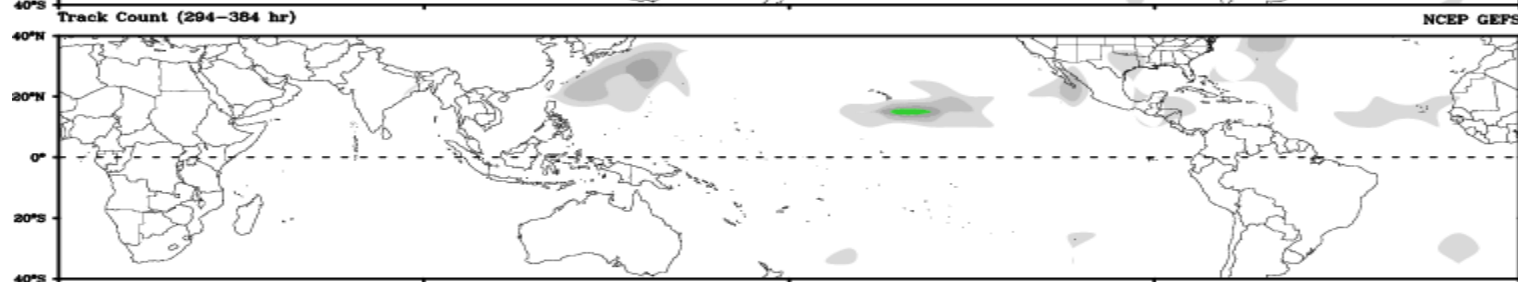
Day 5-8



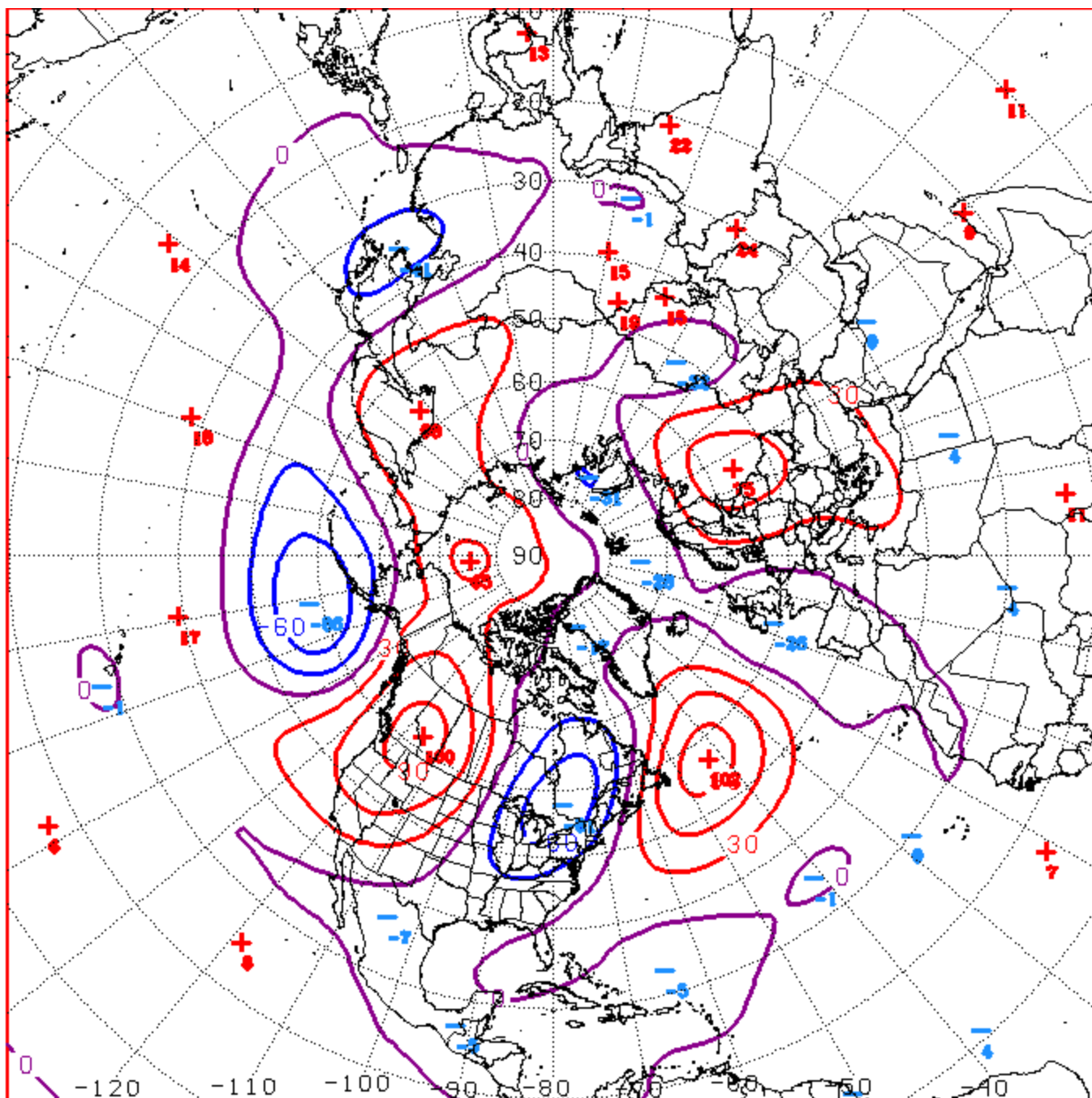
Day 9-12



Day 13-15

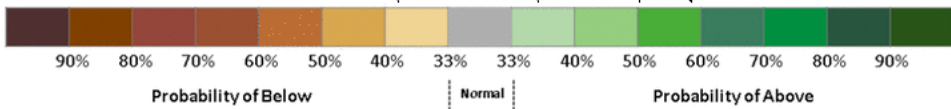
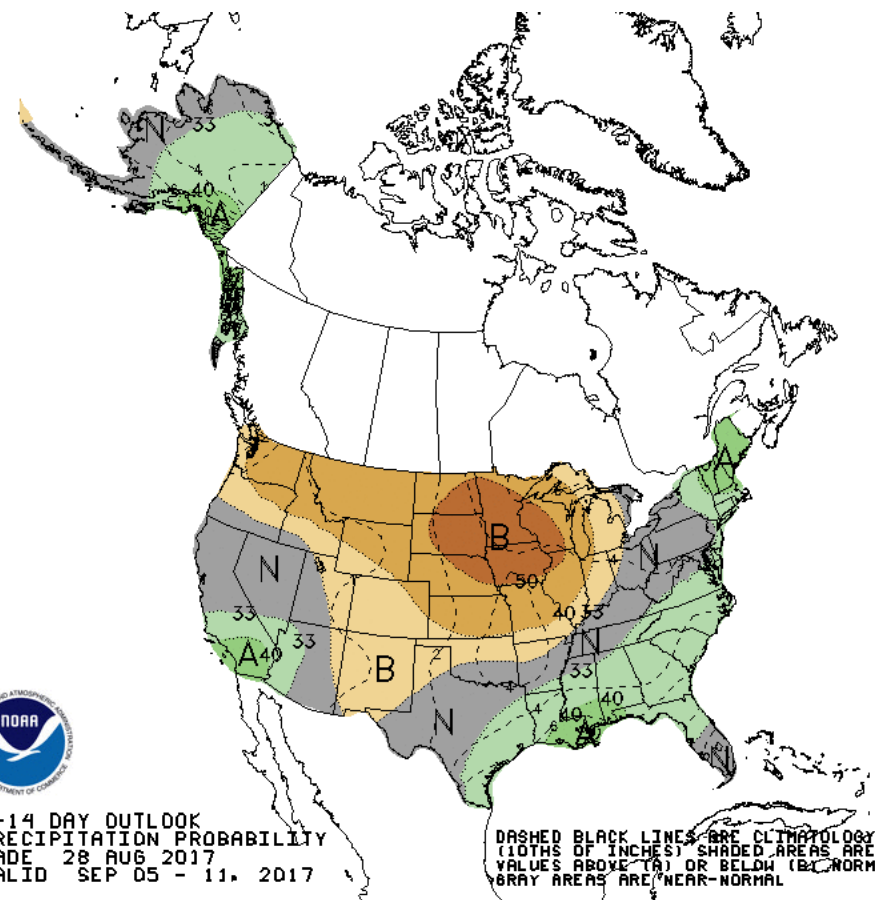
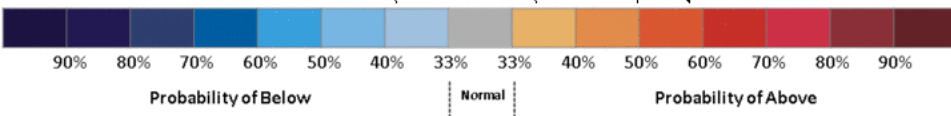
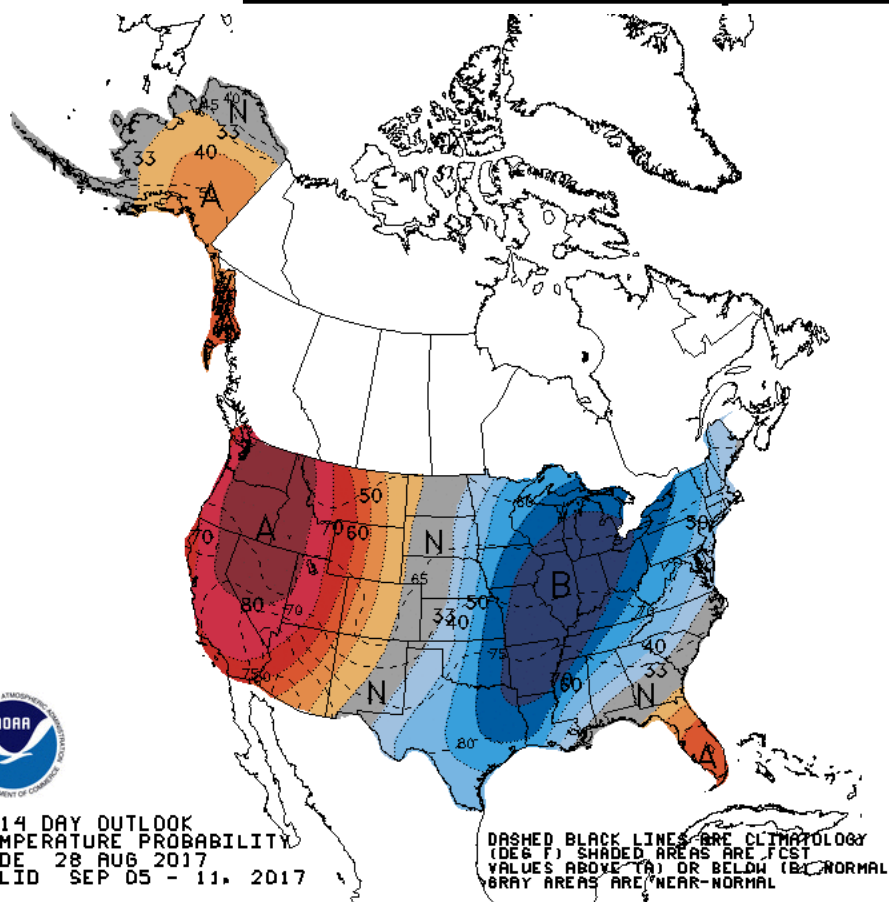


# Connections to U.S. Impacts

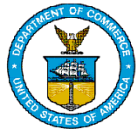


D+11 500 MB ANOMALIES FROM ALZ ENSM  
 CPC MAP MADE AUG 29 2017 1307 UTC CNTD SEP 09 2017

# Week 2 – Temperature and Precipitation

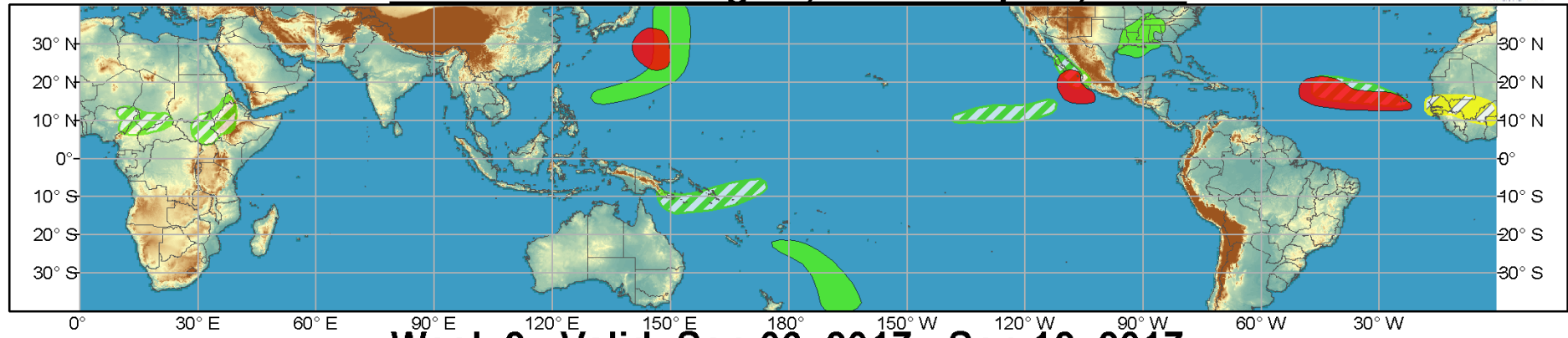




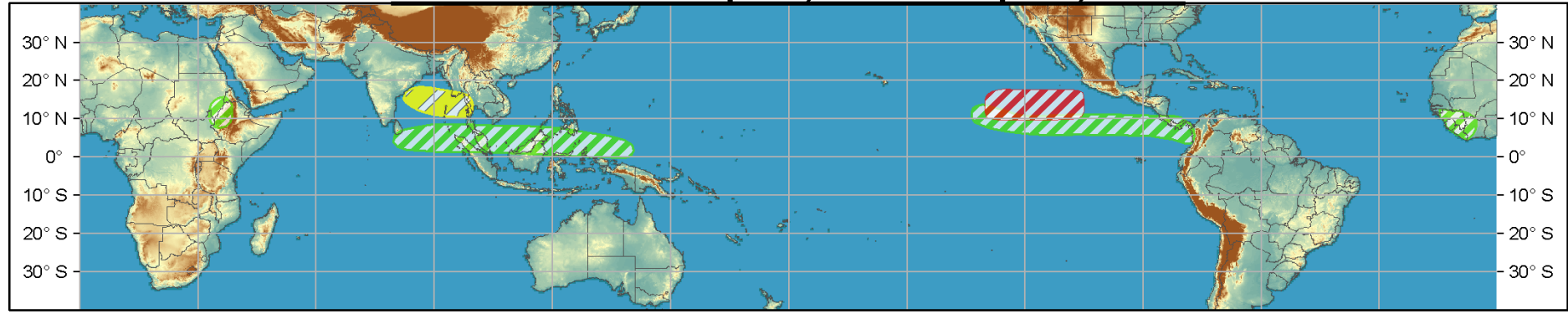


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