

Global Tropics Hazards And Benefits Outlook

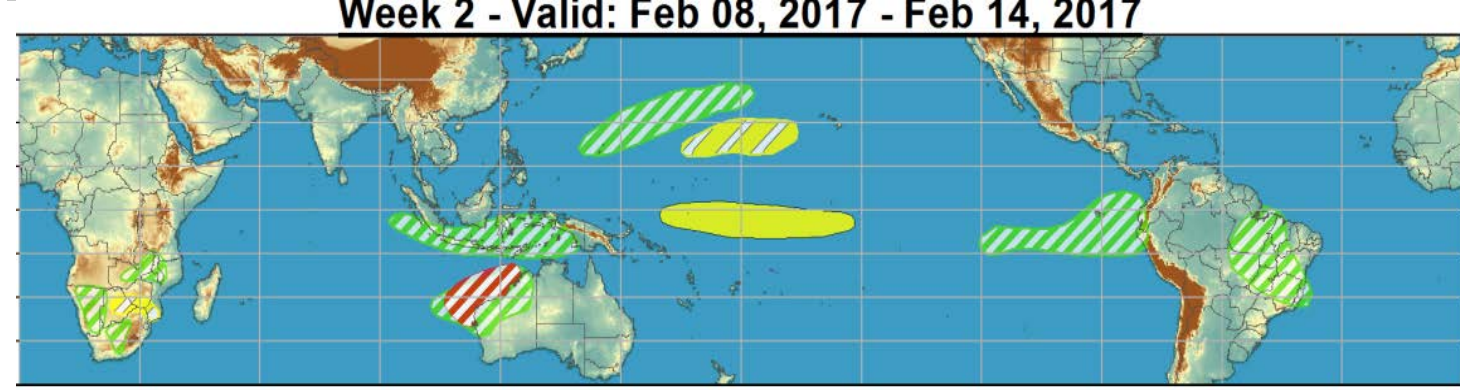
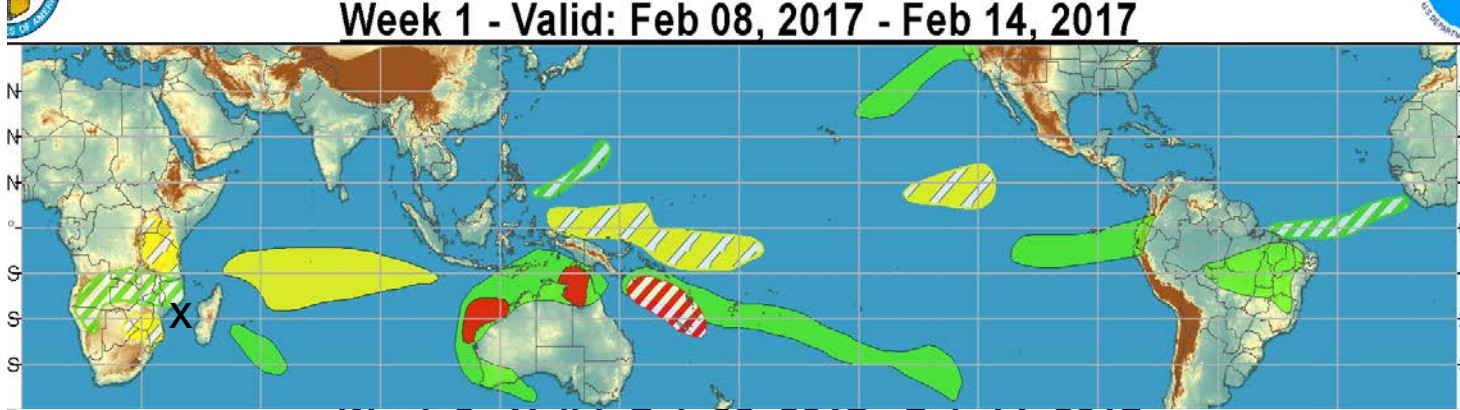
2/14/2017

Stephen Baxter

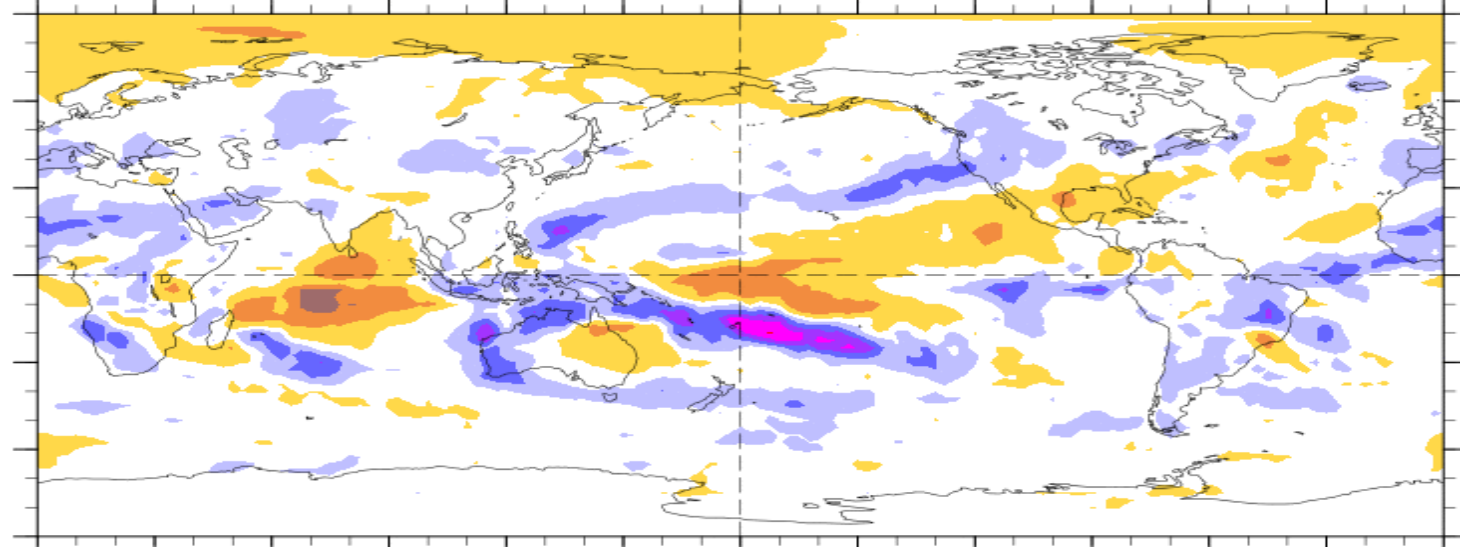
Outline

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

Outlook Review



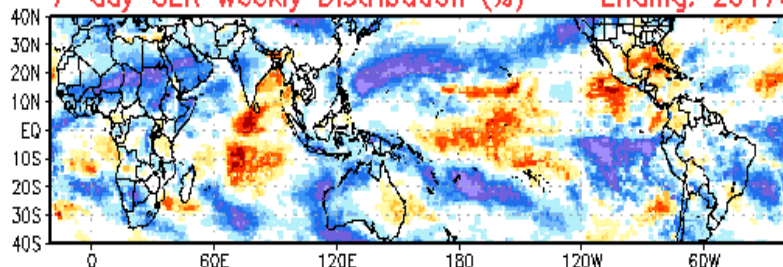
7-Day Average OLR Anomaly 2017/02/06 - 2017/02/12



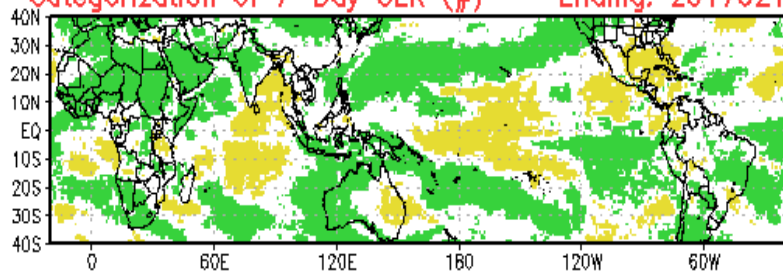
Cool shading
More clouds/rain

Warm shading
Less clouds/rain

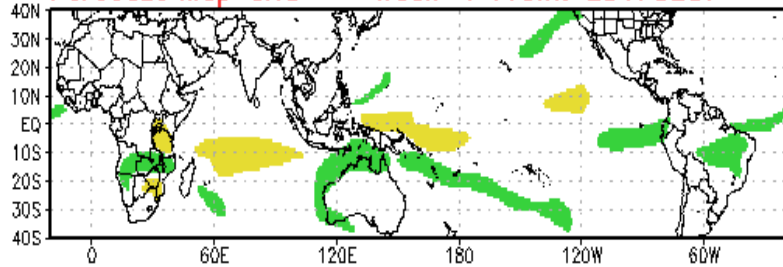
7-day OLR Weekly Distribution (%) -- Ending: 20170214



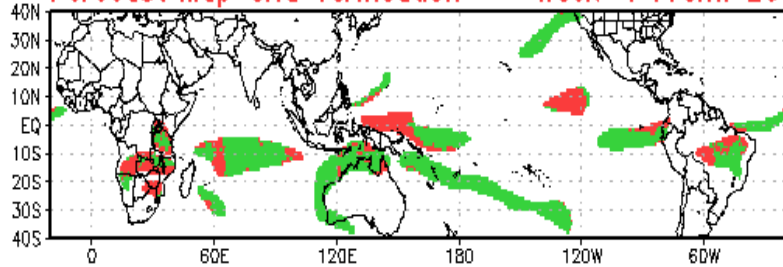
Categorization of 7-Day OLR (#) -- Ending: 20170214



Forecast Map Grid -- Week-1 From: 20170207

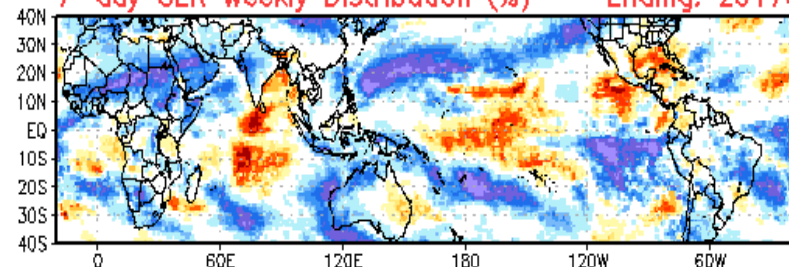


Forecast Map Grid Verification -- Week-1 From: 20170207

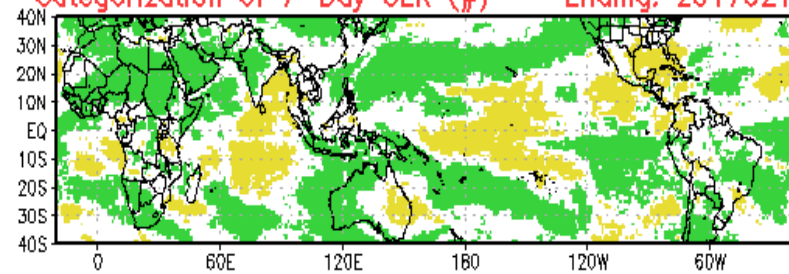


Hit: Green, Miss: Red
Heidke Skill Score: 57.1746

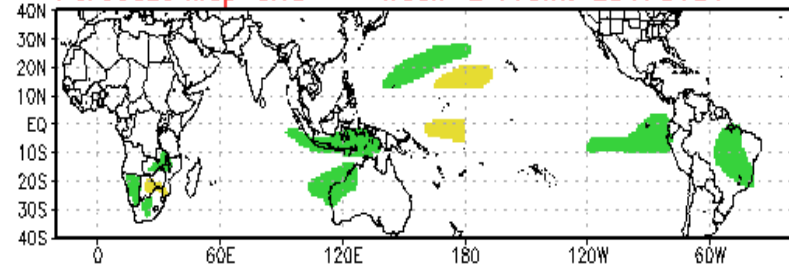
7-day OLR Weekly Distribution (%) -- Ending: 20170214



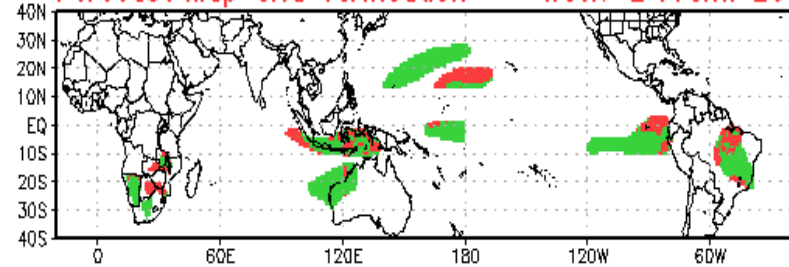
Categorization of 7-Day OLR (#) -- Ending: 20170214



Forecast Map Grid -- Week-2 From: 20170131



Forecast Map Grid Verification -- Week-2 From: 20170131



Hit: Green, Miss: Red
Heidke Skill Score: 58.3558

Synopsis of Climate Modes

ENSO:

- **Final La Niña Advisory was issued.**
- **ENSO-neutral conditions are expected to continue through summer.**

MJO and other subseasonal tropical variability:

- Strong signal currently present over the Western Hemisphere.
- Dynamical and statistical models indicate eastward propagation early, but dynamical solutions diverge significantly for Week-2.
- Destructive interference between the background state and the intraseasonal signal is forecast to relax with time, but this is complicated by the evolving low-frequency pattern.

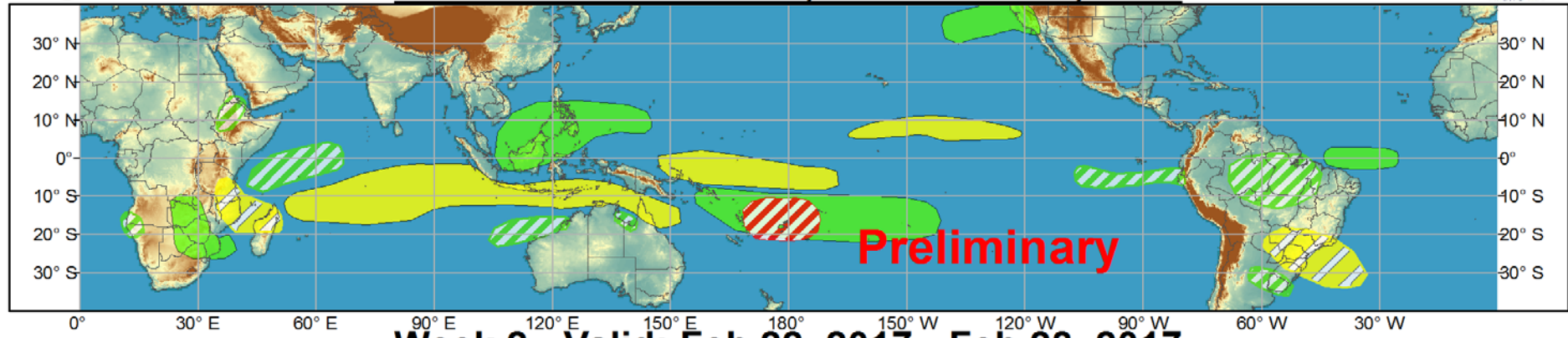
Extratropics:

- Some influence of the MJO on the circulation of the North Pacific has been observed, but the latest forecasts for the U.S. during Week-2 are not consistent with MJO forcing.

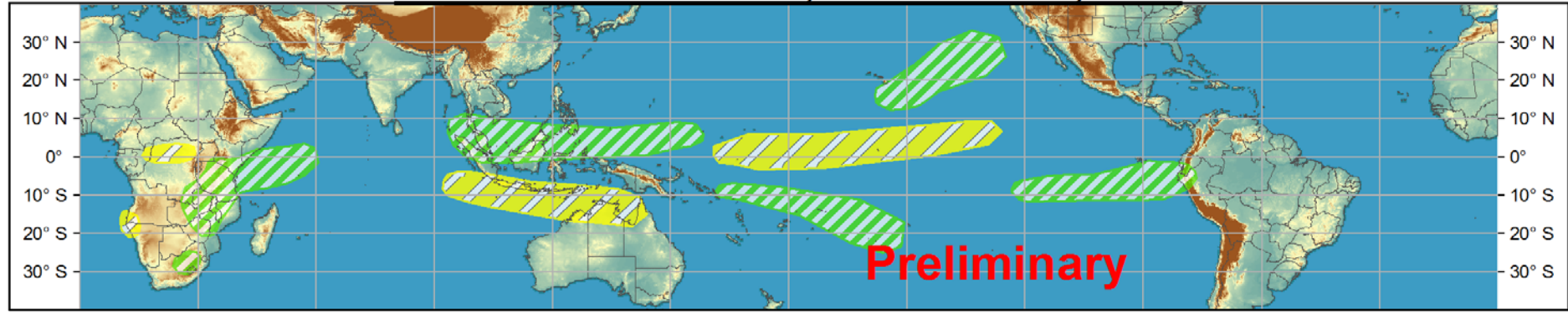


Global Tropics Hazards and Benefits Outlook - Climate Prediction Center

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



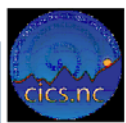
Week 2 - Valid: Feb 22, 2017 - Feb 28, 2017



Produced: 02/14/2017
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.
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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.

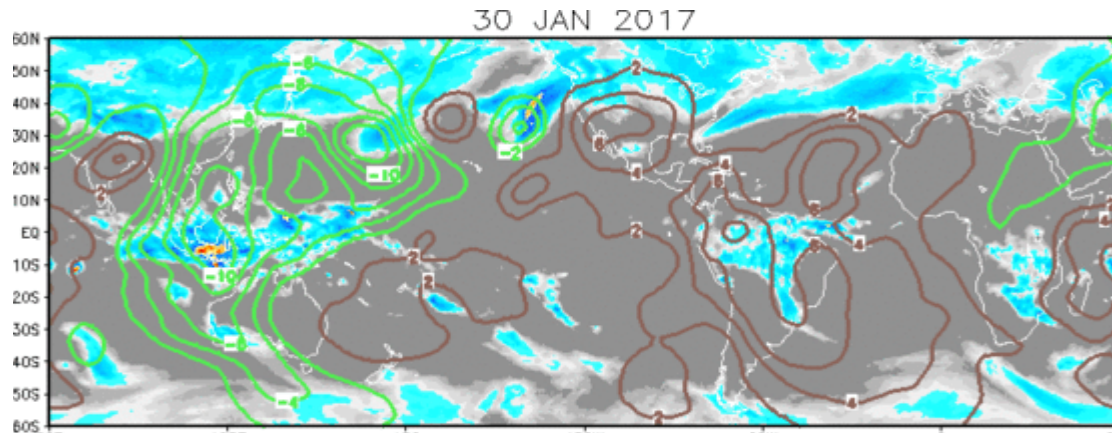


IR Satellite & 200-hpa Velocity Potential Anomalies

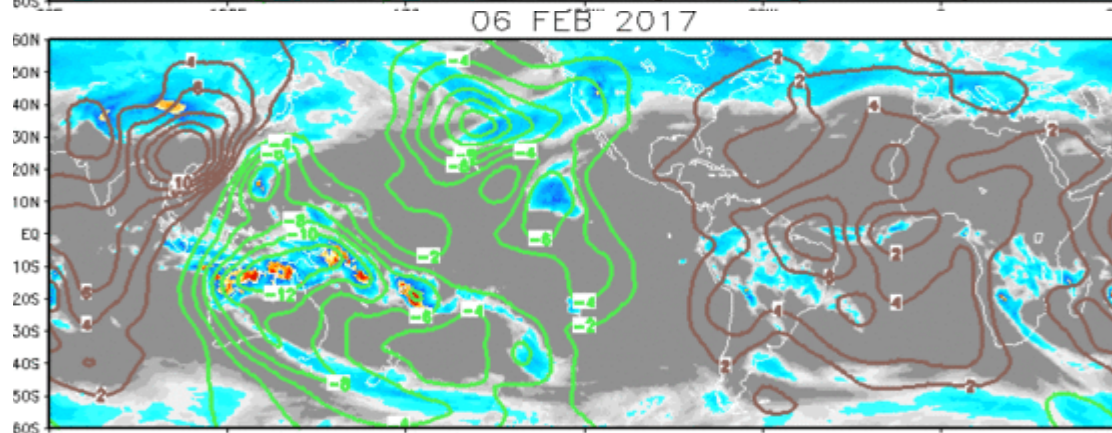
Green: Enhanced Divergence

Brown: Enhanced Convergence

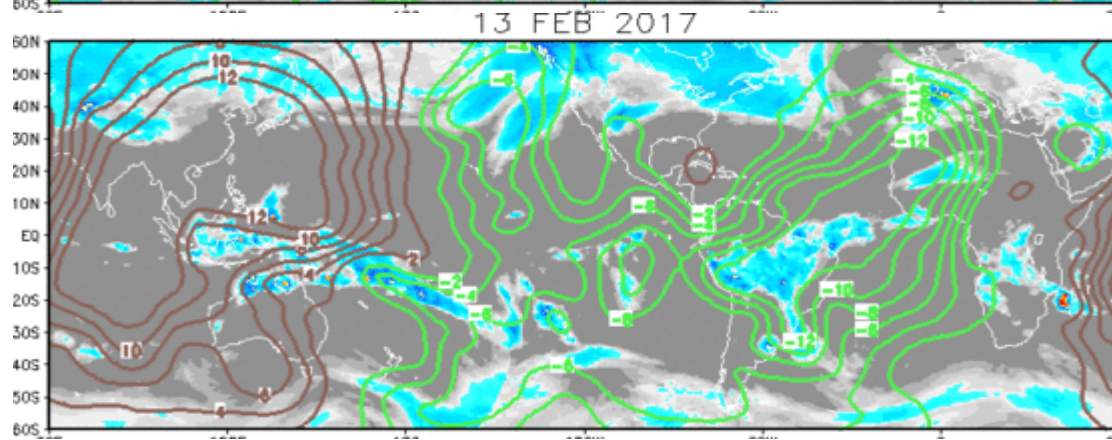
Wave-1 with enhanced phases over Maritime Continent and far western Pacific.



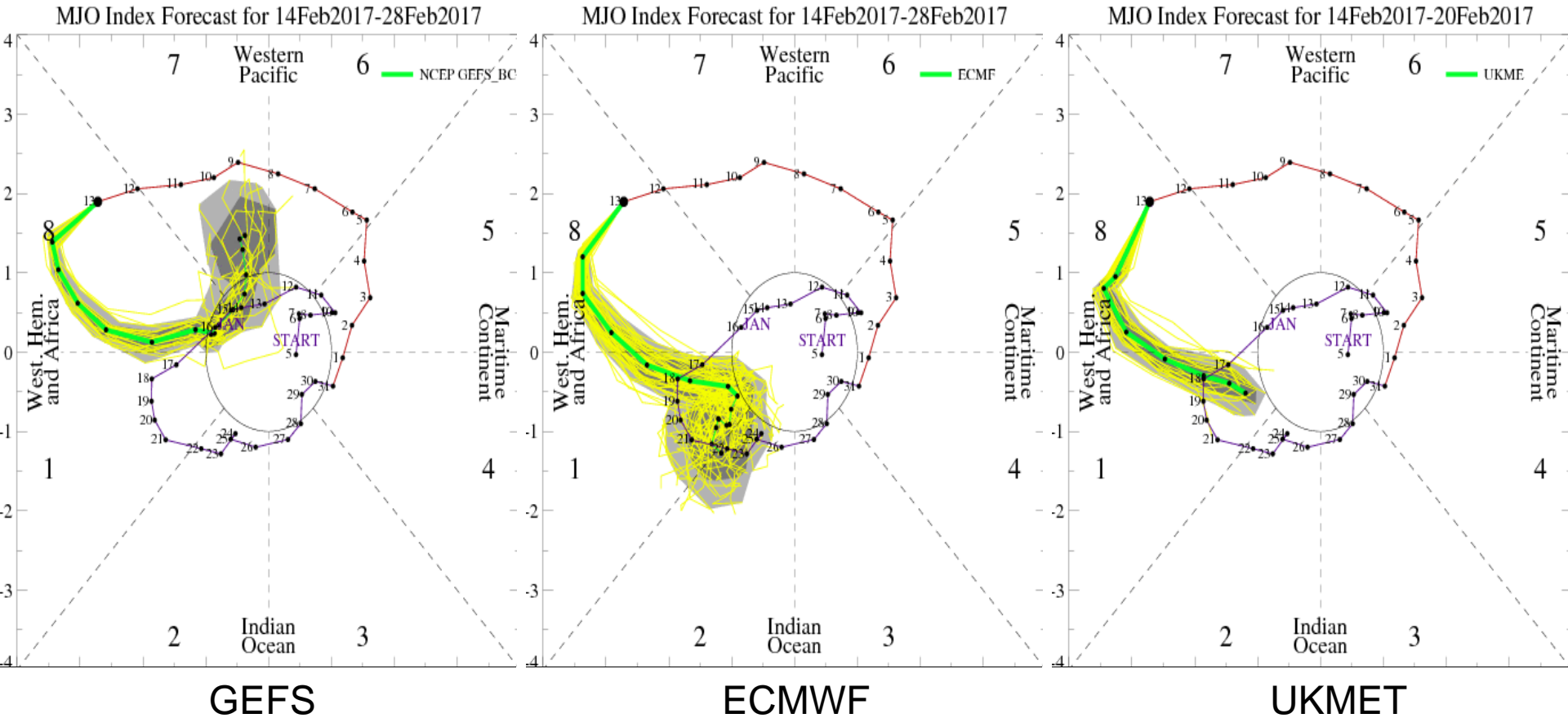
Wave-1 with enhanced phase over Maritime Continent and Pacific.



Wave-1 with enhanced phase over Western Hemisphere.

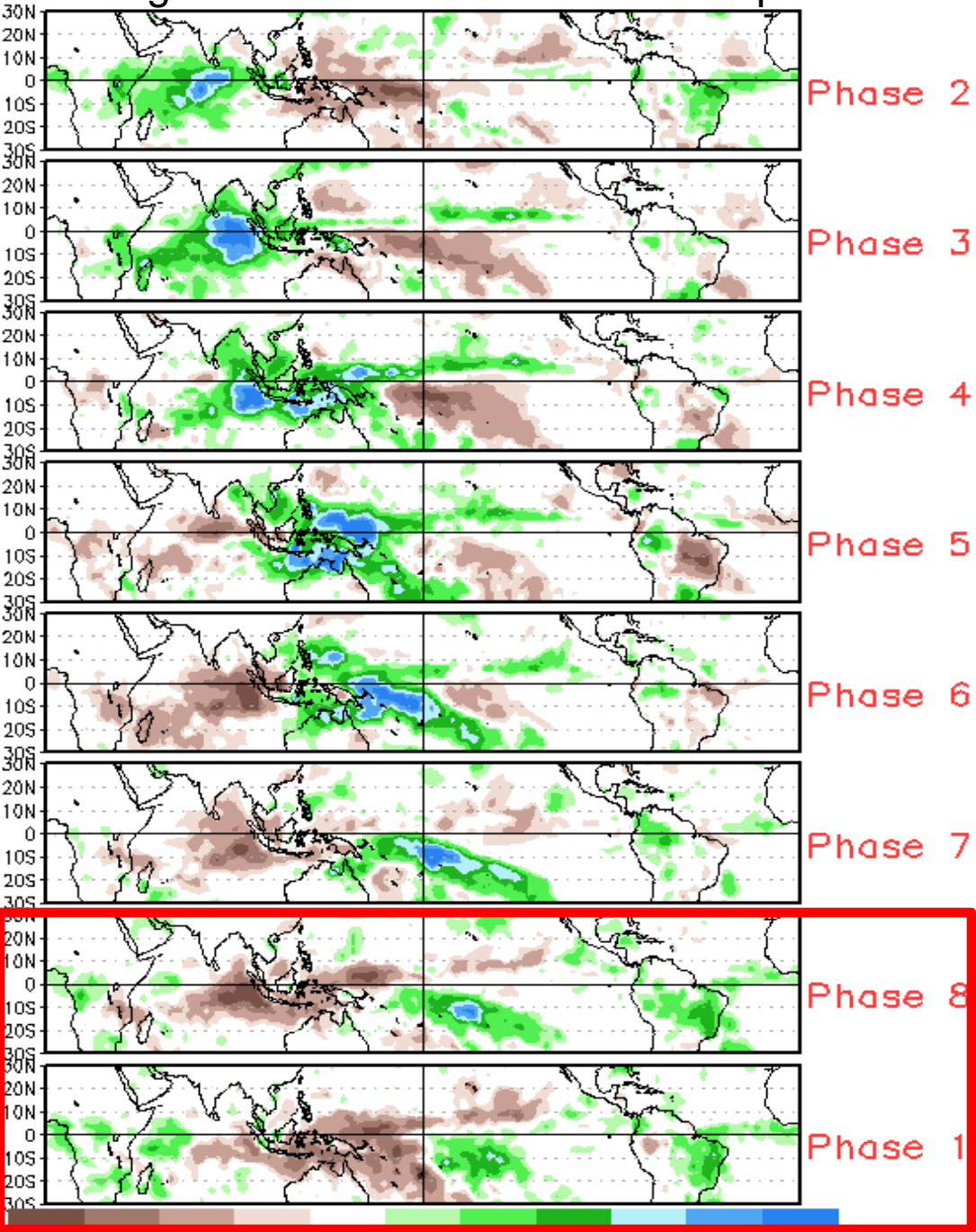


MJO Observation/Forecast



Major model differences between the ECMWF and GEFS. The UKMET favors the ECMWF early. Some of this uncertainty is likely due to the changing background state.

Average Conditions when the MJO is present

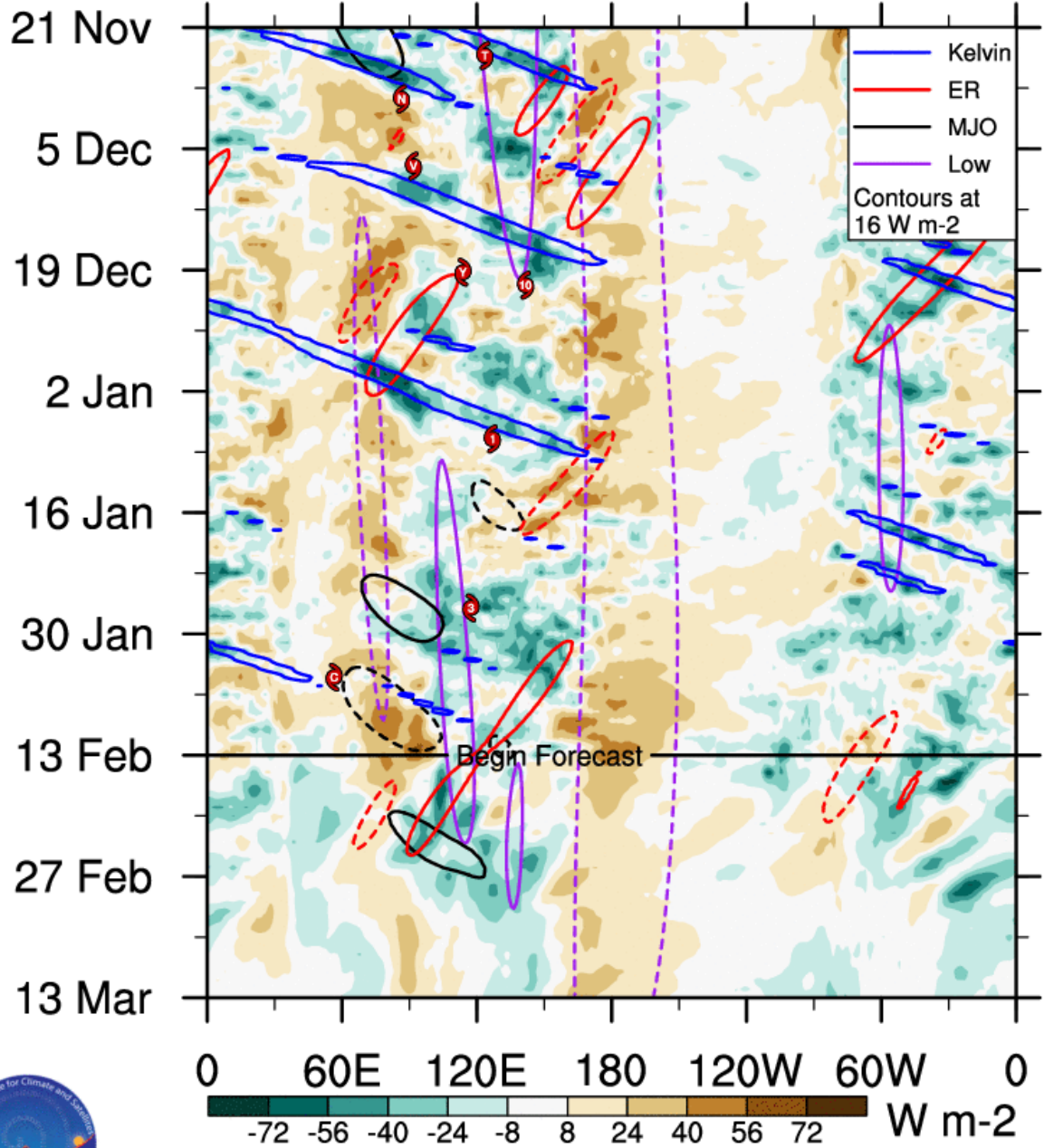


Phases 8/1
anticipated during
Week-1.

CAVEAT: These panels are
representative of robust MJO
events.

OLR with CFS forecasts

5S - 5N

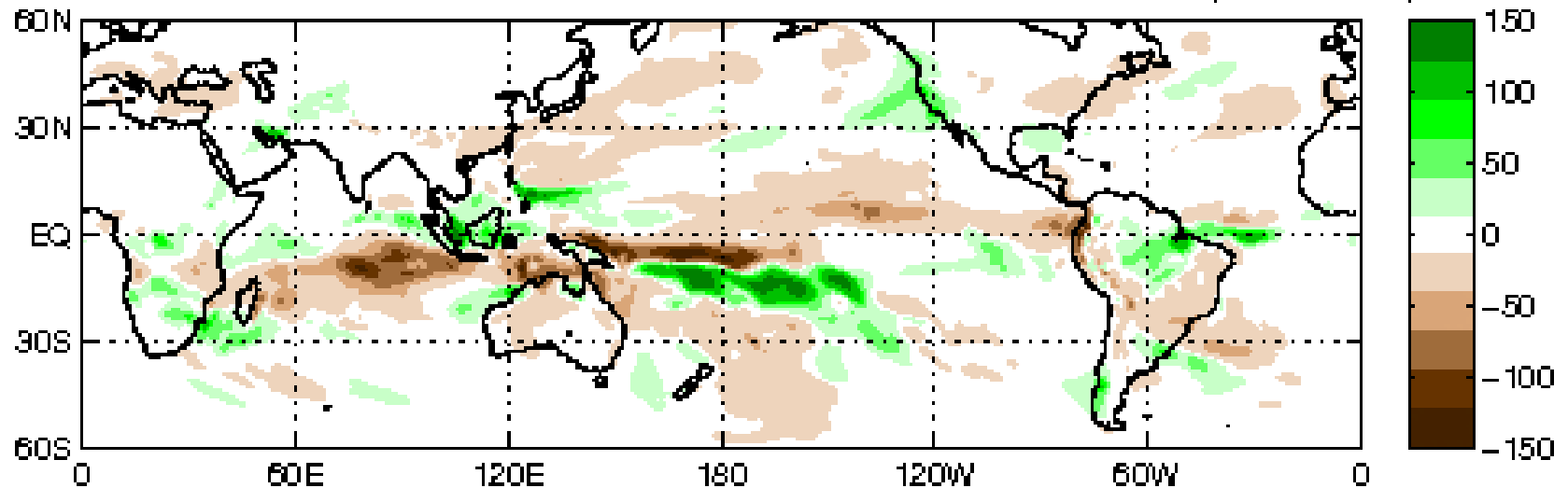


Tripole of **low frequency** convective signatures apparent among Indian Ocean/Maritime Continent/Central Pacific

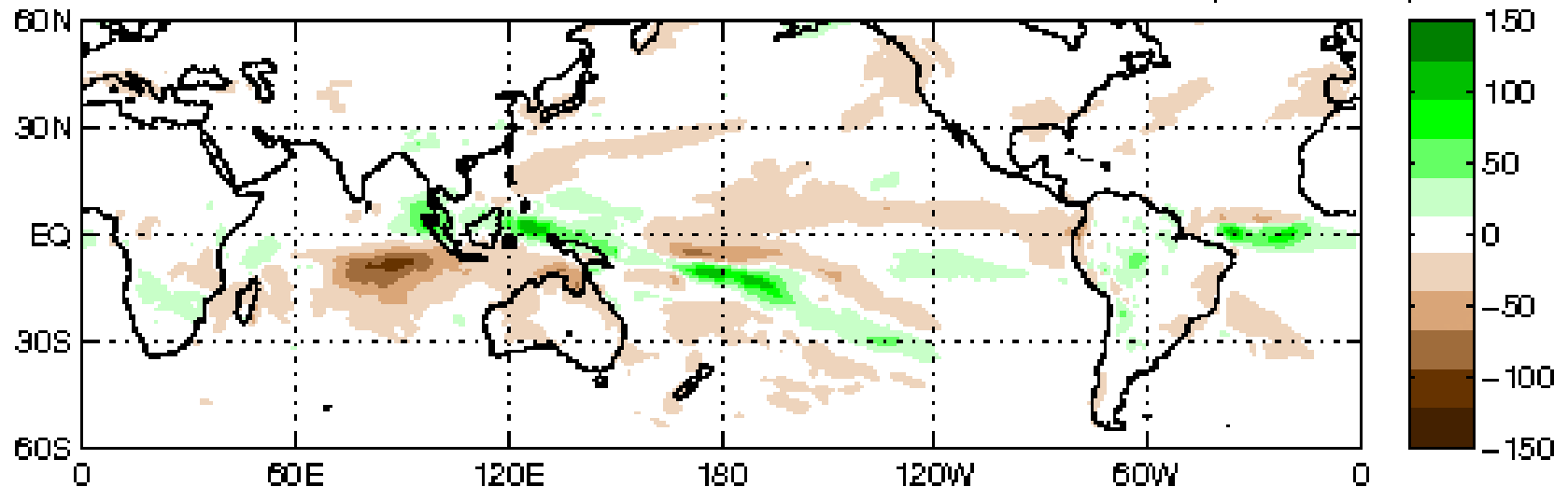
Robust **MJO** envelope has reached the Western Hemisphere, but is not readily observed in OLR field, . Westward tracking feature apparent over Maritime Continent.



CFS: Anom. PREC Week: 1: 15-Feb-2017 to 21-Feb-2017 (mm/week)

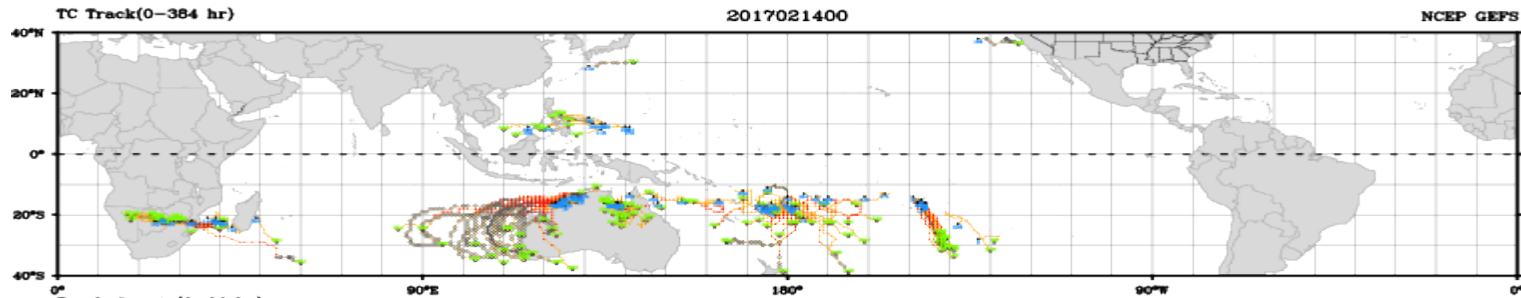


CFS: Anom. PREC Week: 2: 22-Feb-2017 to 28-Feb-2017 (mm/week)

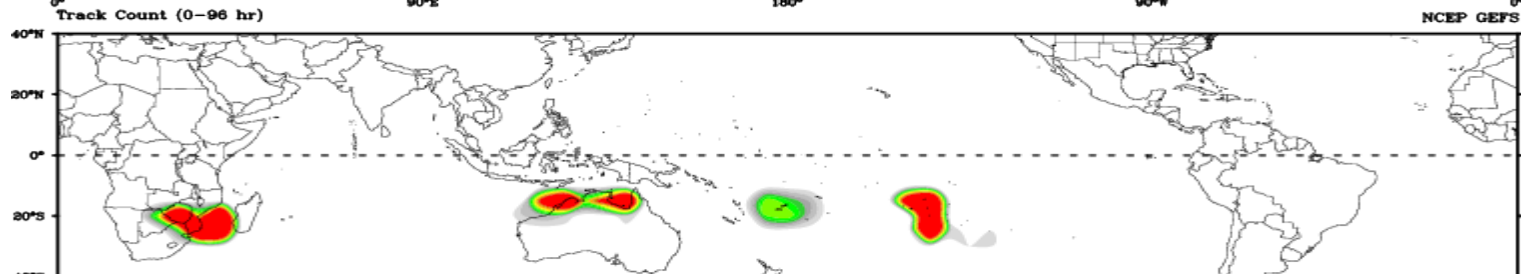


2017021400

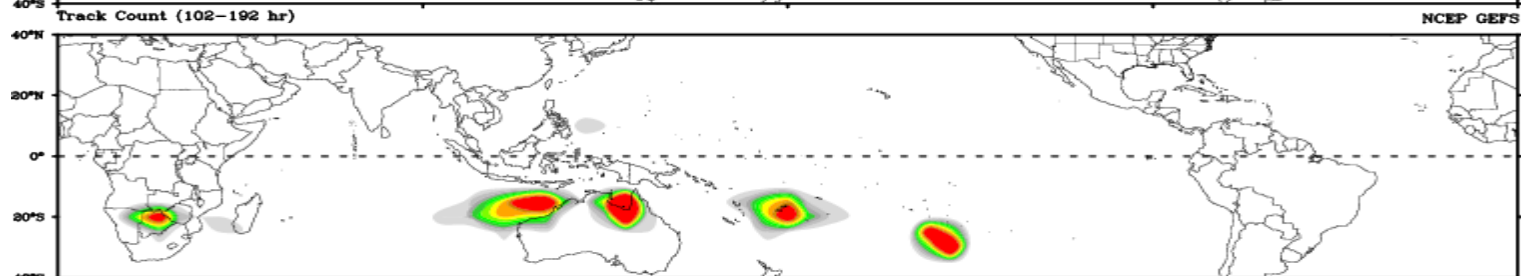
NCEP GEFS



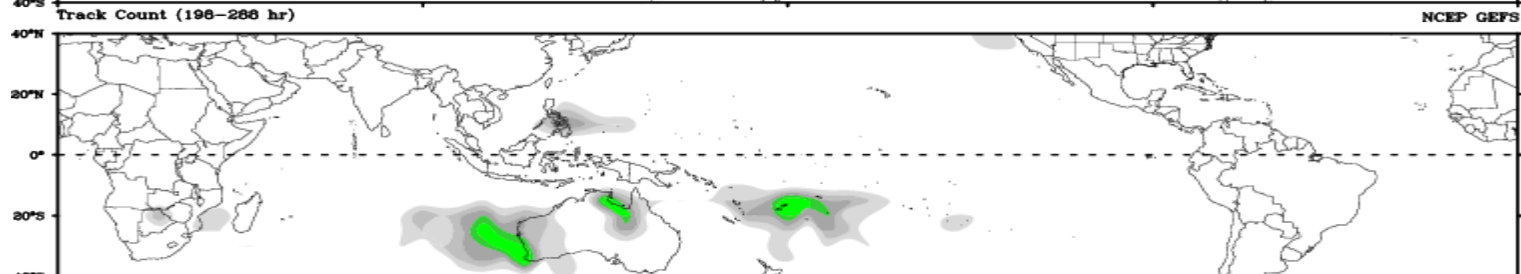
Days 1-4



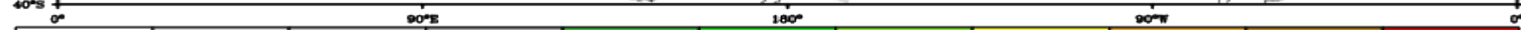
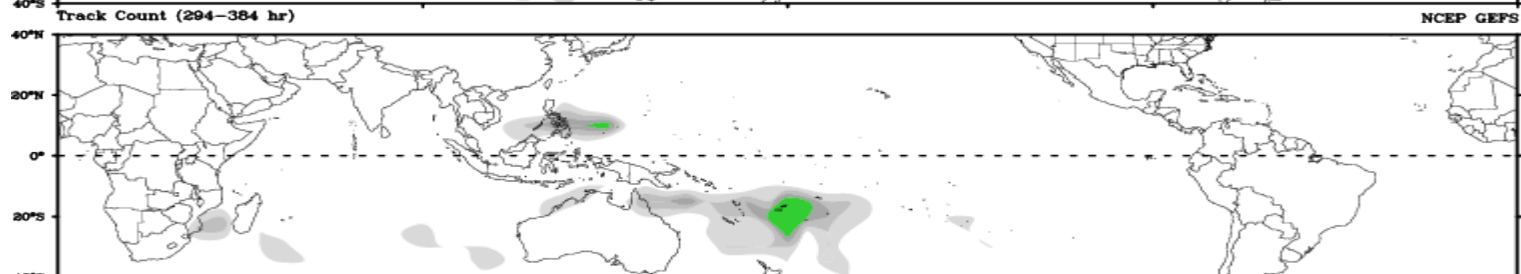
Day 5-8



Day 9-12

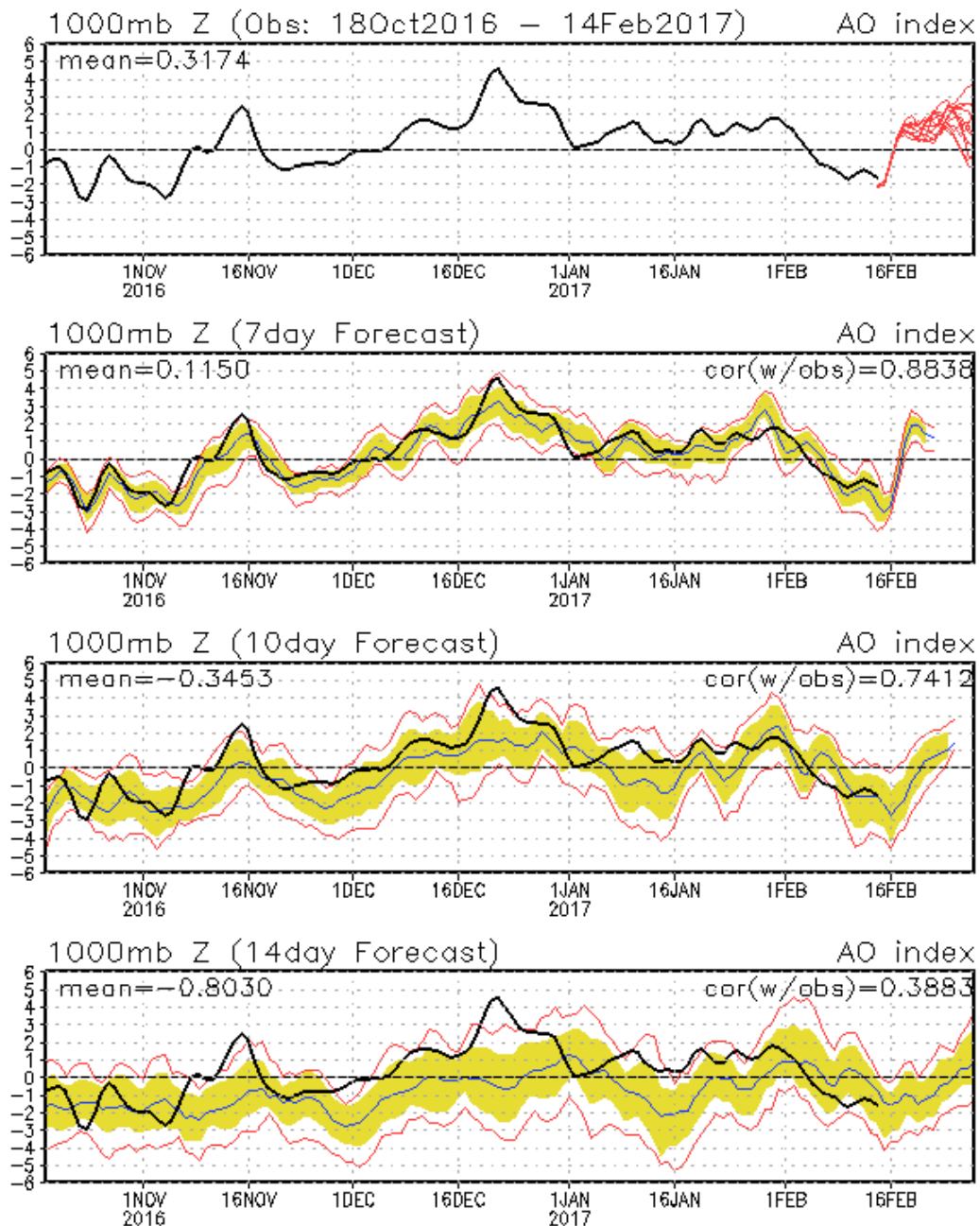


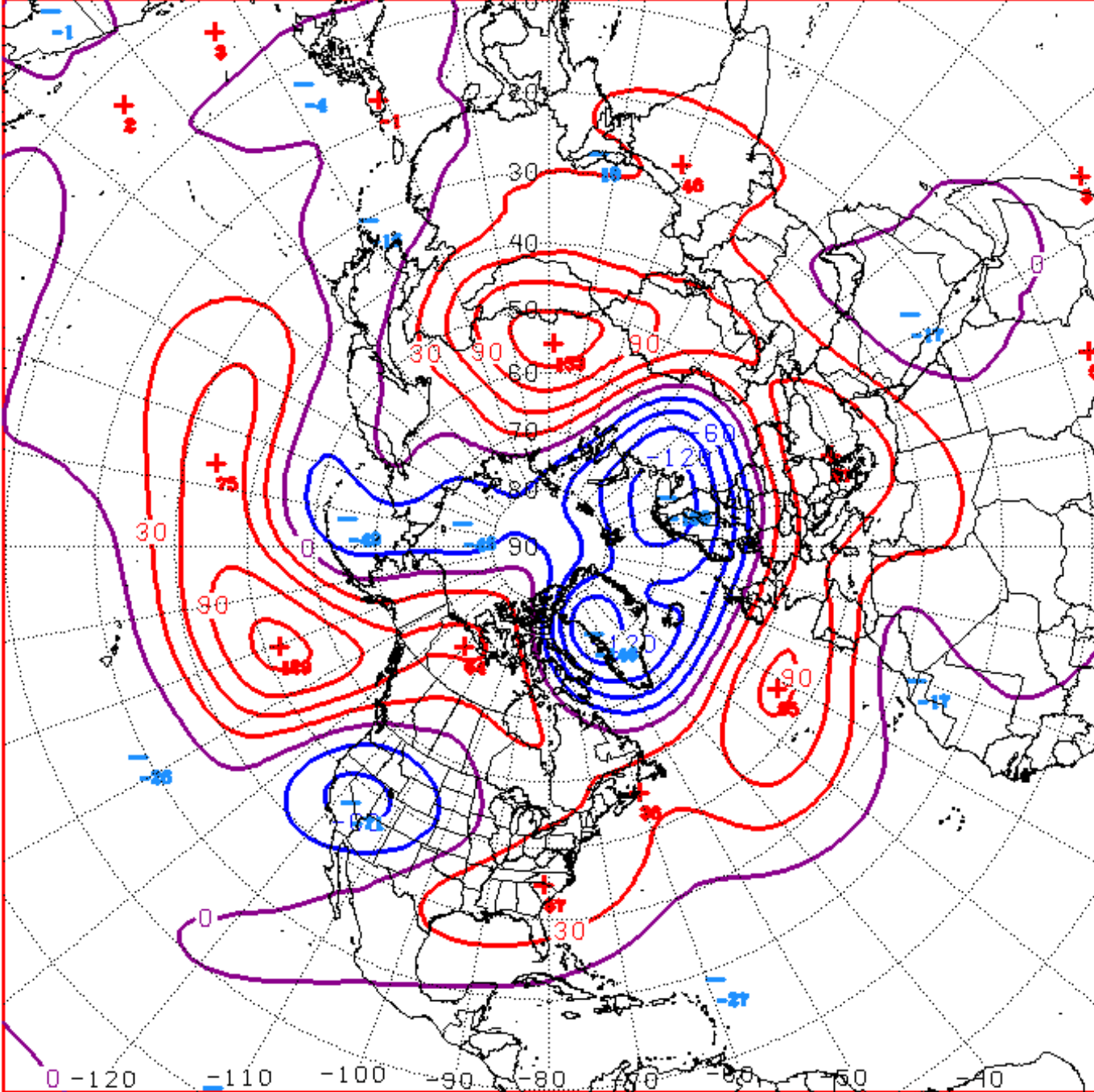
Day 13-15



Connections to U.S. Impacts

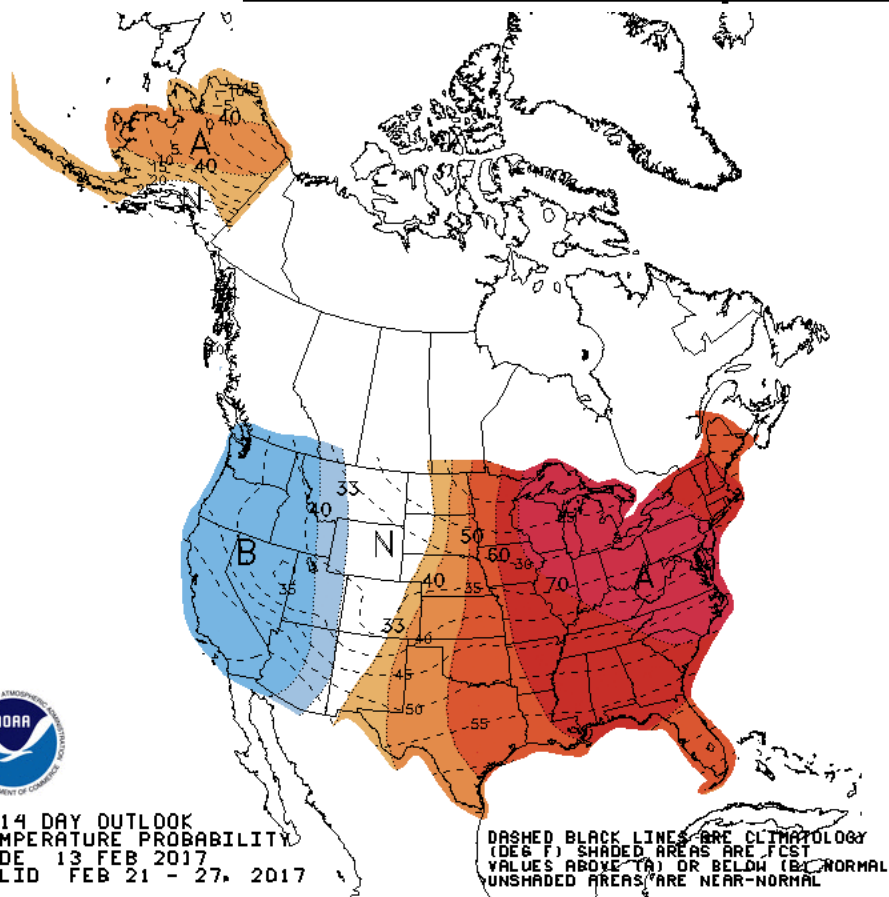
AO: Observed & ENSM forecasts





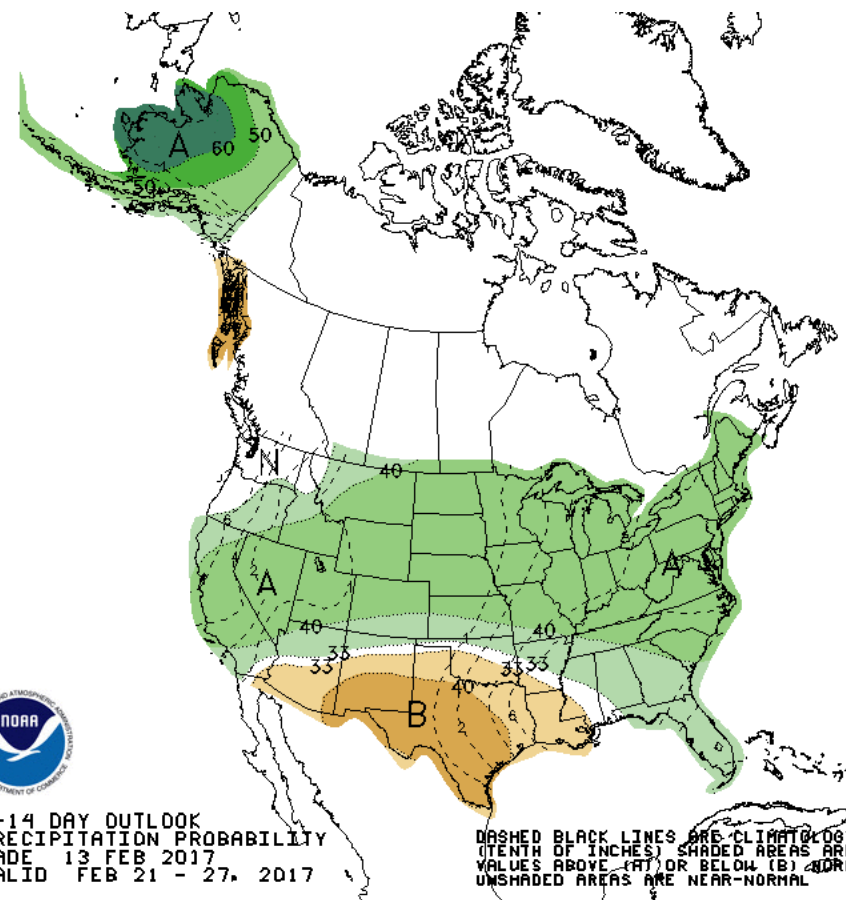
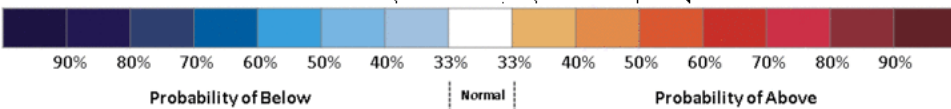
D+11 500 MB ANOMALIES FROM ALZ ENSM
CPC MAP MADE FEB 14 2017 1303 UTC CNTD FEB 25 2017

Week 2 – Temperature and Precipitation



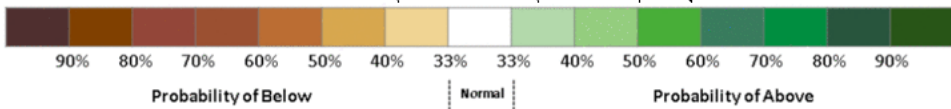
8-14 DAY OUTLOOK
TEMPERATURE PROBABILITY
MADE 13 FEB 2017
VALID FEB 21 - 27, 2017

DASHED BLACK LINES ARE CLIMATOLOGY (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 13 FEB 2017
VALID FEB 21 - 27, 2017

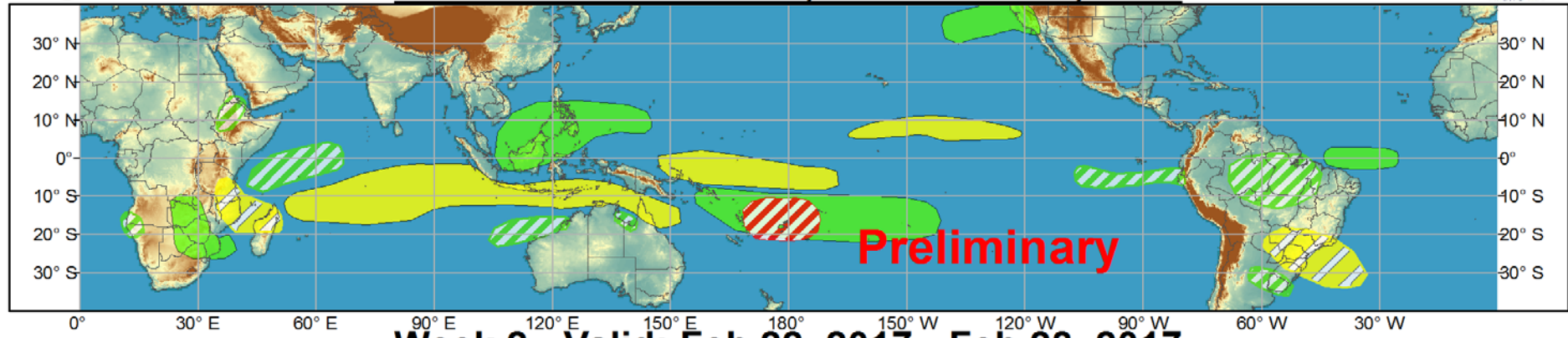
DASHED BLACK LINES ARE CLIMATOLOGY (TENTH OF INCHES). SHADED AREAS ARE FCST VALUES ABOVE (A) OR BELOW (B) NORMAL. UNSHADED AREAS ARE NEAR-NORMAL.



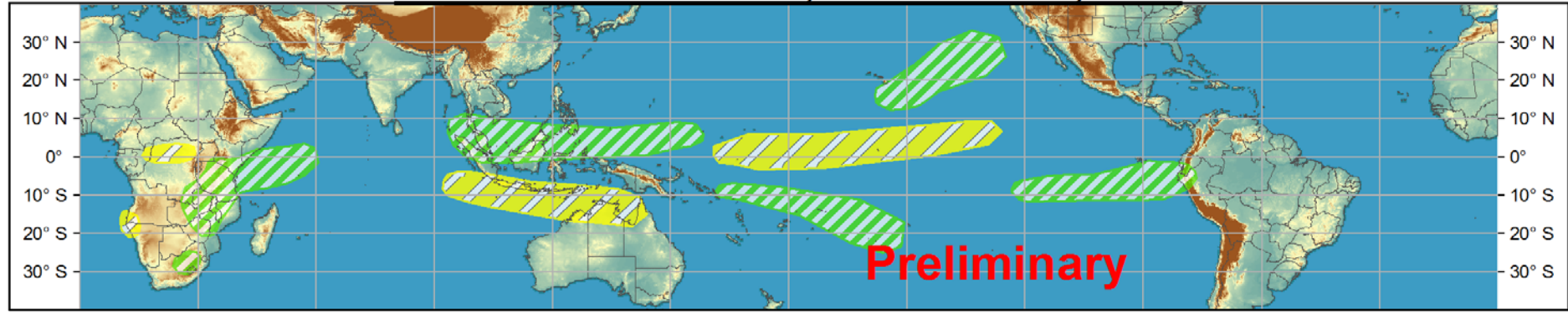


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