

Global Tropics Hazards And Benefits Outlook

08/28/2018

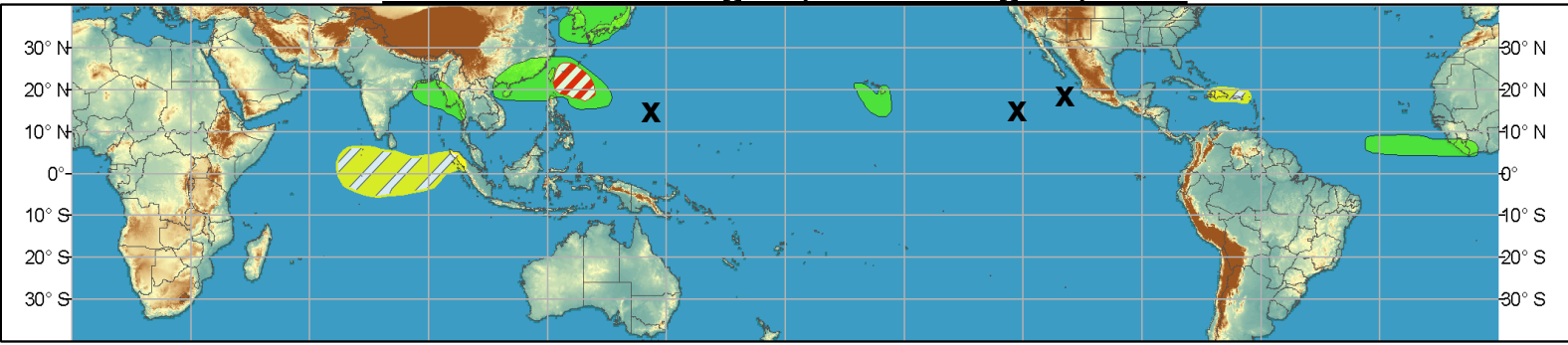
Adam Allgood

Outline

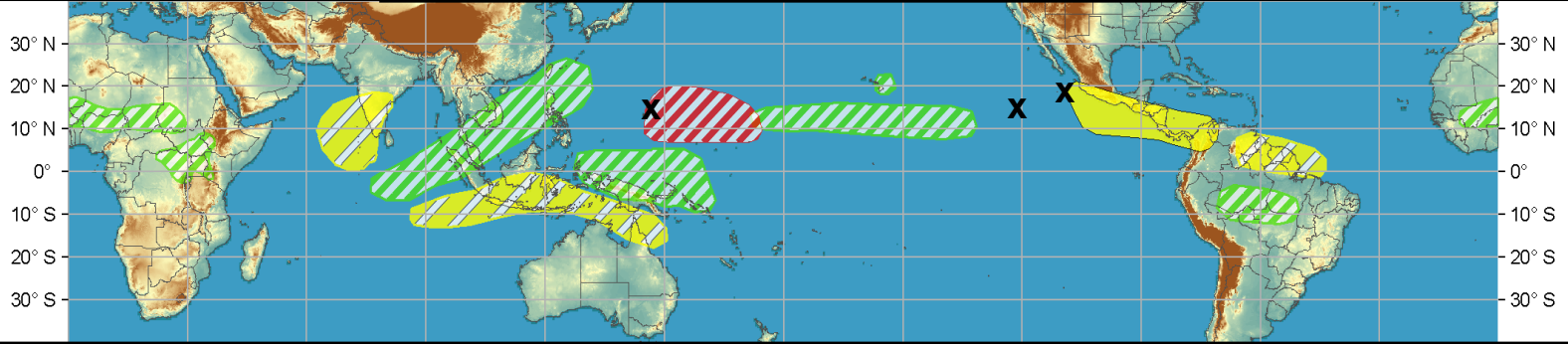
1. Review of Recent Conditions
2. Synopsis of Climate Modes
3. GTH Outlook and Forecast Discussion
4. Connections to U.S. Impacts

Outlook Review

Week 1 - Valid: Aug 22, 2018 - Aug 28, 2018



Week 2 - Valid: Aug 22, 2018 - Aug 28, 2018

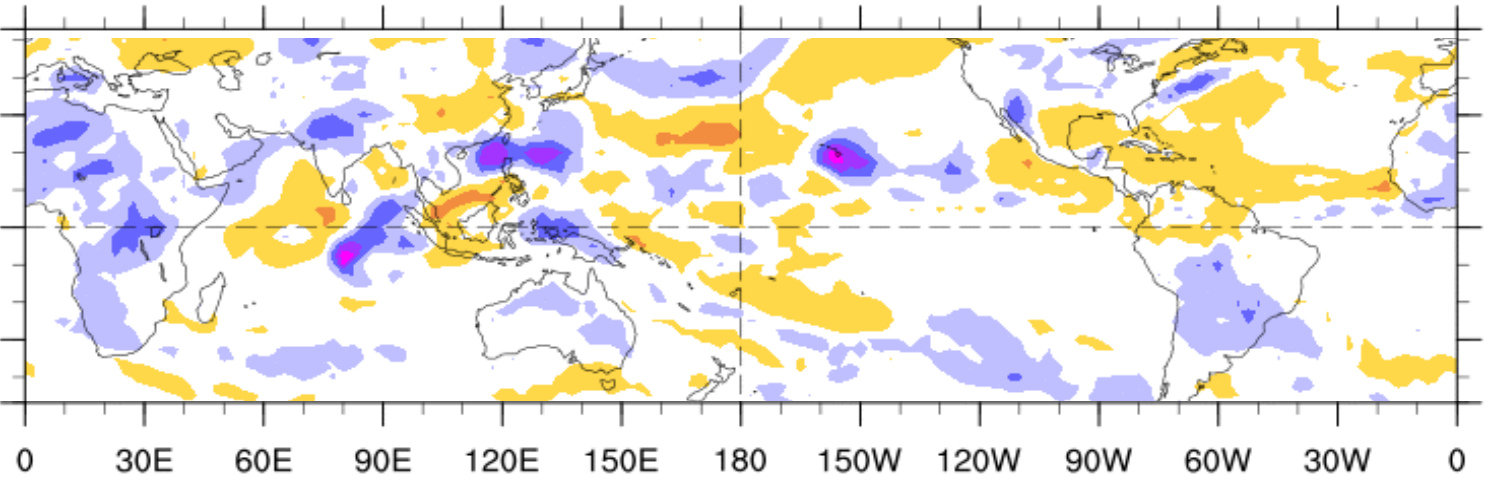


7-Day Average OLR Anomaly

2018/08/20 - 2018/08/26

Cool shading
More clouds/rain

Warm shading
Less clouds/rain



Synopsis of Climate Modes

ENSO: (August 9, 2018 Update)

- ENSO Alert System Status: [El Niño Watch](#)
- There is ~60% chance of El Niño in the Northern Hemisphere fall 2018 (September-November), increasing to ~70% during winter 2018-19.

MJO and other subseasonal tropical variability:

- The MJO remained weak. The transitioning base state, a Rossby wave (Maritime Continent), and a Kelvin wave (Western Hemisphere) are the main drivers.
- Dynamical models favor amplification of a convective signal over the Western Hemisphere, but little eastward propagation. Tropical cyclones, and the Kelvin and Rossby waves may be contributing to the forecast.

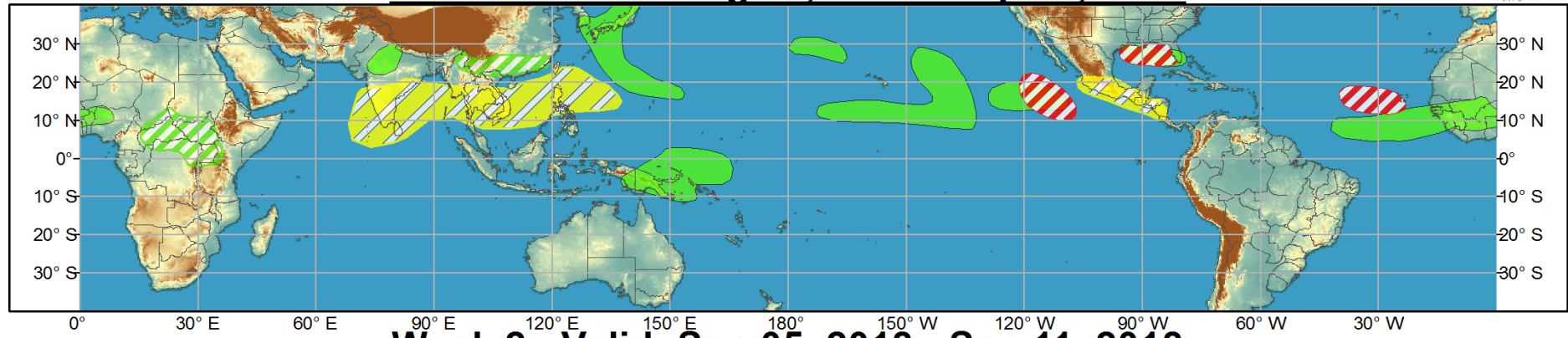
Extratropics:

- The MJO is not likely to play a substantial role in the extratropical pattern over the next several weeks. The primary tropical/extratropical impacts will come from tropical cyclones or disturbances. TS Jebi may become an intense recurving West Pacific tropical cyclone.

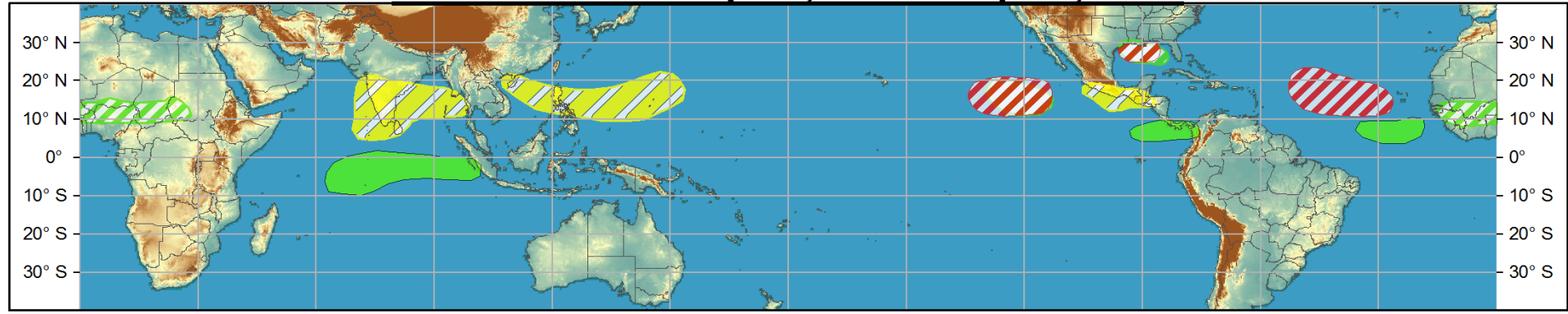


Global Tropics Hazards and Benefits Outlook - Climate Prediction Center

Week 1 - Valid: Aug 29, 2018 - Sep 04, 2018



Week 2 - Valid: Sep 05, 2018 - Sep 11, 2018



Produced: 08/28/2018
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

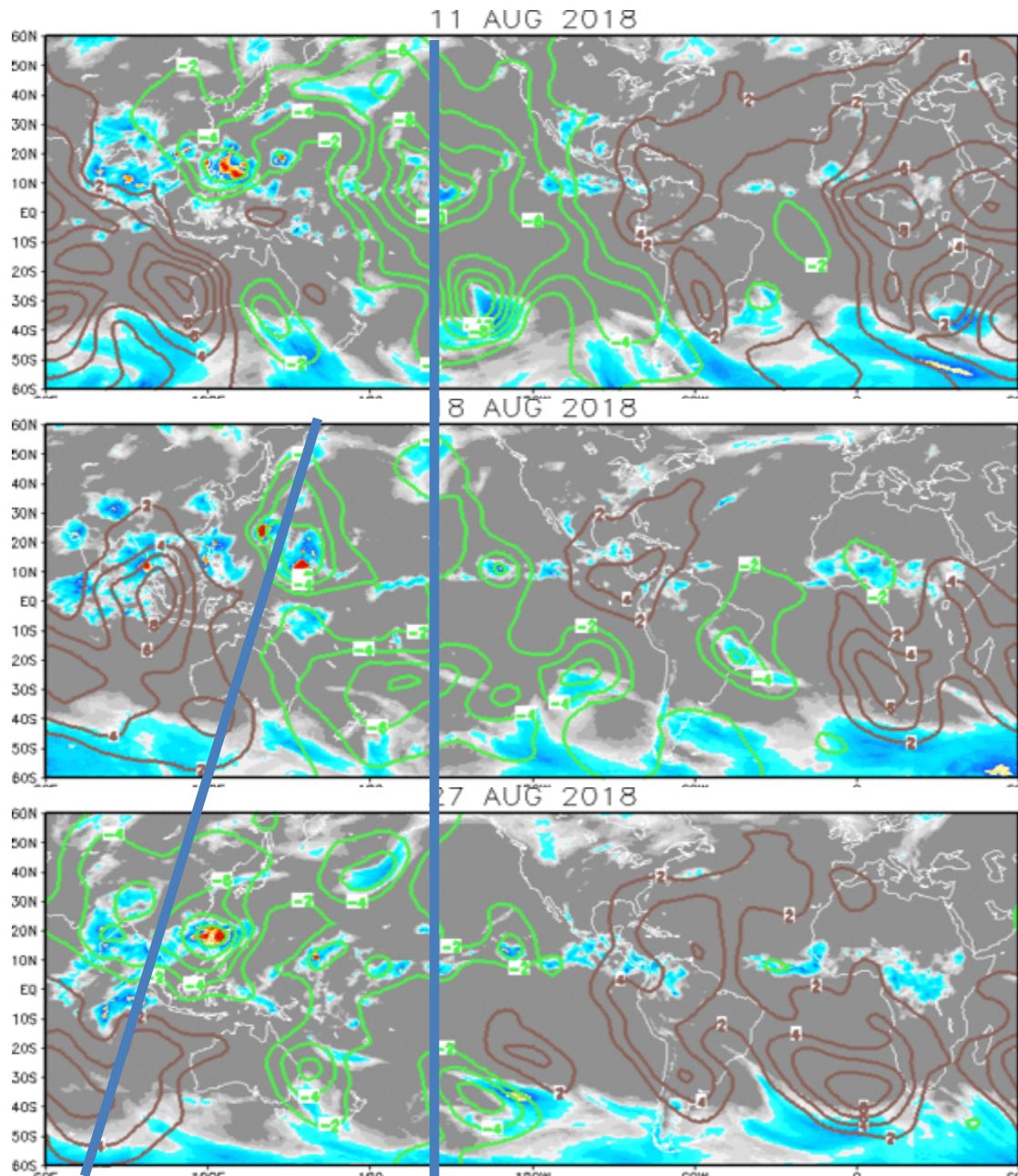
Green: Enhanced Divergence

Brown: Enhanced Convergence

Fairly coherent Wave-1 structure,
but no eastward propagation.

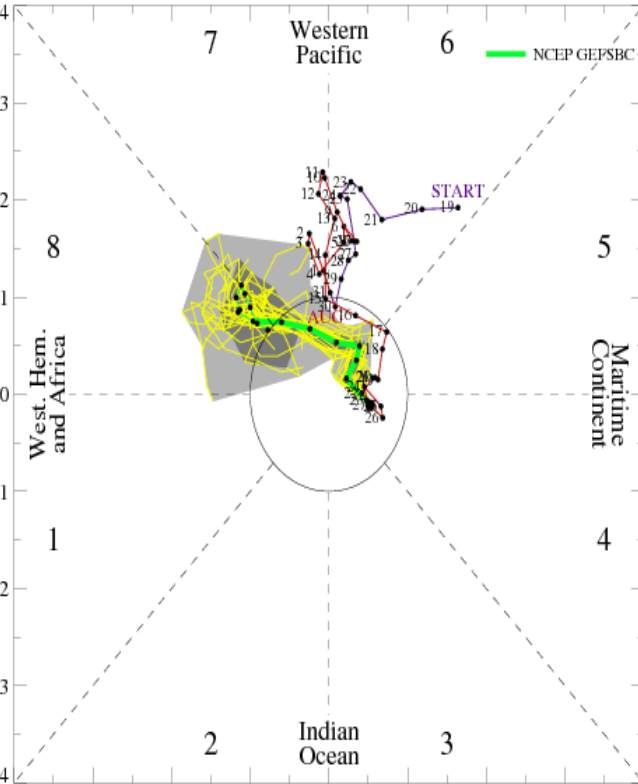
Signal begins to break down.

Weak large-scale convective
signal, but Rossby wave over the
Maritime Continent is apparent.



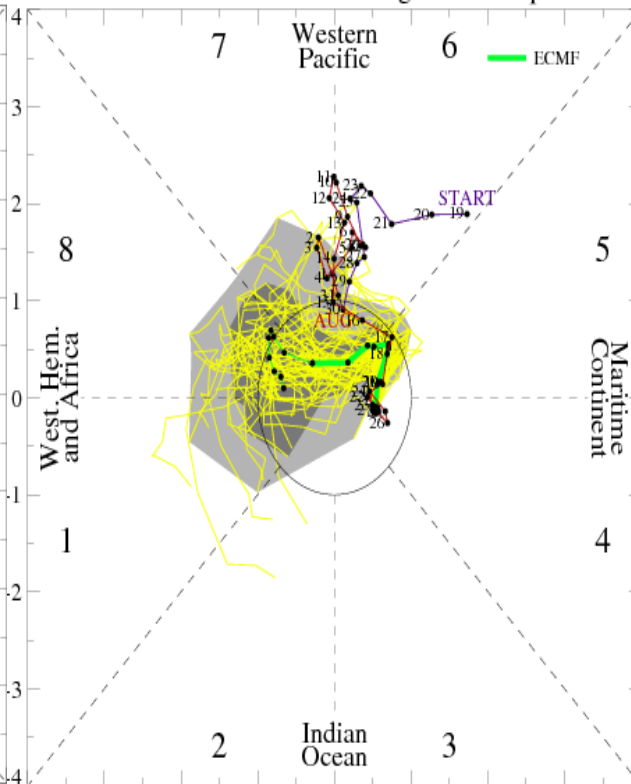
MJO Observation/Forecast

[RMM1, RMM2] forecast for Aug-28-2018 to Sep-11-2018



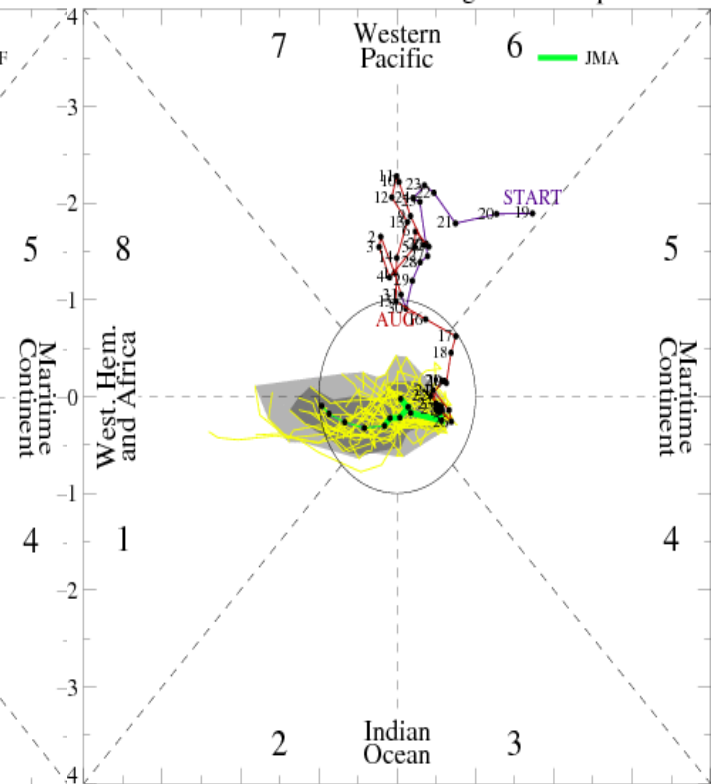
GEFS

MJO Index Forecast for 28 Aug 2018 - 11 Sep 2018



ECMWF

MJO Index Forecast for 28 Aug 2018 - 05 Sep 2018

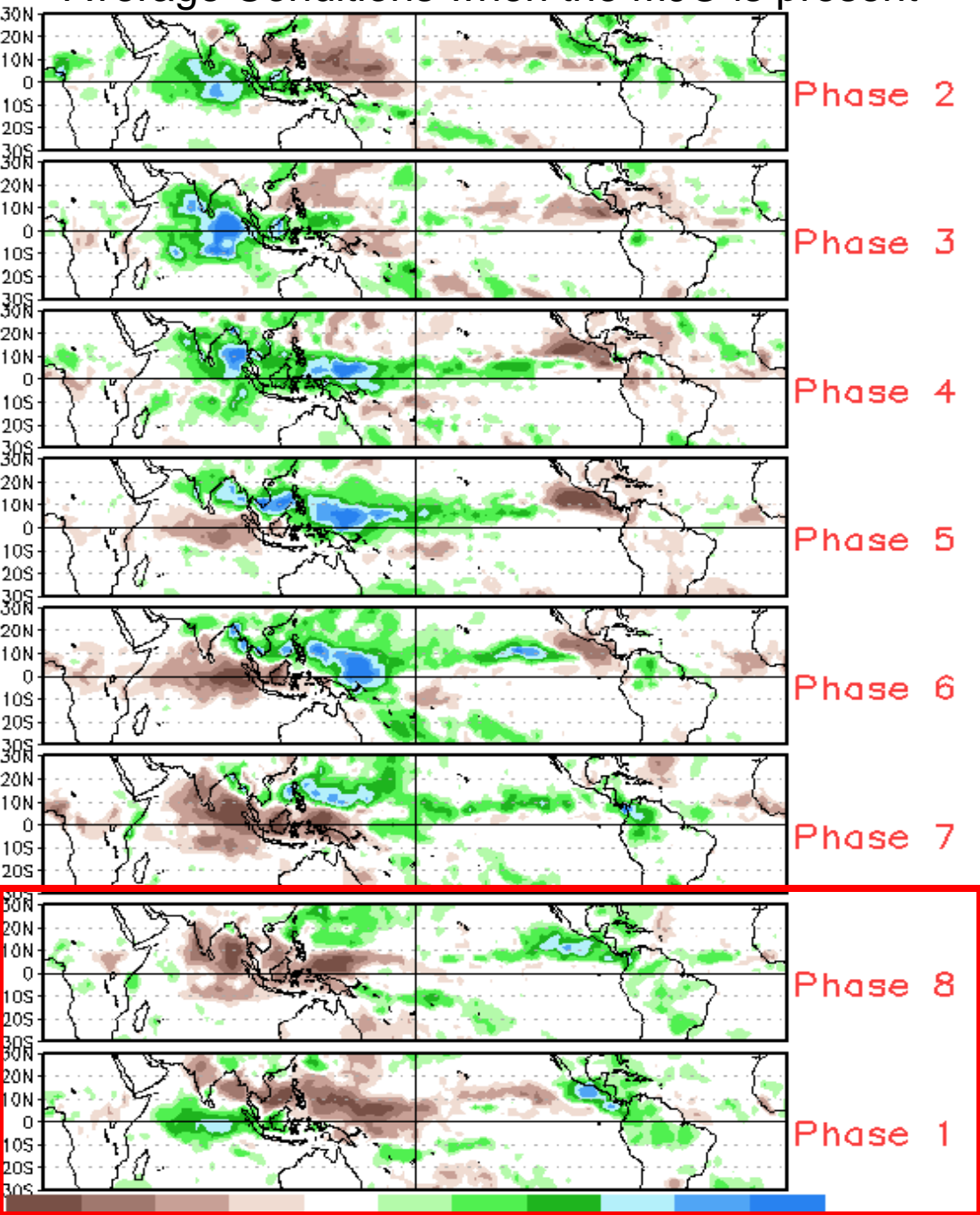


JMA

RMM-index forecasts show a gradual amplification of a Western Hemisphere convective signal during Week-2, with little to no eastward propagation.

Other modes, such as model-forecasted TC activity, could be influencing the signal.

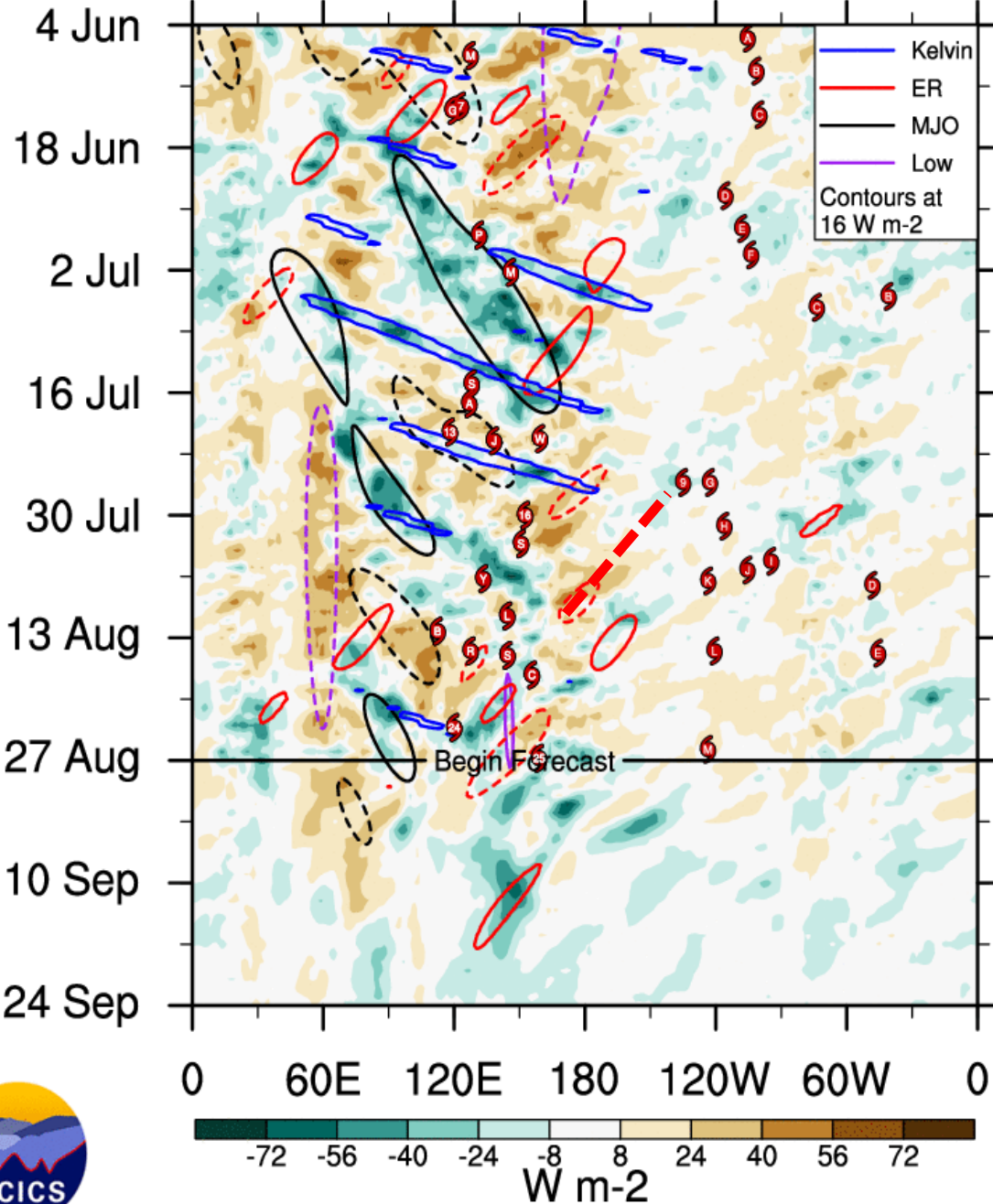
Average Conditions when the MJO is present



CAVEAT: These panels are representative of robust MJO events.

OLR with CFS forecasts

5S - 5N

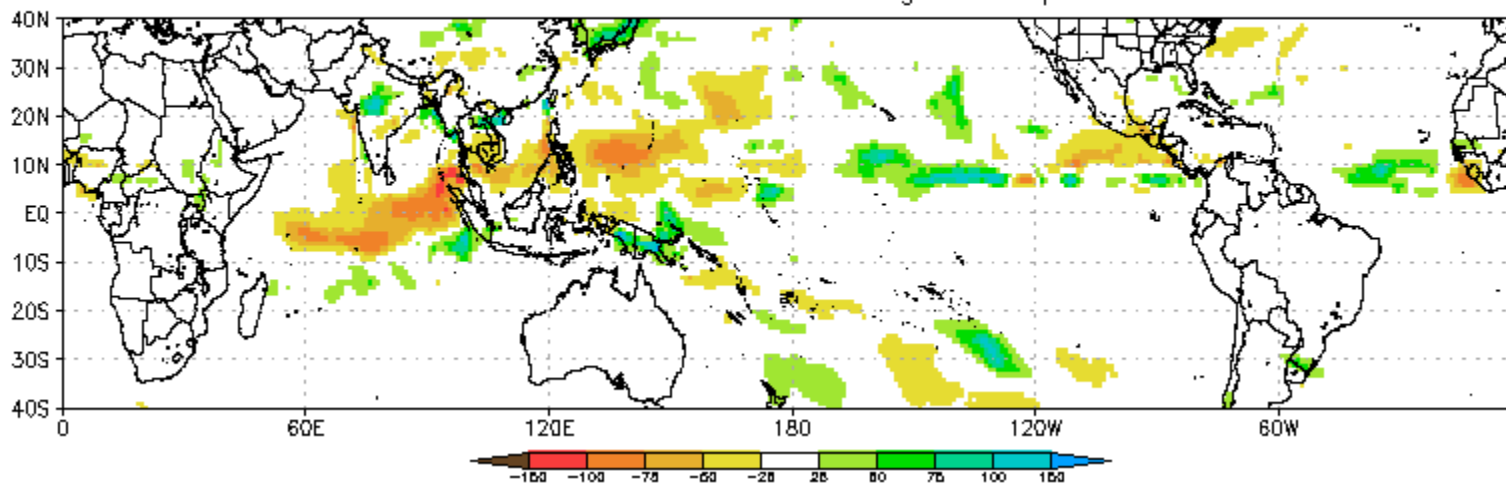


MJO not much of an influence, **Rossby wave** and **Kelvin wave** show up in the OLR field

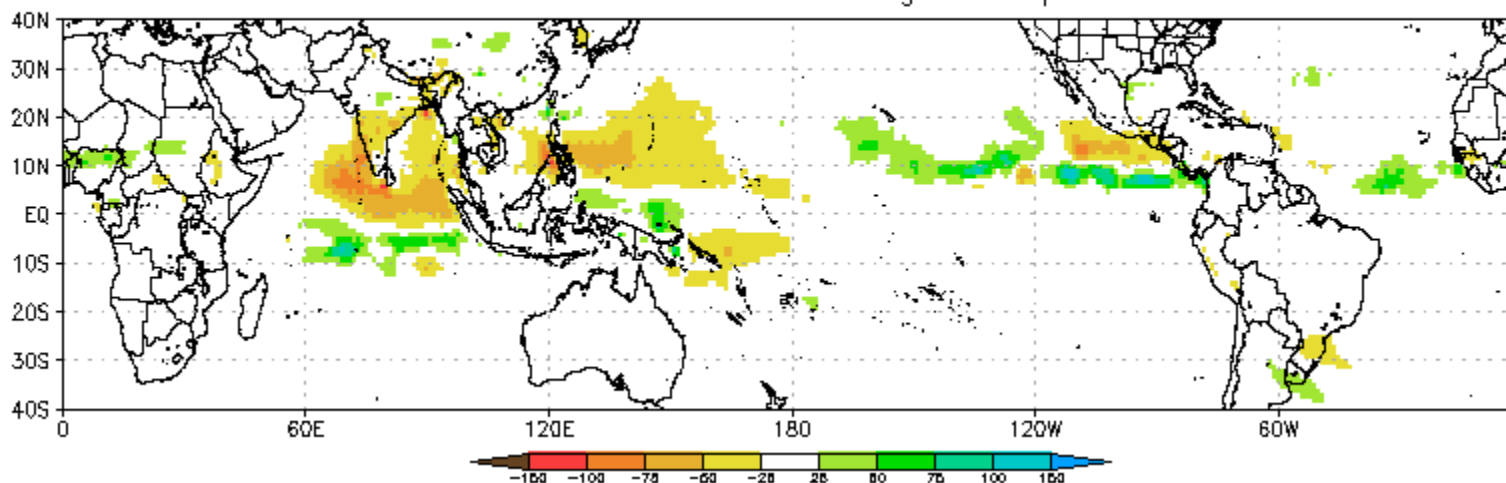
Low-frequency pattern beginning to show up over the central Pacific



CFS Precipitation Anomalies (mm) Issued 27Aug2018
Week-1 Forecast Ending 04Sep2018

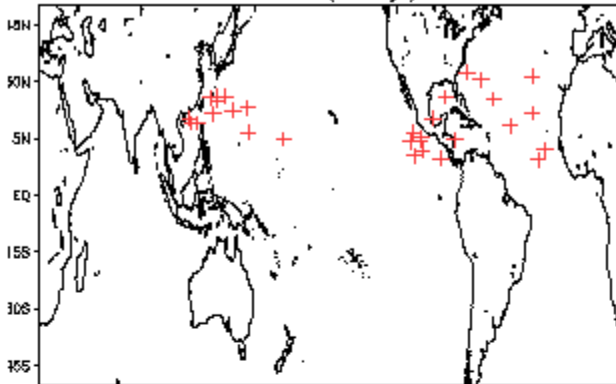


CFS Precipitation Anomalies (mm) Issued 27Aug2018
Week-2 Forecast Ending 11Sep2018

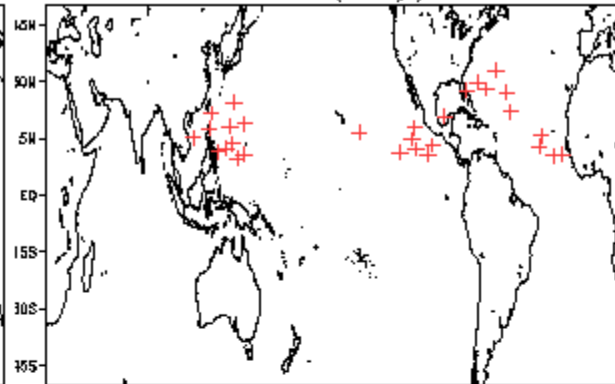


September Tropical Storm Formation by MJO phase

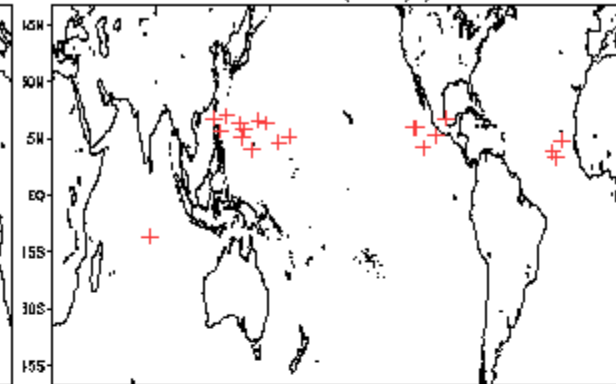
Phase 1 (81 days) 31 storms



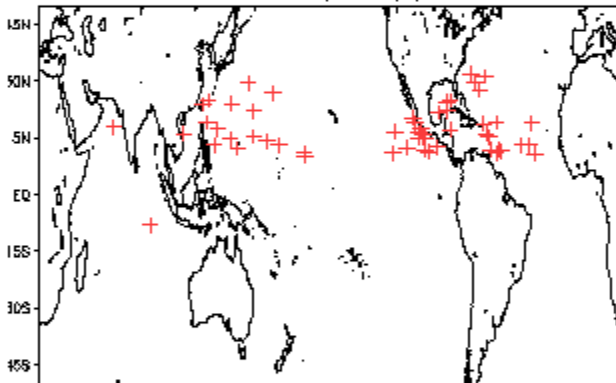
Phase 4 (70 days) 30 storms



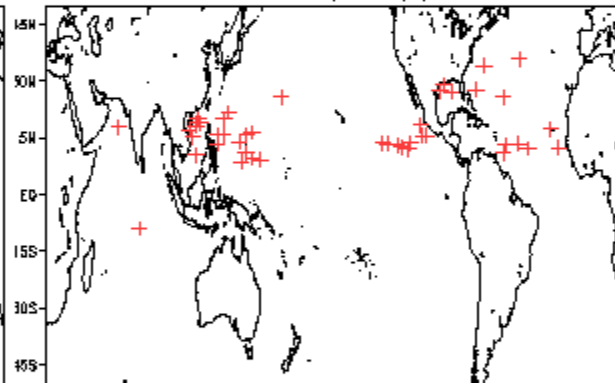
Phase 7 (38 days) 22 storms



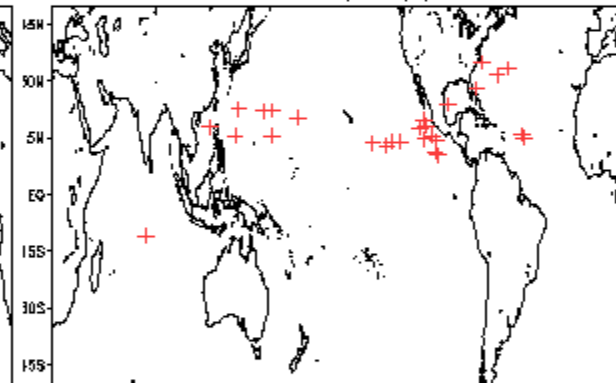
Phase 2 (122 days) 56 storms



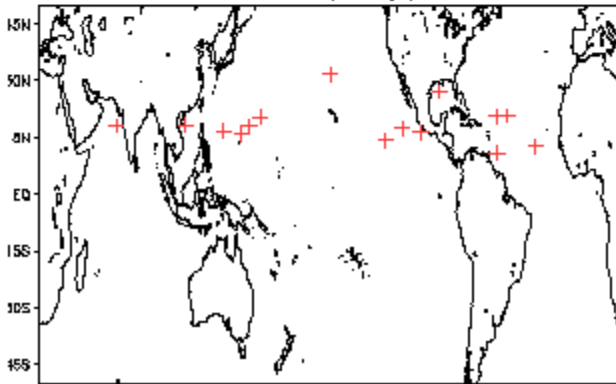
Phase 5 (106 days) 45 storms



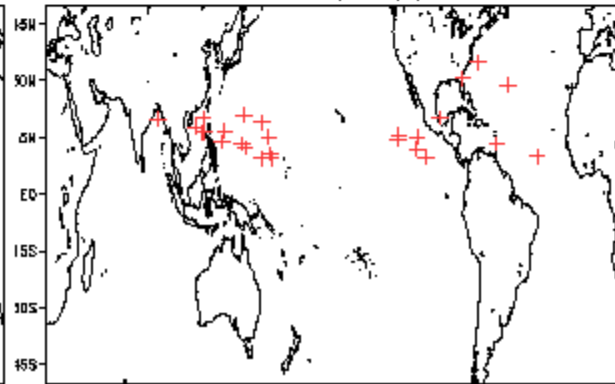
Phase 8 (67 days) 29 storms



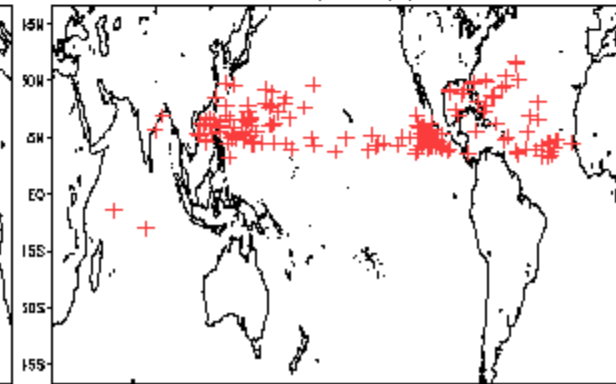
Phase 3 (51 days) 16 storms



Phase 6 (61 days) 27 storms



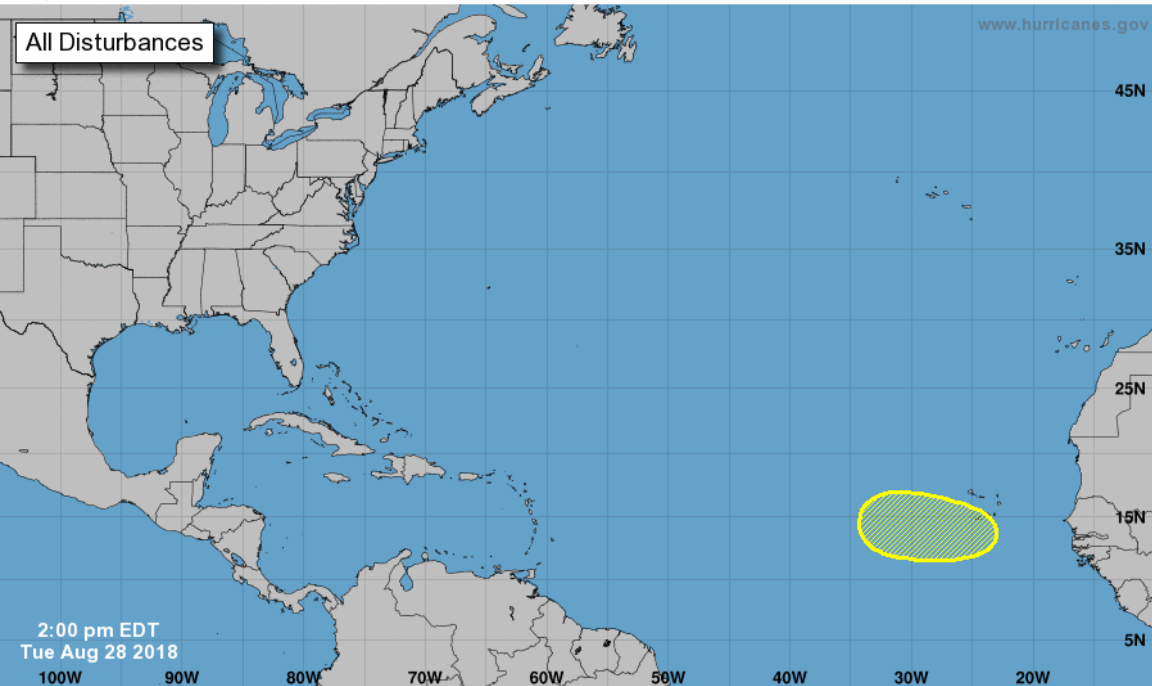
Null (393 days) 189 storms





Five-Day Graphical Tropical Weather Outlook

National Hurricane Center Miami, Florida



2:00 pm EDT
Tue Aug 28 2018

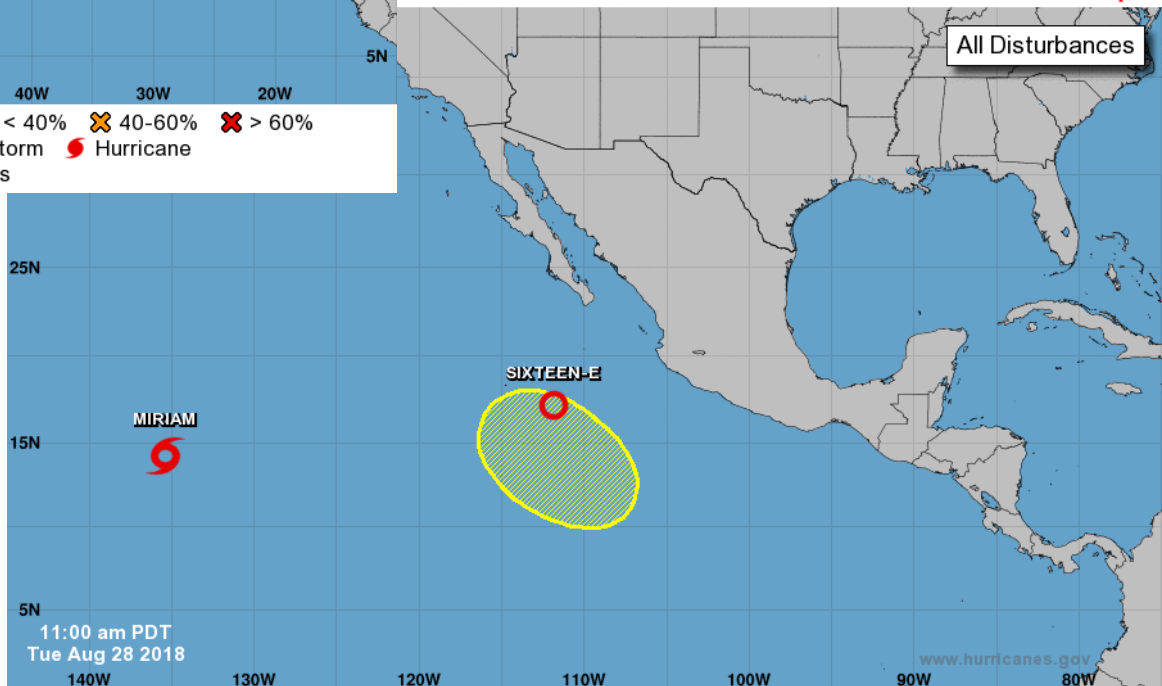
Current Disturbances and Five-Day Cyclone Formation Chance: < 40% 40-60% > 60%

Tropical or Sub-Tropical Cyclone: Depression Storm Hurricane

Post-Tropical Cyclone or Remnants

Graphical Tropical Weather Outlook

National Hurricane Center Miami, Florida



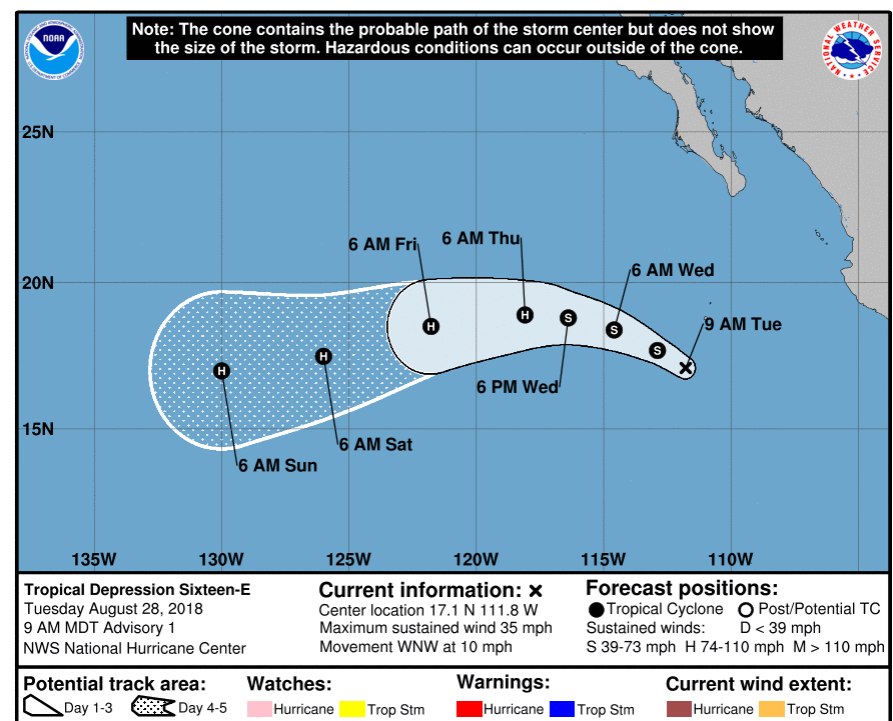
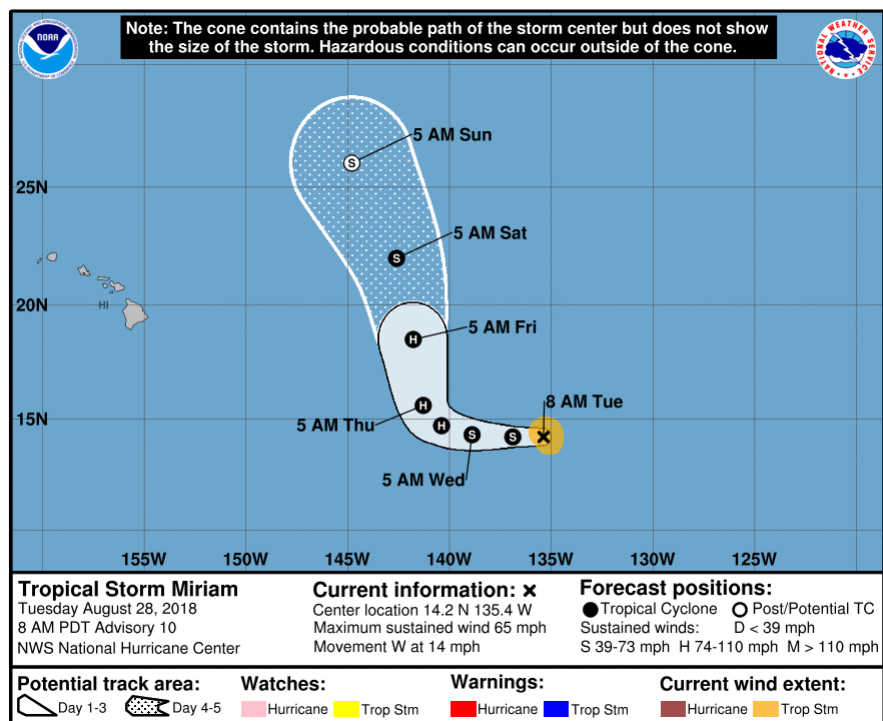
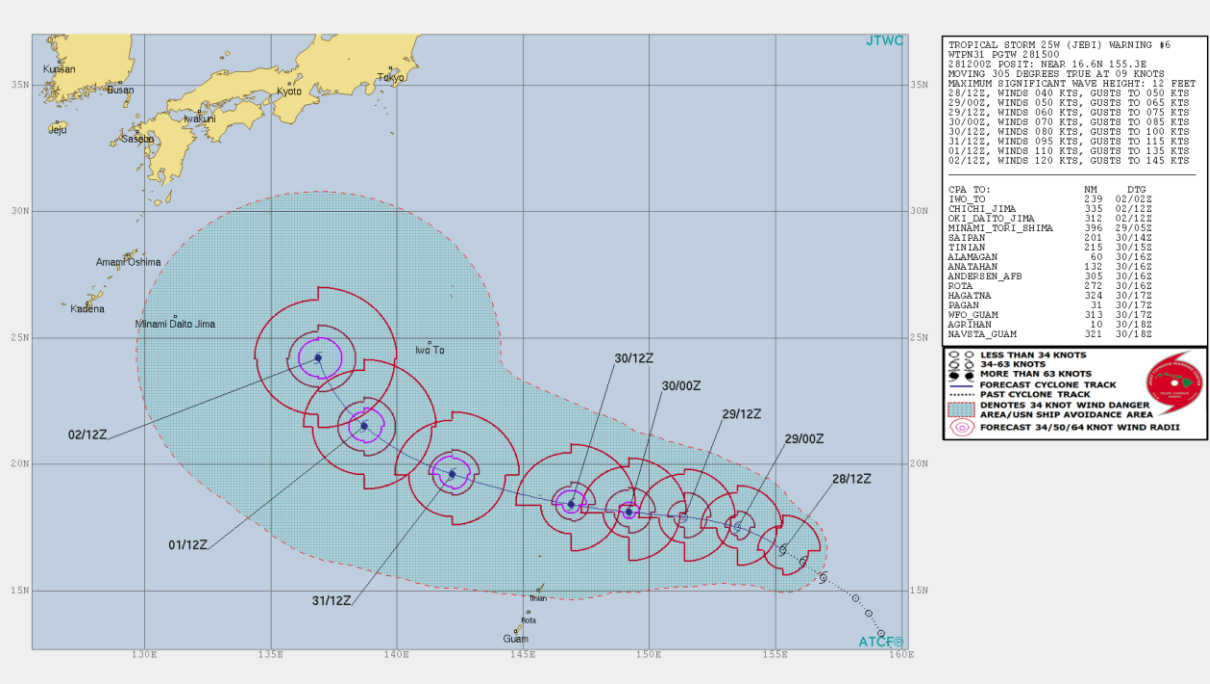
All Disturbances

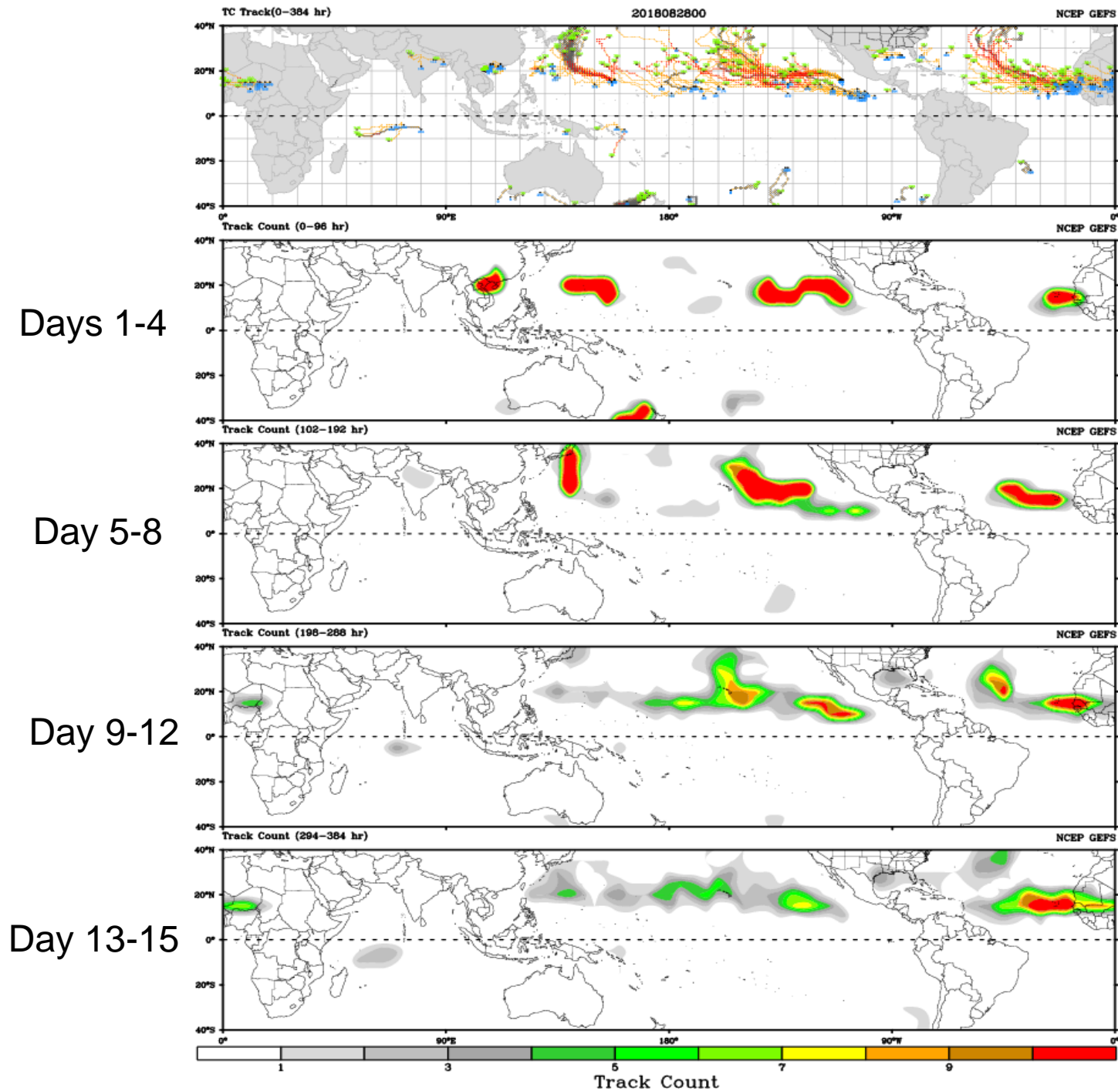
11:00 am PDT
Tue Aug 28 2018

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

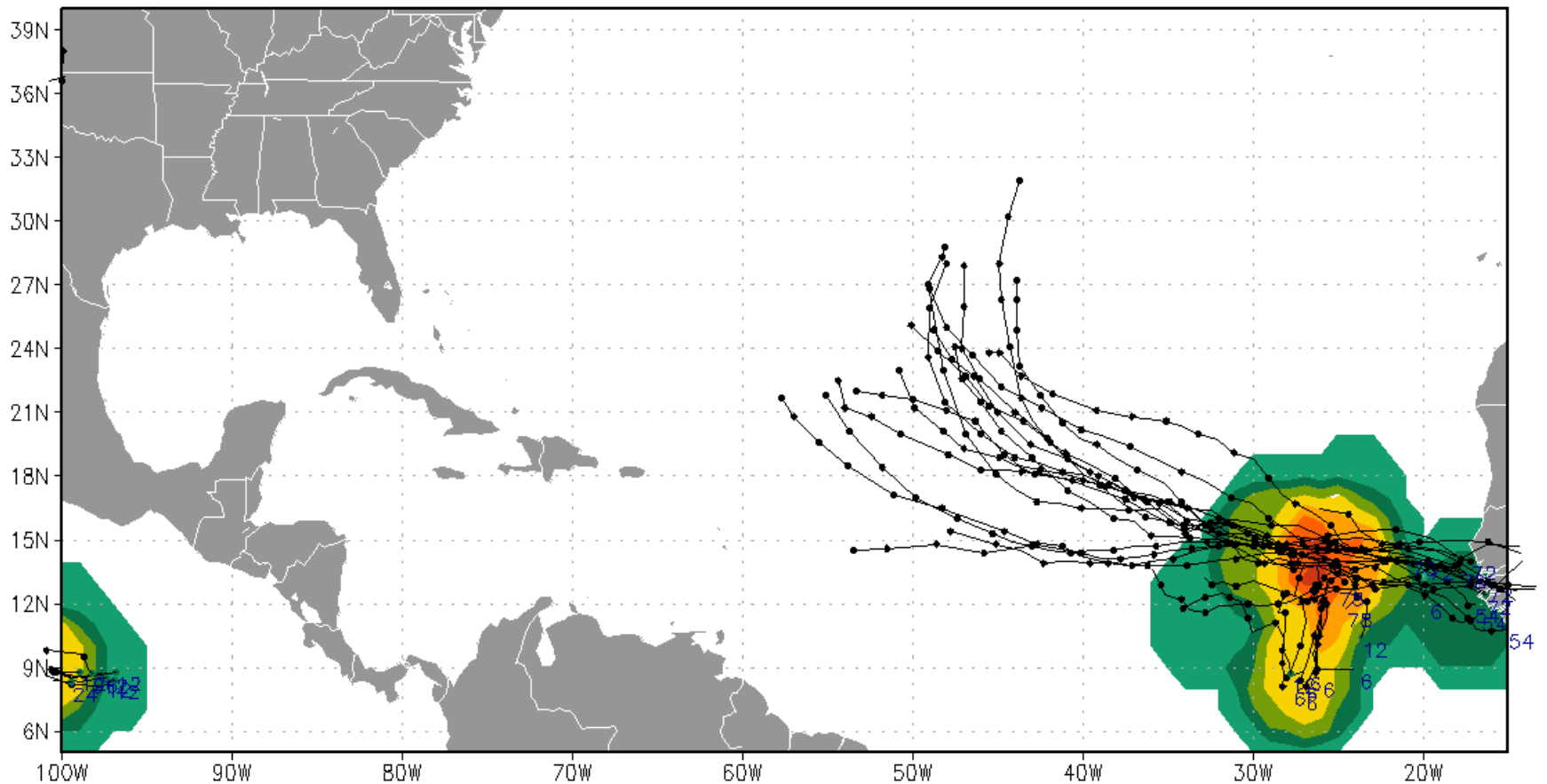
Tropical or Sub-Tropical Cyclone: Depression Storm Hurricane

Post-Tropical Cyclone or Remnants

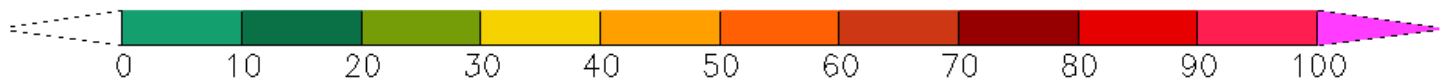




NCEP Ensemble-based Probability (%) of TC genesis for forecasts during the 00–120h period from initial time = 2018082800



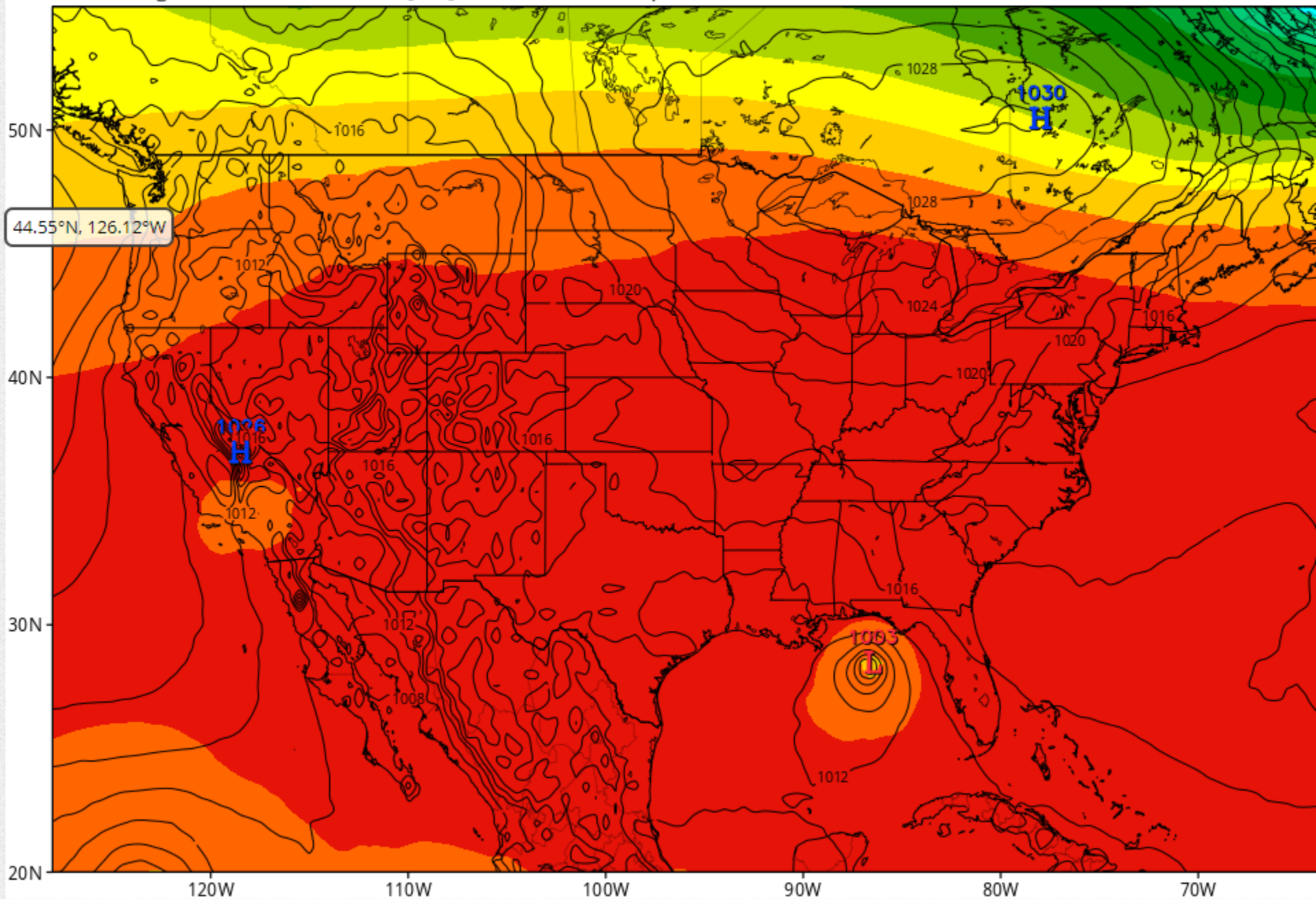
Forecast hour shown at beginning of each track
is first lead time the storm was detected in model



ECMWF 500mb Geopotential Height (dam) & MSLP (mb)

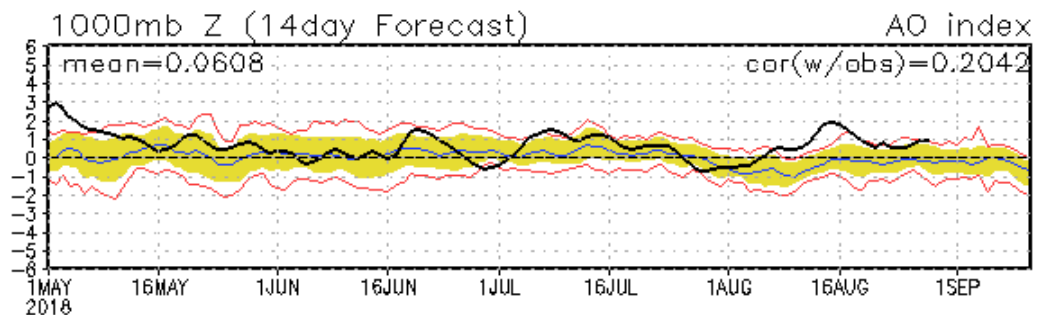
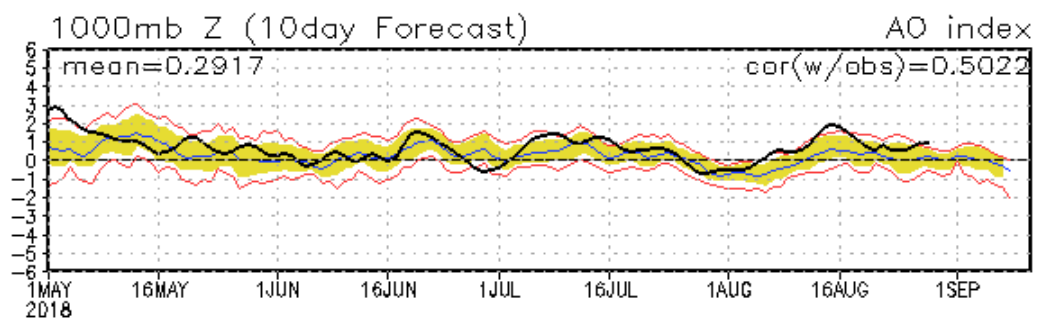
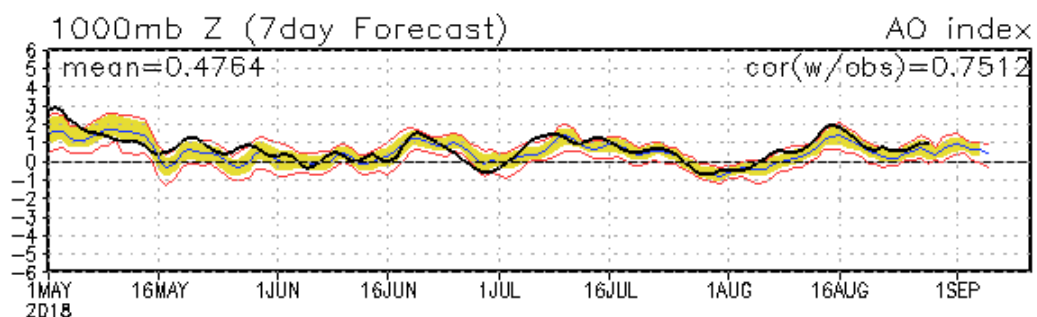
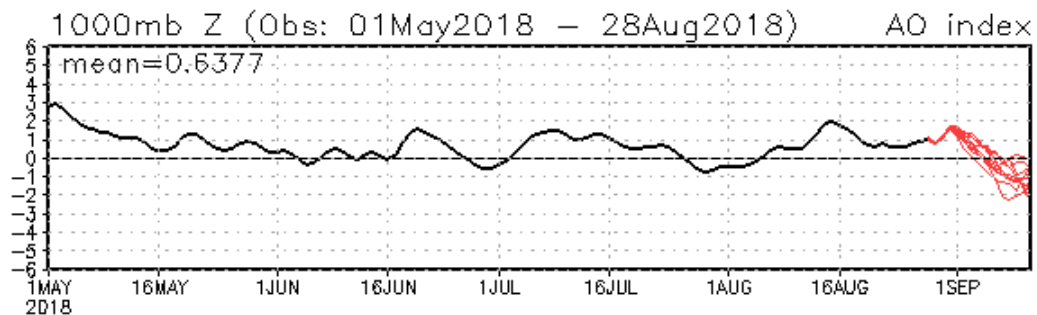
Init: 00z Aug 28 2018 Forecast Hour: [216] valid at 00z Thu, Sep 06 2018

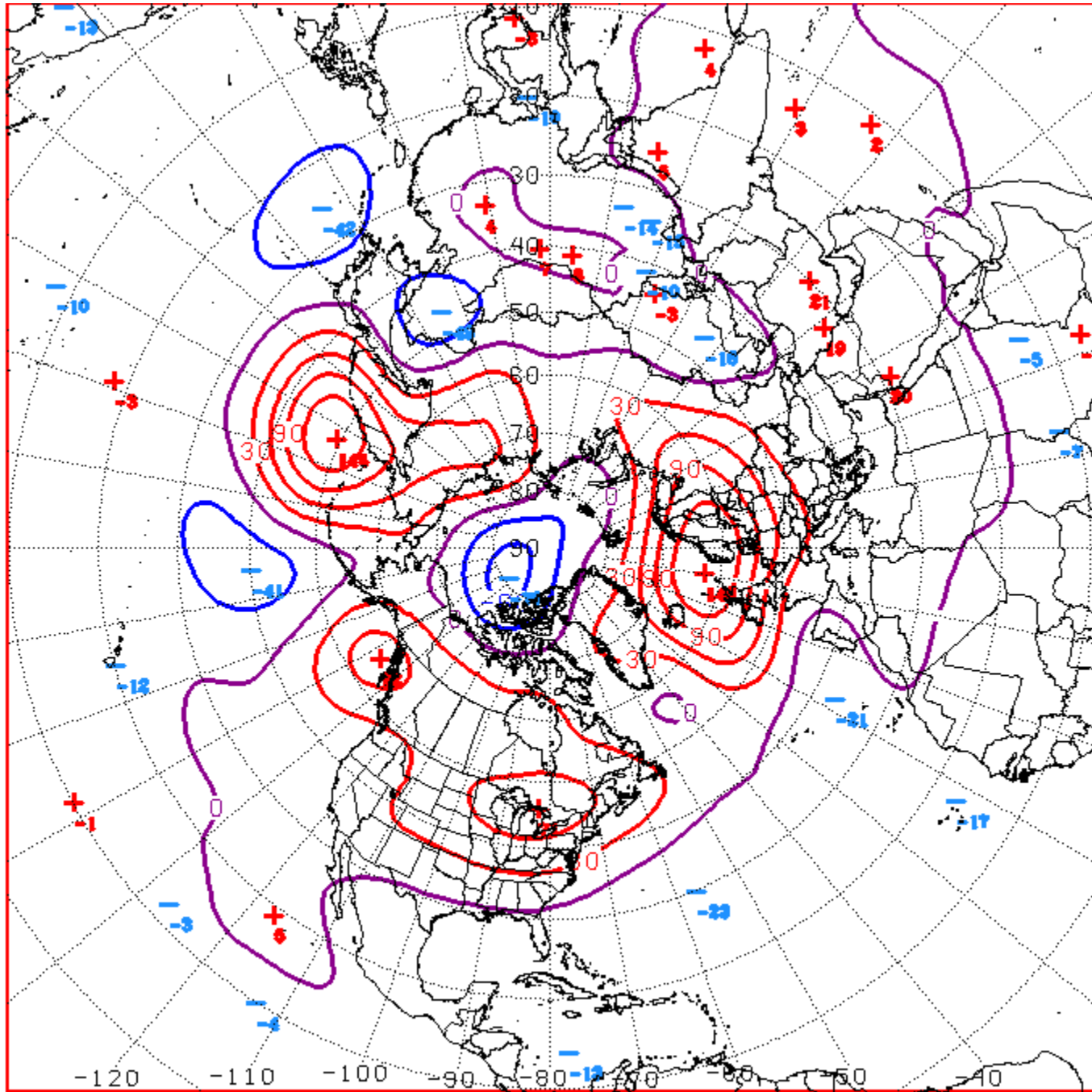
TROPICALTIDBITS.CO



Connections to U.S. Impacts

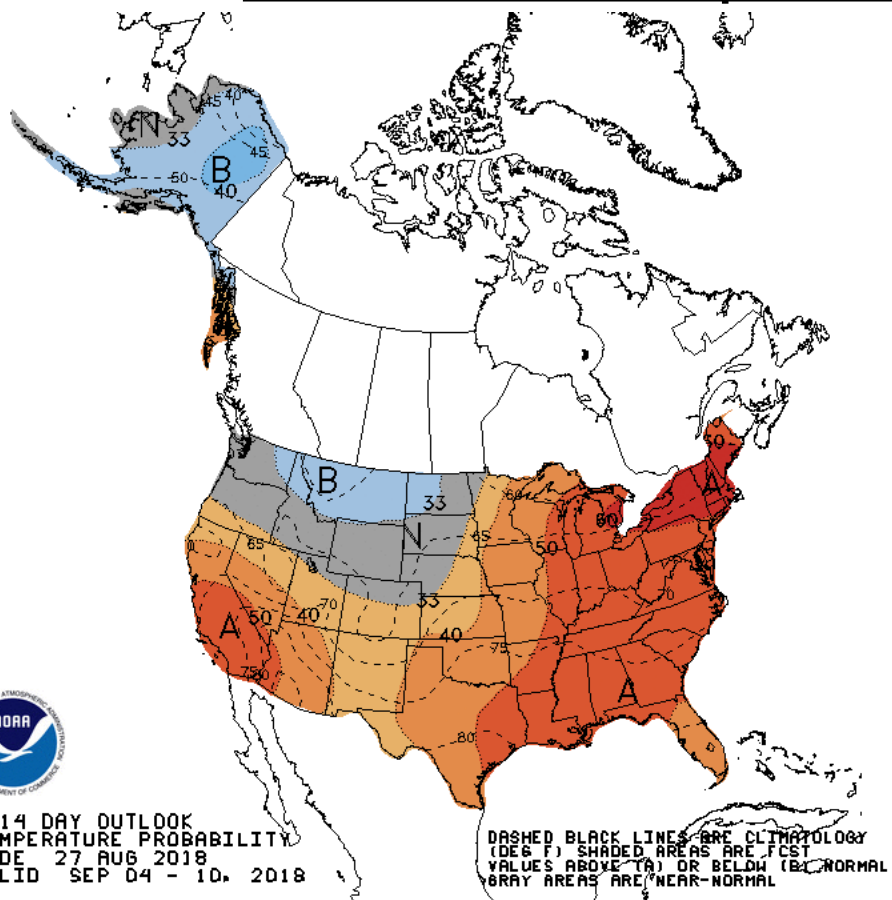
AO: Observed & ENSM forecasts





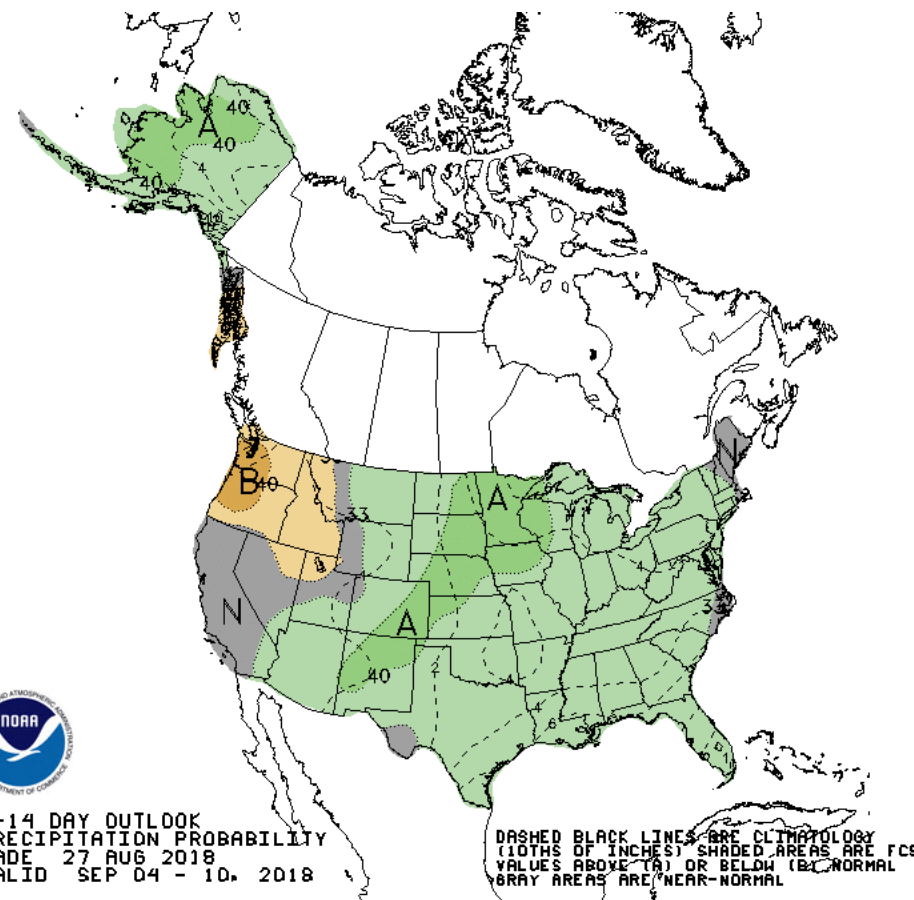
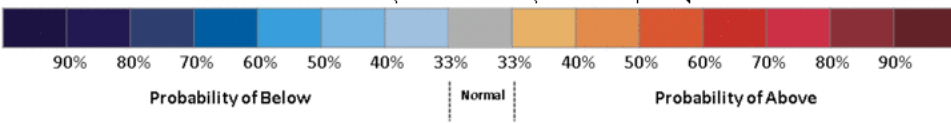
D+11 500 MB ANOMALIES FROM ALZ ENSM
CPC MAP MADE AUG 28 2018 1338 UTC CNTD SEP 08 2018

Week 2 – Temperature and Precipitation



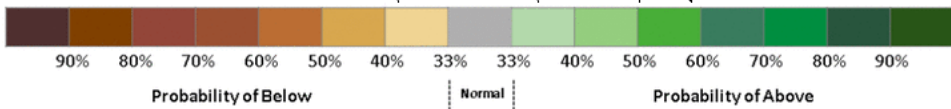
8-14 DAY OUTLOOK
TEMPERATURE PROBABILITY
MADE 27 AUG 2018
VALID SEP 04 - 10, 2018

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 27 AUG 2018
VALID SEP 04 - 10, 2018

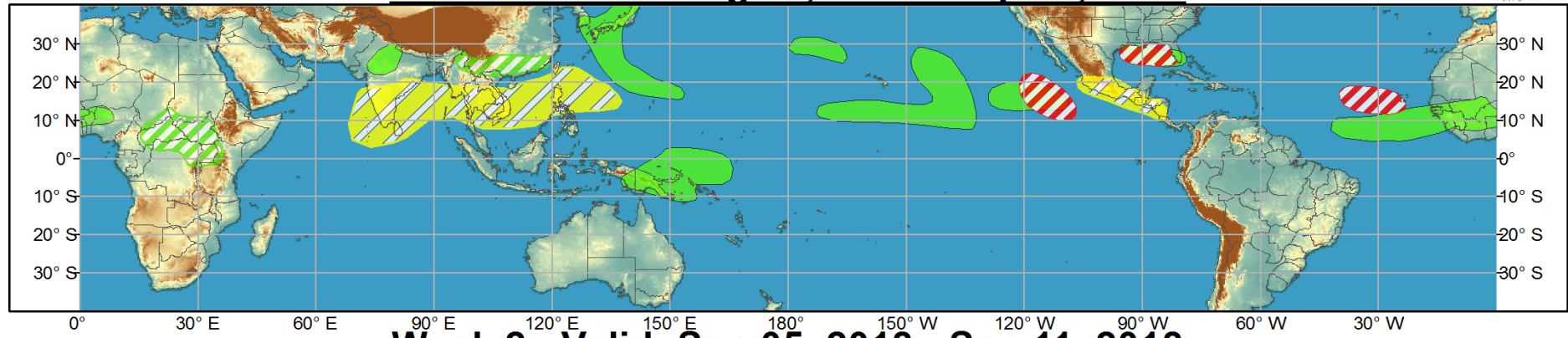
DASHED BLACK LINES ARE CLIMATOLOGY (10THS OF INCHES). SHADED AREAS ARE FCST VALUES ABOVE (A) OR BELOW (B) NORMAL. GRAY AREAS ARE NEAR-NORMAL.



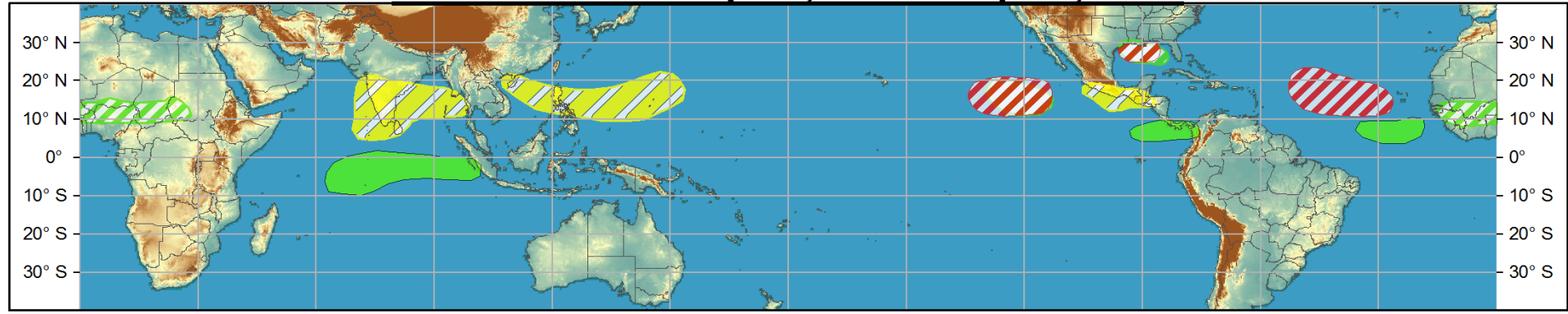


Global Tropics Hazards and Benefits Outlook - Climate Prediction Center

Week 1 - Valid: Aug 29, 2018 - Sep 04, 2018



Week 2 - Valid: Sep 05, 2018 - Sep 11, 2018



Produced: 08/28/2018
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.

