

Global Tropics Hazards And Benefits Outlook

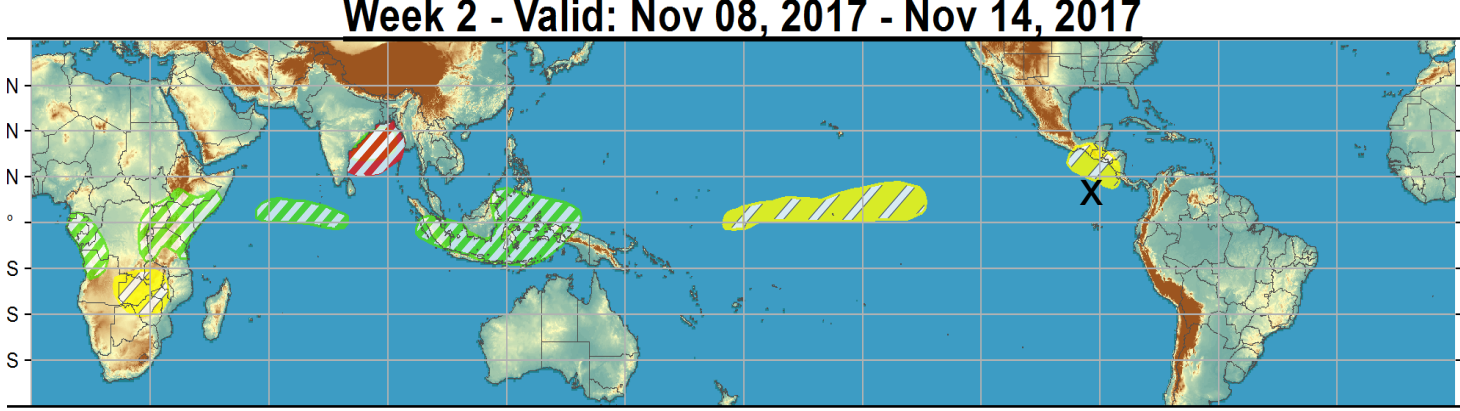
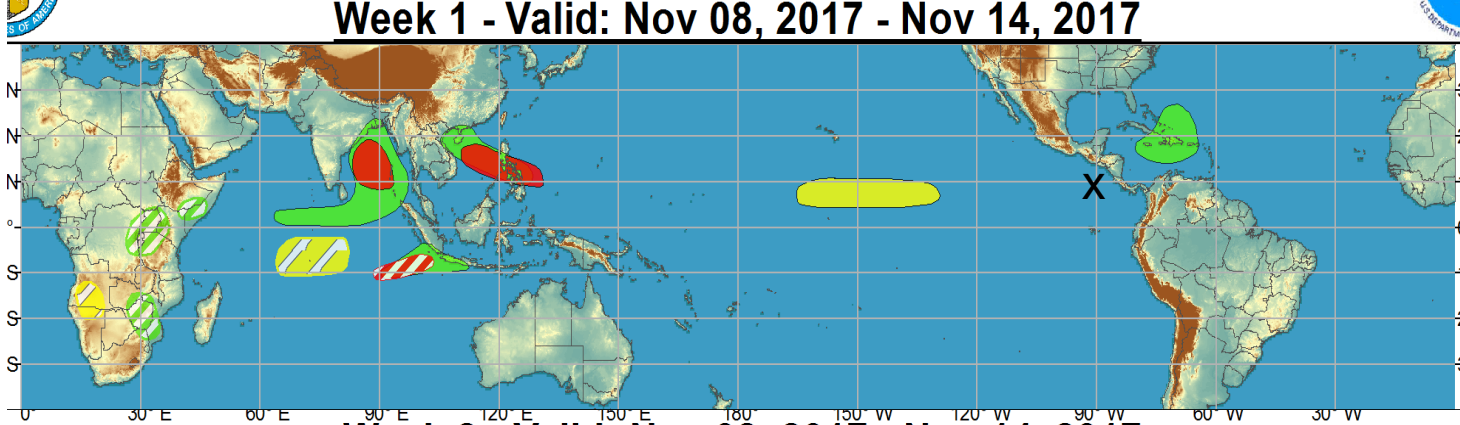
11/14/2017

Matthew Rosencrans

Outline

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

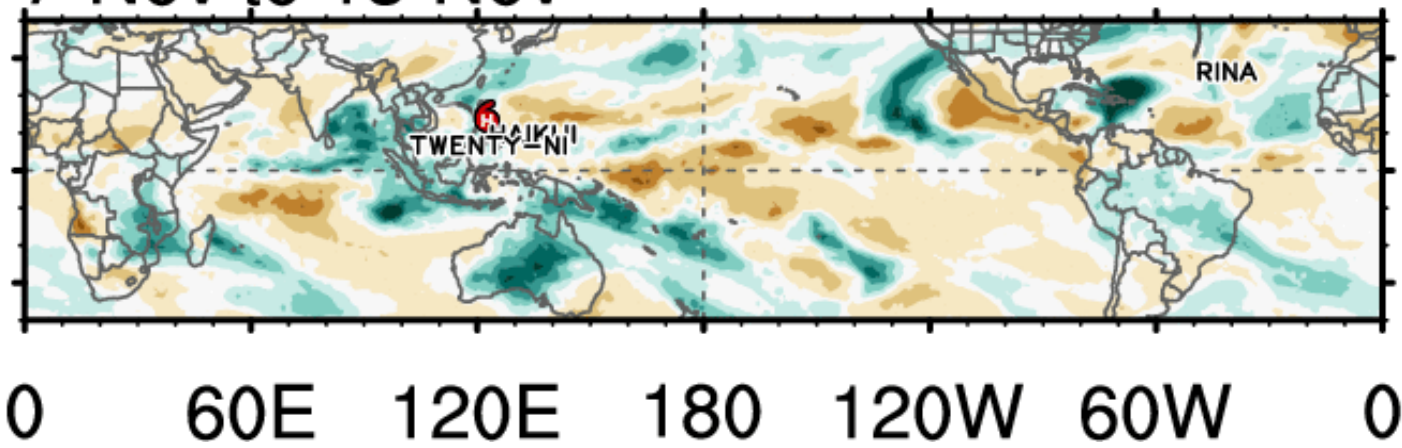
Outlook Review



7-Nov to 13-Nov

Cool shading
More clouds/rain

Warm shading
Less clouds/rain



Synopsis of Climate Modes

ENSO:

- [La Niña Advisory](#)
- **La Niña conditions are predicted to continue (~65-75% chance) at least through the Northern Hemisphere winter 2017-18.**

MJO and other subseasonal tropical variability:

- The MJO remained weak. Dynamical models and most statistical tools indicate a continued weak signal through Week-2.
- Therefore, the dominant signals in tropical rainfall are expected to be La Nina, tropical cyclones, and faster moving atmospheric waves.

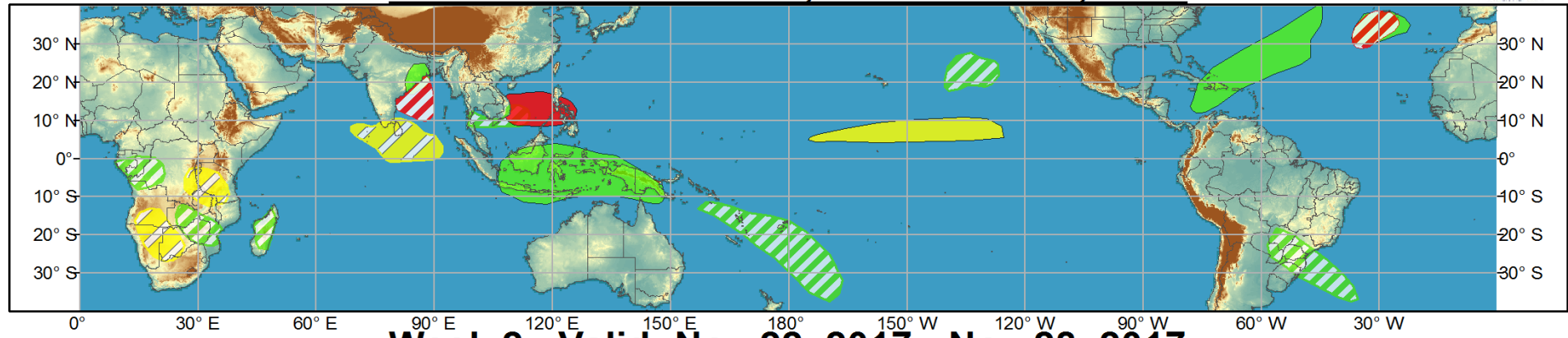
Extratropics:

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

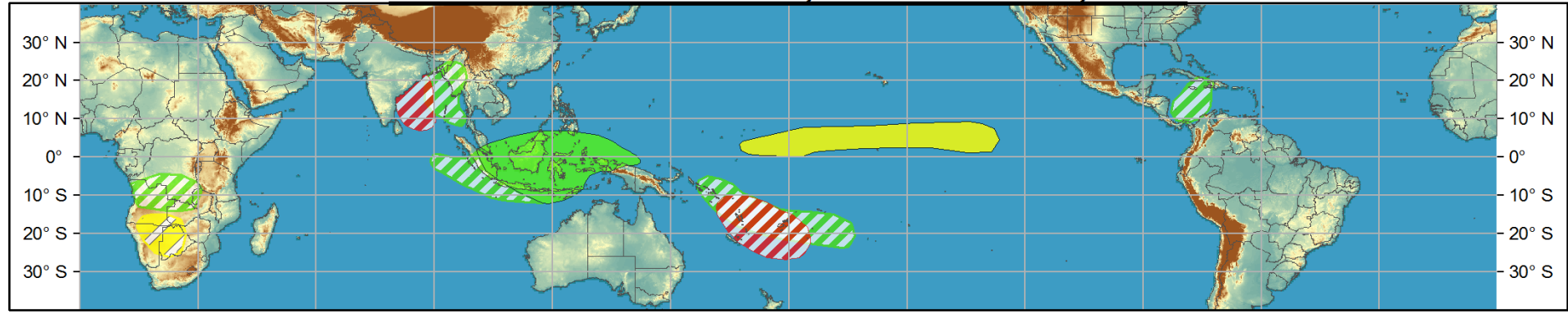


Global Tropics Hazards and Benefits Outlook - Climate Prediction Center

Week 1 - Valid: Nov 15, 2017 - Nov 21, 2017



Week 2 - Valid: Nov 22, 2017 - Nov 28, 2017



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.
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- Above-normal temperatures** 7-day mean temperatures in the upper third of the historical range.
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Forecaster: Rosencrans/Finan

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IR Satellite & 200-hpa Velocity Potential Anomalies

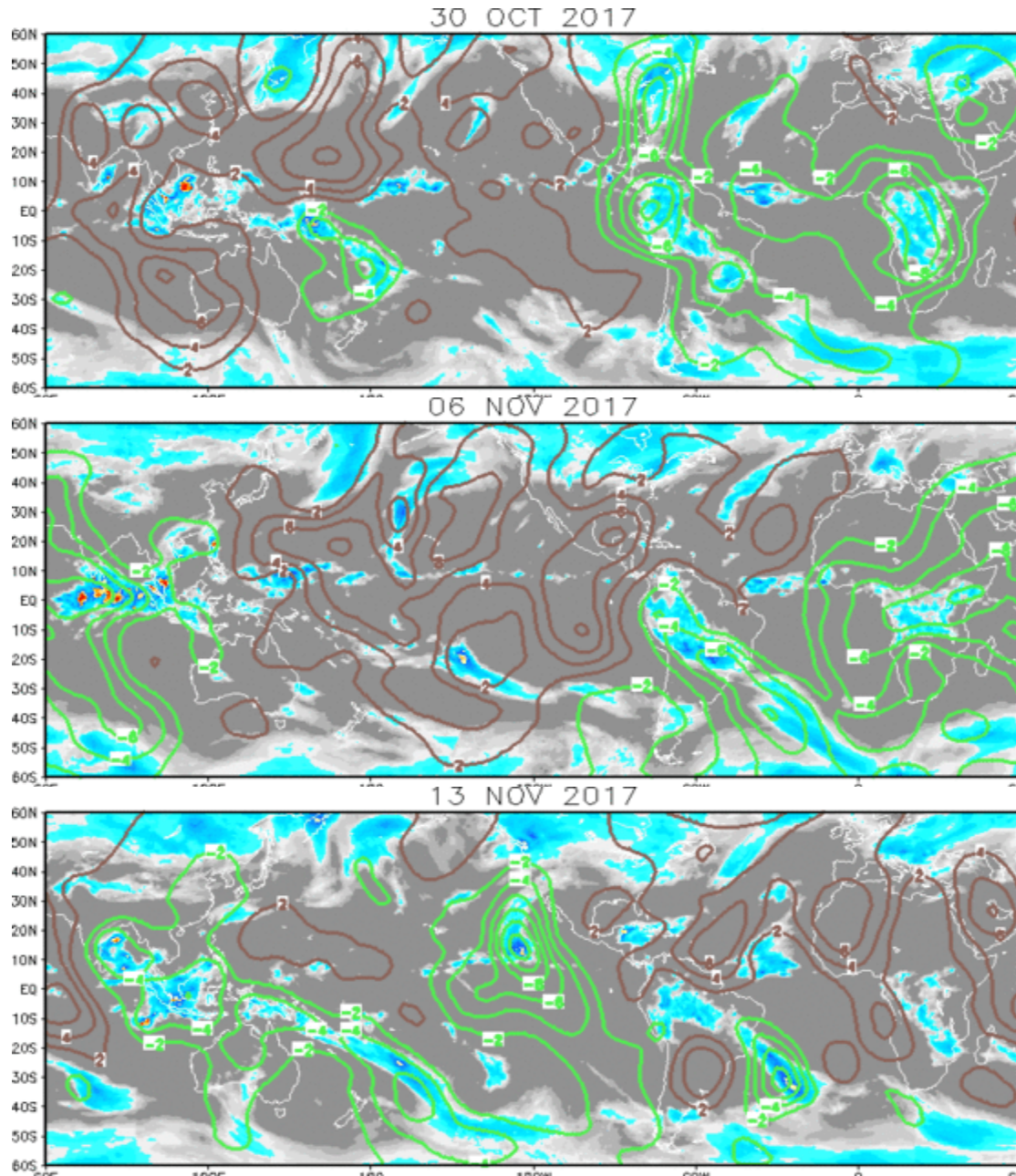
Green: Enhanced Divergence

Brown: Enhanced Convergence

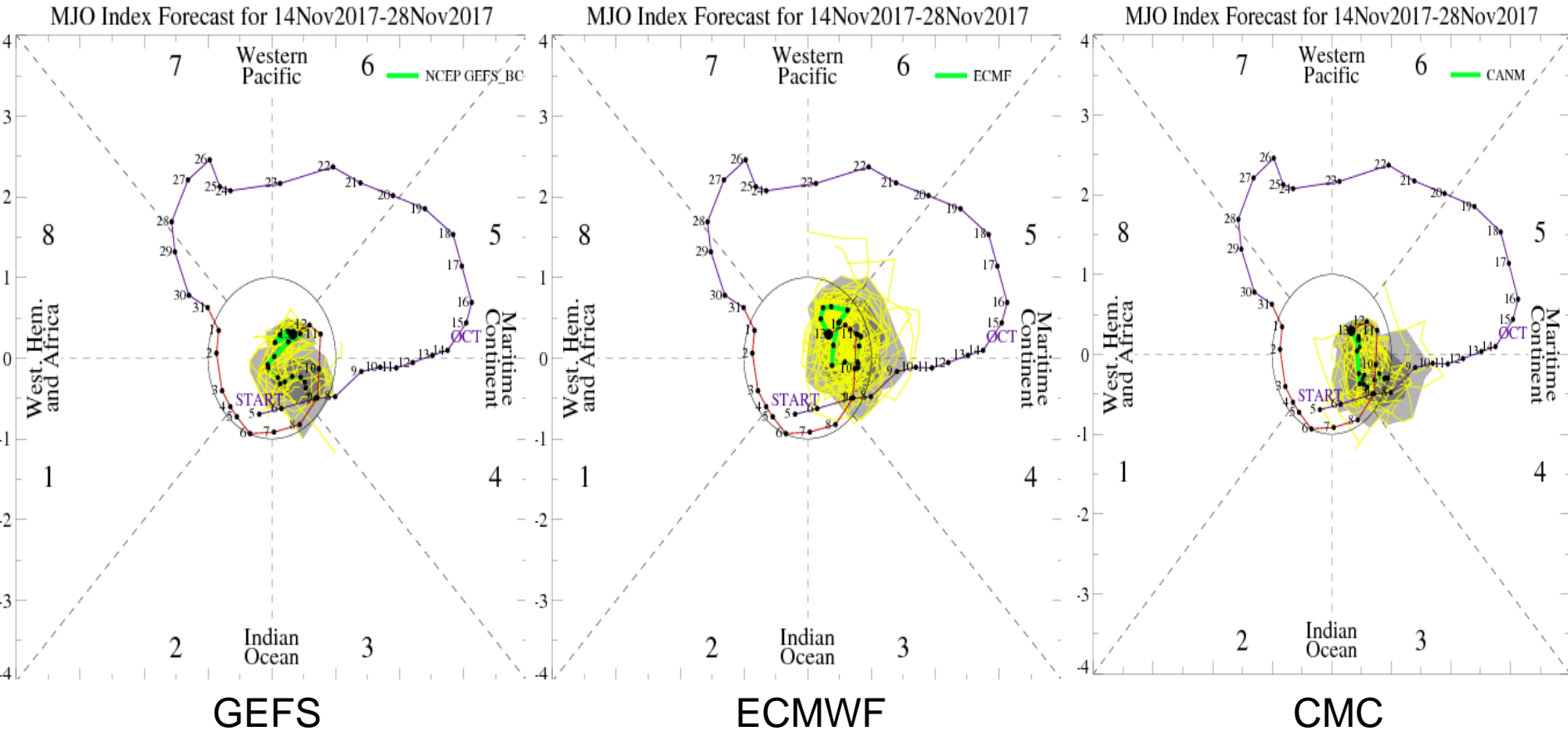
Wave-1, though some noise over the Maritime Continent.

Wave-1, though some noise over South America, likely from a higher frequency/faster wave.

Not coherent with MJO activity.

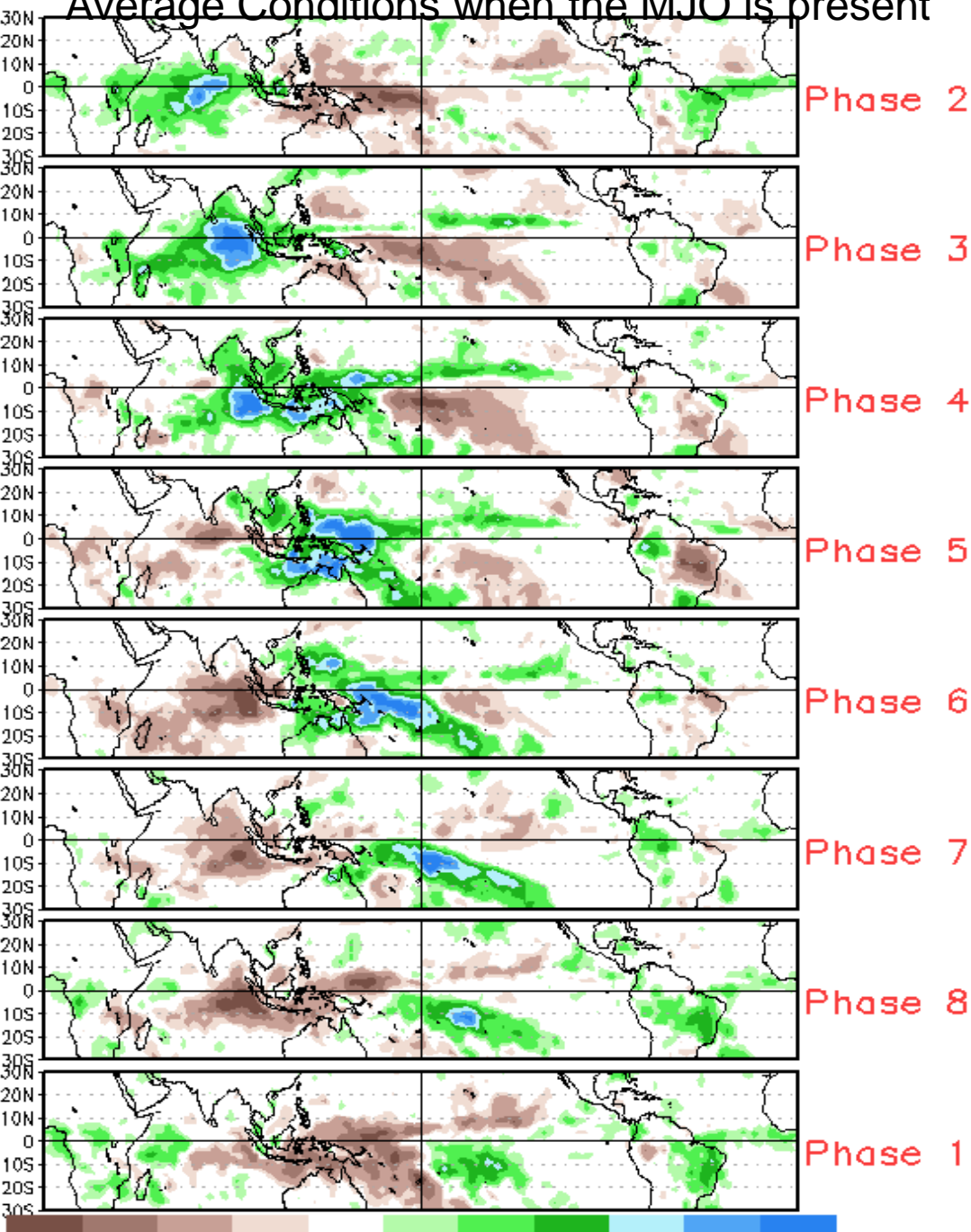


MJO Observation/Forecast

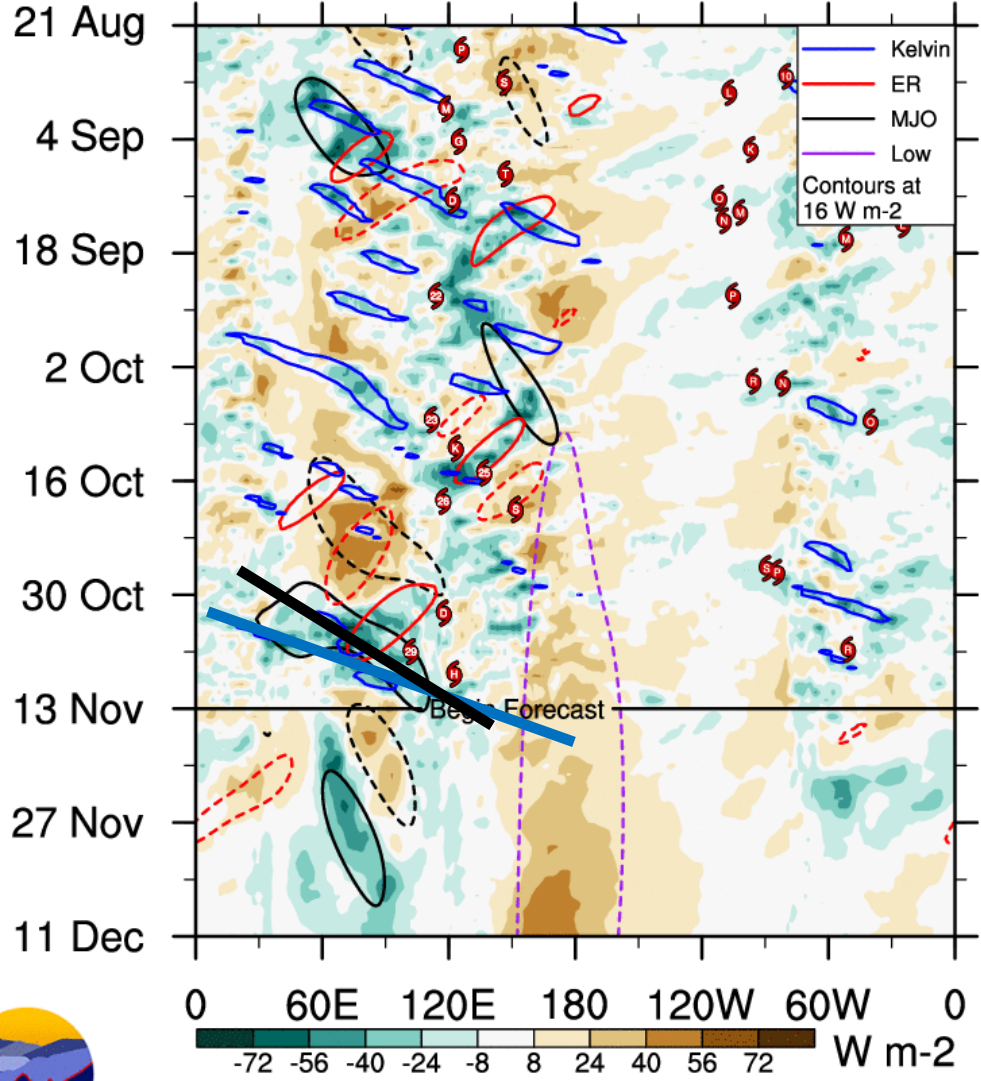


Wheeler-Hendon based analyses of model forecasts indicated little to no signal in the next 2 weeks.

Average Conditions when the MJO is present



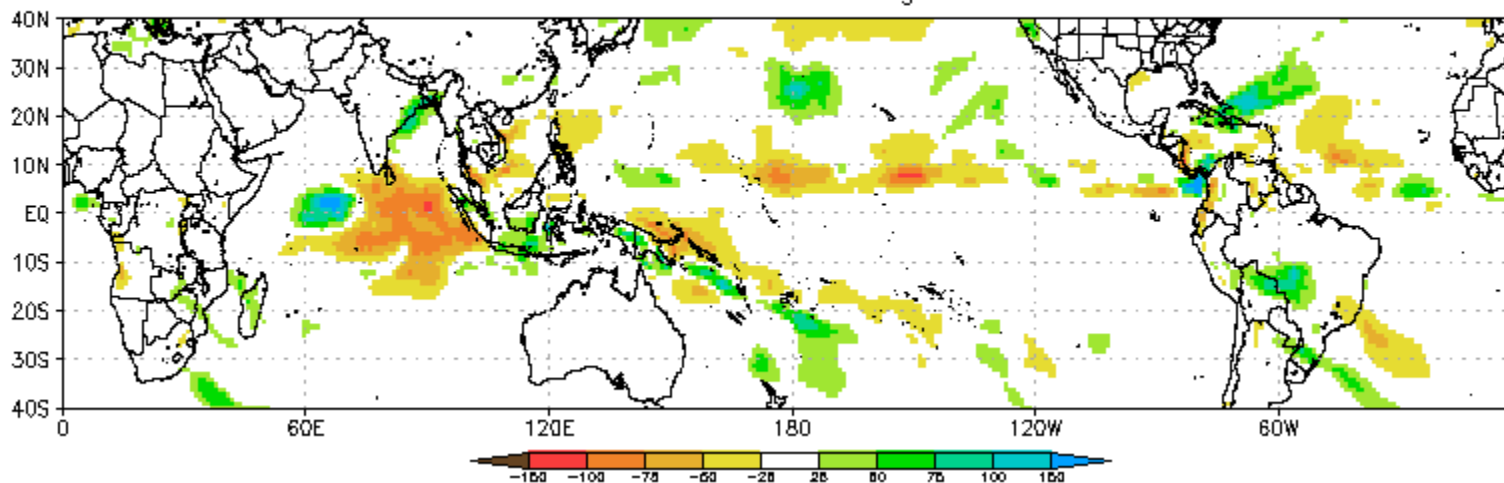
CAVEAT: These panels are representative of robust MJO events.



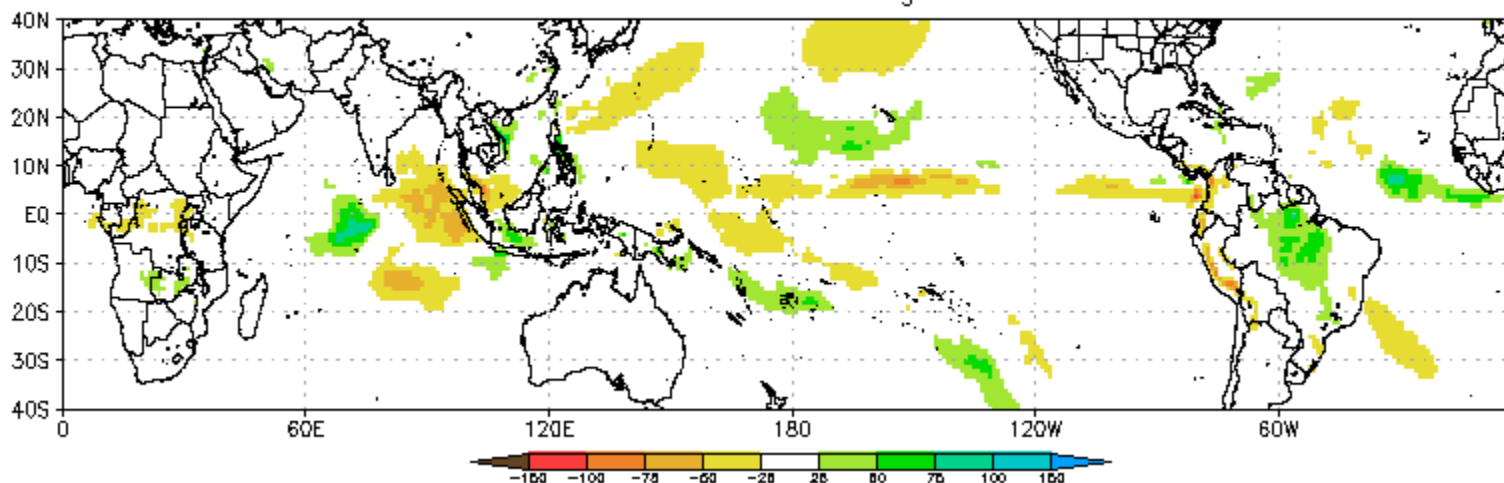
Low-frequency pattern, MJO, and Kelvin wave having an influence.



CFS Precipitation Anomalies (mm) Issued 13Nov2017
Week-1 Forecast Ending 21Nov2017



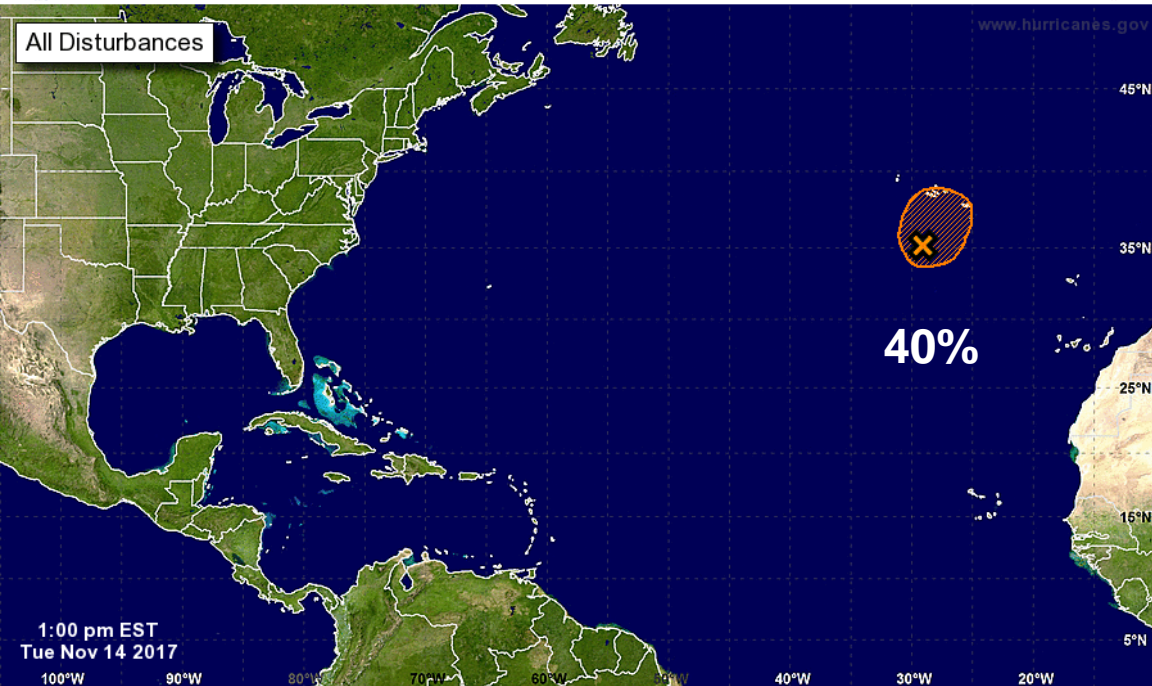
CFS Precipitation Anomalies (mm) Issued 13Nov2017
Week-2 Forecast Ending 28Nov2017





Five-Day Graphical Tropical Weather Outlook

National Hurricane Center Miami, Florida



1:00 pm EST
Tue Nov 14 2017

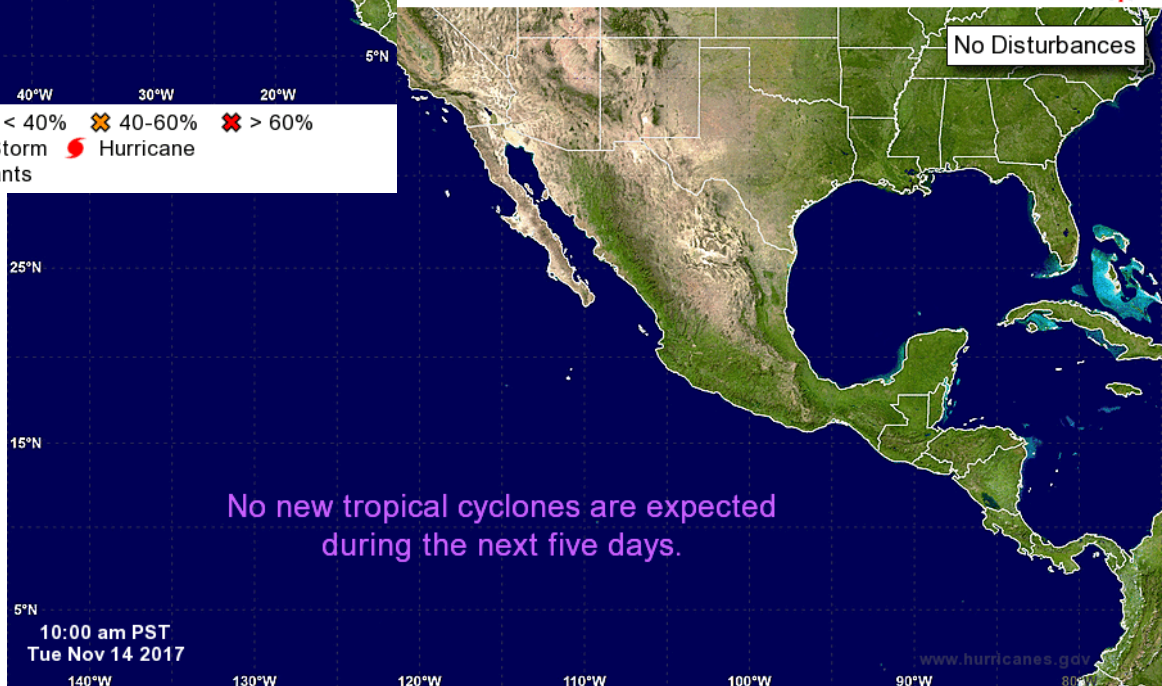
Current Disturbances and Five-Day Cyclone Formation Chance: < 40% 40-60% > 60%

Tropical or Sub-Tropical Cyclone: Depression Storm Hurricane

Post-Tropical Cyclone Remnants

Graphical Tropical Weather Outlook

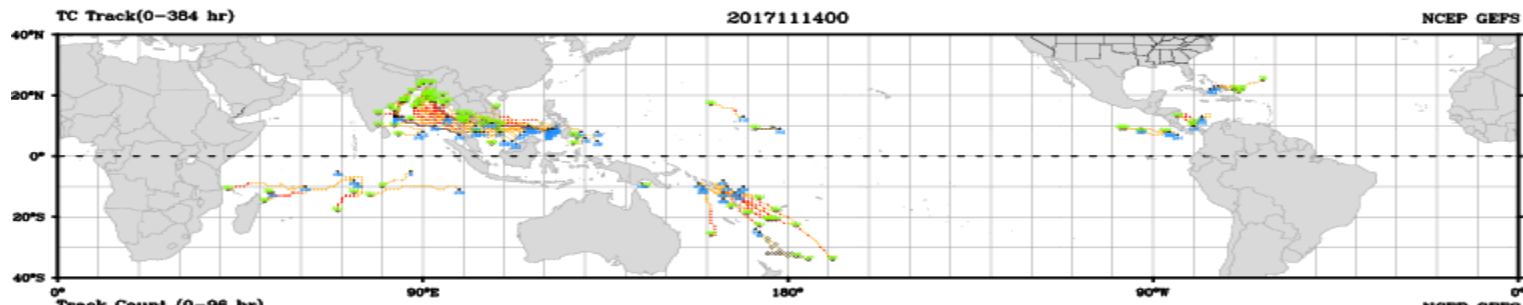
National Hurricane Center Miami, Florida



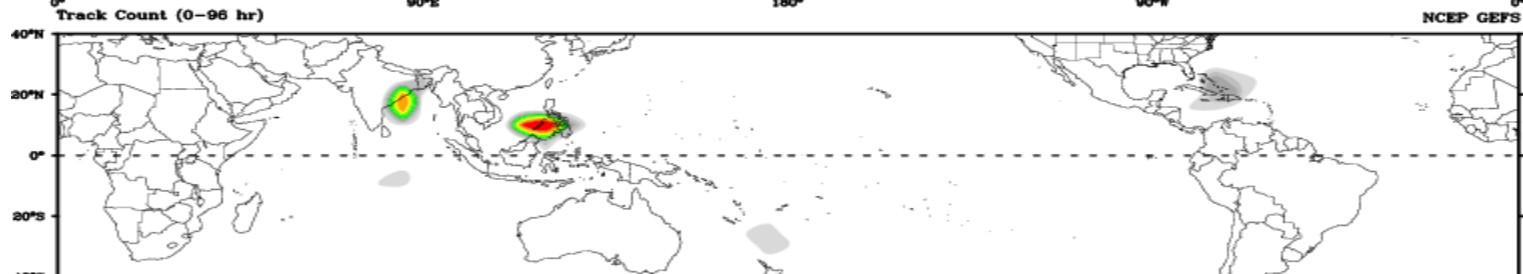
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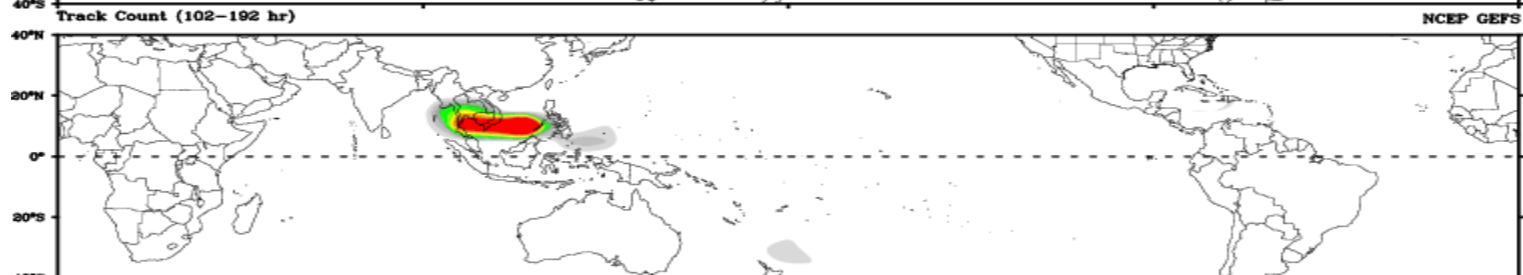
Post-Tropical Cyclone Remnants



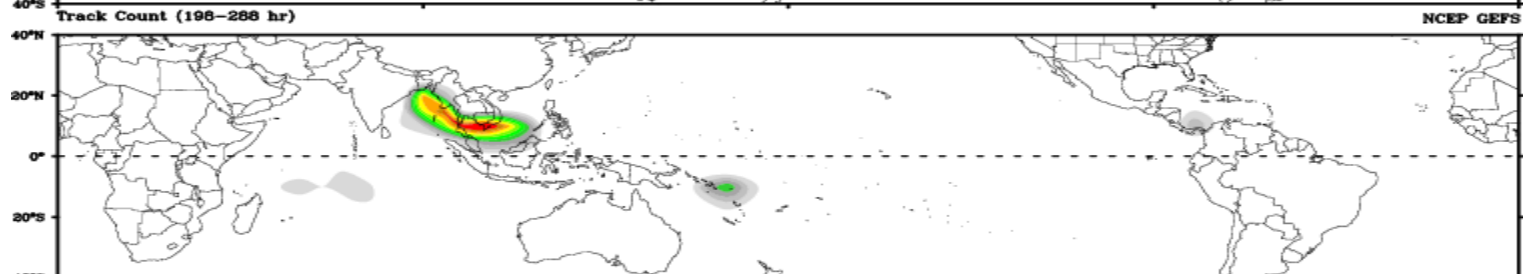
Days 1-4



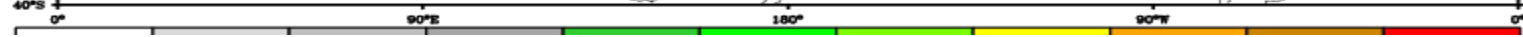
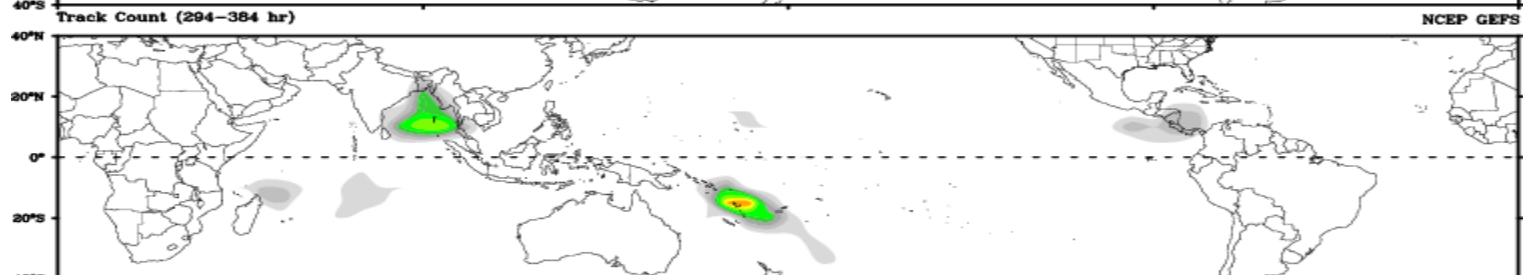
Day 5-8



Day 9-12

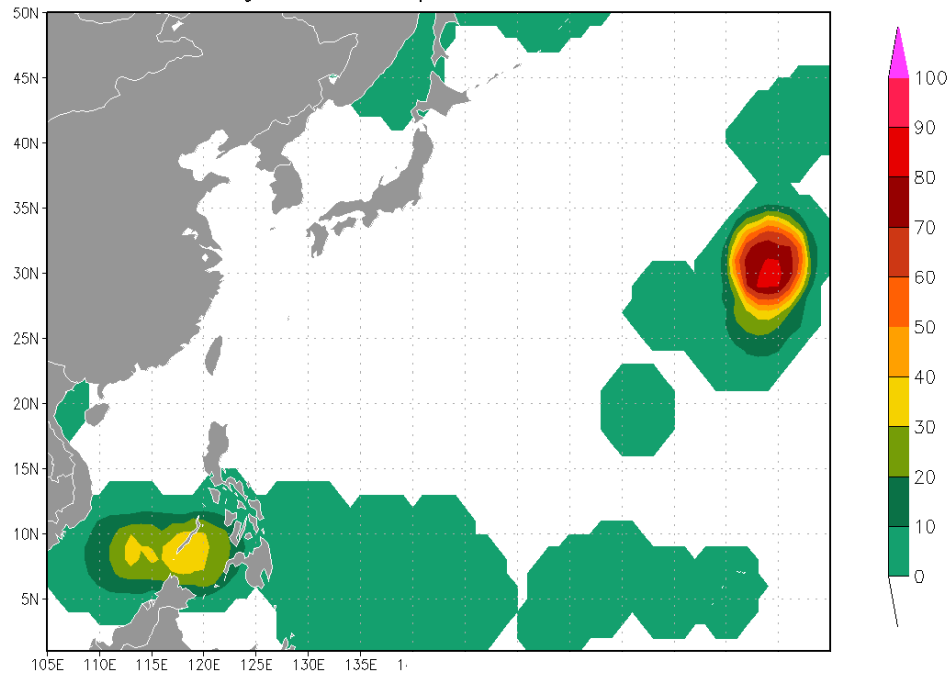


Day 13-15

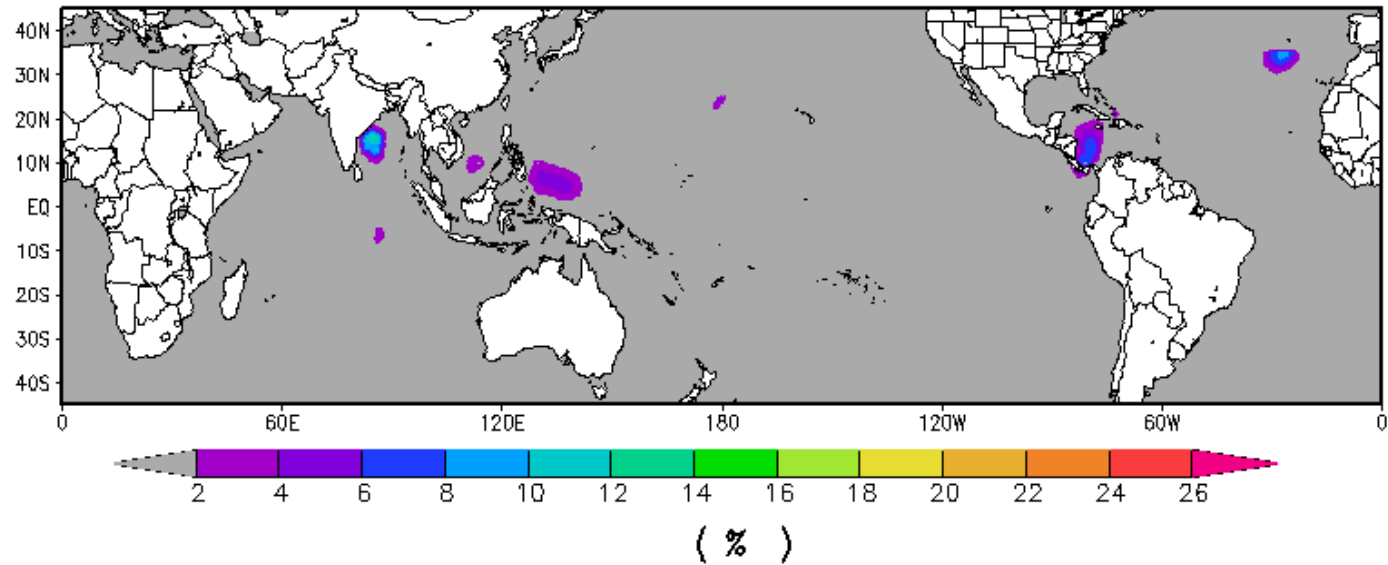


Ensemble-based Probability (%) of TC genesis
using these global ensembles: NCEP CMC ECMWF

For forecasts during the 00–120h period from initial time = 2017111400

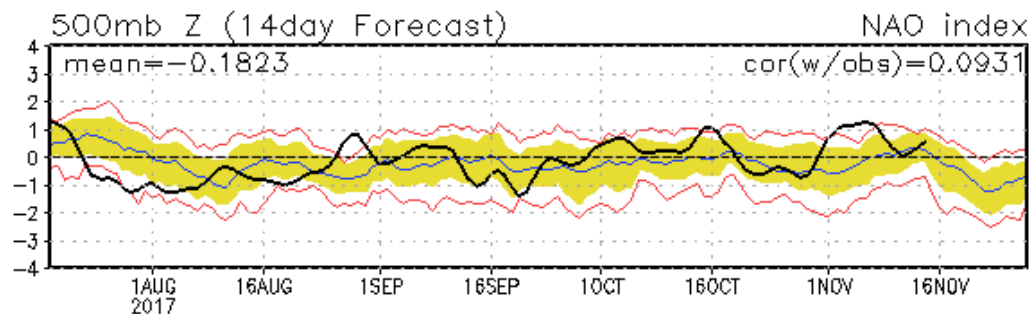
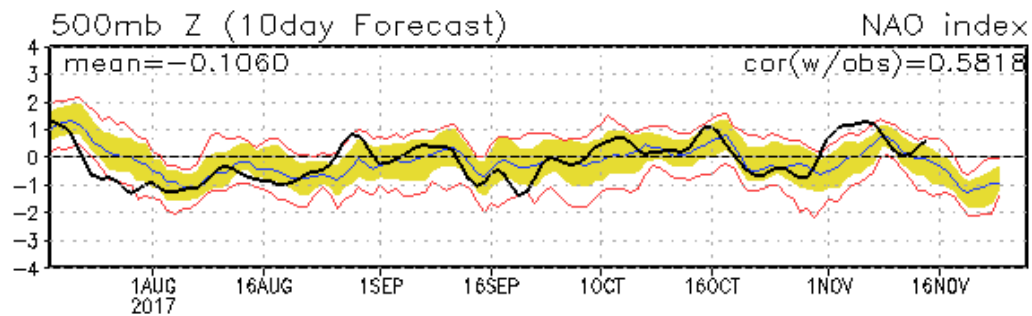
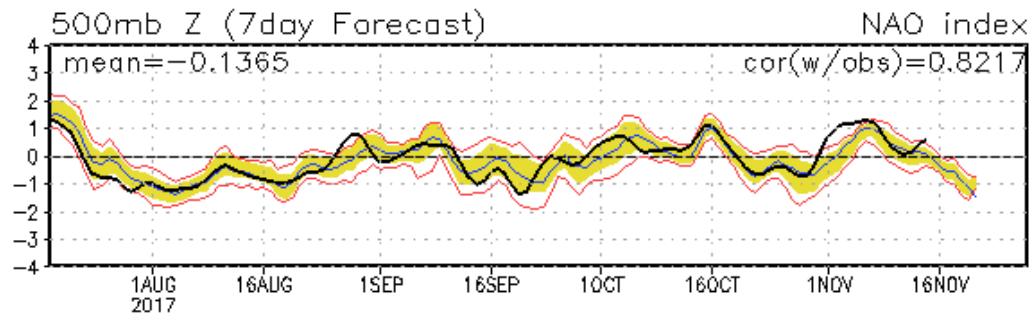
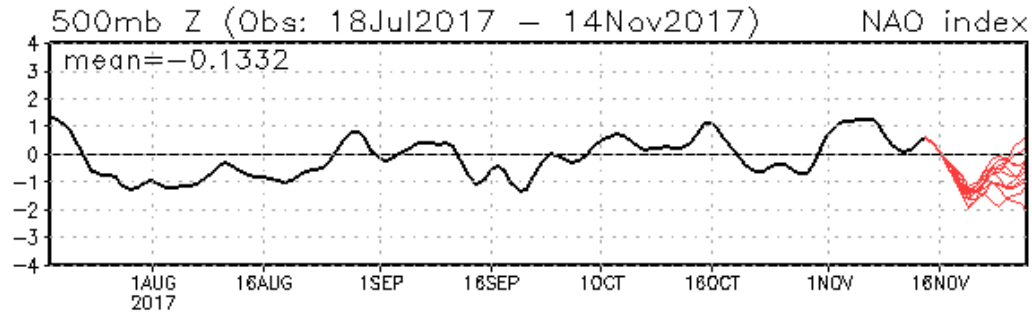


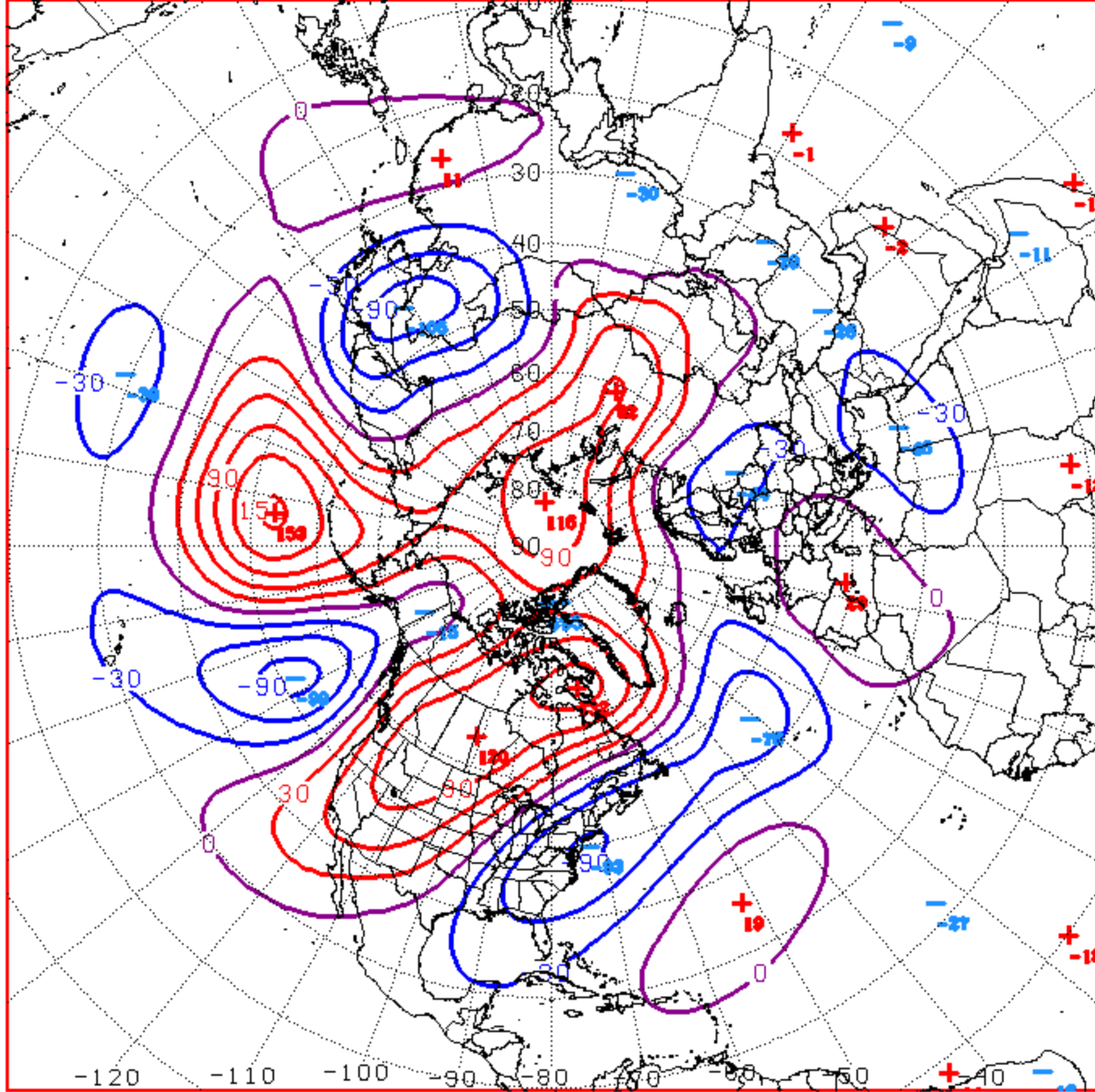
14 NOV 2017 06Z, 0 to 48 hr CURR TCFP



Connections to U.S. Impacts

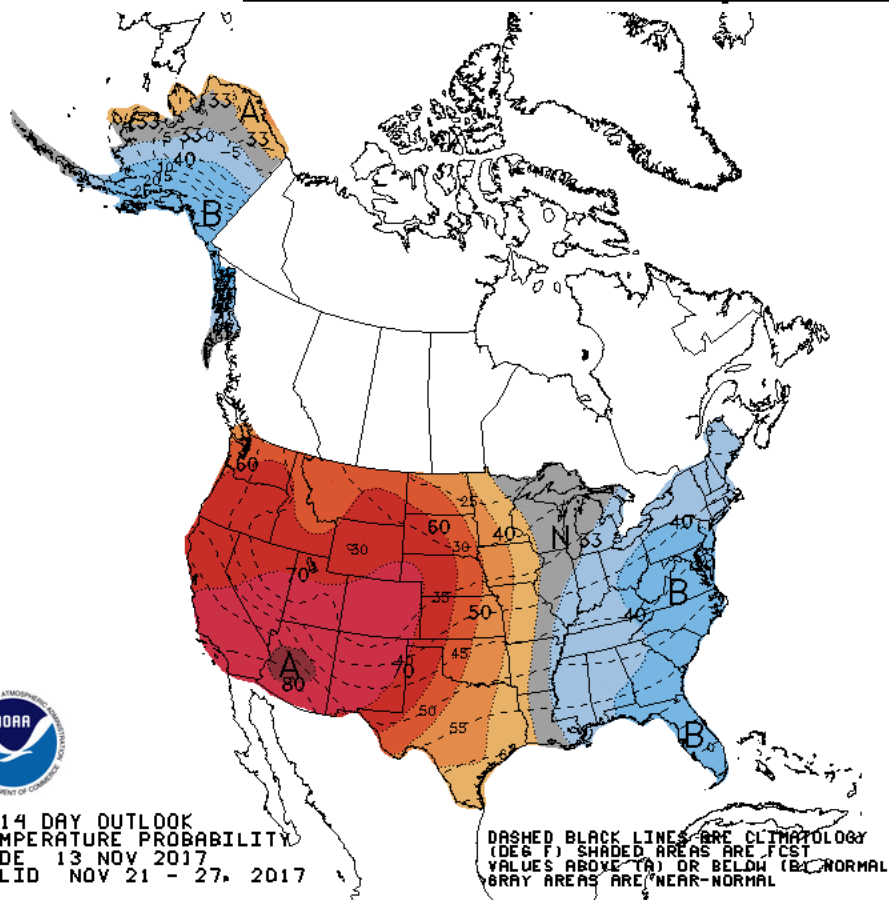
NAO: Observed & ENSM forecasts





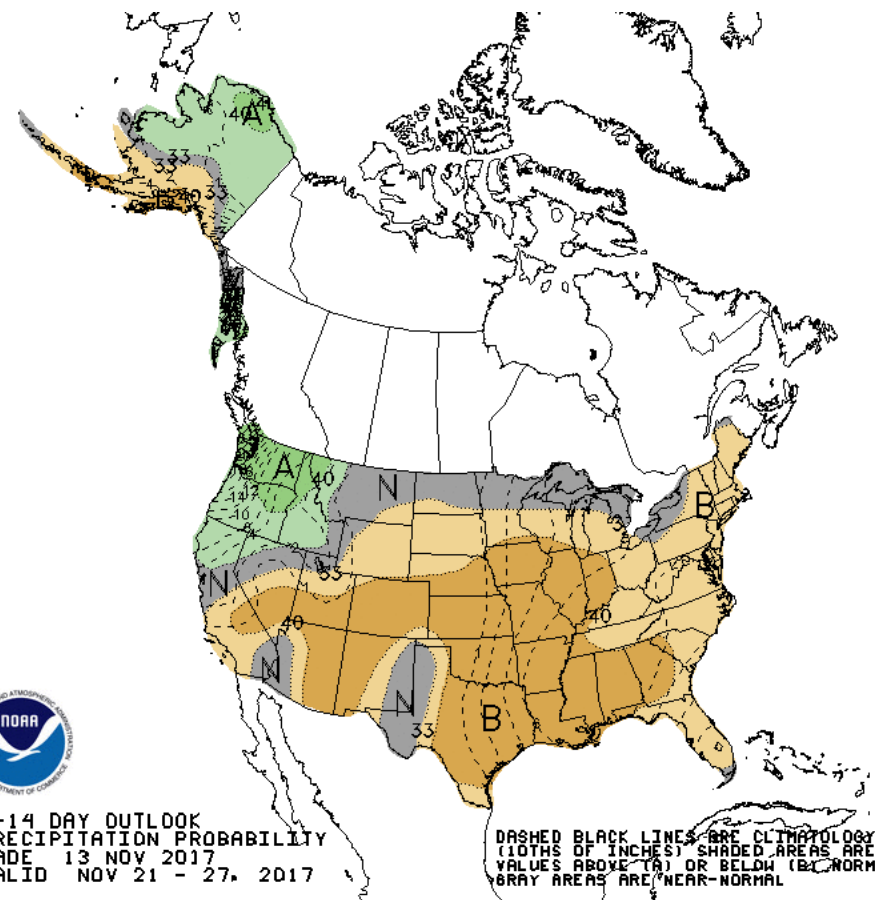
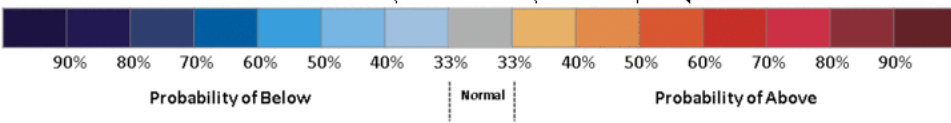
D+11 500 MB ANOMALIES FROM ALZ ENSM
 CPC MAP MADE NOV 14 2017 1325 UTC CNTD NOV 25 2017

Week 2 – Temperature and Precipitation



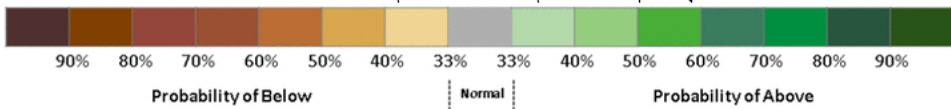
8-14 DAY OUTLOOK
TEMPERATURE PROBABILITY
MADE 13 NOV 2017
VALID NOV 21 - 27, 2017

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 13 NOV 2017
VALID NOV 21 - 27, 2017

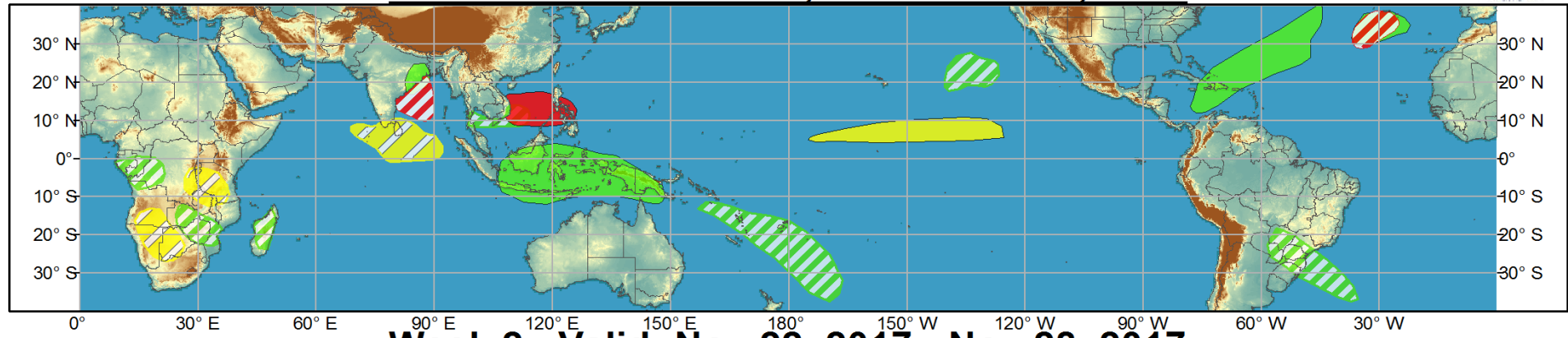
DASHED BLACK LINES ARE CLIMATOLOGY (10THS OF INCHES). SHADED AREAS ARE FCST VALUES ABOVE (A) OR BELOW (B) NORMAL. GRAY AREAS ARE NEAR-NORMAL.



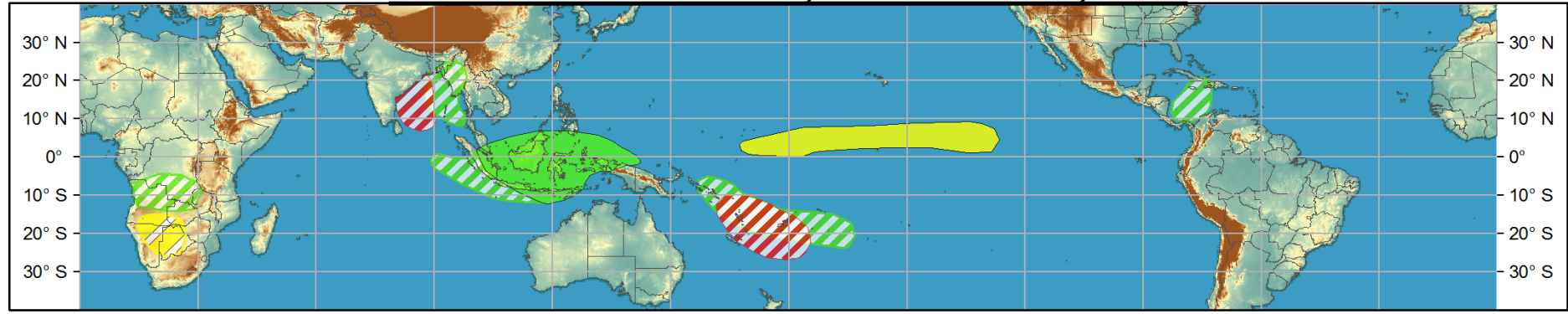


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