

# Global Tropics Hazards And Benefits Outlook

8/8/2017

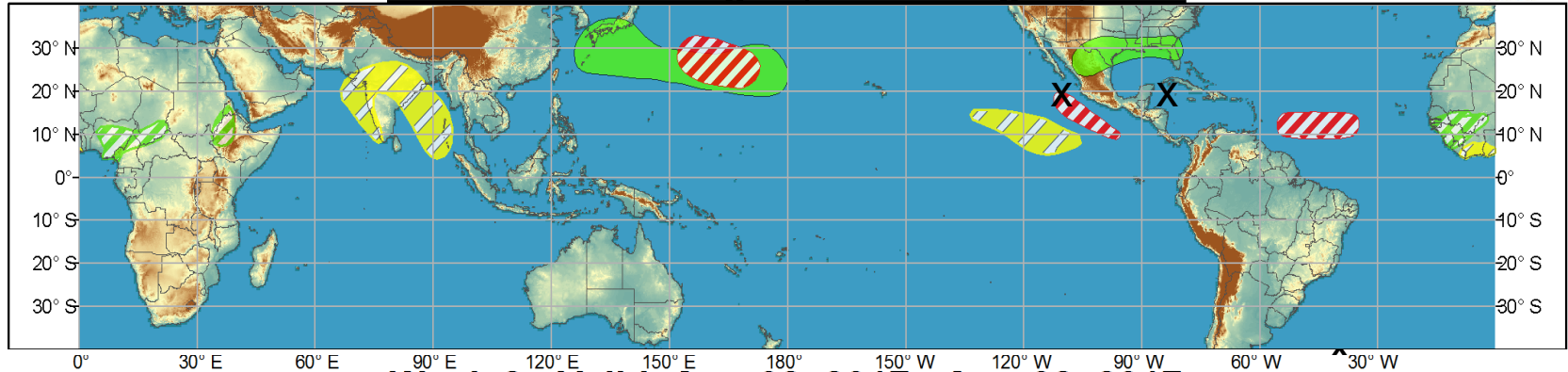
Adam Allgood

## Outline

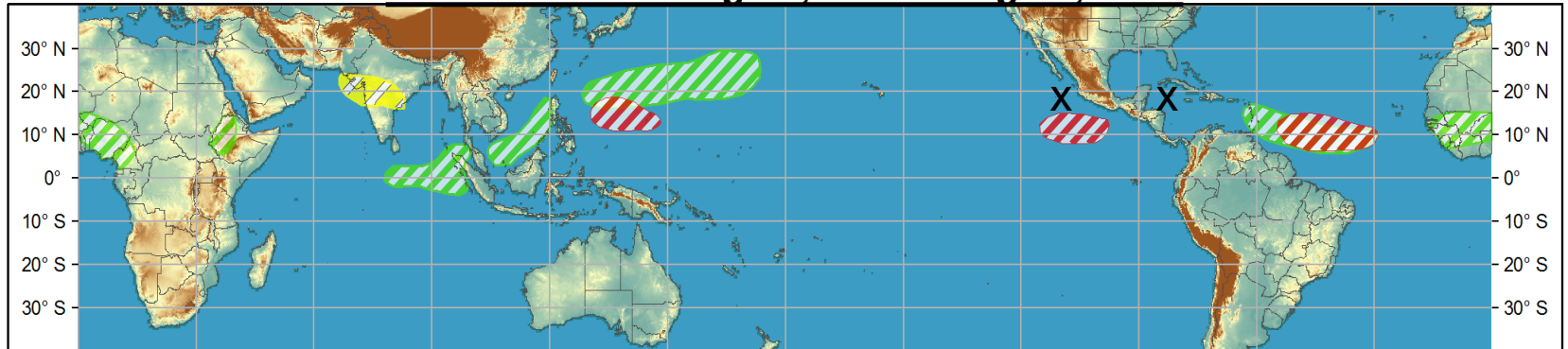
1. Review of Recent Conditions
2. Synopsis of Climate Modes
3. GTH Outlook and Forecast Discussion
4. Connections to U.S. Impacts

# Outlook Review – Tropical Cyclones

**Week 1 - Valid: Aug 02, 2017 - Aug 08, 2017**



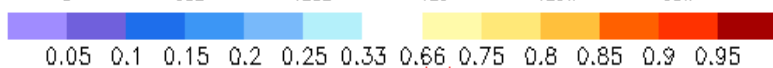
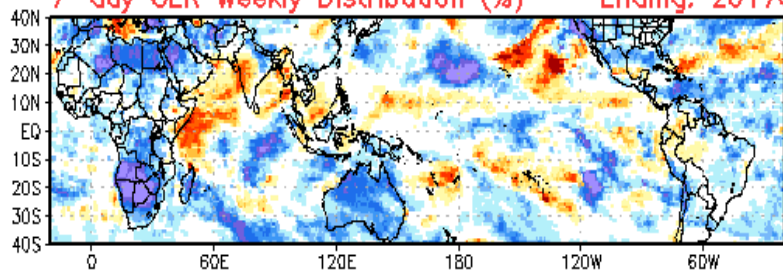
**Week 2 - Valid: Aug 02, 2017 - Aug 08, 2017**



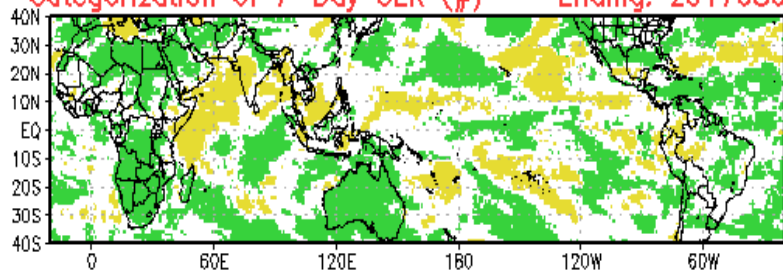
TS 11-E – dissipated after a day

TS Franklin – made landfall over the Yucatan

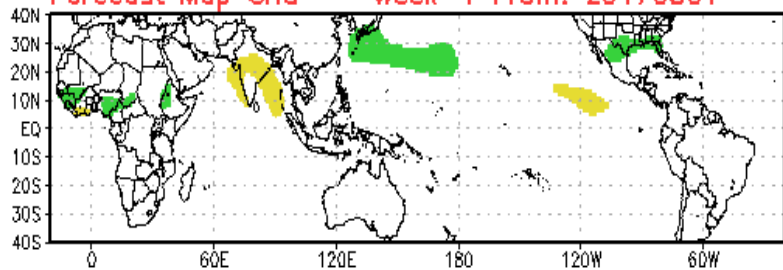
7-day OLR Weekly Distribution (%) -- Ending: 20170808



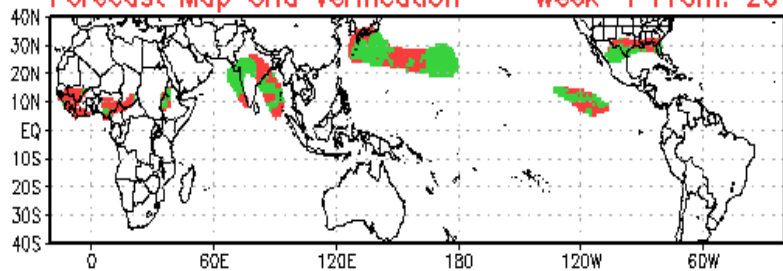
Categorization of 7-Day OLR (#) -- Ending: 20170808



Forecast Map Grid -- Week-1 From: 20170801

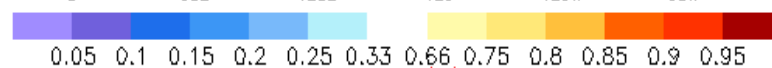
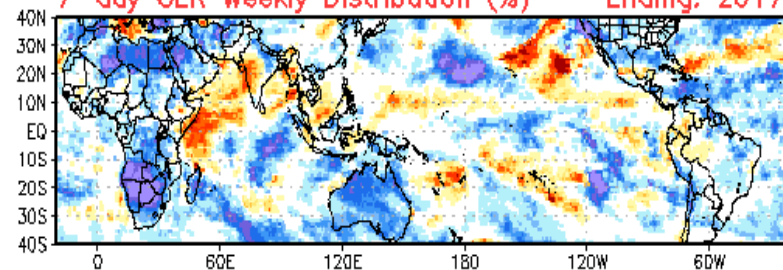


Forecast Map Grid Verification -- Week-1 From: 20170801

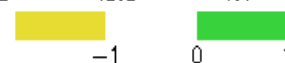
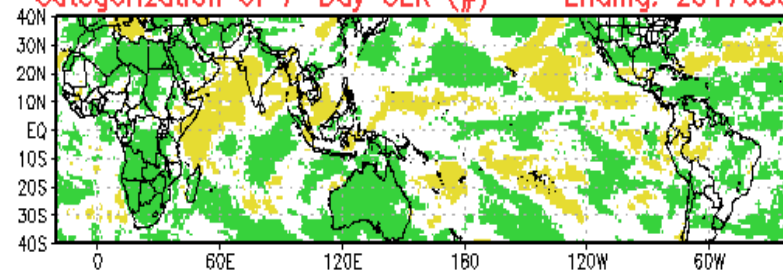


Hit: Green, Miss: Red  
Heidke Skill Score: 32.9008

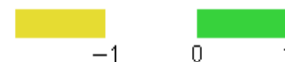
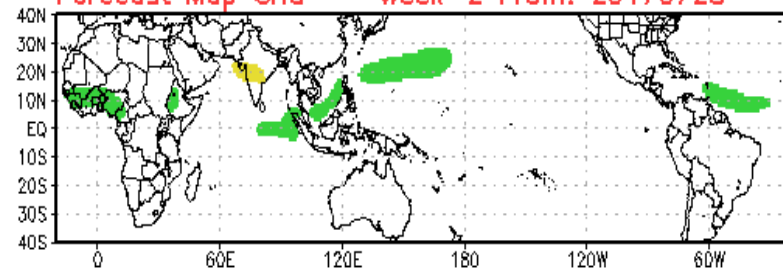
7-day OLR Weekly Distribution (%) -- Ending: 20170808



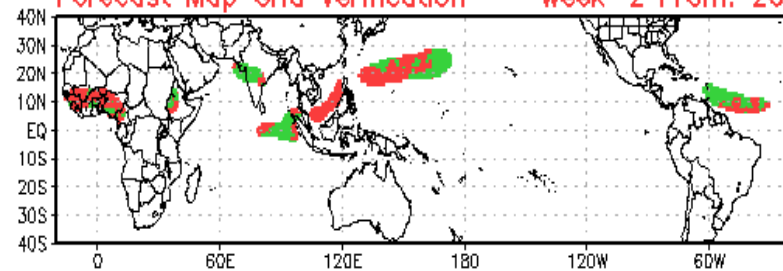
Categorization of 7-Day OLR (#) -- Ending: 20170808



Forecast Map Grid -- Week-2 From: 20170725



Forecast Map Grid Verification -- Week-2 From: 20170725



Hit: Green, Miss: Red  
Heidke Skill Score: 16.3069

# Synopsis of Climate Modes

## **ENSO:**

- ENSO-neutral is favored (~50 to 55% chance) into the Northern Hemisphere winter 2017-18
- The next ENSO Diagnostic Discussion will be released on 10 August

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

- The MJO weakened rapidly over the past several days, as mid-latitude interference from the Southern Hemisphere disrupted the enhanced convection over the Maritime Continent and West Pacific.
- Dynamical models indicate a continued weak MJO signal during the next two weeks, with any enhanced convective signal occurring over the Western Hemisphere (TC related?) or Indian Ocean (ECMWF).

## **Extratropics:**

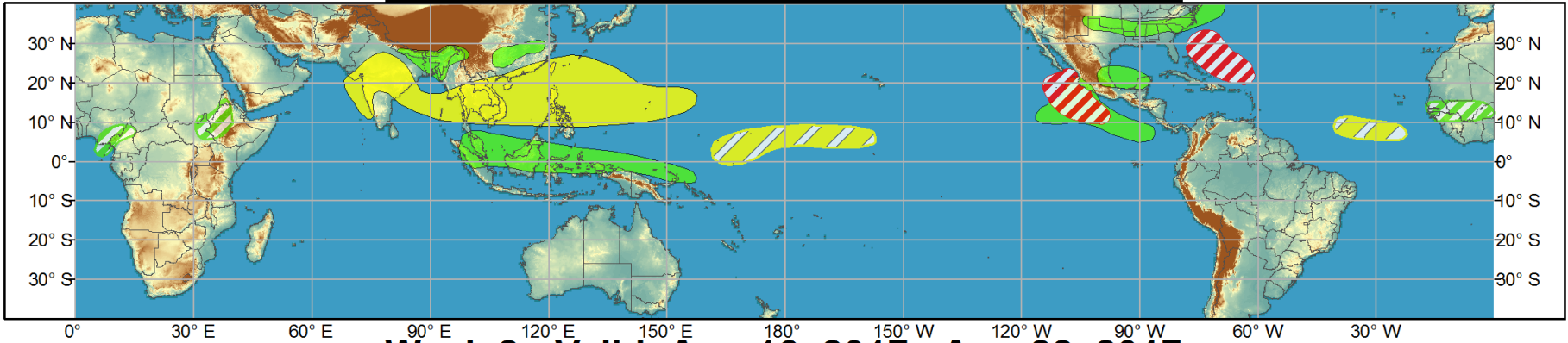
- The extended range temperature and precipitation forecasts for the U.S. are not likely to be impacted by MJO activity or recurving tropical cyclones (Noru dissipated over Japan). A trough over the eastern U.S. may play a role in the track of a potential Atlantic TC.



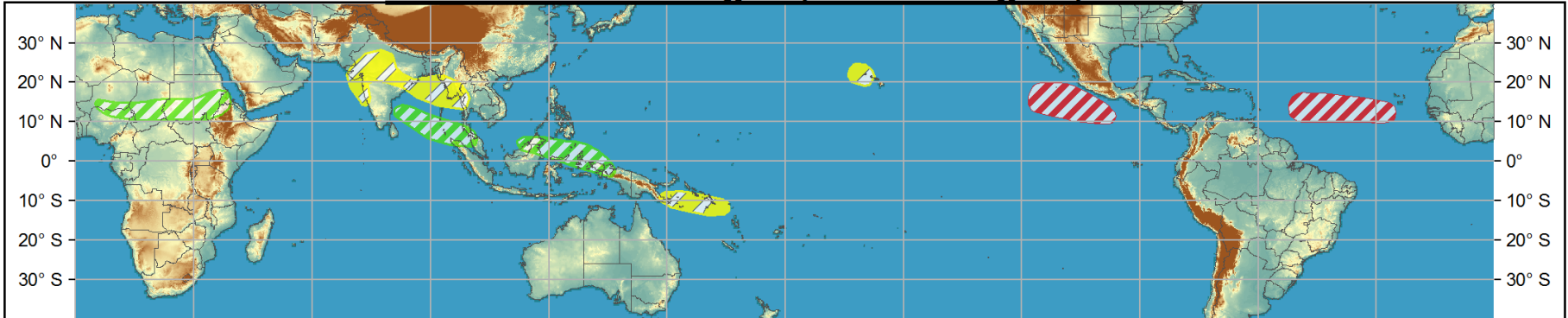
# Global Tropics Hazards and Benefits Outlook - Climate Prediction Center



## Week 1 - Valid: Aug 09, 2017 - Aug 15, 2017



## Week 2 - Valid: Aug 16, 2017 - Aug 22, 2017



Produced: 08/08/2017

Forecaster: Allgood

**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.**



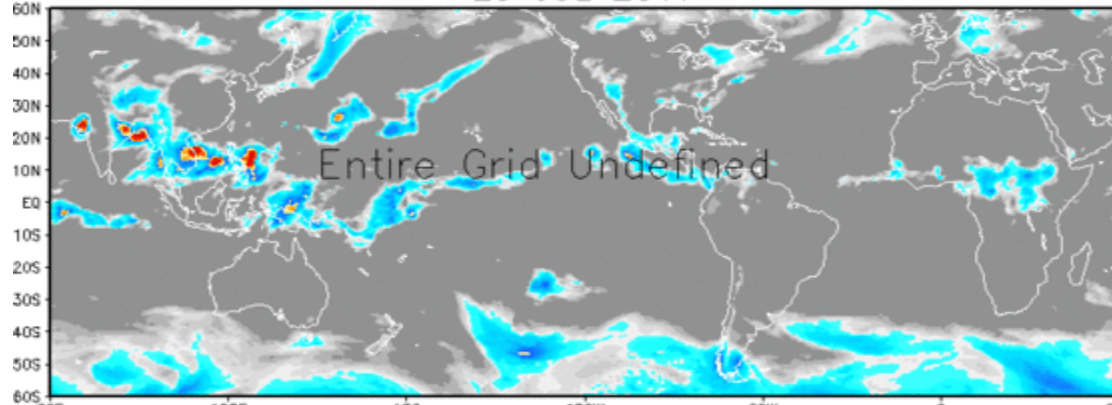


# IR Satellite & 200-hpa Velocity Potential Anomalies

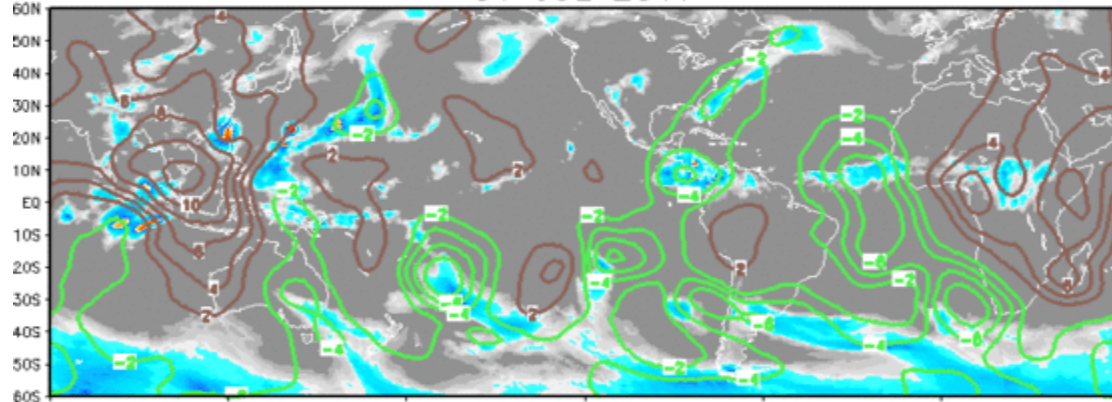
Green: Enhanced Divergence

Brown: Enhanced Convergence

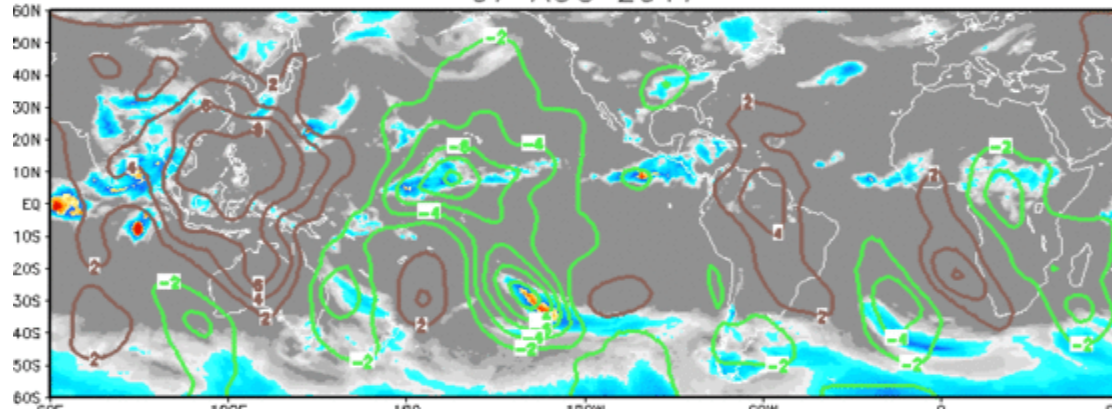
25 JUL 2017



31 JUL 2017



07 AUG 2017

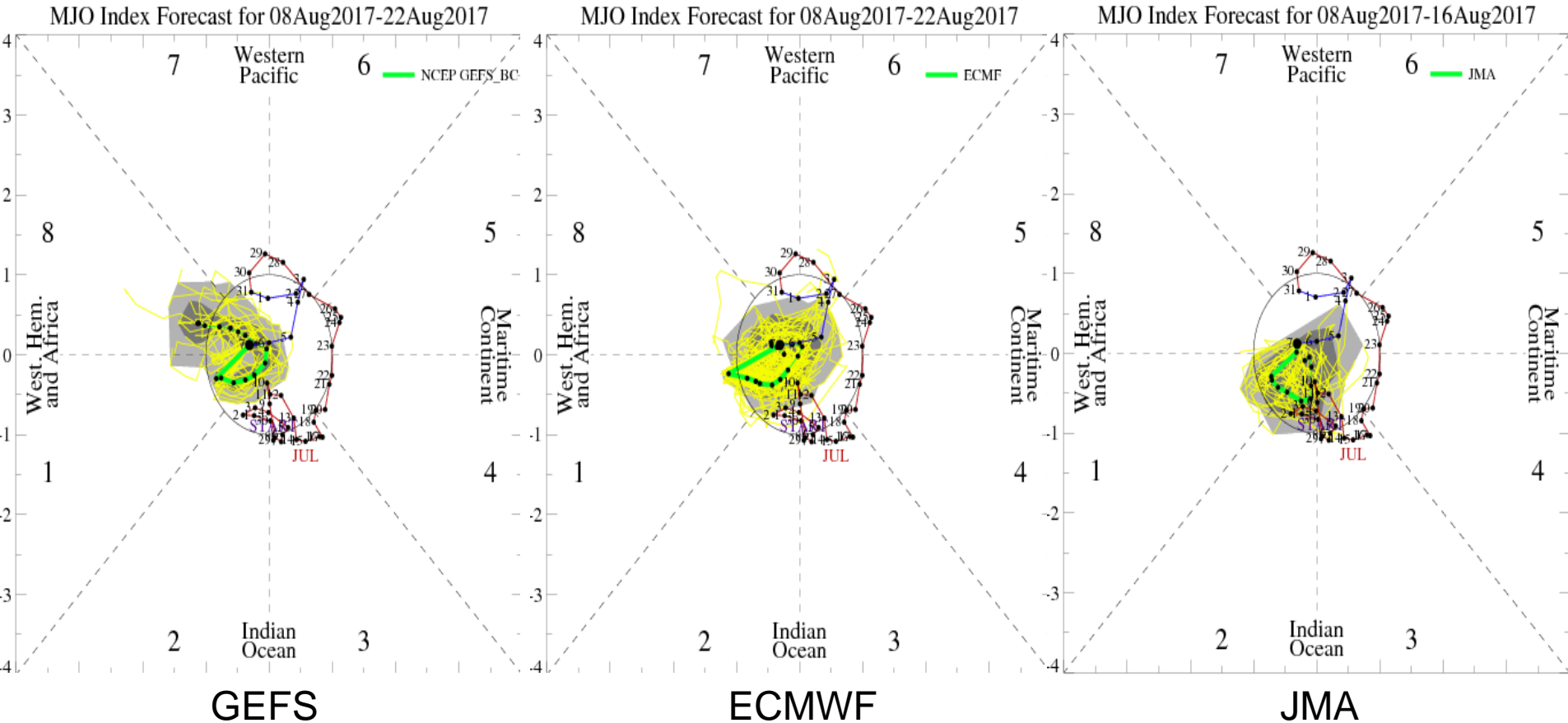


Technical difficulties.

RMM-based index showing signal over West Pacific, not impressive at the upper-levels.

Wave-2 projection, but note upper-level signal over the central Pacific.

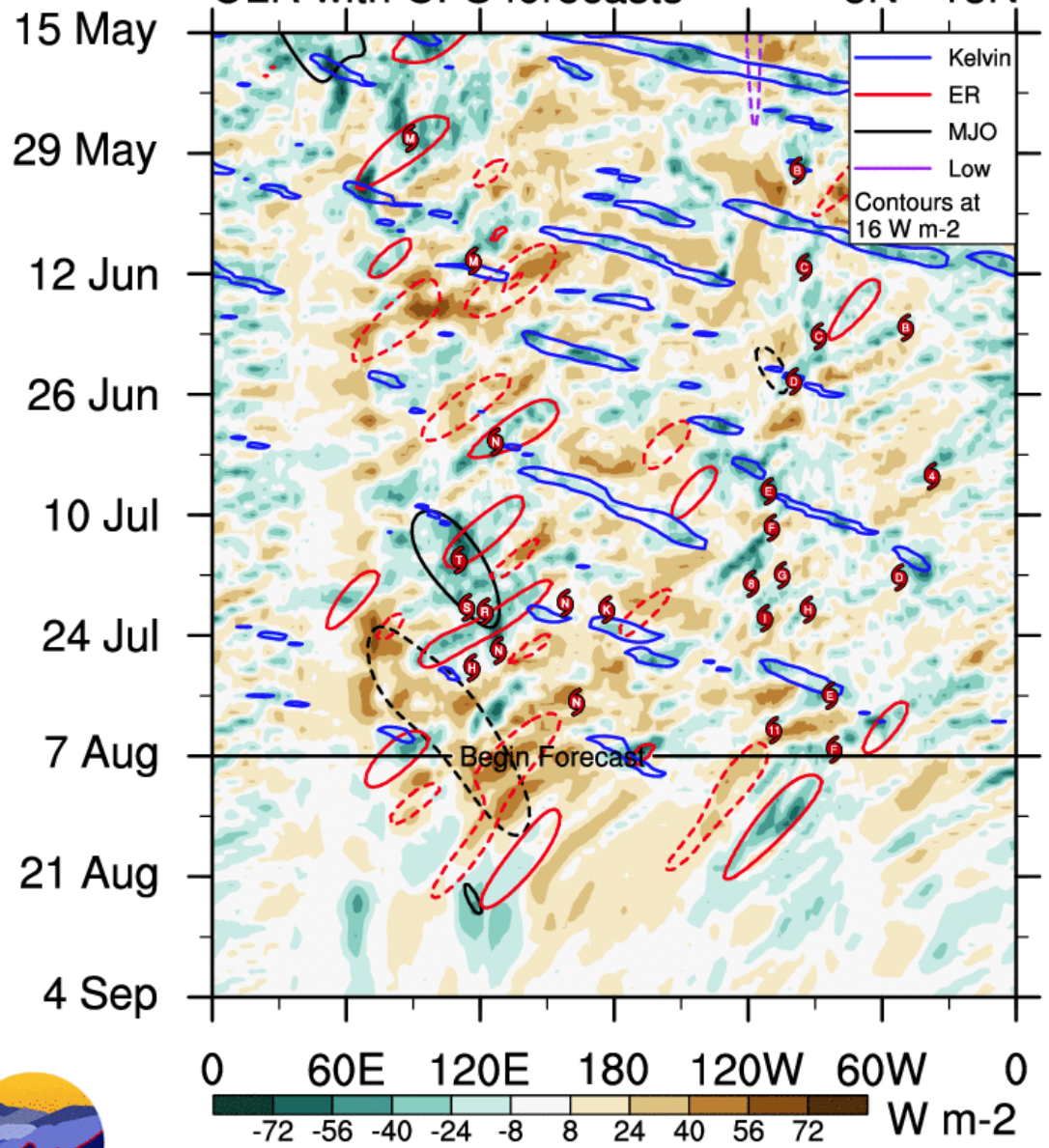
# MJO Observation/Forecast



GEFS – regressed propagation followed by amplification over the Western Hemisphere

ECMWF and JMA – weak signal, non-bias corrected weakly favors Indian Ocean

OLR with CFS forecasts 5N - 15N



**Low frequency enhanced convection over Maritime Continent disrupted, as well as the Asian monsoon**



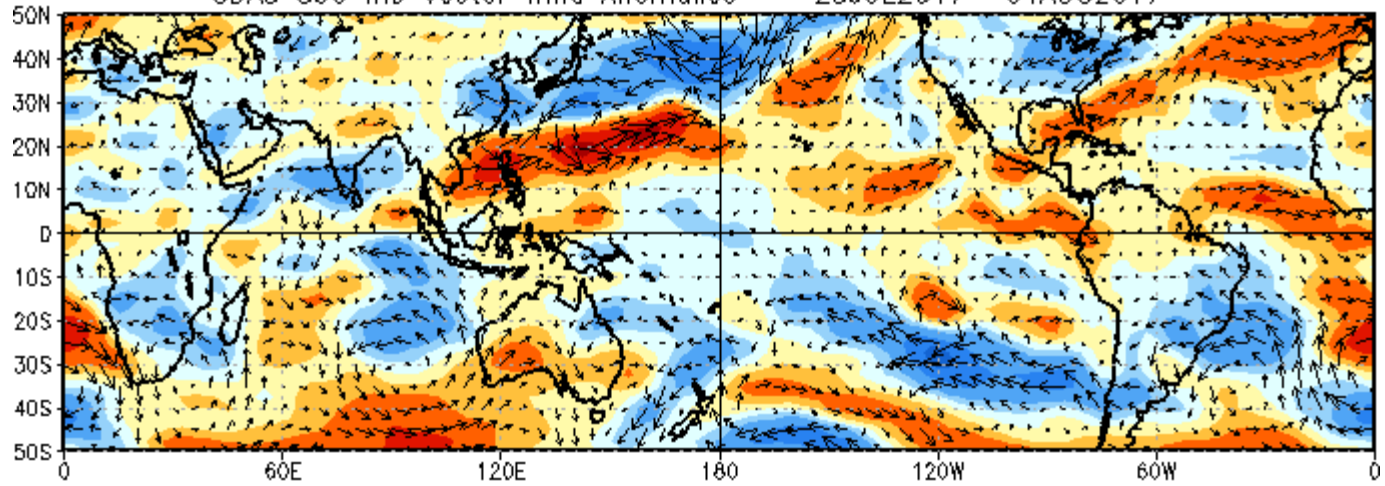
ncics.org/mjo

Tue 2017-08-08 1512 UTC

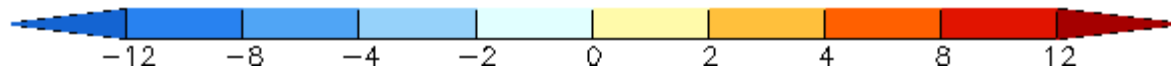
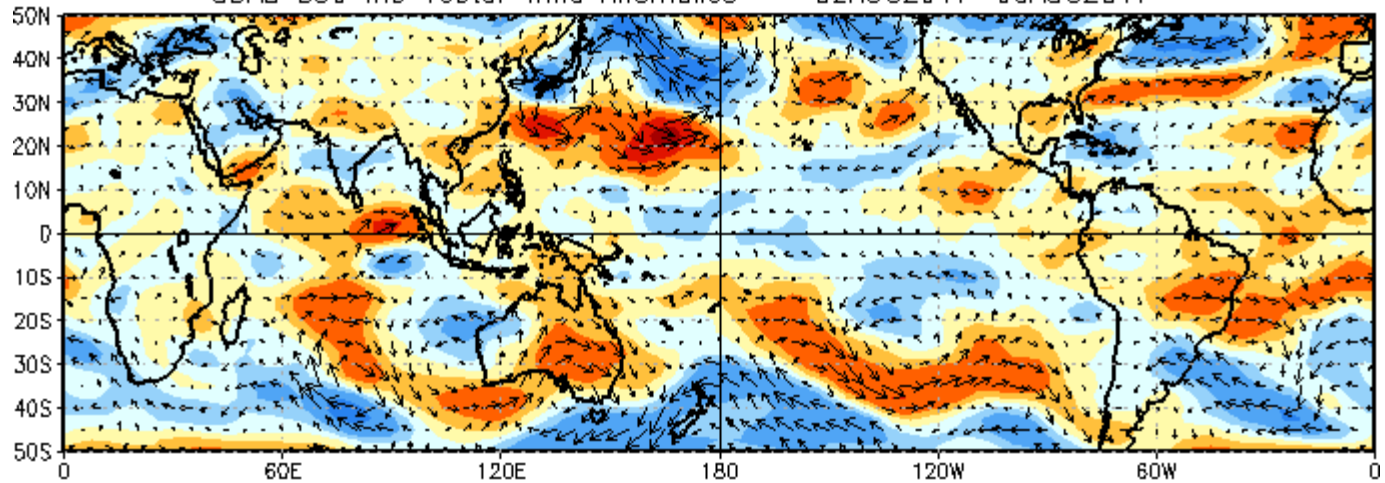
Carl Schreck (cjschrec@ncsu.edu)



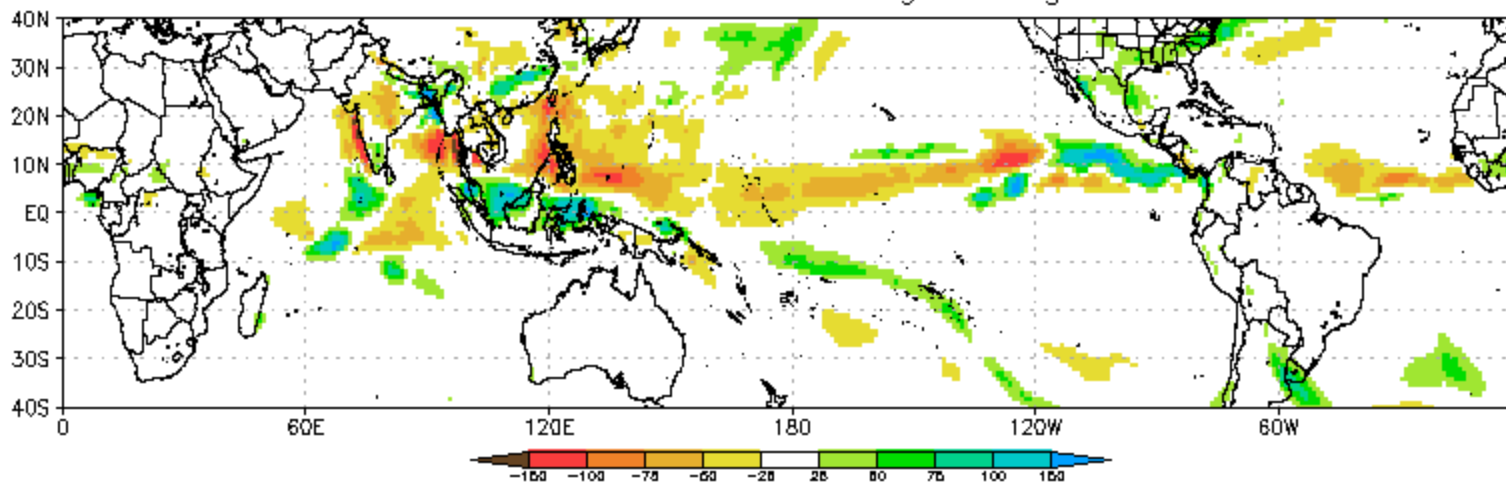
CDAS 850 mb Vector Wind Anomalies -- 28JUL2017- 01AUG2017



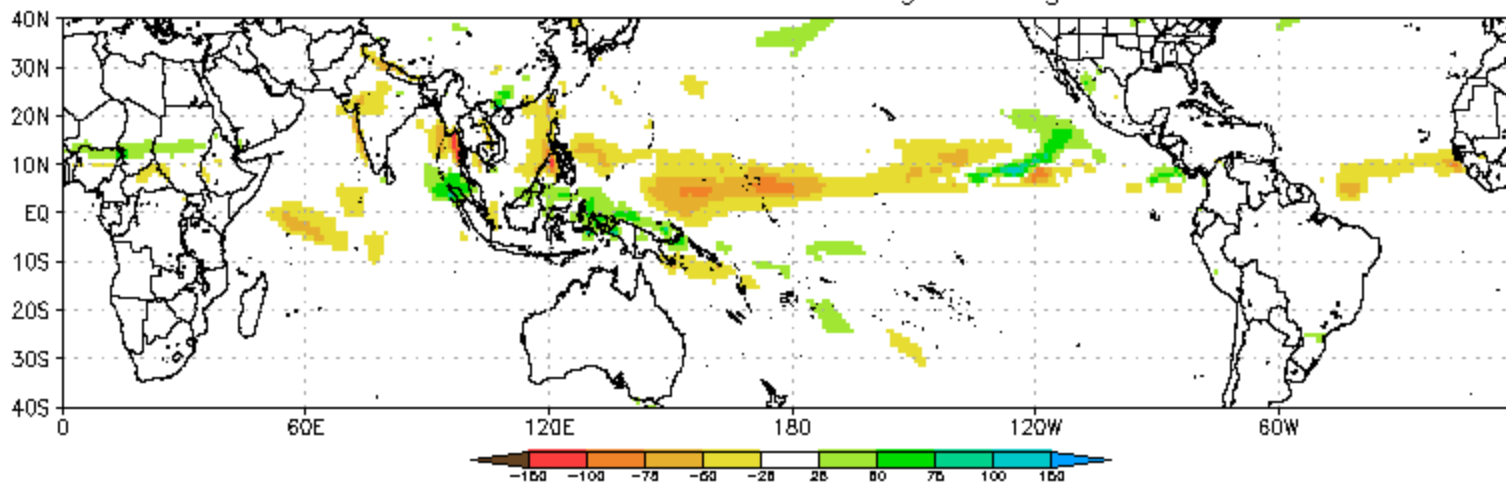
CDAS 850 mb Vector Wind Anomalies -- 02AUG2017-06AUG2017



CFS Precipitation Anomalies (mm) Issued 07Aug2017  
Week-1 Forecast Ending 15Aug2017



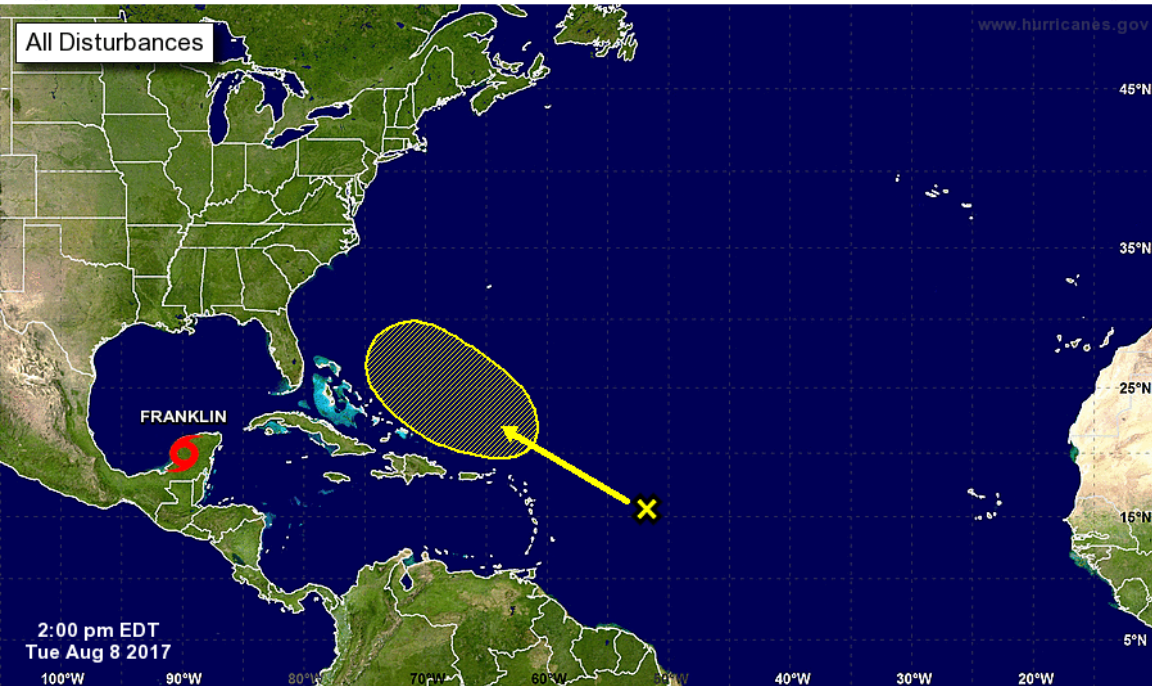
CFS Precipitation Anomalies (mm) Issued 07Aug2017  
Week-2 Forecast Ending 22Aug2017





# Five-Day Graphical Tropical Weather Outlook

National Hurricane Center Miami, Florida



2:00 pm EDT  
Tue Aug 8 2017

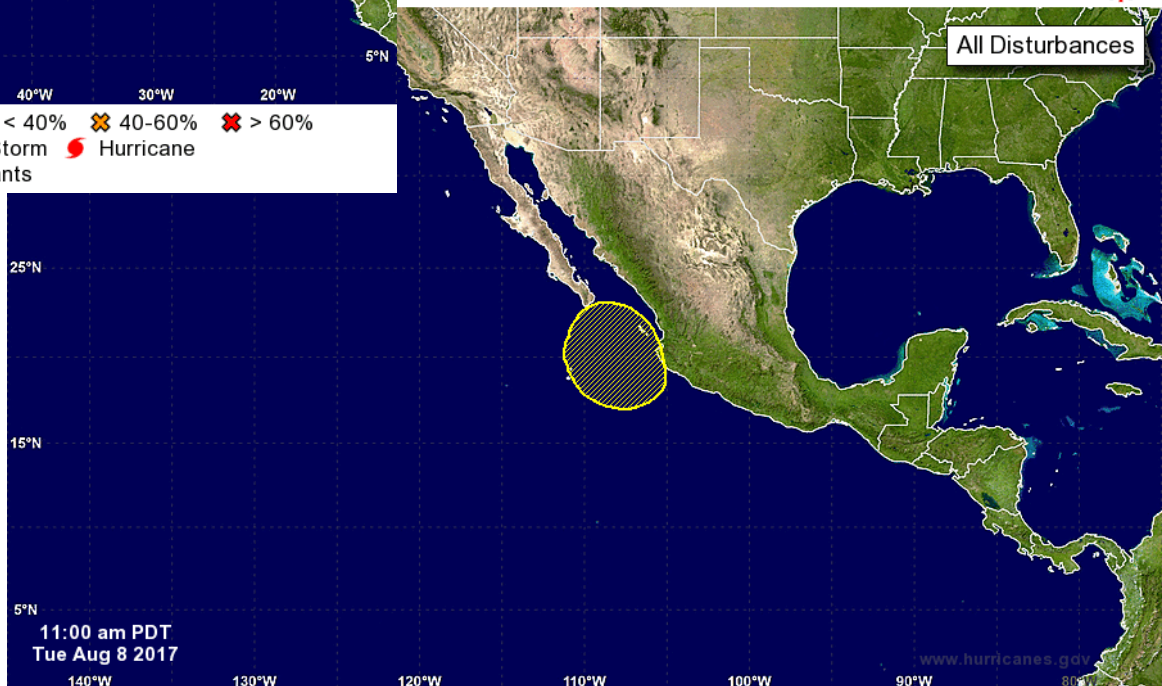
Current Disturbances and Five-Day Cyclone Formation Chance: < 40% 40-60% > 60%

Tropical or Sub-Tropical Cyclone: Depression Storm Hurricane

Post-Tropical Cyclone Remnants

# Graphical Tropical Weather Outlook

National Hurricane Center Miami, Florida

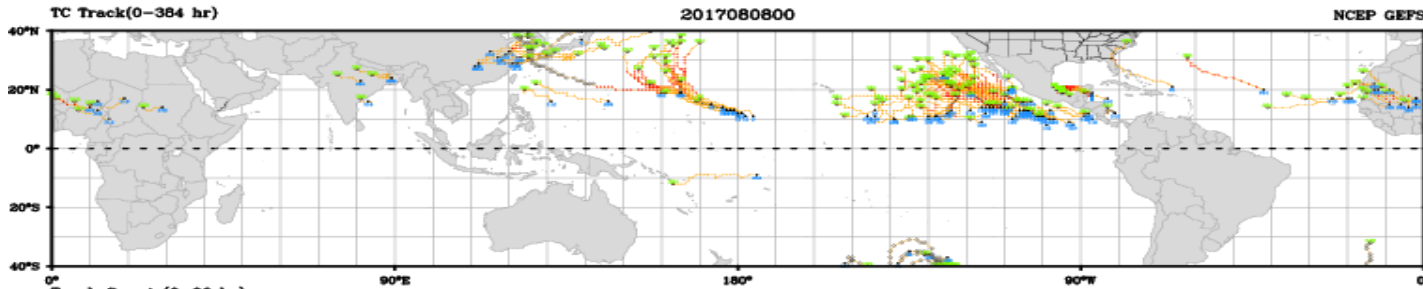


11:00 am PDT  
Tue Aug 8 2017

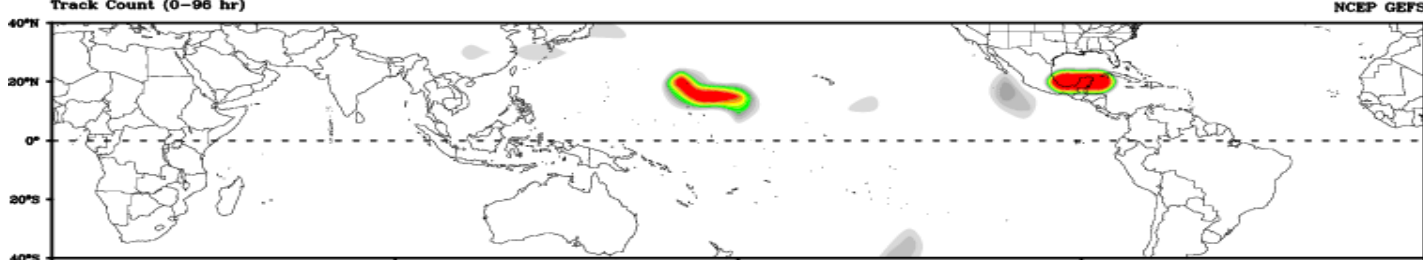
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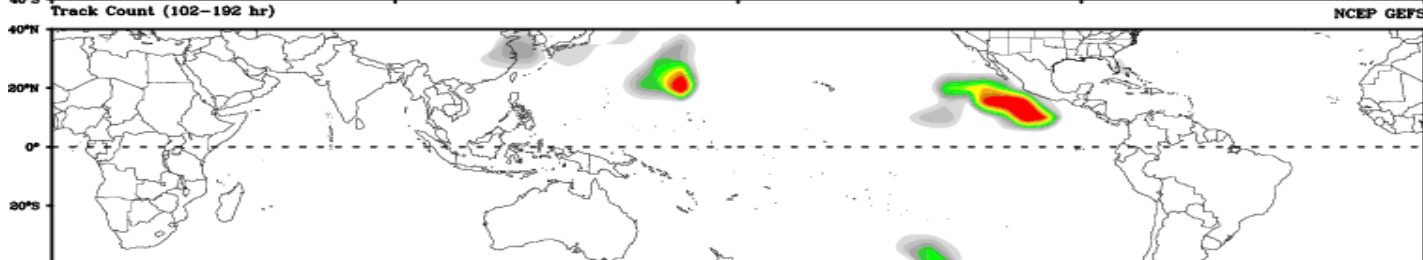
Post-Tropical Cyclone Remnants



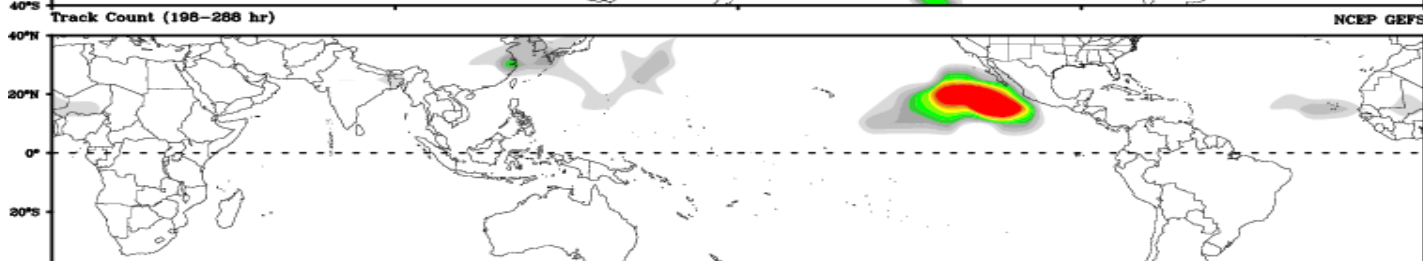
Days 1-4



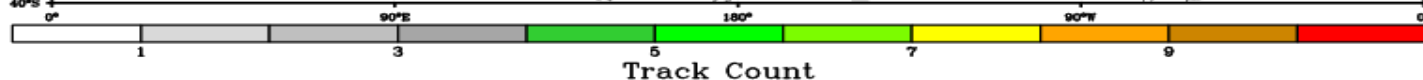
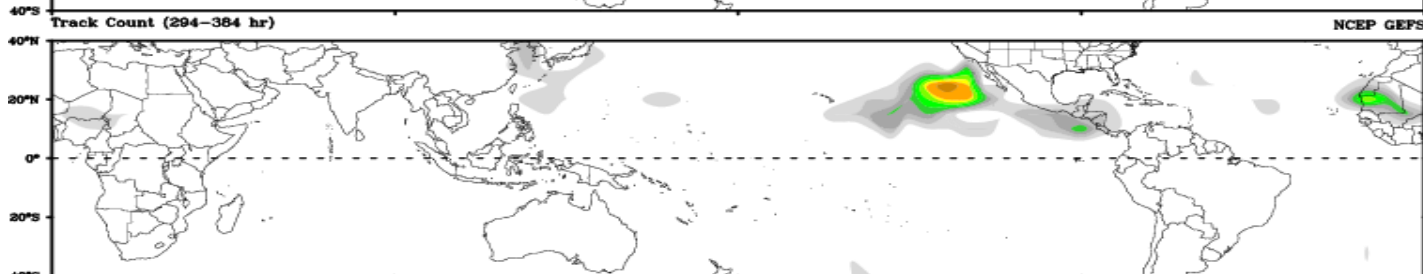
Day 5-8



Day 9-12



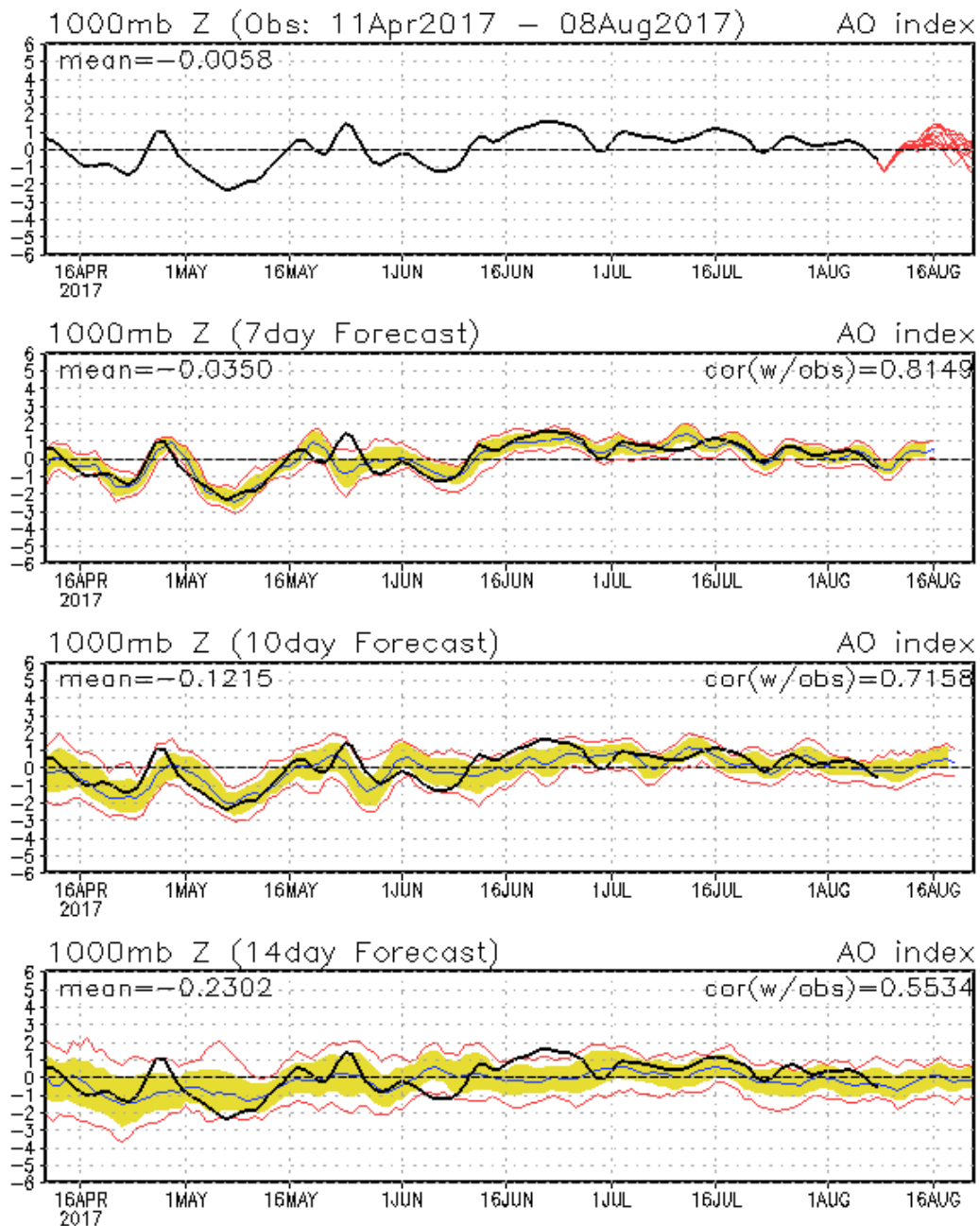
Day 13-15

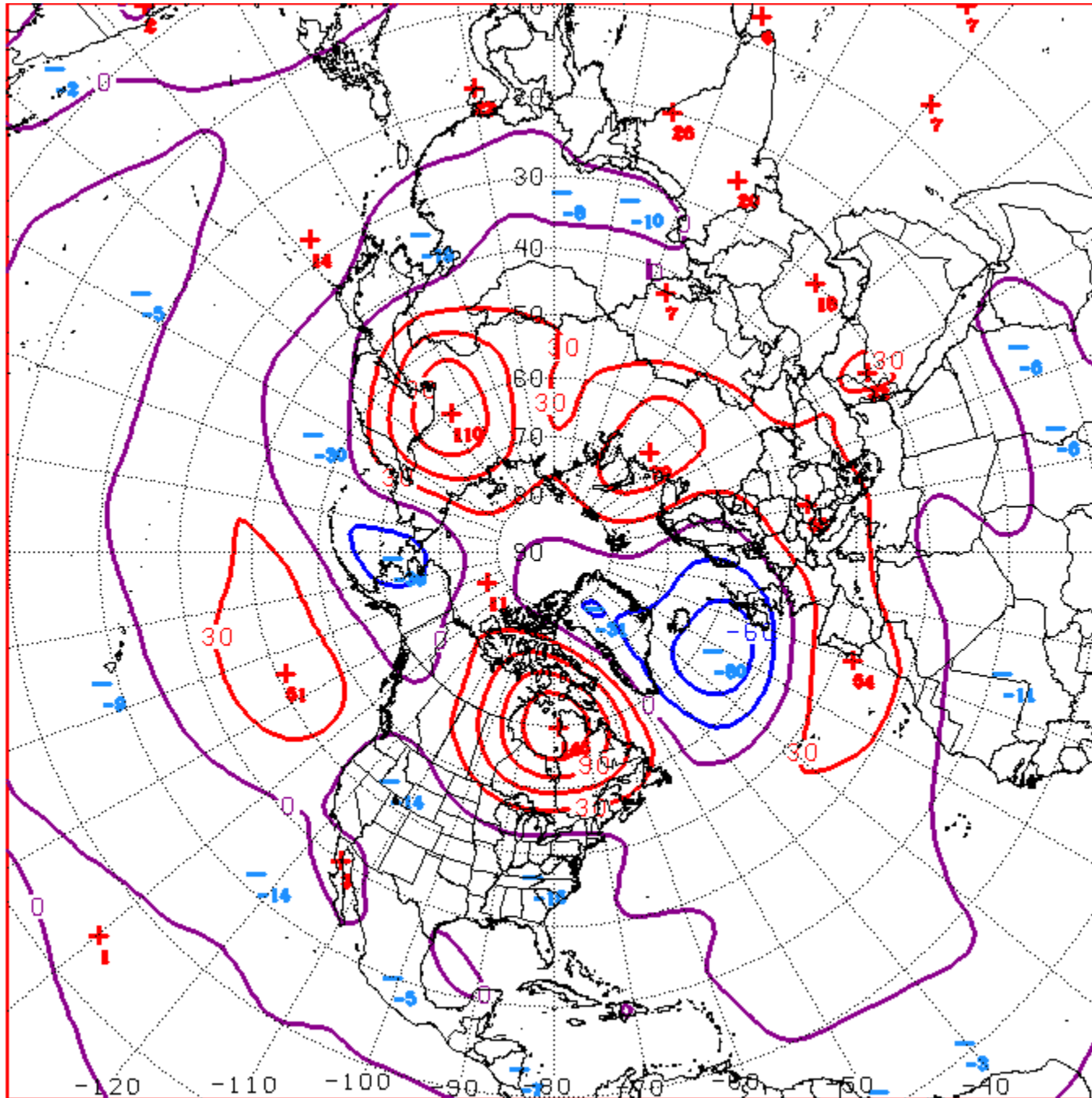


# Connections to U.S. Impacts



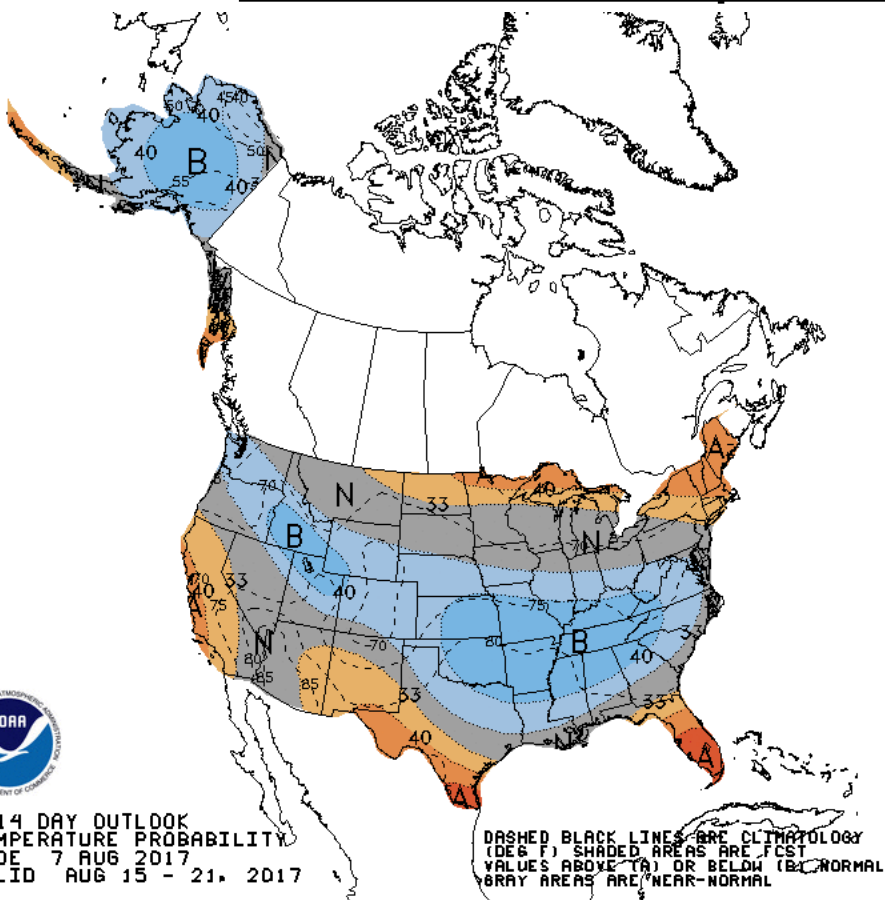
## AO: Observed & ENSM forecasts





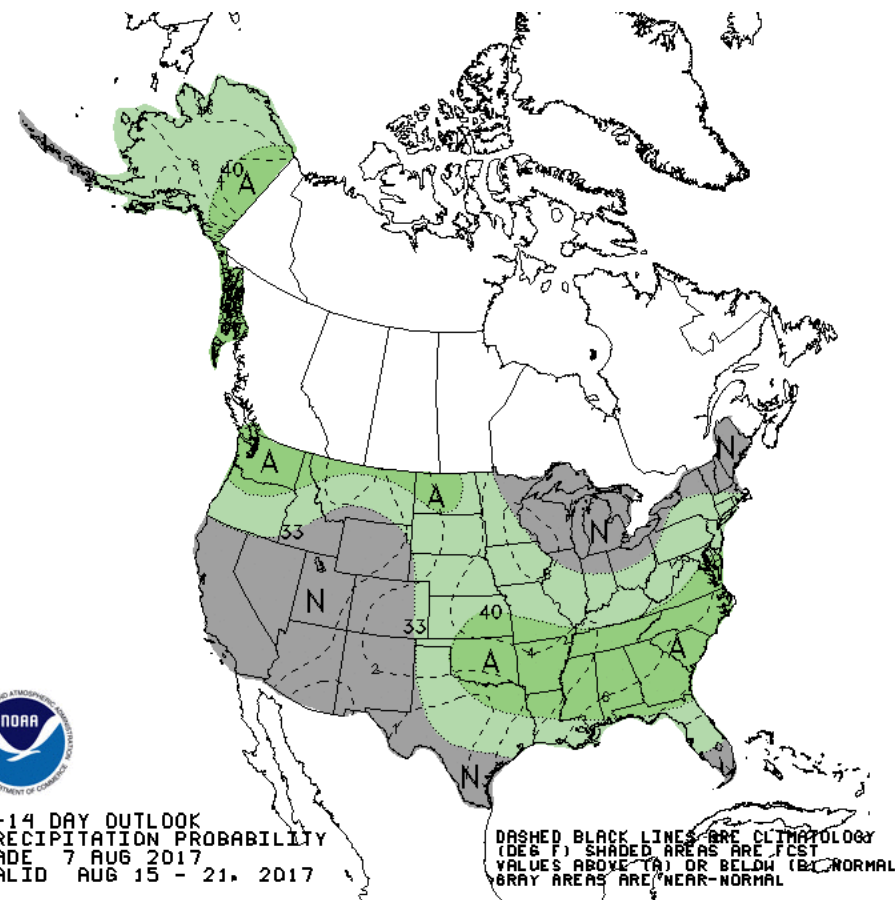
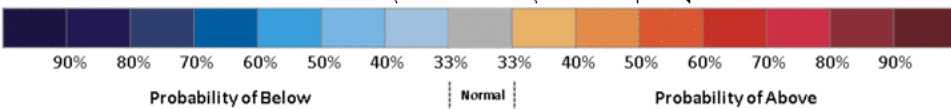
D+11 500 MB ANOMALIES FROM ALZ ENSM  
CPC MAP MADE AUG 08 2017 1306 UTC CNTD AUG 19 2017

# Week 2 – Temperature and Precipitation



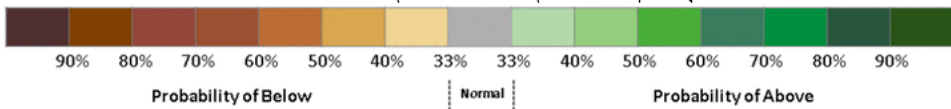
8-14 DAY OUTLOOK  
TEMPERATURE PROBABILITY  
MADE 7 AUG 2017  
VALID AUG 15 - 21, 2017

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



8-14 DAY OUTLOOK  
PRECIPITATION PROBABILITY  
MADE 7 AUG 2017  
VALID AUG 15 - 21, 2017

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

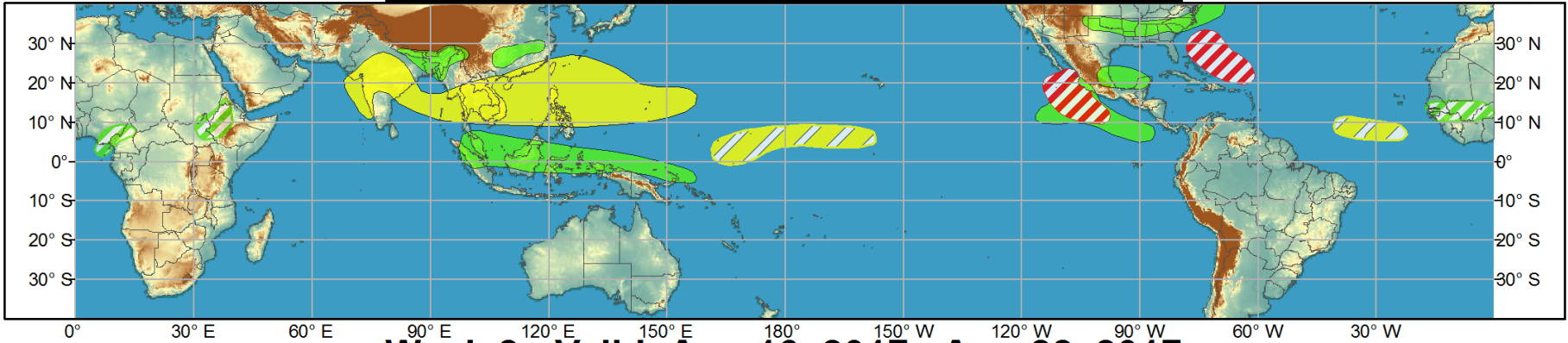




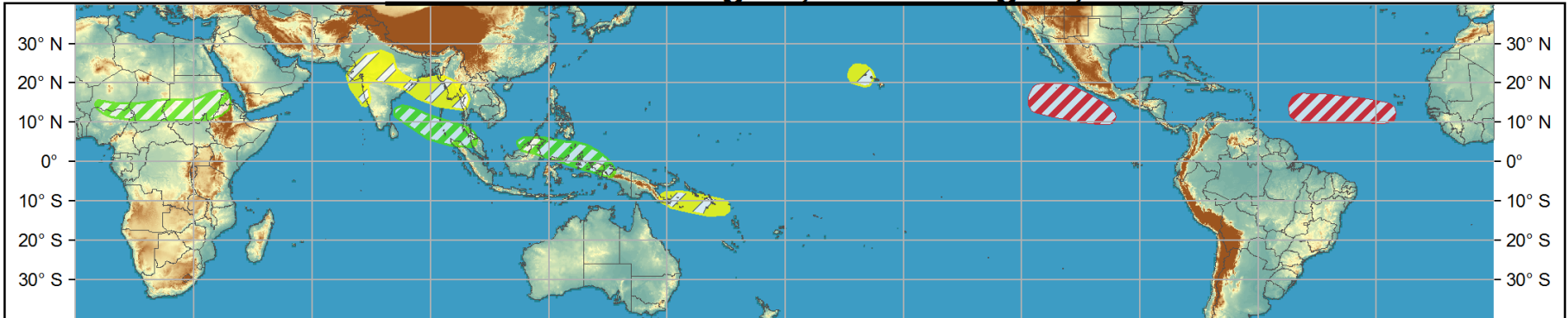
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