

Global Tropics Hazards And Benefits Outlook

7/18/2017

Stephen Baxter

Outline

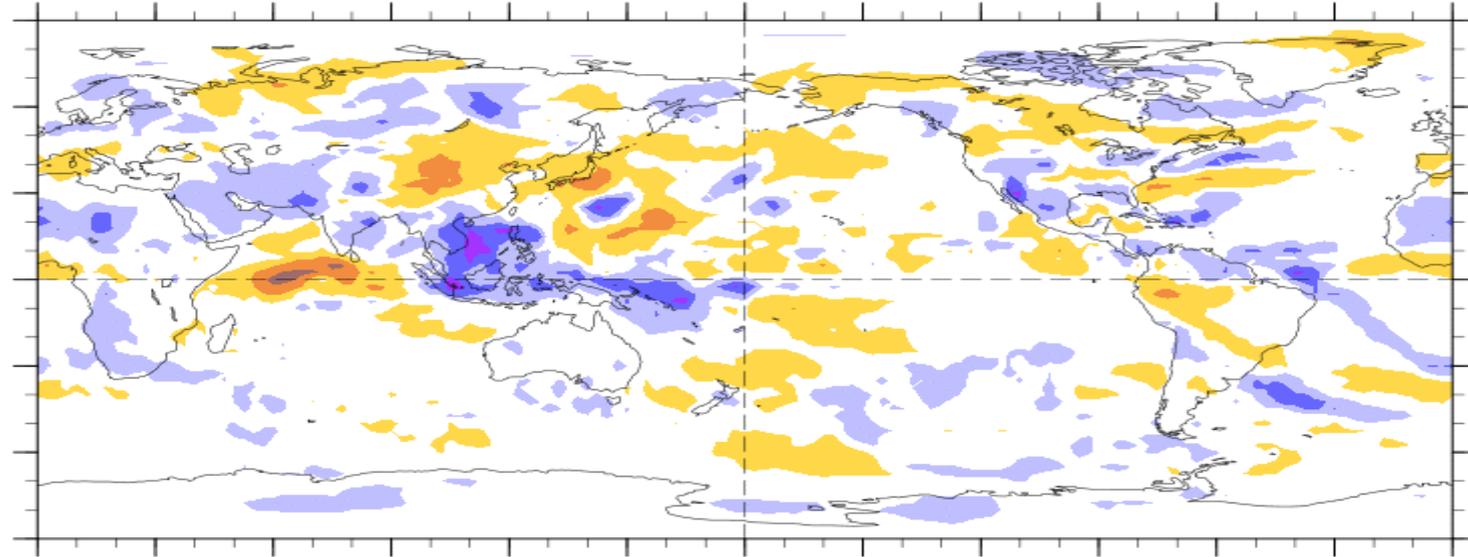
1. Review of Recent Conditions
2. Synopsis of Climate Modes
3. GTH Outlook and Forecast Discussion
4. Connections to U.S. Impacts

Outlook Review

Hurricane Fernanda
Peak Winds 125 kts



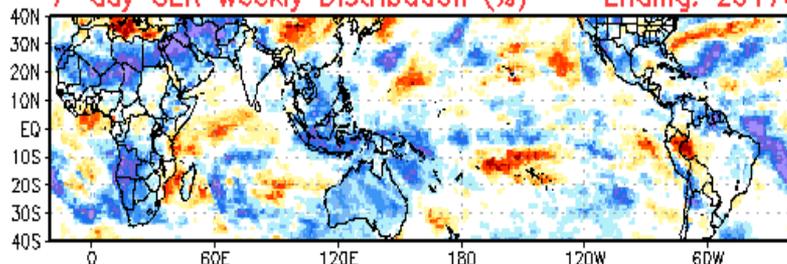
7-Day Average OLR Anomaly 2017/07/10 - 2017/07/16



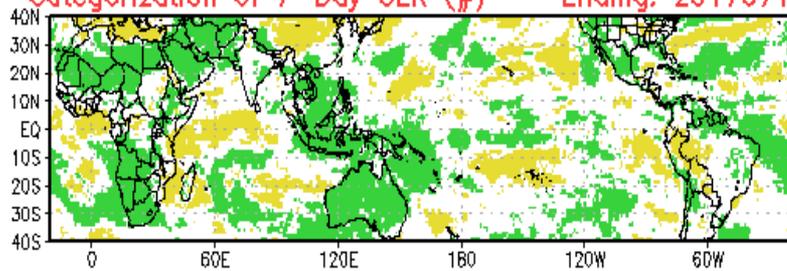
Cool shading
More clouds/rain

Warm shading
Less clouds/rain

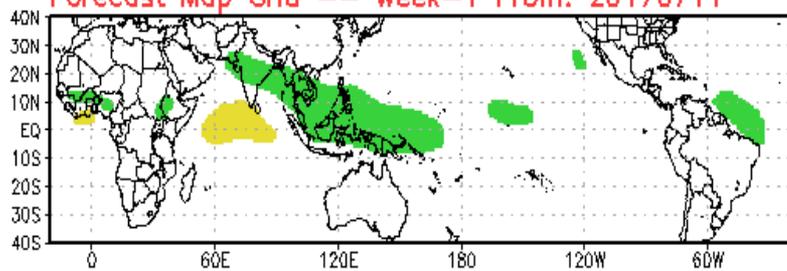
7-day OLR Weekly Distribution (%) -- Ending: 20170718



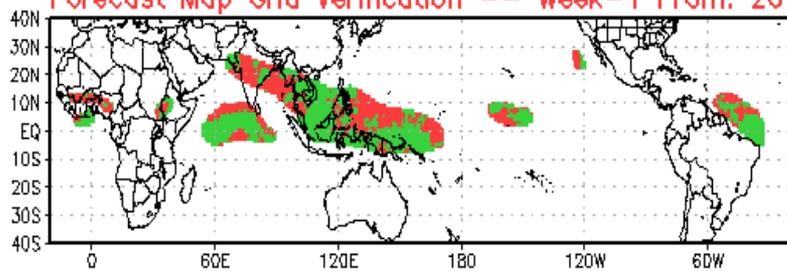
Categorization of 7-Day OLR (#) -- Ending: 20170718



Forecast Map Grid -- Week-1 From: 20170711

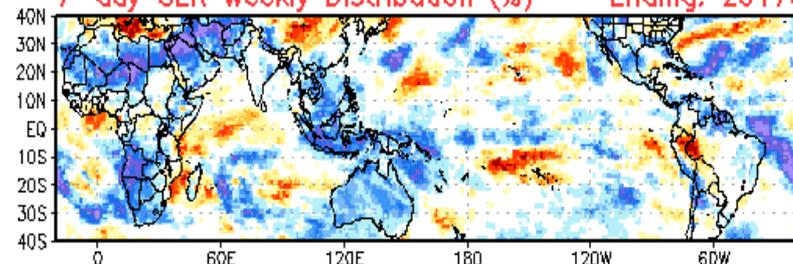


Forecast Map Grid Verification -- Week-1 From: 20170711

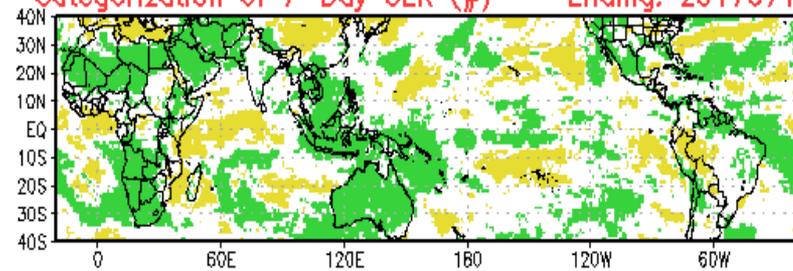


Hit: Green, Miss: Red
Heidke Skill Score: 35.8676

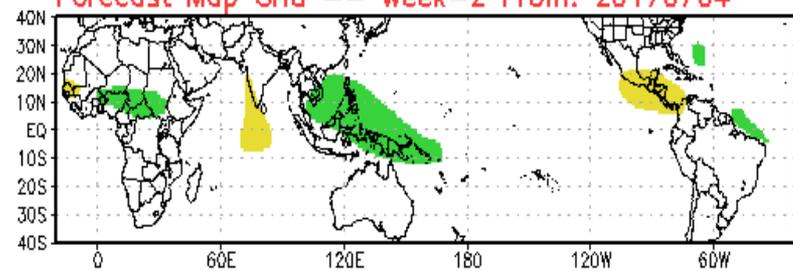
7-day OLR Weekly Distribution (%) -- Ending: 20170718



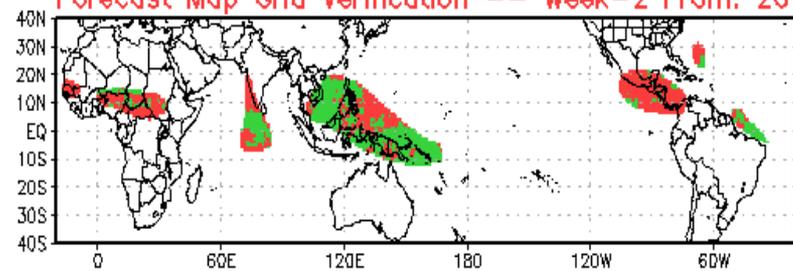
Categorization of 7-Day OLR (#) -- Ending: 20170718



Forecast Map Grid -- Week-2 From: 20170704



Forecast Map Grid Verification -- Week-2 From: 20170704



Hit: Green, Miss: Red
Heidke Skill Score: 20.8935

Synopsis of Climate Modes

ENSO:

- ENSO-neutral is favored (50-55%) through Northern Hemisphere winter 2017-18.
- The next ENSO diagnostic discussion release will be 10 August.

MJO and other subseasonal tropical variability:

- There has been some organization of a coherent MJO signal over the past week or so. The enhanced phase is currently centered over the western Maritime Continent.
- Low frequency enhancement of convection continues over the Maritime Continent.
- Based on recent observations, statistical guidance, and dynamical model guidance, propagation of a weak, but coherent, MJO signal is favored over the upcoming one to two weeks.
- The MJO would favor a lull in TC activity over the East Pacific after the ongoing active period.

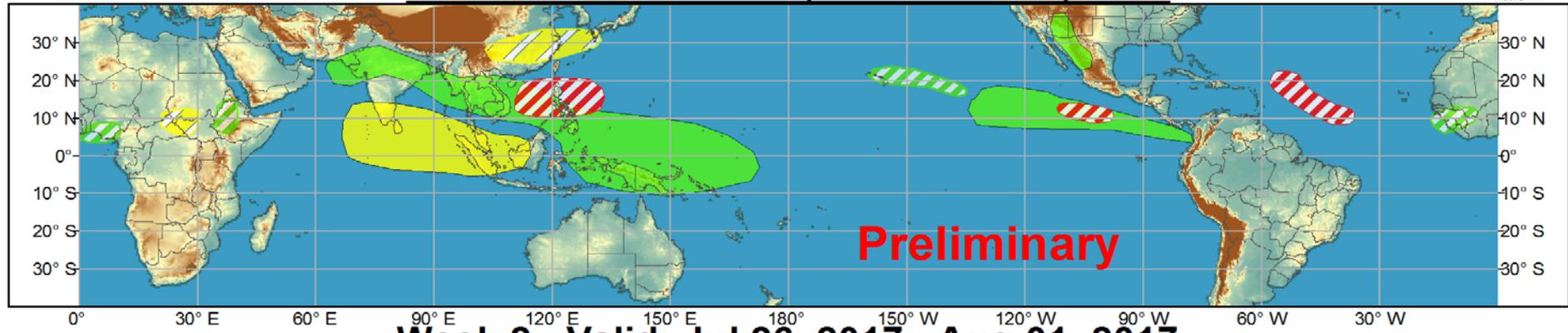
Extratropics:

- The extended range temperature and precipitation forecasts for the extratropics and U.S. are not likely to be impacted by MJO activity or tropical cyclone activity.



Global Tropics Hazards and Benefits Outlook - Climate Prediction Center

Week 1 - Valid: Jul 19, 2017 - Jul 25, 2017



Week 2 - Valid: Jul 26, 2017 - Aug 01, 2017



Produced: 07/18/2017
Forecaster: Baxter

	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

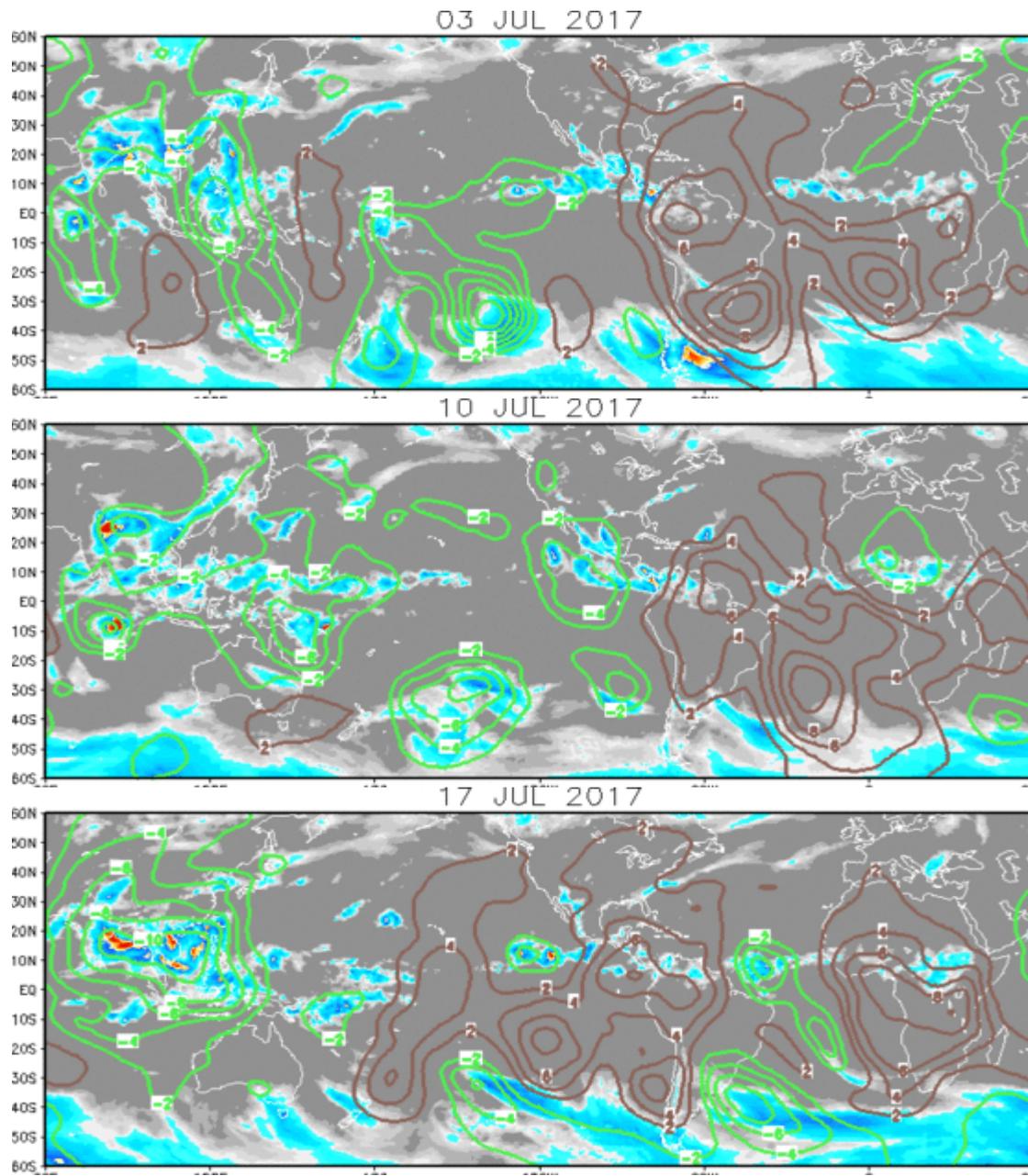
Green: Enhanced Divergence

Brown: Enhanced Convergence

Pattern has become somewhat more organized.

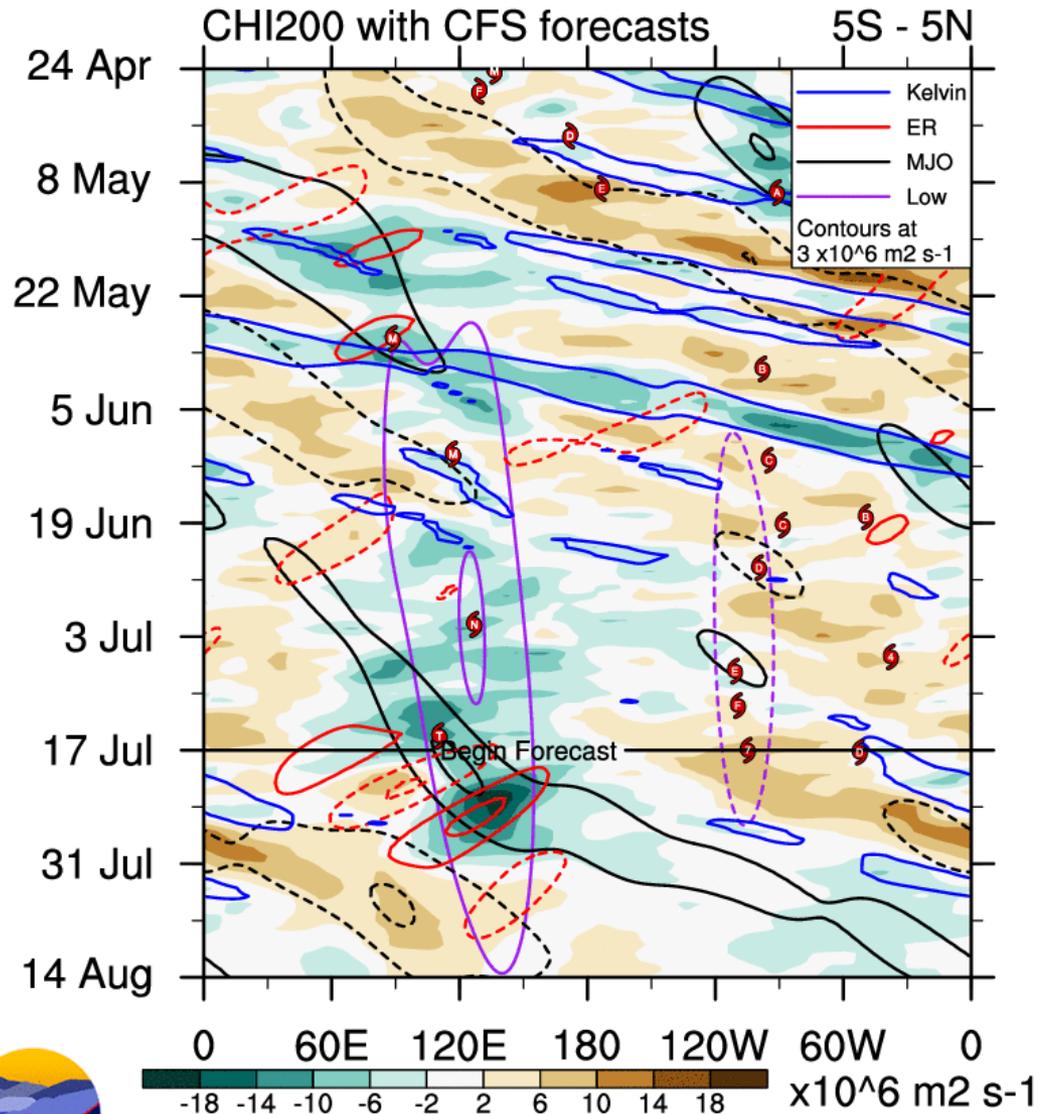
Noisy signal has generally organized slightly around fewer wavenumbers in recent weeks.

Eastward propagation is not readily apparent in these figures.



Observation/ CFS Forecast

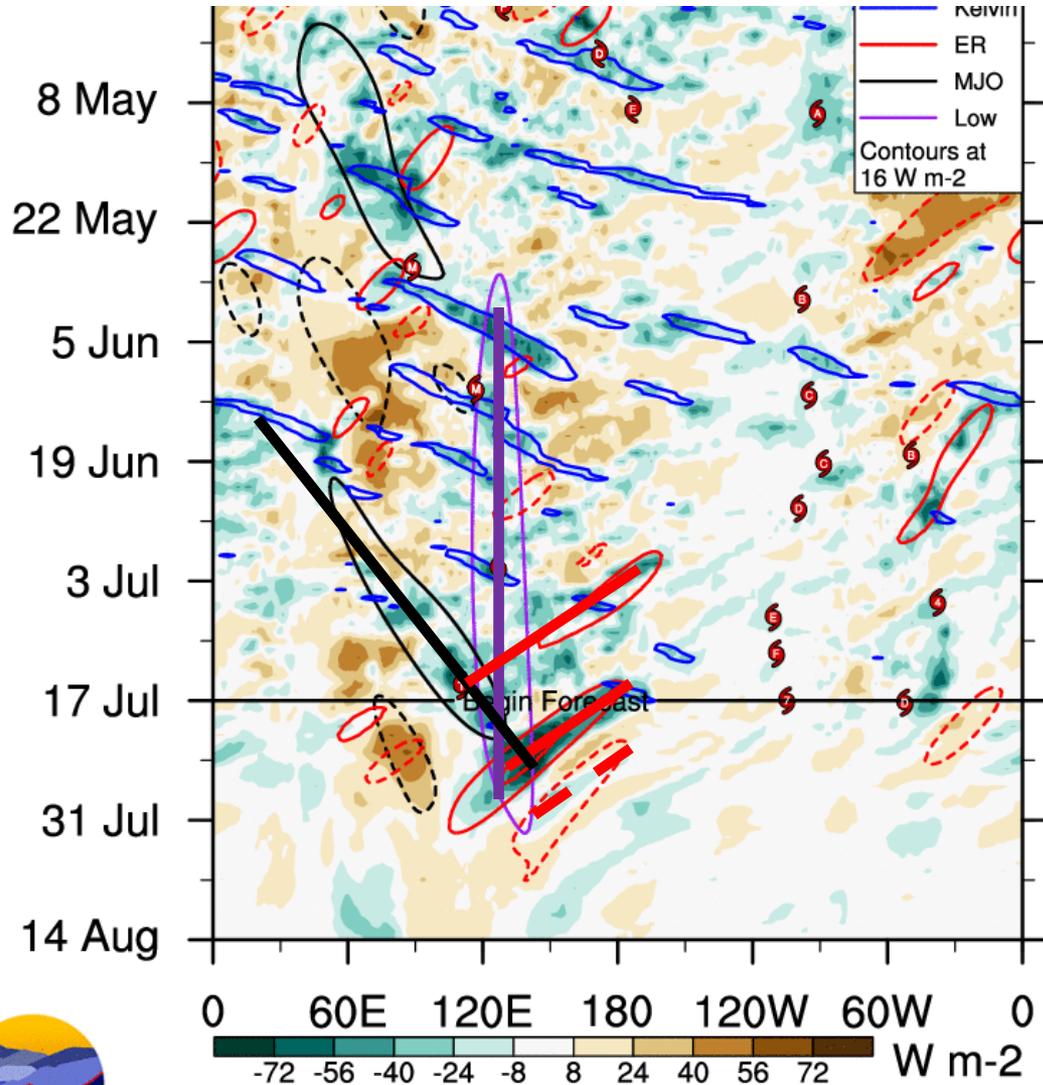
The CFS forecast shows coherent MJO activity over the next couple of weeks.



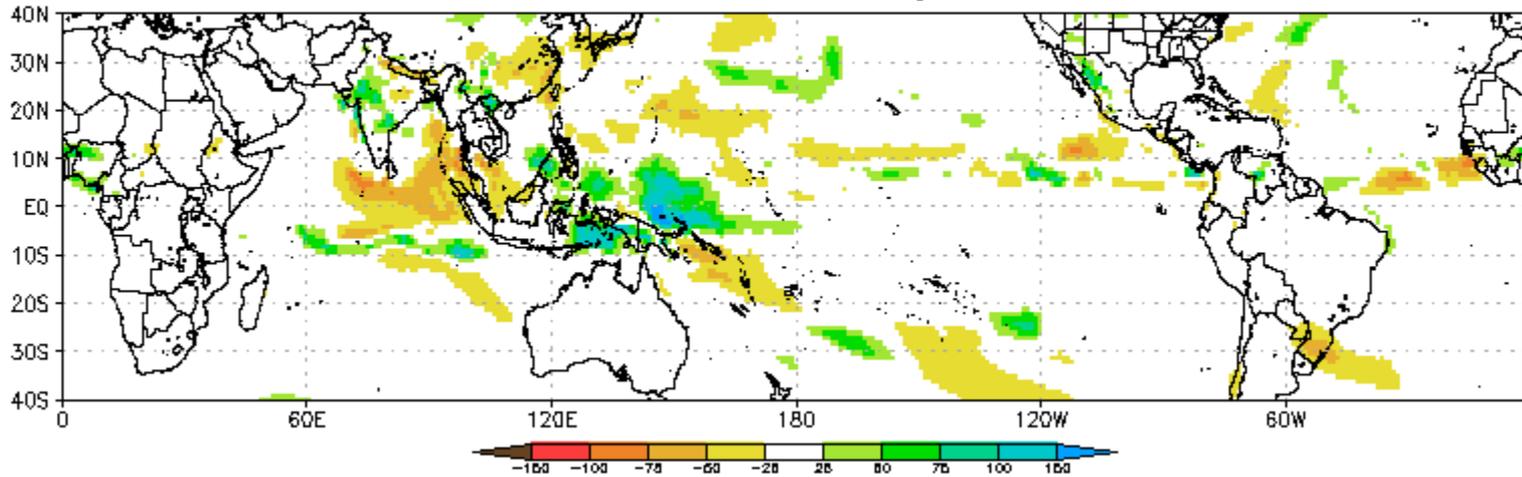
The **Low-frequency pattern** is stationary and enhancing convection over Maritime Continent.

A series of **equatorial Rossby waves** are leading to periodic interference with the MJO signal

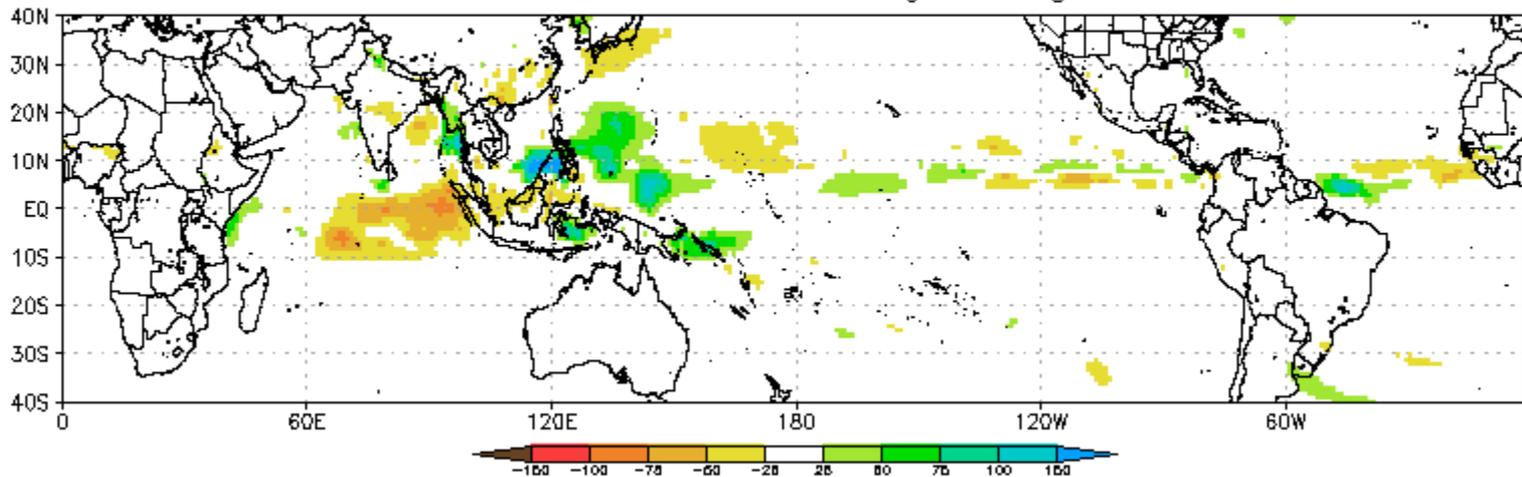
In the past one to two weeks there is some indication of a coherent **MJO** propagating across the Indian Ocean and Maritime Continent.



CFS Precipitation Anomalies (mm) Issued 17Jul2017
Week-1 Forecast Ending 25Jul2017



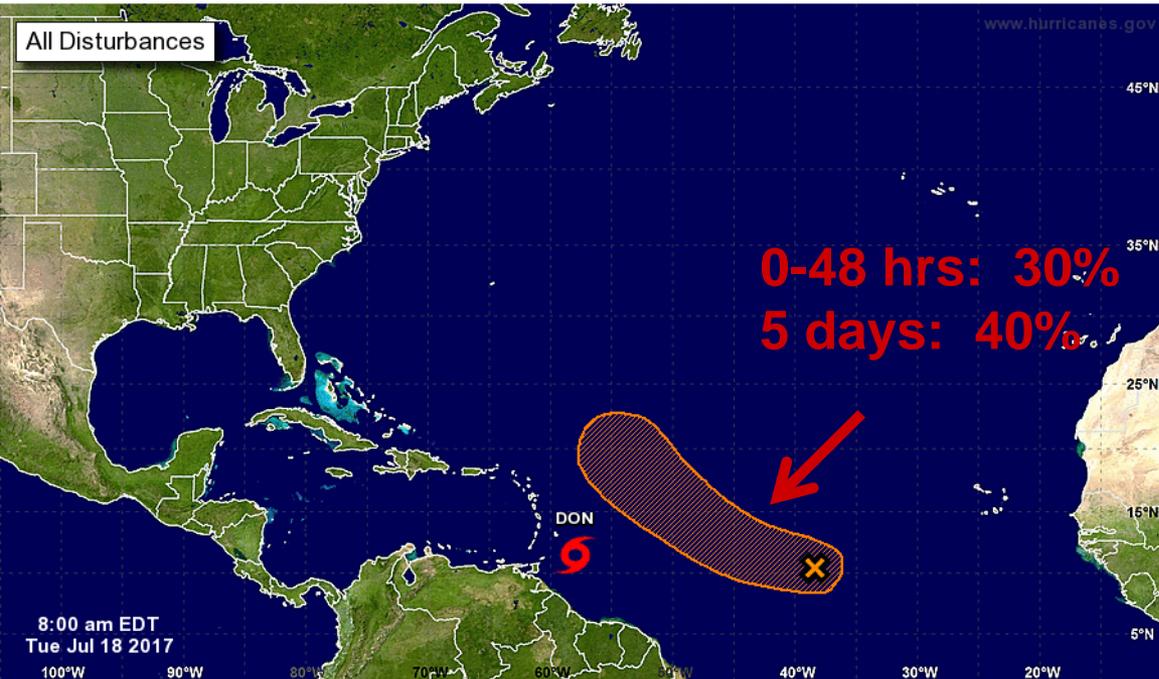
CFS Precipitation Anomalies (mm) Issued 17Jul2017
Week-2 Forecast Ending 01Aug2017





Five-Day Graphical Tropical Weather Outlook

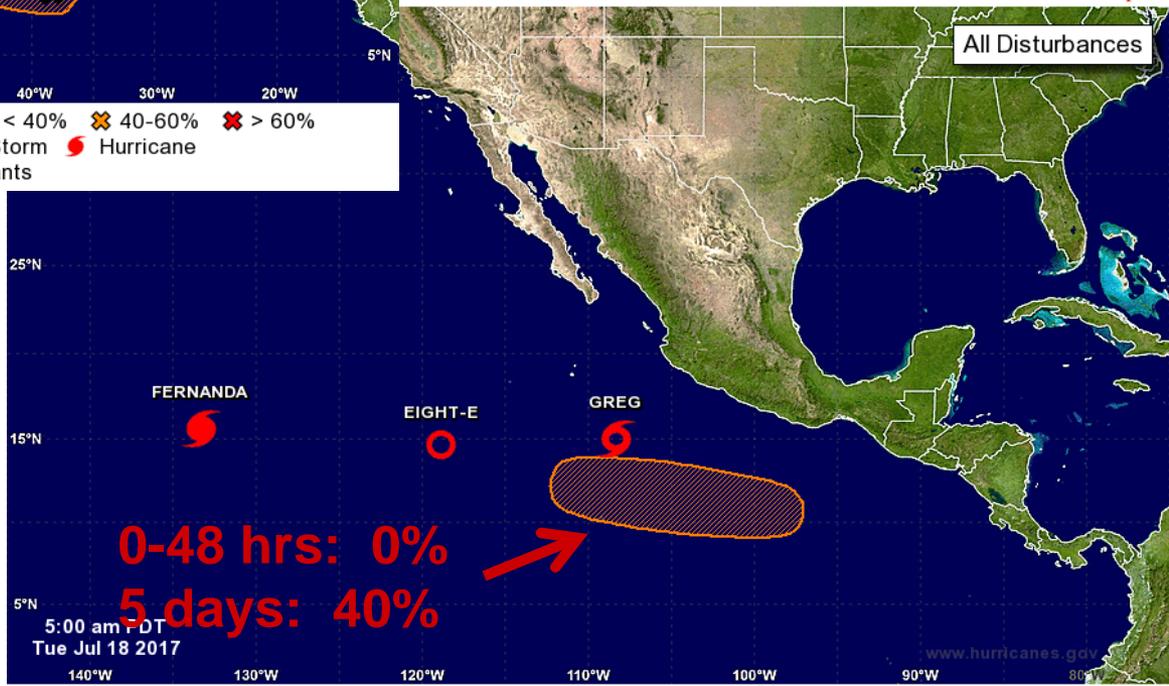
National Hurricane Center Miami, Florida



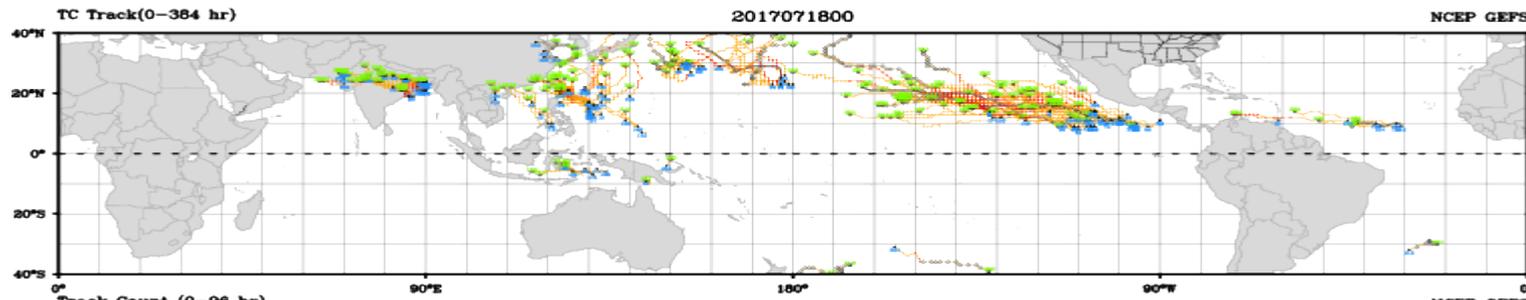
Current Disturbances and Five-Day Cyclone Formation Chance: < 40% 40-60% > 60%
 Tropical or Sub-Tropical Cyclone: Depression Storm Hurricane
 Post-Tropical Cyclone Remnants

Graphical Tropical Weather Outlook

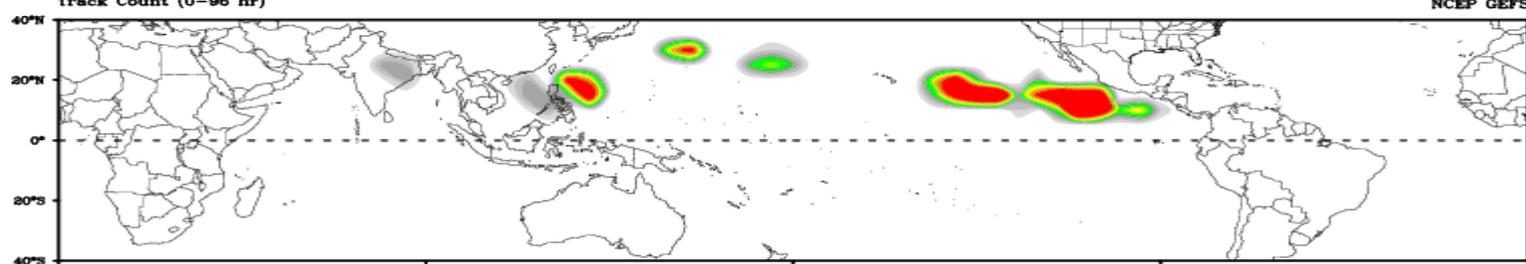
National Hurricane Center Miami, Florida



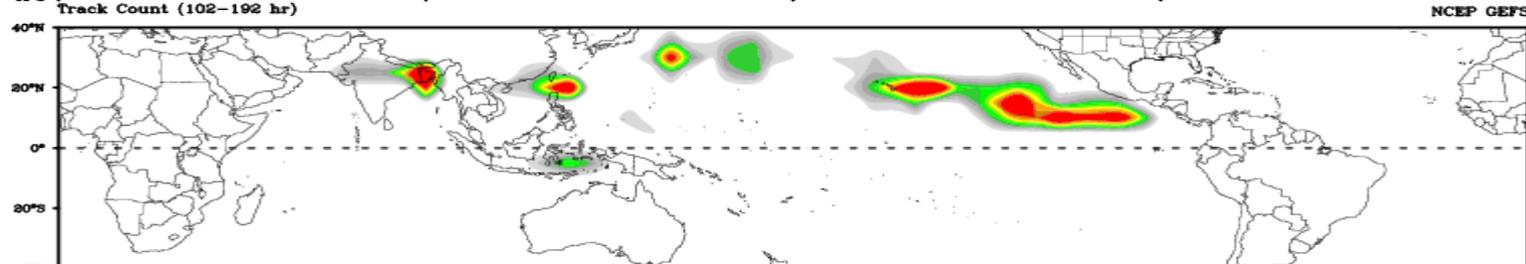
Current Disturbances and Five-Day Cyclone Formation Chance: < 40% 40-60% > 60%
 Tropical or Sub-Tropical Cyclone: Depression Storm Hurricane
 Post-Tropical Cyclone Remnants



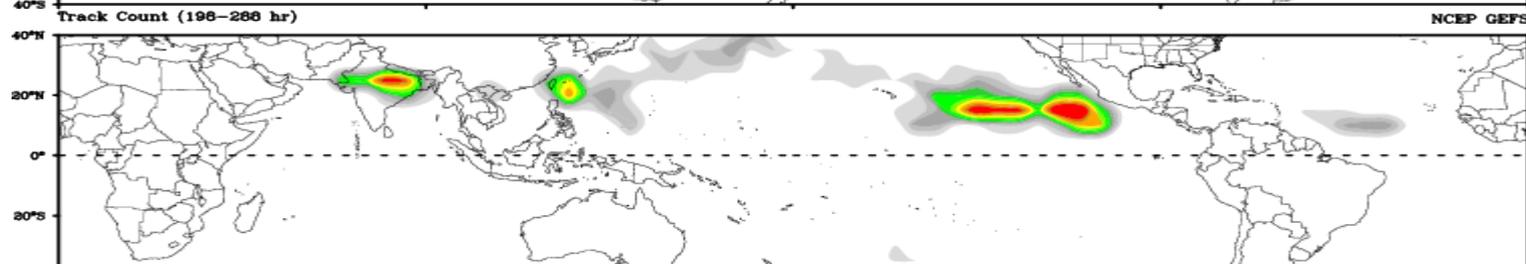
Days 1-4



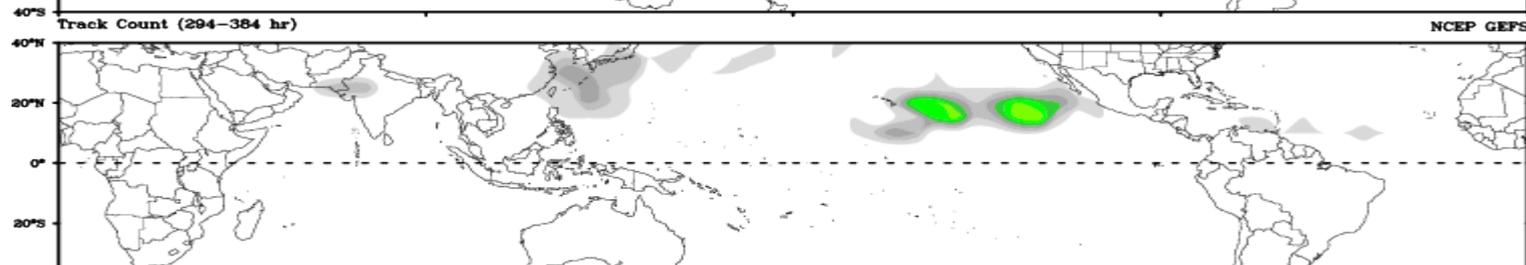
Days 5-8



Days 9-12

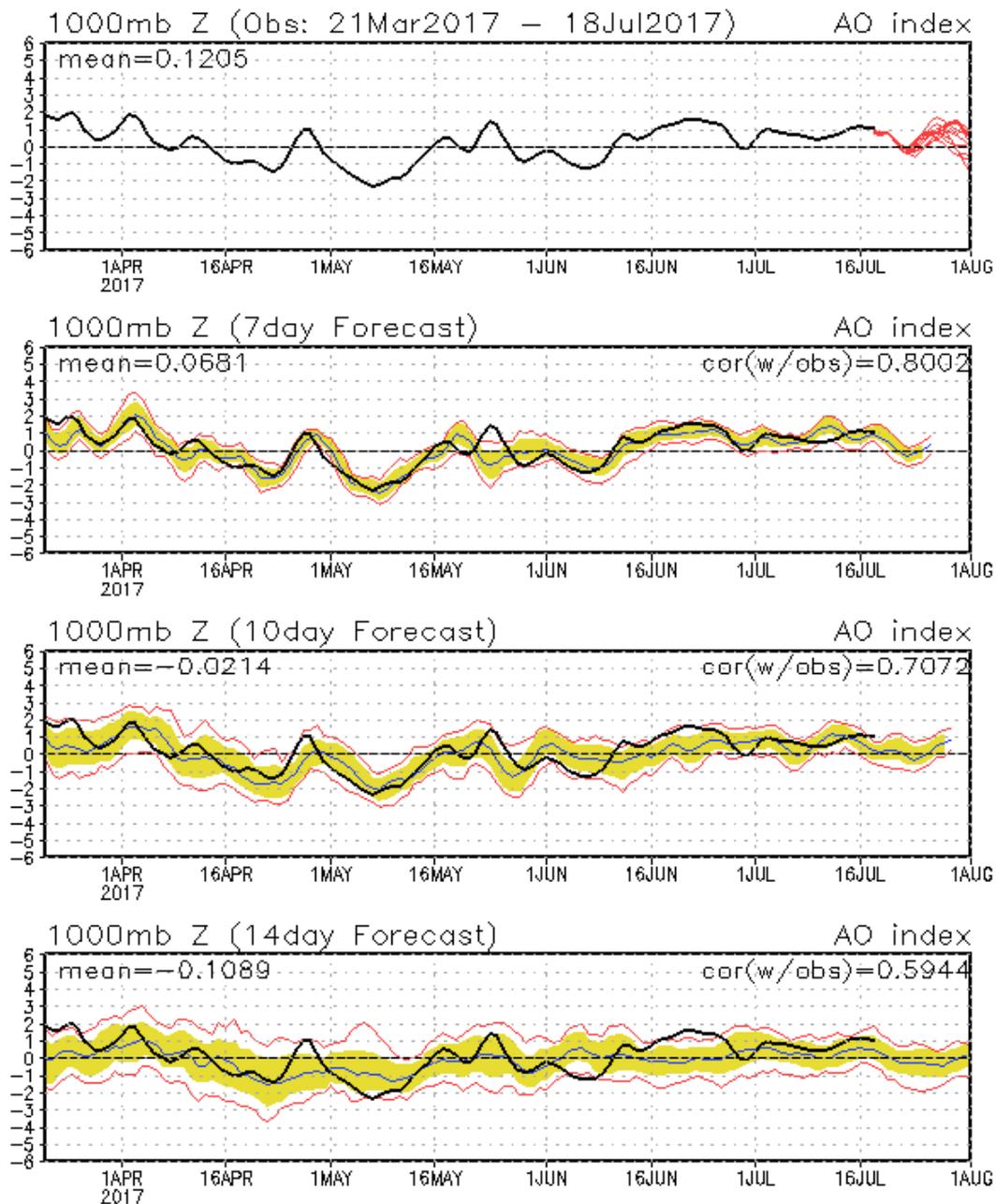


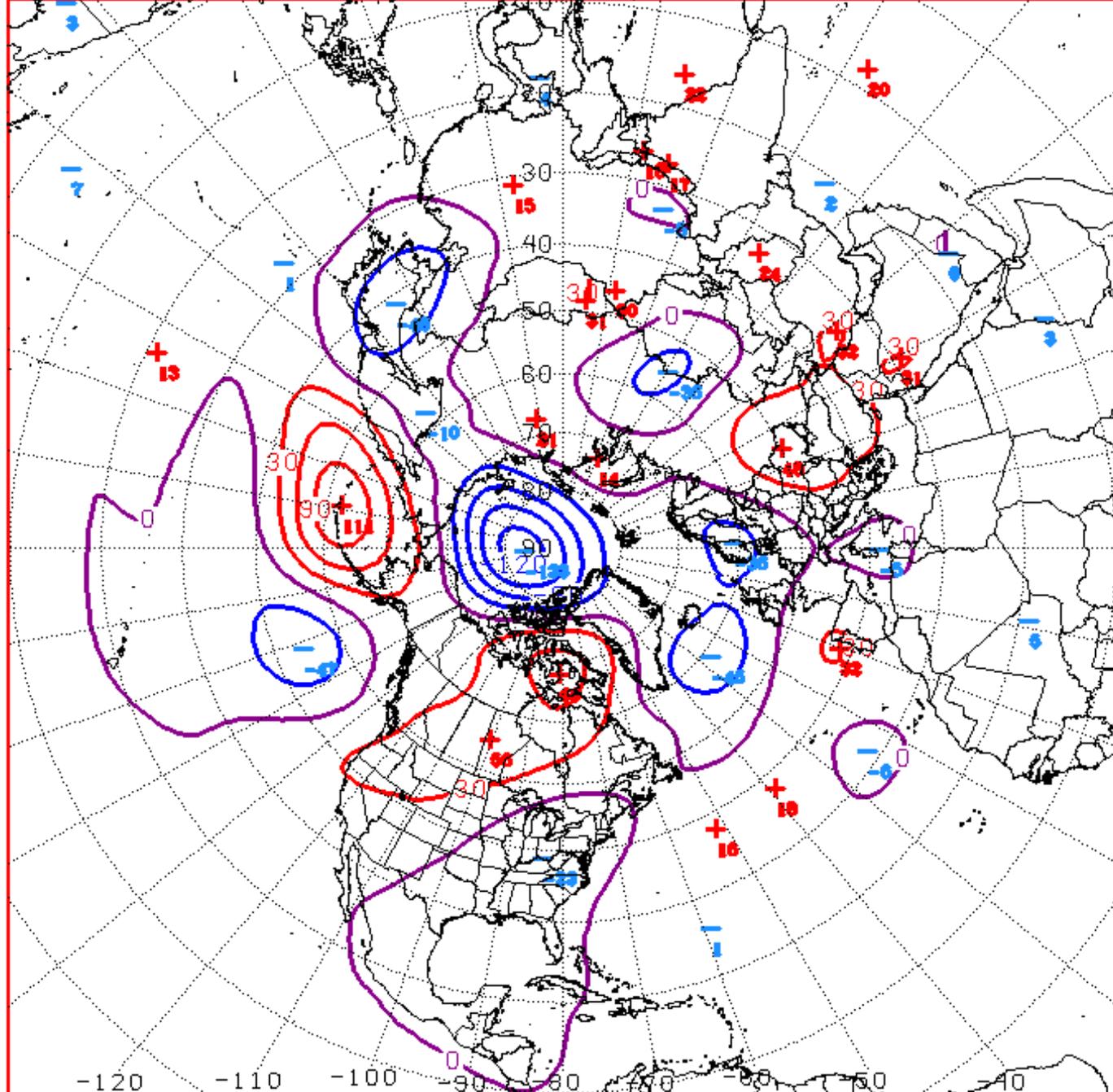
Days 13-15



Connections to U.S. Impacts

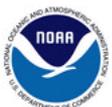
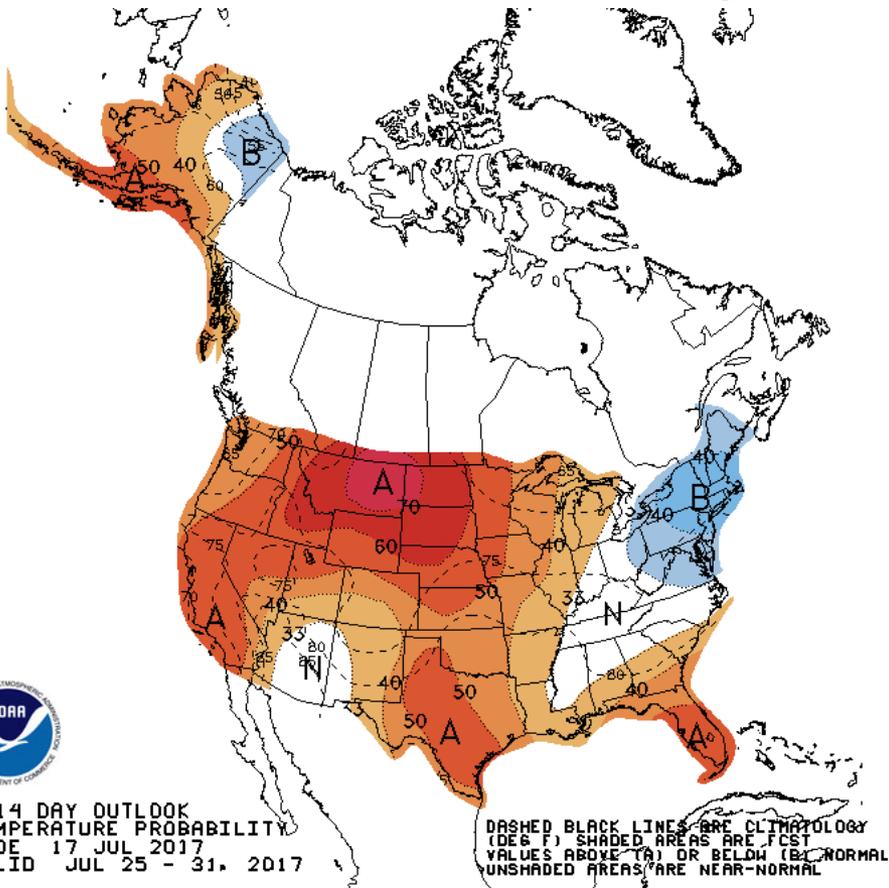
AO: Observed & ENSM forecasts





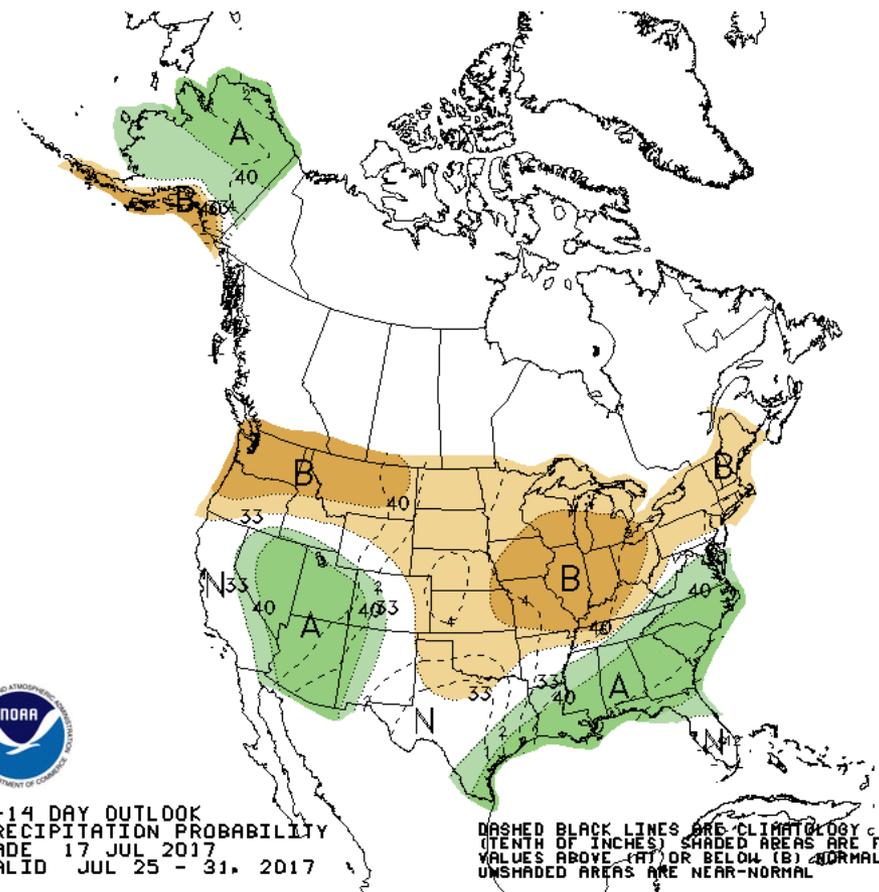
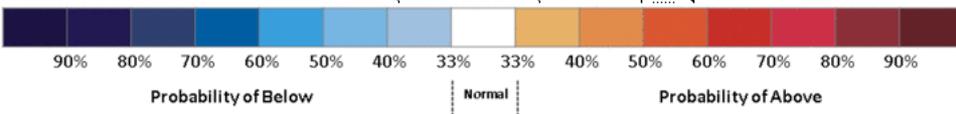
D+11 500 MB ANOMALIES FROM ALZ ENSM
 CPC MAP MADE JUL 18 2017 1341 UTC CNTD JUL 29 2017

Week 2 – Temperature and Precipitation



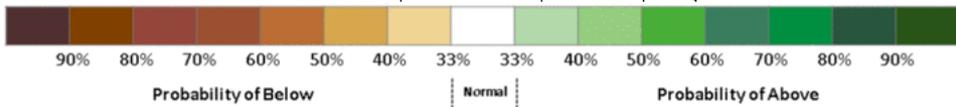
8-14 DAY OUTLOOK
TEMPERATURE PROBABILITY
MADE 17 JUL 2017
VALID JUL 25 - 31, 2017

DASHED BLACK LINES ARE CLIMATE LOGY (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 17 JUL 2017
VALID JUL 25 - 31, 2017

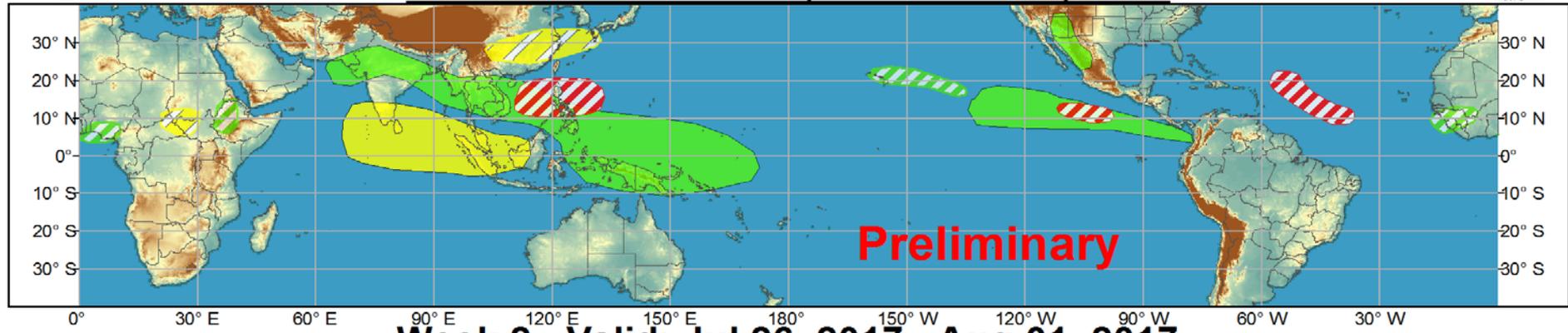
DASHED BLACK LINES ARE CLIMATE LOGY (TENTH OF INCHES). SHADED AREAS ARE FCST VALUES ABOVE (A) OR BELOW (B) NORMAL. UNSHADED AREAS ARE NEAR-NORMAL





Global Tropics Hazards and Benefits Outlook - Climate Prediction Center

Week 1 - Valid: Jul 19, 2017 - Jul 25, 2017



Week 2 - Valid: Jul 26, 2017 - Aug 01, 2017



Produced: 07/18/2017
Forecaster: Baxter

	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.

