

Global Tropics Hazards And Benefits Outlook

8/14/2018

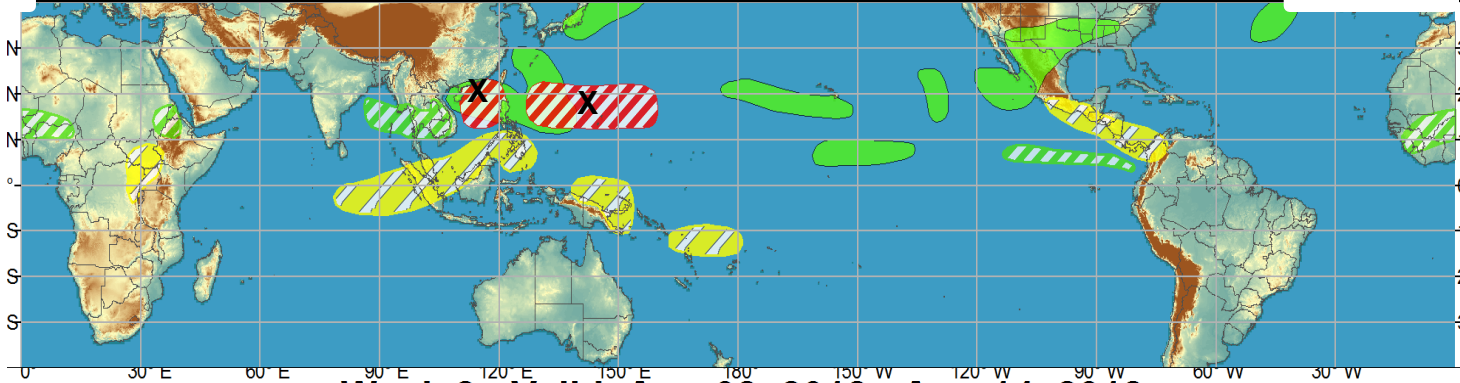
Stephen Baxter

Outline

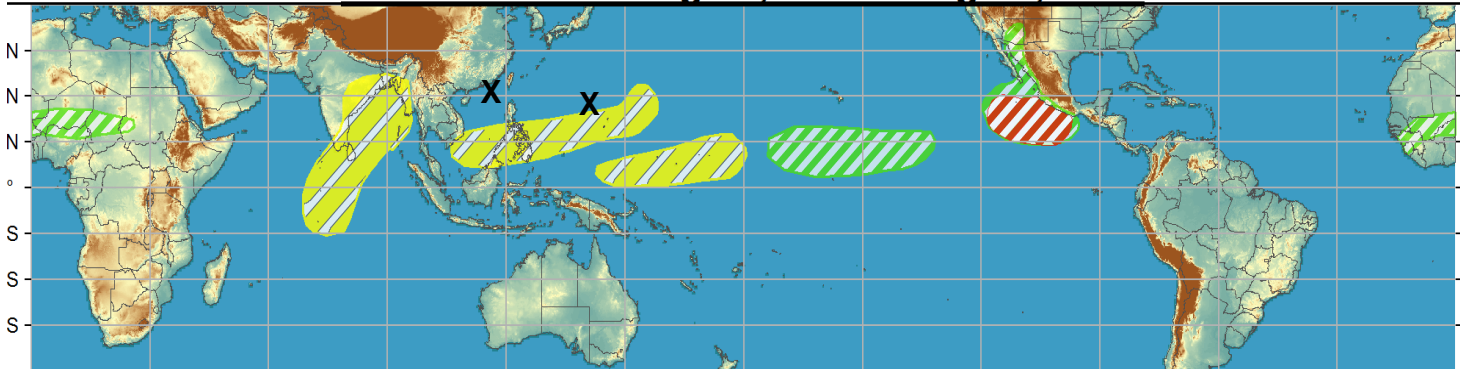
1. Review of Recent Conditions
2. Synopsis of Climate Modes
3. GTH Outlook and Forecast Discussion
4. Connections to U.S. Impacts

Outlook Review

Week 1 - Valid: Aug 08, 2018 - Aug 14, 2018

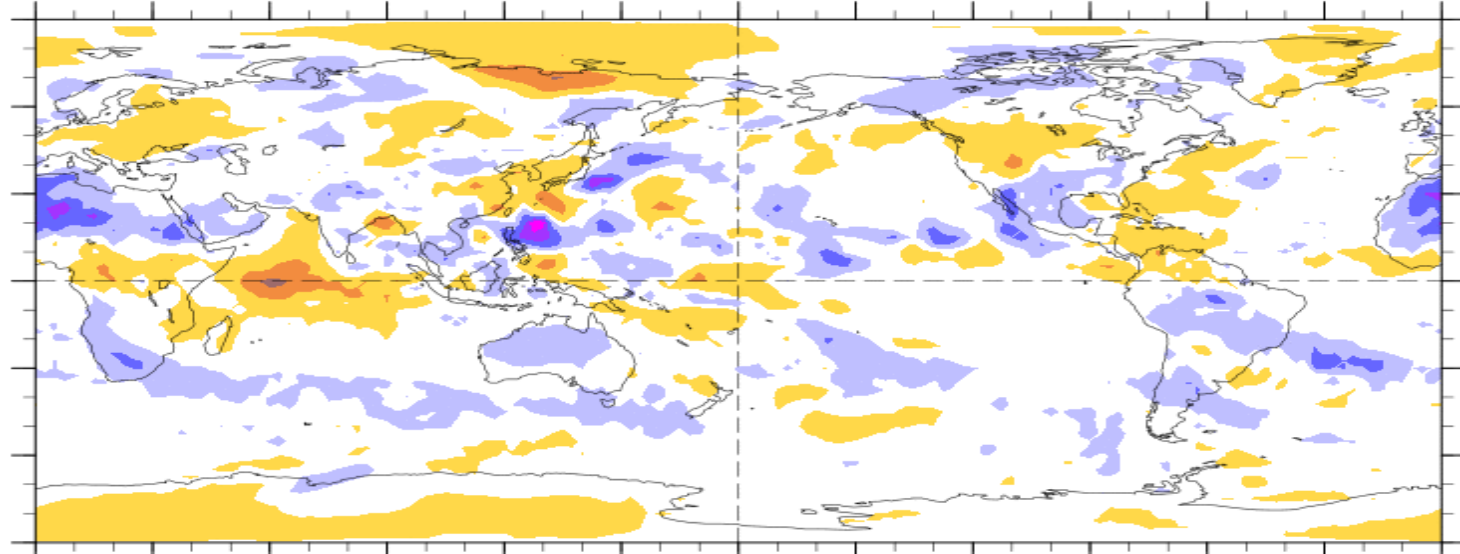


Week 2 - Valid: Aug 08, 2018 - Aug 14, 2018



7-Day Average OLR Anomaly

2018/08/06 - 2018/08/12



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](#)
- ENSO-neutral conditions are expected to give way to El Niño conditions, with the chance for El Niño increasing to about 60% during fall, and to about 70% during winter 2018-19.

MJO and other subseasonal tropical variability:

- The convective pattern broadly resembles a West Pacific MJO event, but the signal has been fairly stationary for the past couple of weeks.
- Dynamical models generally depict a generally weak MJO signal during Week-1. Both the GEFS and the ECMWF track a Kelvin wave from the East Pacific to the Maritime Continent during Week-2, developing into a slower subseasonal signal by the end of the period.

Extratropics:

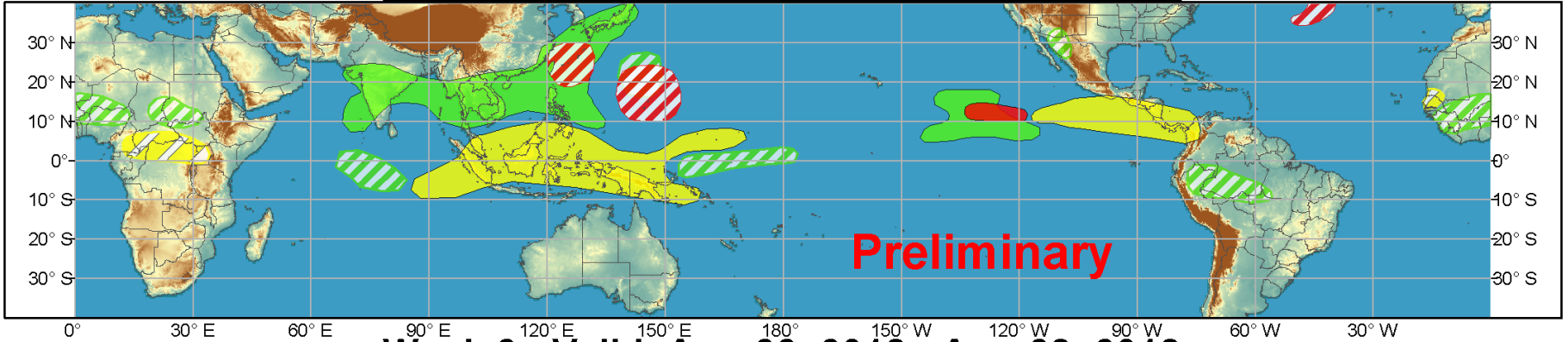
- A prominent wave train over the North Pacific is likely influenced by recent TC activity over the West Pacific.
- MJO evolution does not support Atlantic TC activity during the next two weeks, and a lull in East Pac activity is favored following development early in Week-1.



Global Tropics Hazards and Benefits Outlook - Climate Prediction Center



Week 1 - Valid: Aug 15, 2018 - Aug 21, 2018



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



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. |

Produced: 08/14/2018

Forecaster: Baxter

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

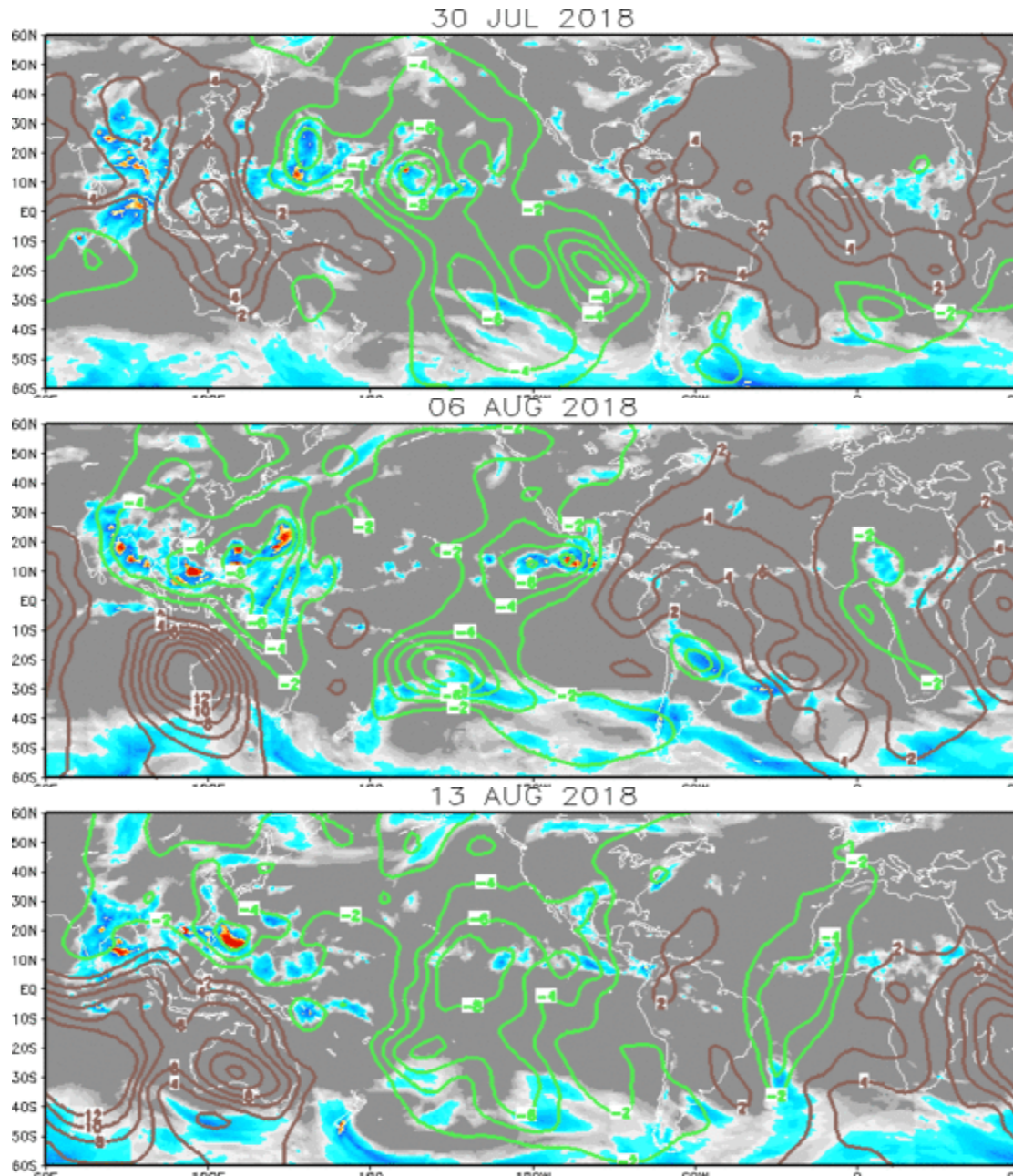
Green: Enhanced Divergence

Brown: Enhanced Convergence

Nearly wave-1 pattern, enhanced convection over the Pacific.

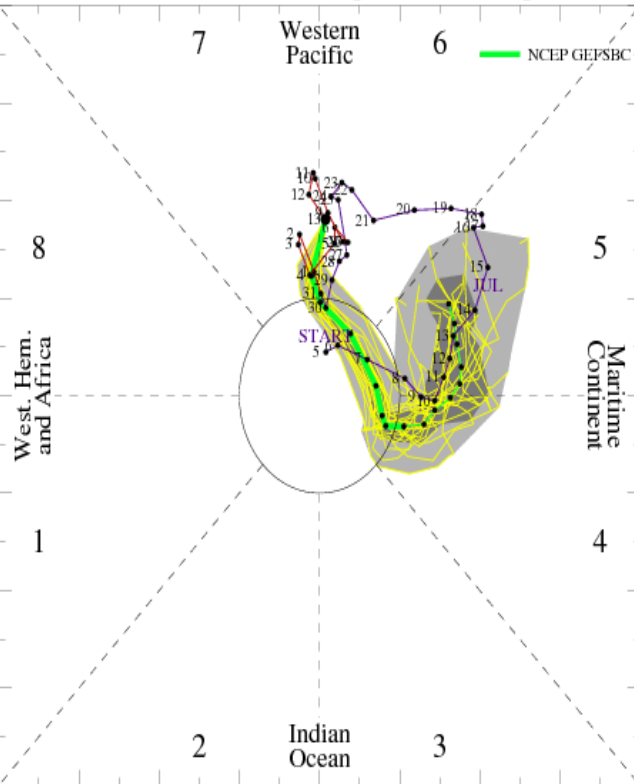
Less organized pattern due to enhanced TC activity over both the western and eastern Pacific.

Anomalous upper-level divergence remains in place over the Pacific.



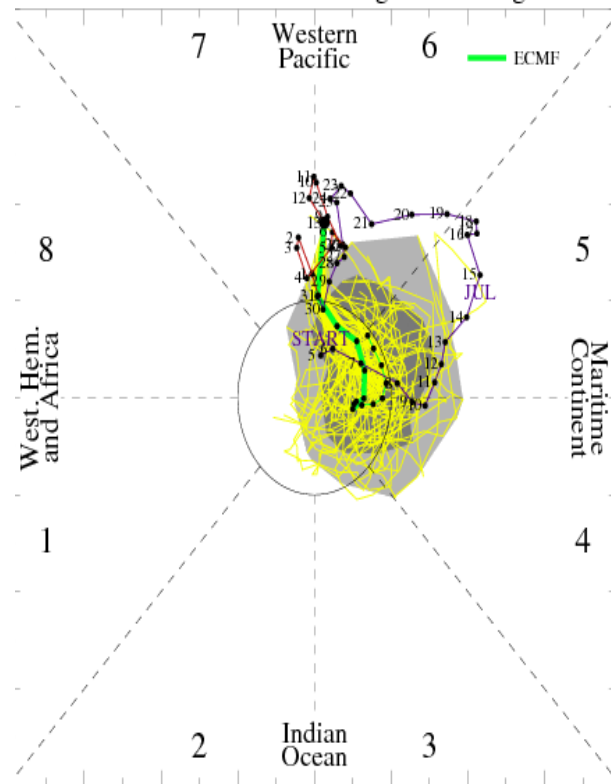
MJO Observation/Forecast

[RMM1, RMM2] forecast for Aug-14-2018 to Aug-28-2018



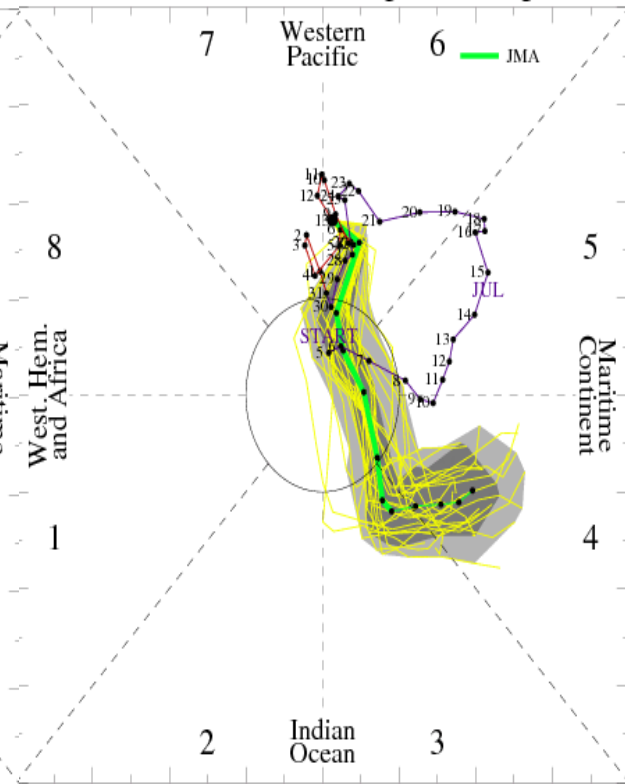
GEFS

MJO Index Forecast for 14Aug2018-28Aug2018



ECMWF

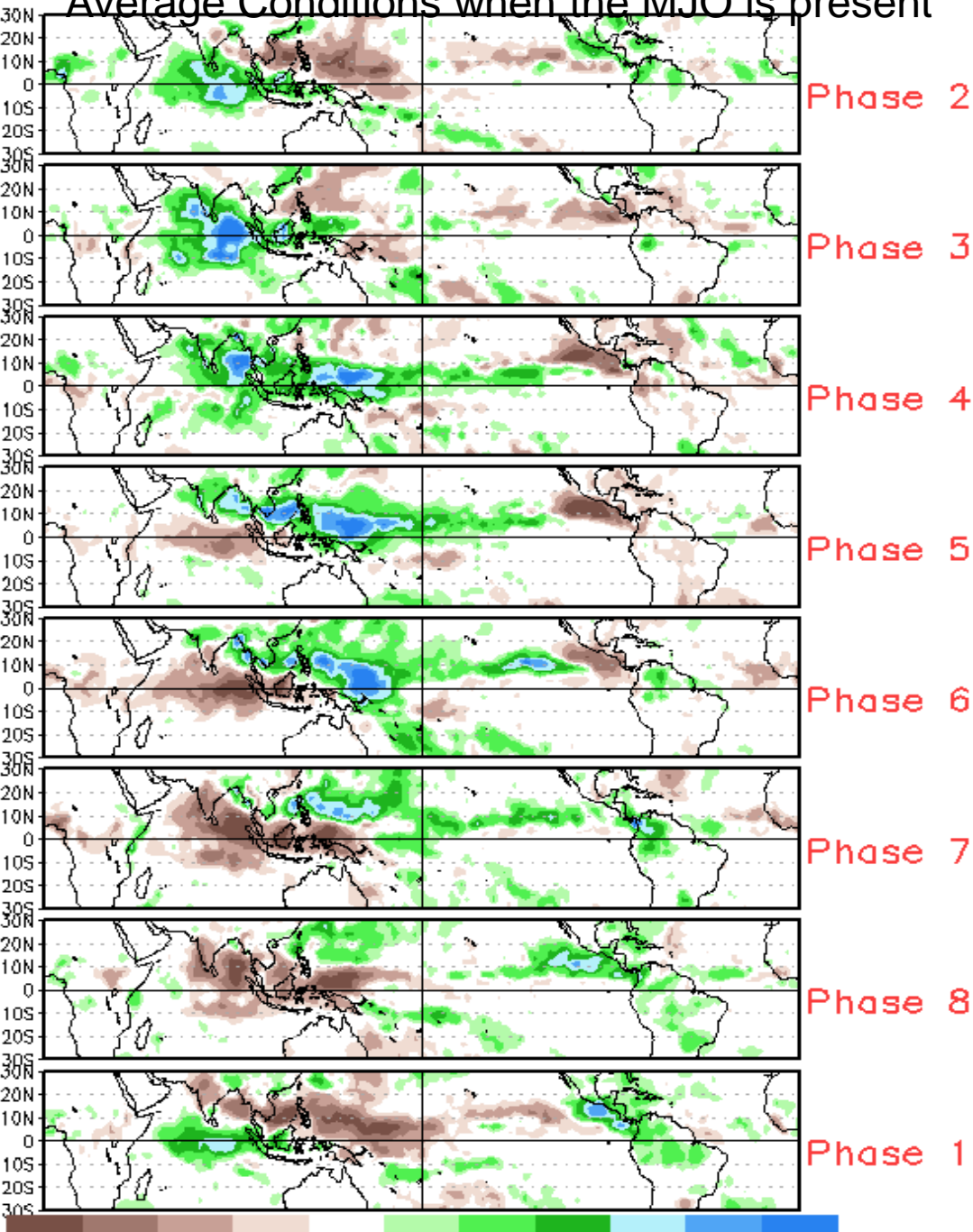
MJO Index Forecast for 14Aug2018-22Aug2018



JMA

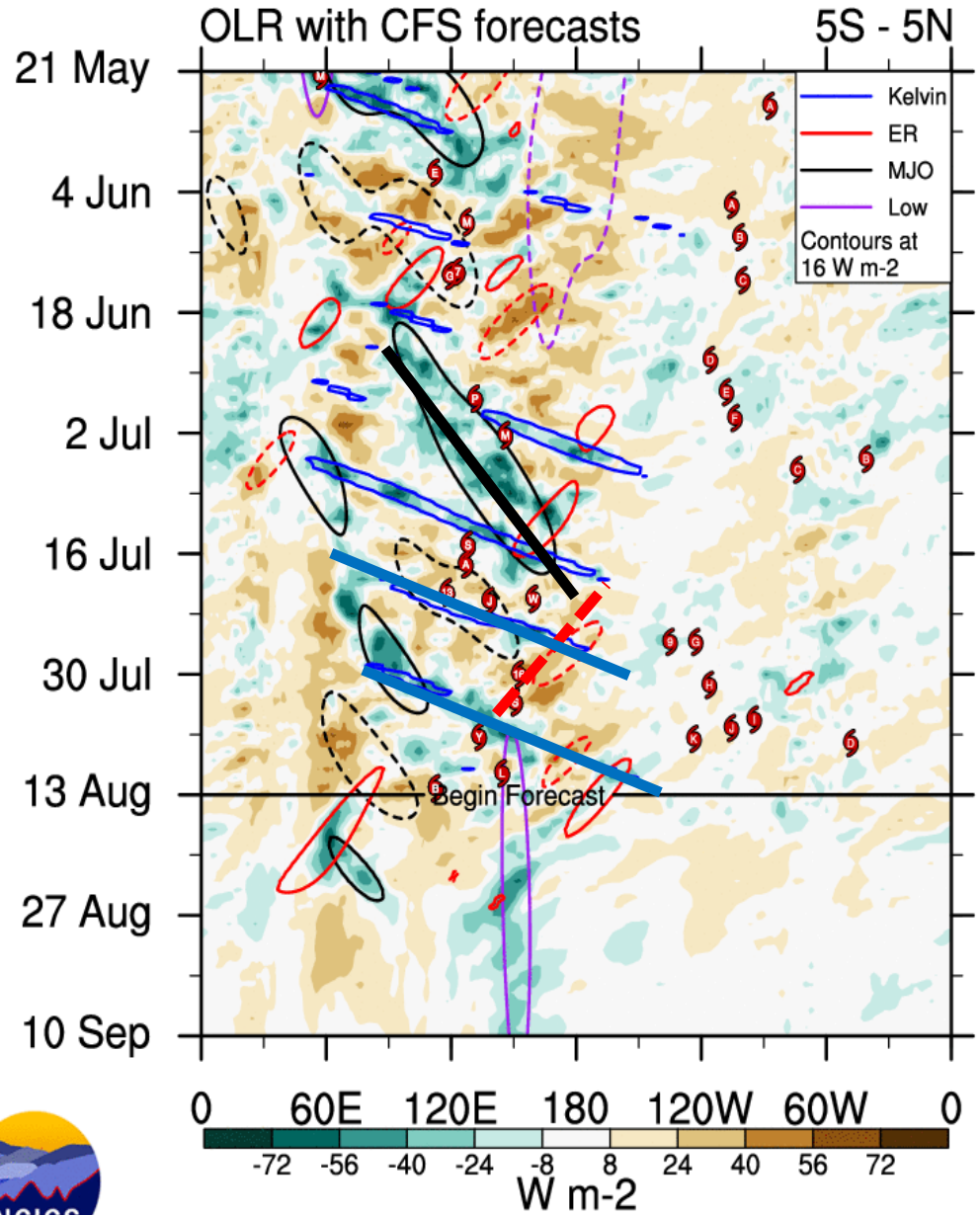
All three models key in on Kelvin wave (and potential westward-moving variability) and develop a stronger signal over the far eastern IO and Maritime Continent during Week-2.

Average Conditions when the MJO is present



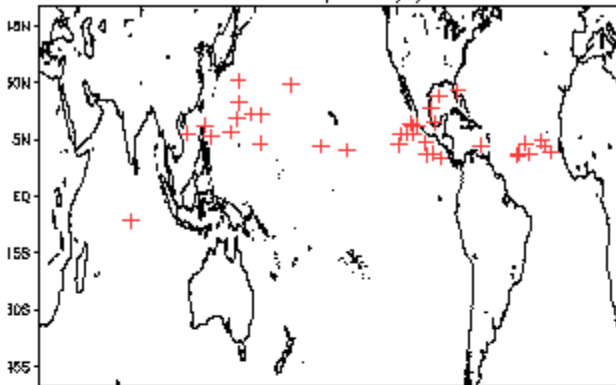
CAVEAT: These panels are representative of robust MJO events.

Kelvin wave evident over East Pacific, as is low-frequency state over West Pacific.

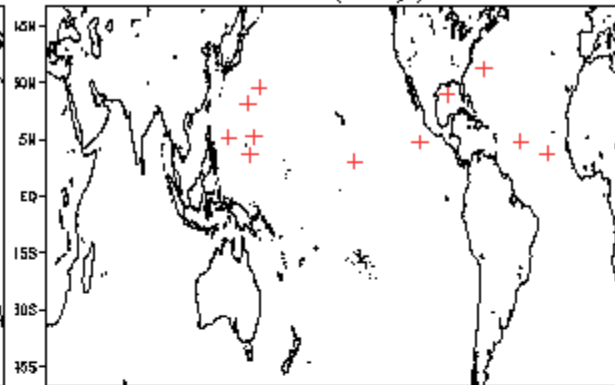


August Tropical Storm Formation by MJO phase

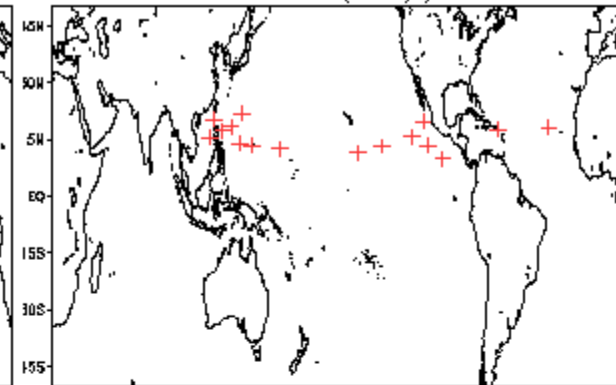
Phase 1 (101 days) 38 storms



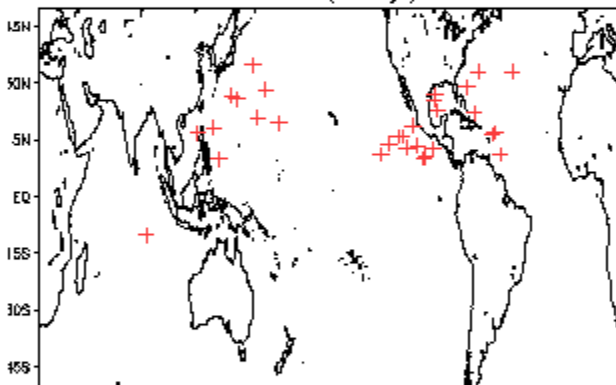
Phase 4 (40 days) 12 storms



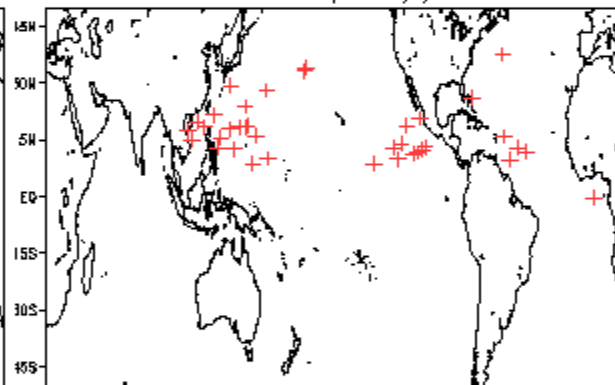
Phase 7 (43 days) 17 storms



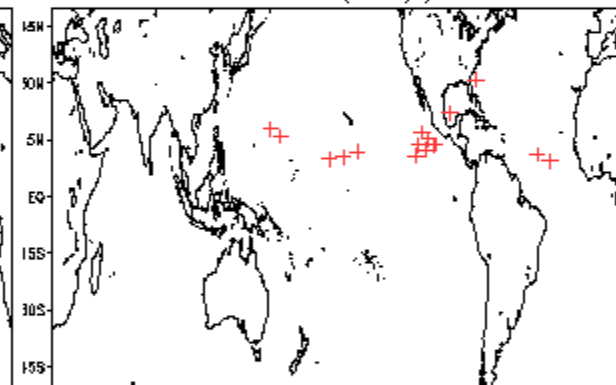
Phase 2 (79 days) 31 storms



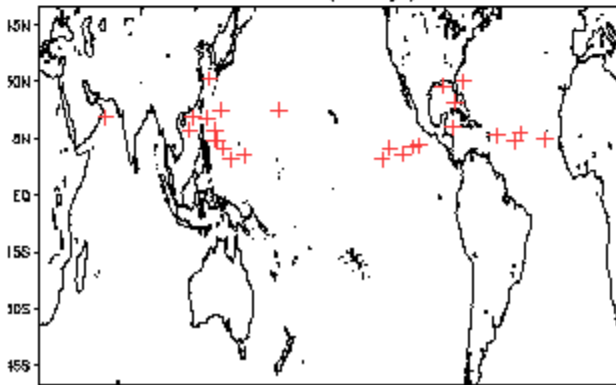
Phase 5 (117 days) 40 storms



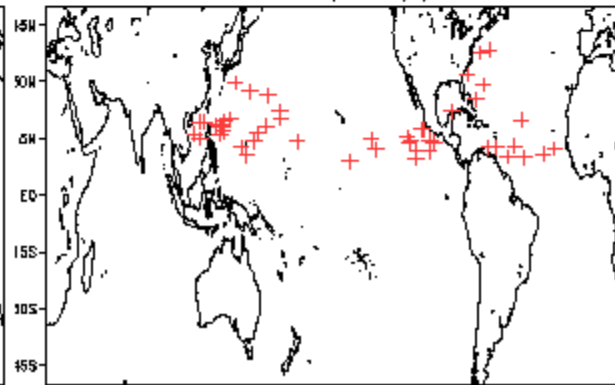
Phase 8 (25 days) 17 storms



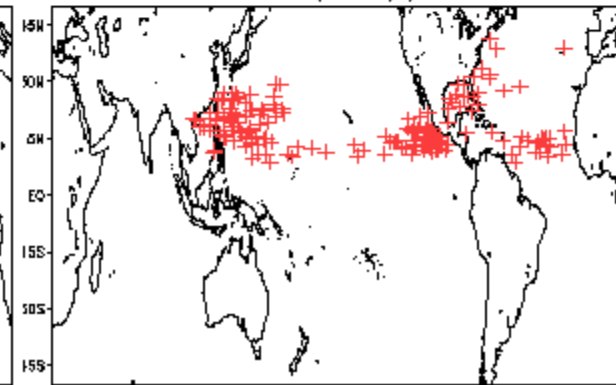
Phase 3 (51 days) 27 storms



Phase 6 (101 days) 50 storms



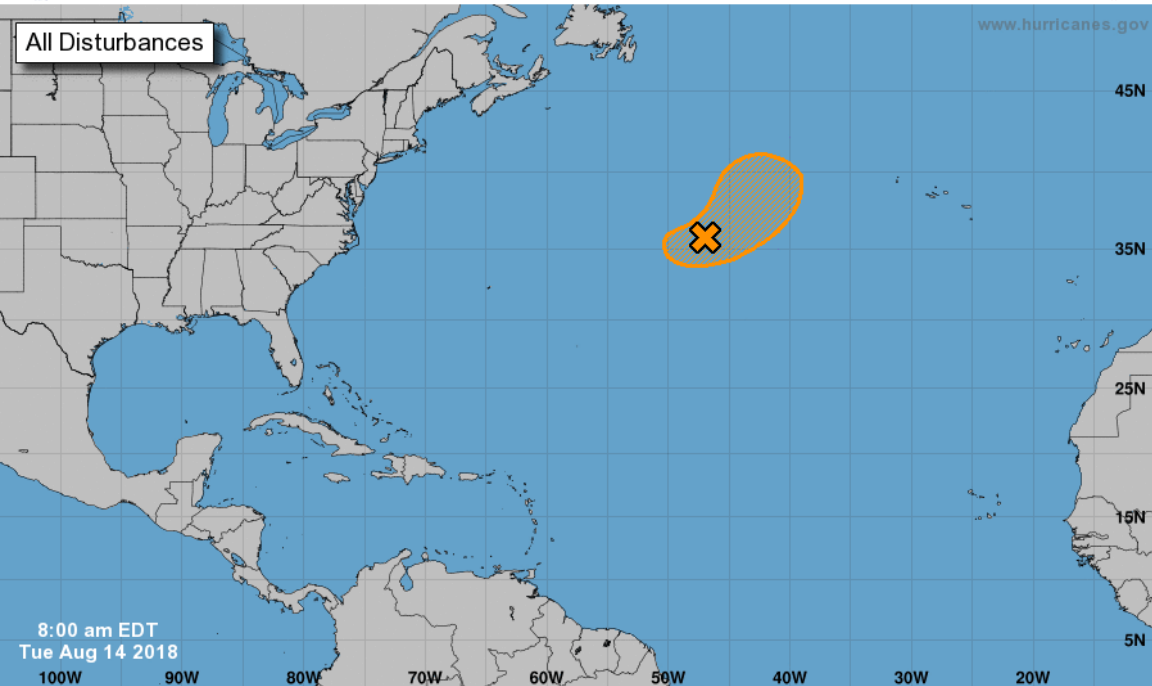
Null (466 days) 189 storms





Five-Day Graphical Tropical Weather Outlook

National Hurricane Center Miami, Florida



www.hurricanes.gov

45N

35N

25N

15N

5N

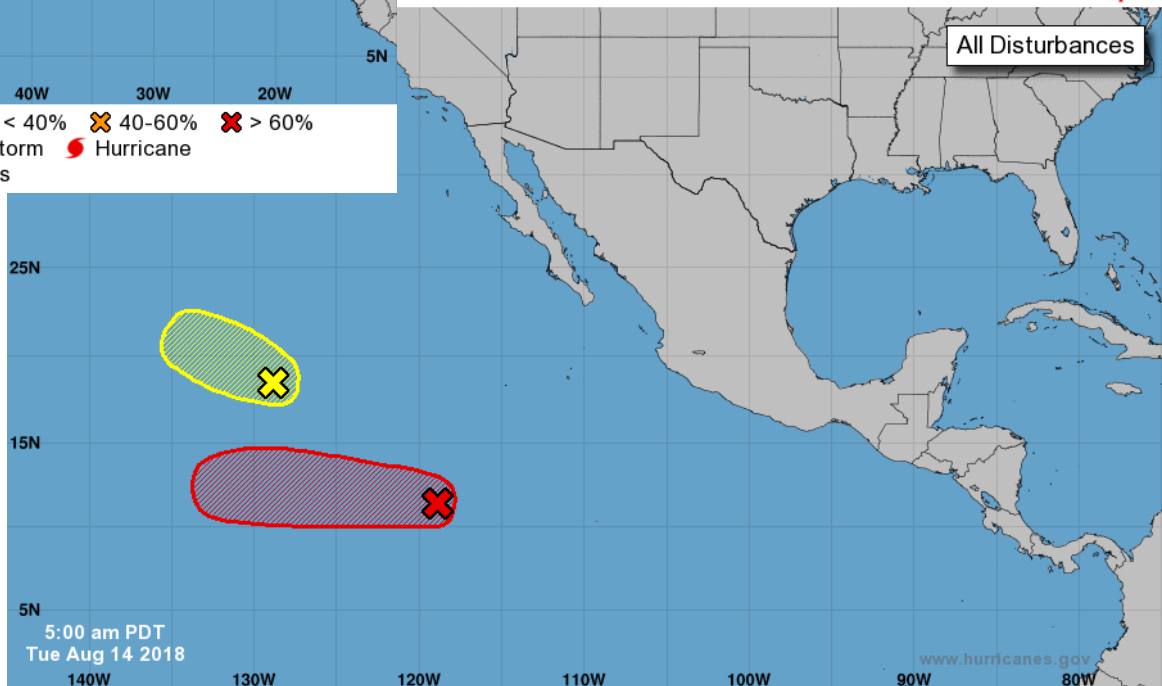
8:00 am EDT
Tue Aug 14 2018

100W 90W 80W 70W 60W 50W 40W 30W 20W

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

25N

15N

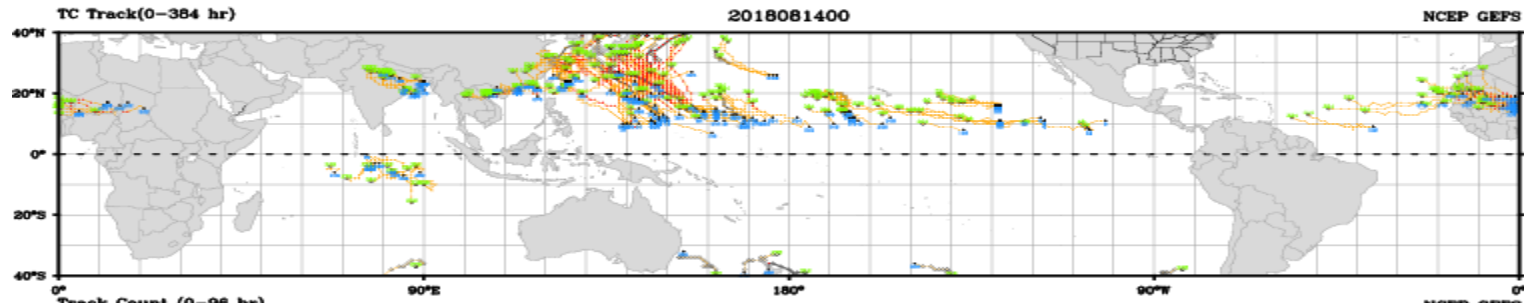
5N

5:00 am PDT
Tue Aug 14 2018

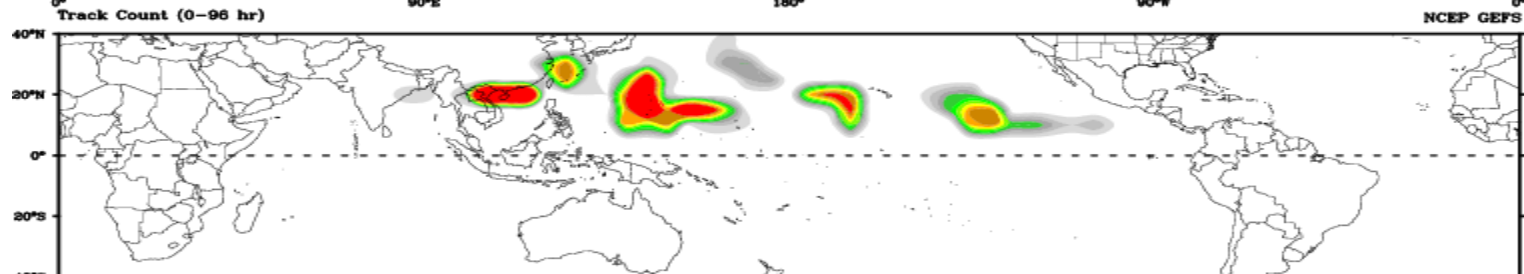
140W 130W 120W 110W 100W 90W 80W

www.hurricanes.gov

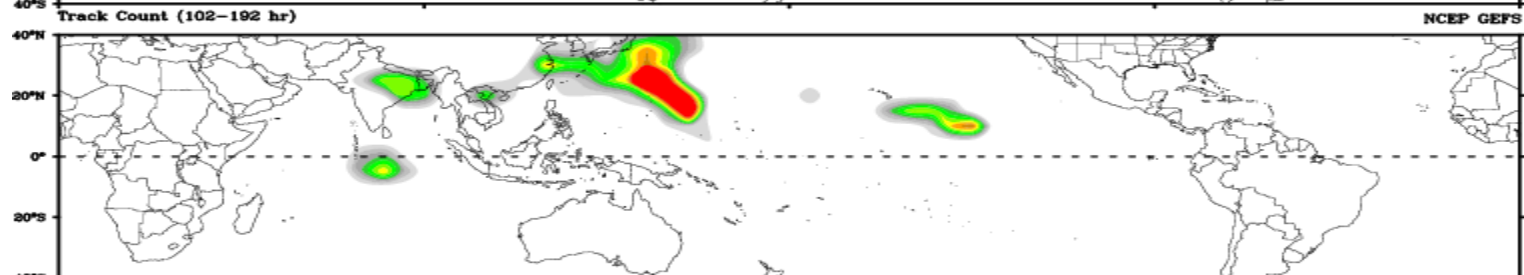
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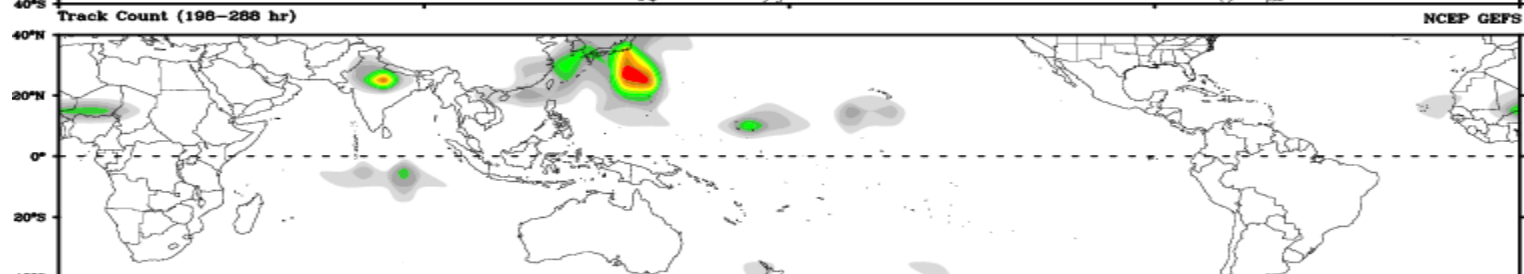
Days 1-4



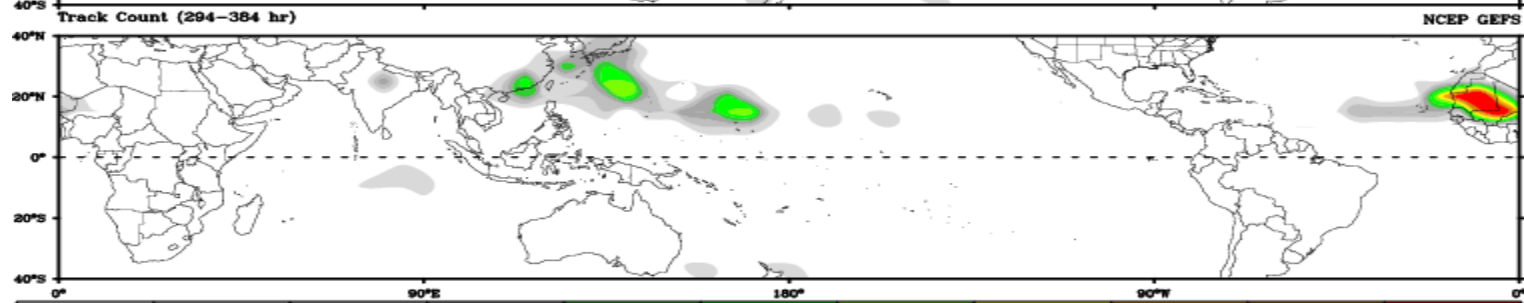
Day 5-8



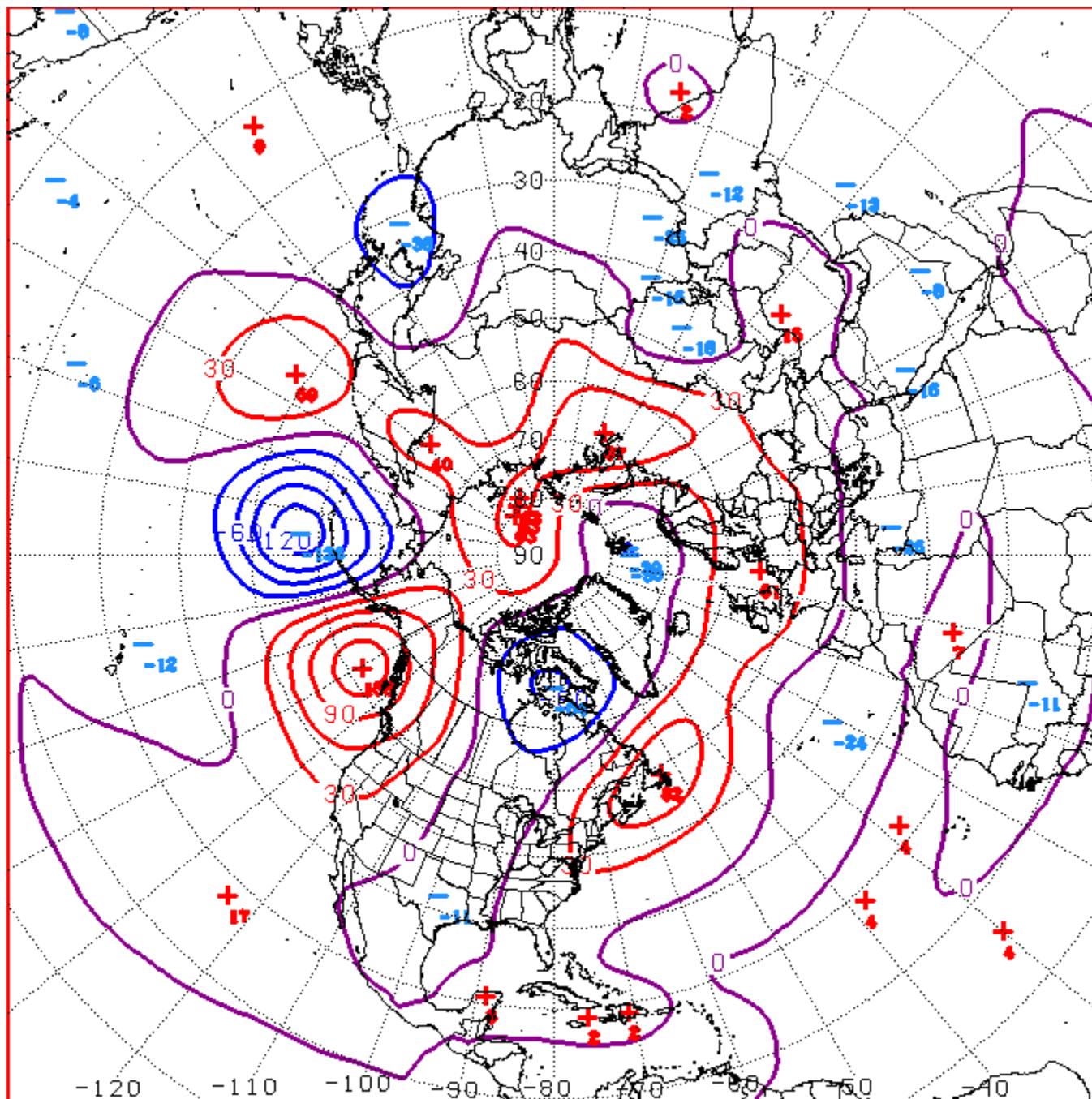
Day 9-12



Day 13-15

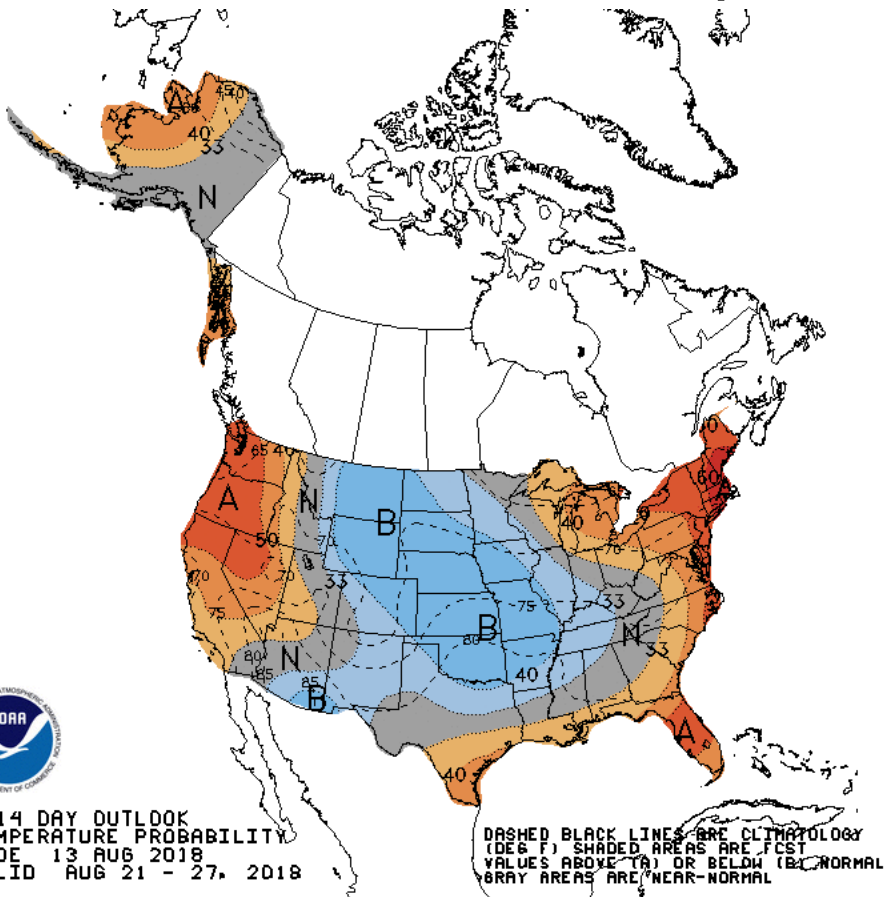


Connections to U.S. Impacts



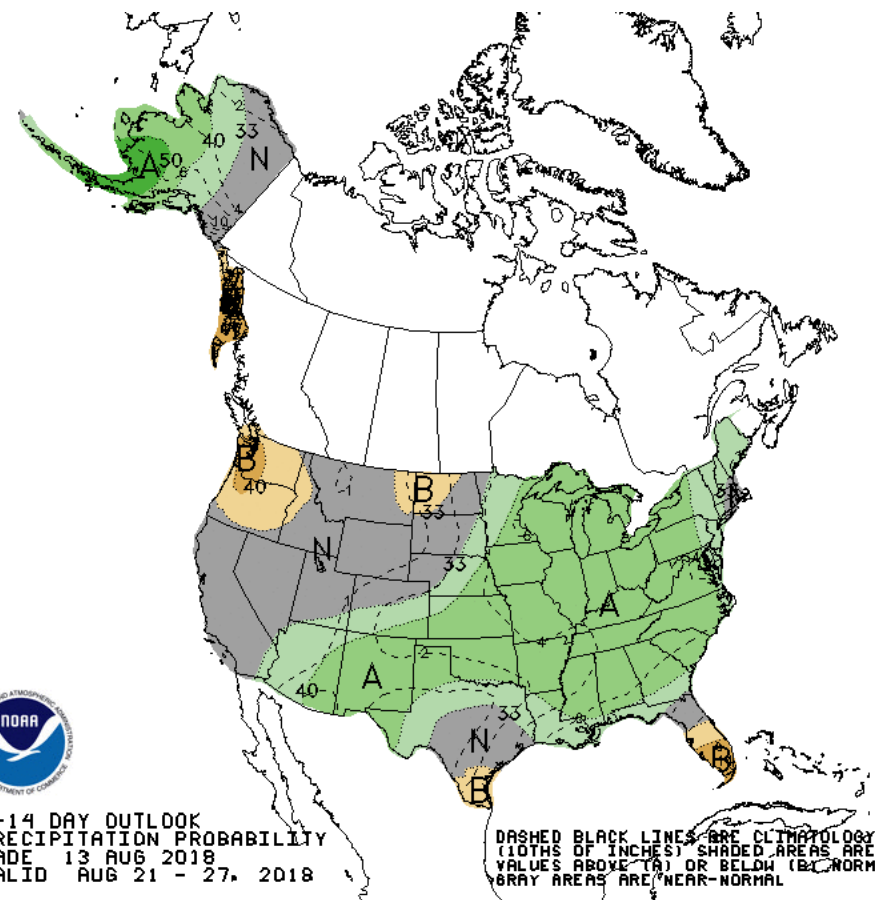
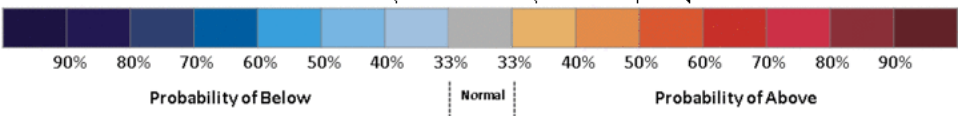
D+11 500 MB ANOMALIES FROM ALZ ENSM
 CPC MAP MADE AUG 14 2018 1316 UTC CNTD AUG 25 2018

Week 2 – Temperature and Precipitation



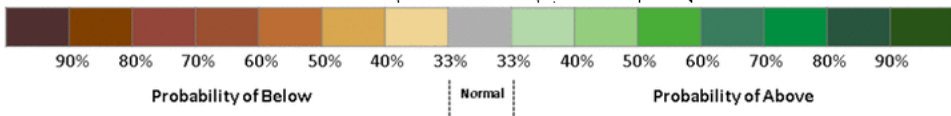
8-14 DAY OUTLOOK
TEMPERATURE PROBABILITY
MADE 13 AUG 2018
VALID AUG 21 - 27, 2018

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 13 AUG 2018
VALID AUG 21 - 27, 2018

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

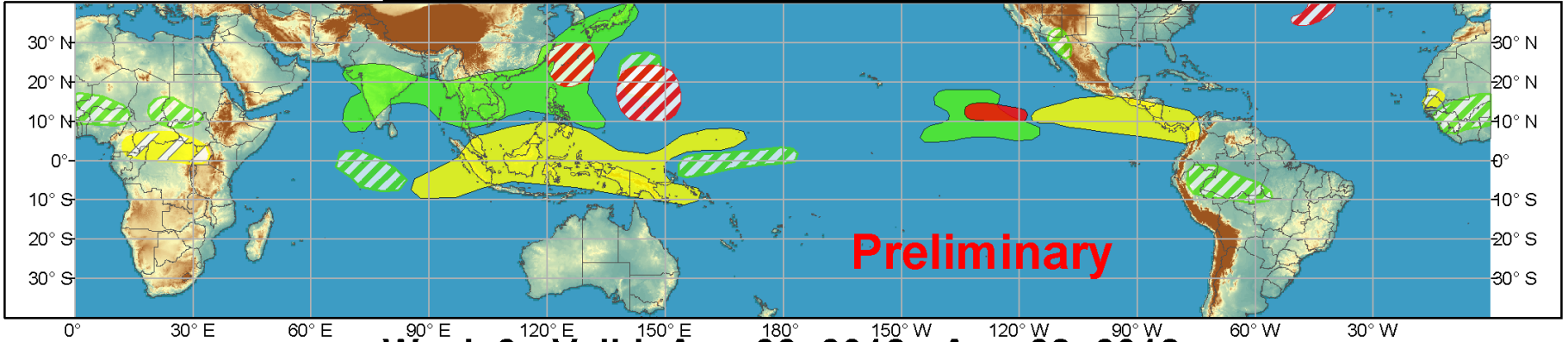




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