

Global Tropics Hazards And Benefits Outlook

March 11, 2014

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

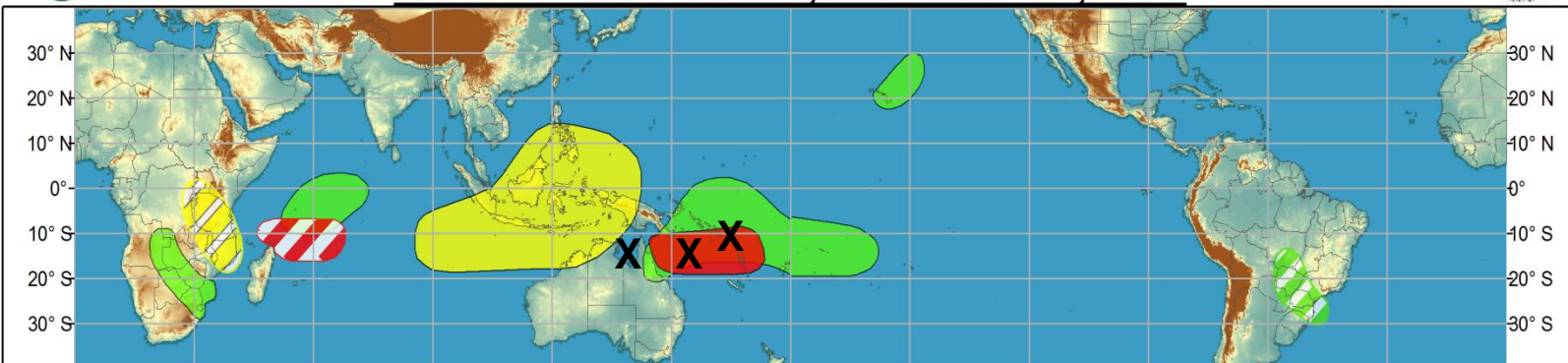


Week 1 - Valid: Mar 05, 2014 - Mar 11, 2014

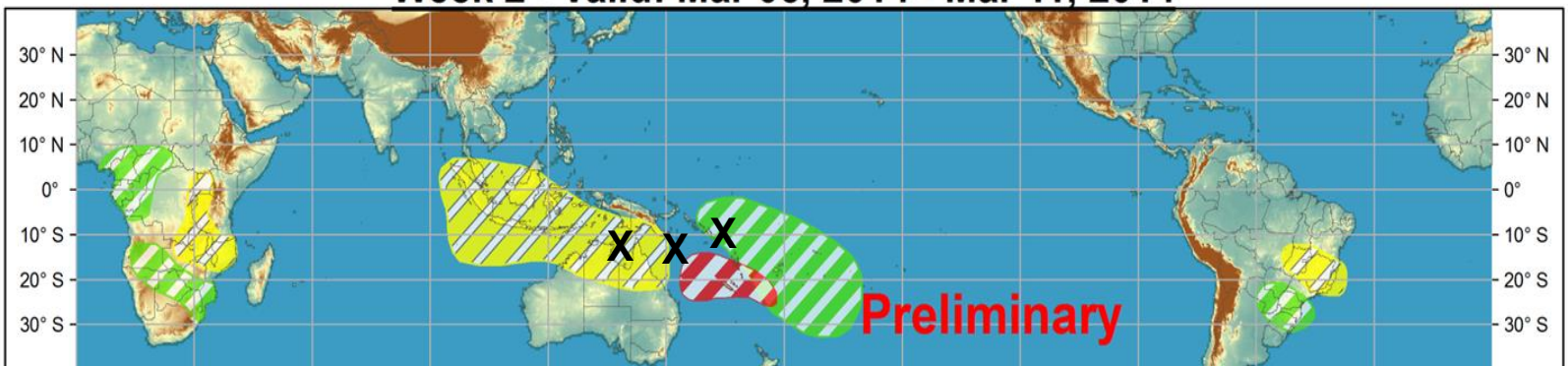


Outlook Review

X = TC formation



Week 2 - Valid: Mar 05, 2014 - Mar 11, 2014

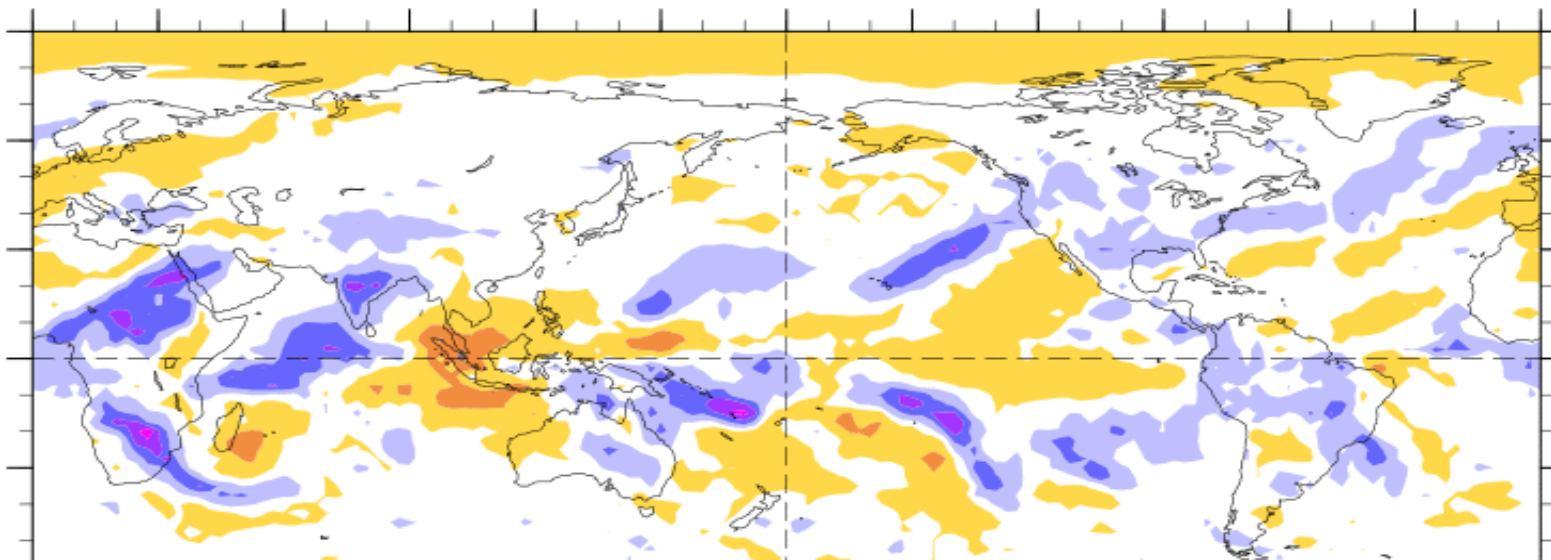


7-Day Average OLR Anomaly

2014/03/03 - 2014/03/09

Cool shading
More clouds/rain

Warm shading
Less clouds/rain



Synopsis of Climate Modes

ENSO:

- ENSO-neutral is expected to continue through the Northern Hemisphere spring 2014, with about a 50% chance of El Niño developing during the summer or fall.
- ENSO Alert System Status: El Niño Watch

MJO and other subseasonal tropical variability:

- The MJO remained active during the previous week, with the enhanced phase now propagating over the Western Hemisphere.
- Influence from a slowly evolving low-frequency base state continues to strongly influence the pattern of global tropical convection.

Extratropics:

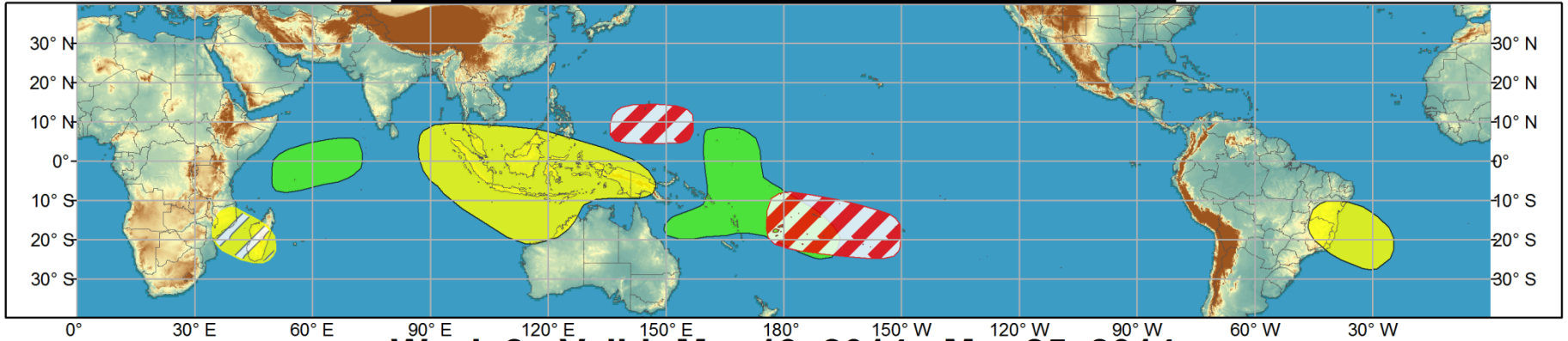
- Due to considerable spread among the dynamical model MJO forecasts as they try to reconcile interference between the MJO and the low-frequency signal, there is increased uncertainty regarding the influence of tropical convective patterns on the extratropics.



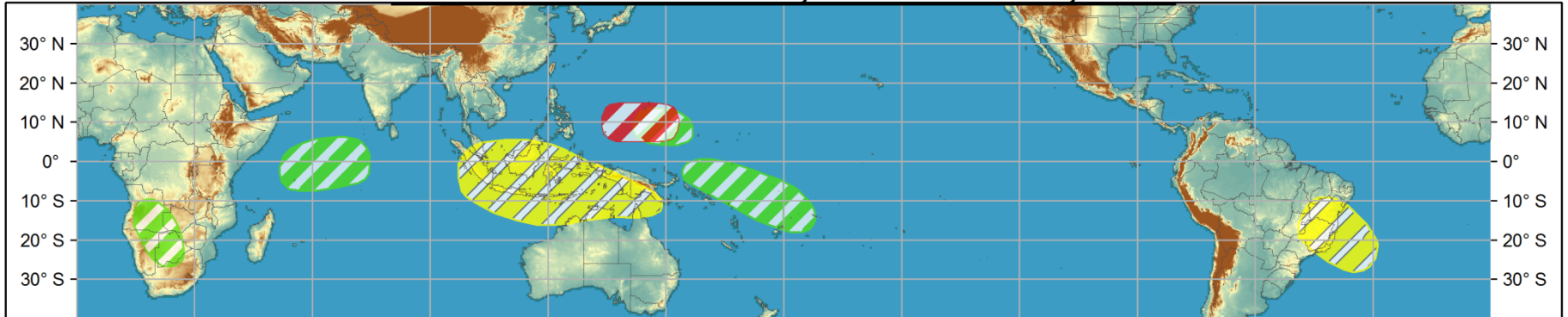
Global Tropics Hazards and Benefits Outlook - Climate Prediction Center



Week 1 - Valid: Mar 12, 2014 - Mar 18, 2014



Week 2 - Valid: Mar 19, 2014 - Mar 25, 2014



Confidence
High Moderate

Tropical Cyclone Formation



Development of a tropical cyclone that eventually reaches tropical storm/cyclone 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: 03/11/2014

Forecaster: Allgood

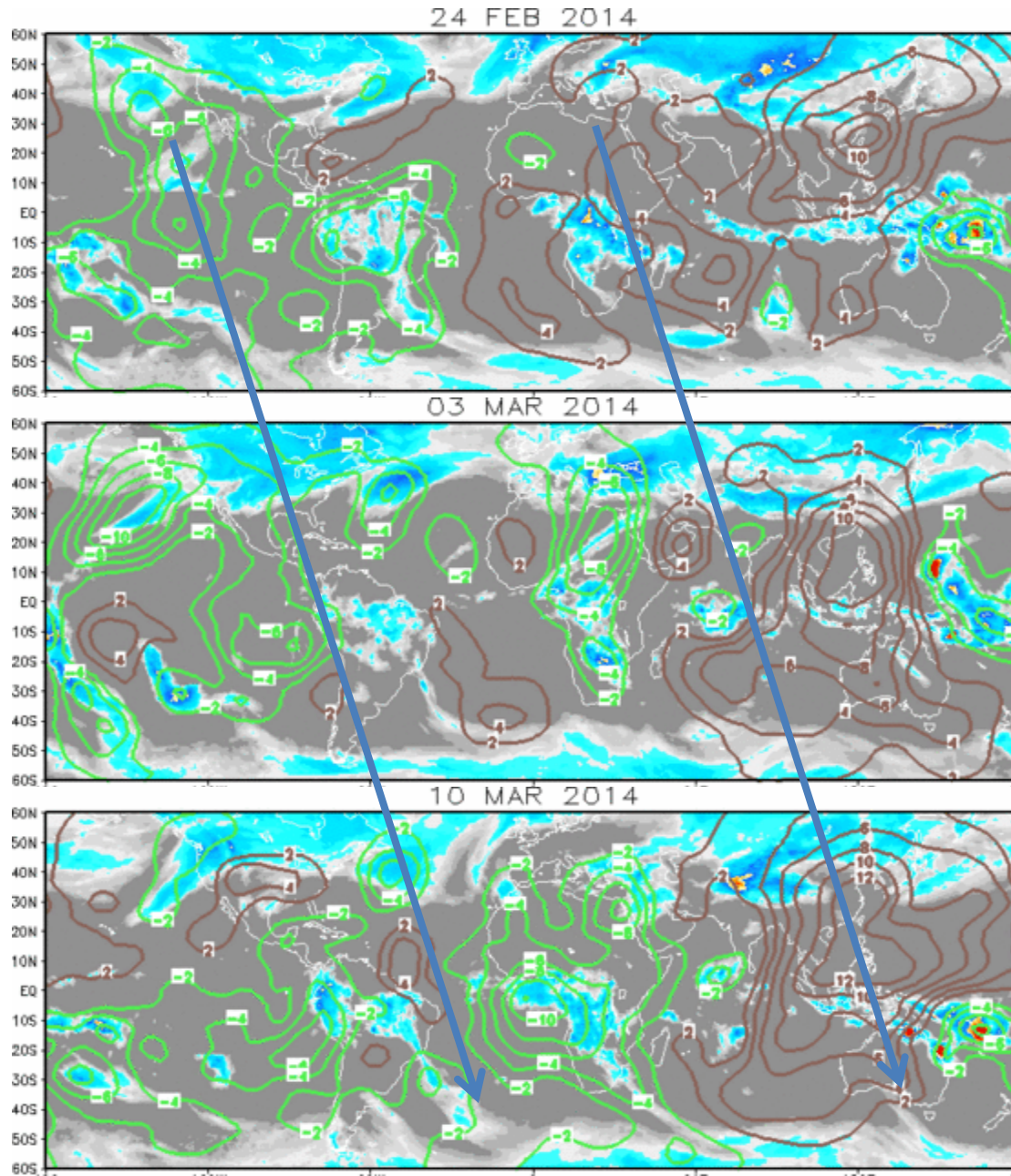
Product is updated once per week. The product targets broad scale conditions integrated over a 7-day period for US interests only. Consult your local responsible forecast agency.



IR Satellite & 200-hpa Velocity Potential Anomalies

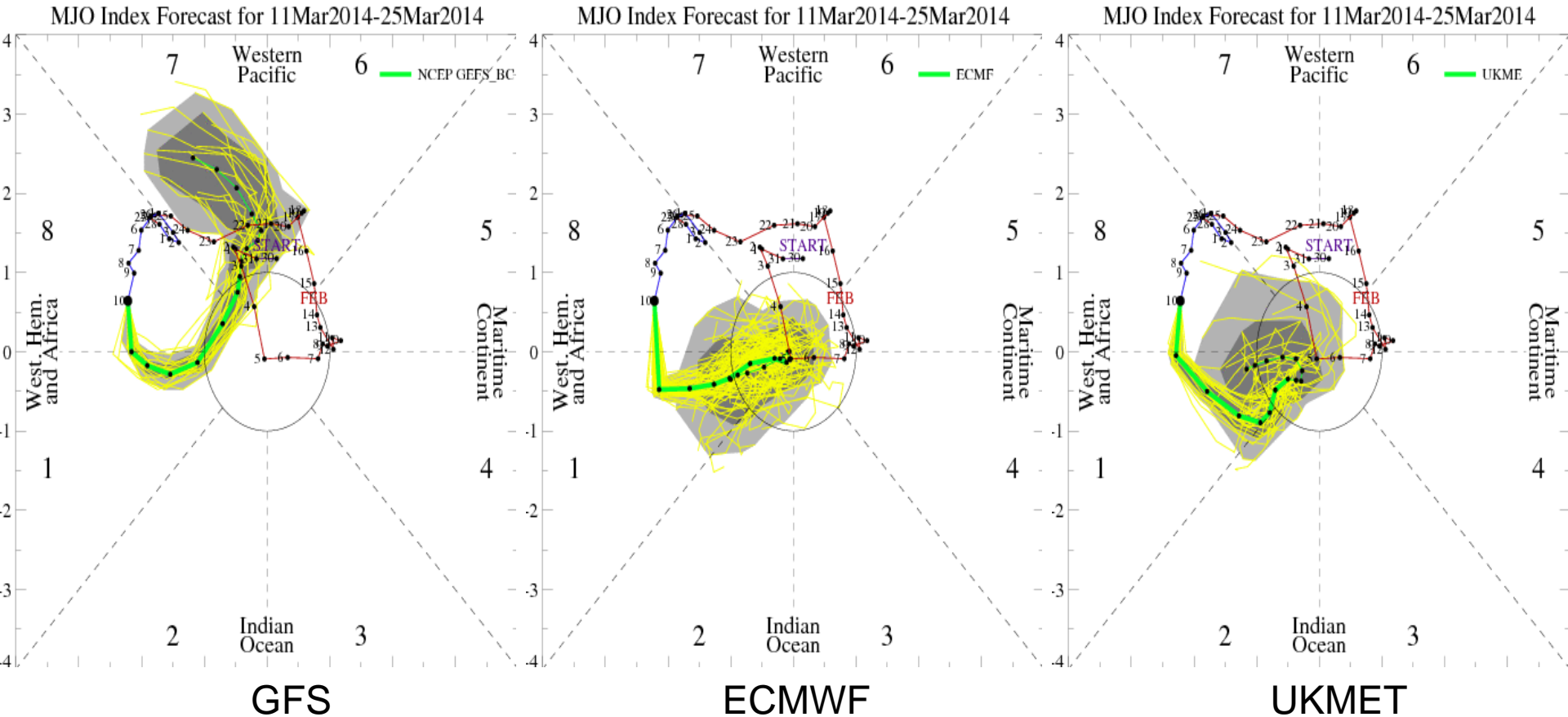
Green: Enhanced Divergence Brown: Enhanced Convergence

Eastward propagation of large scale VP anomalies is evident.



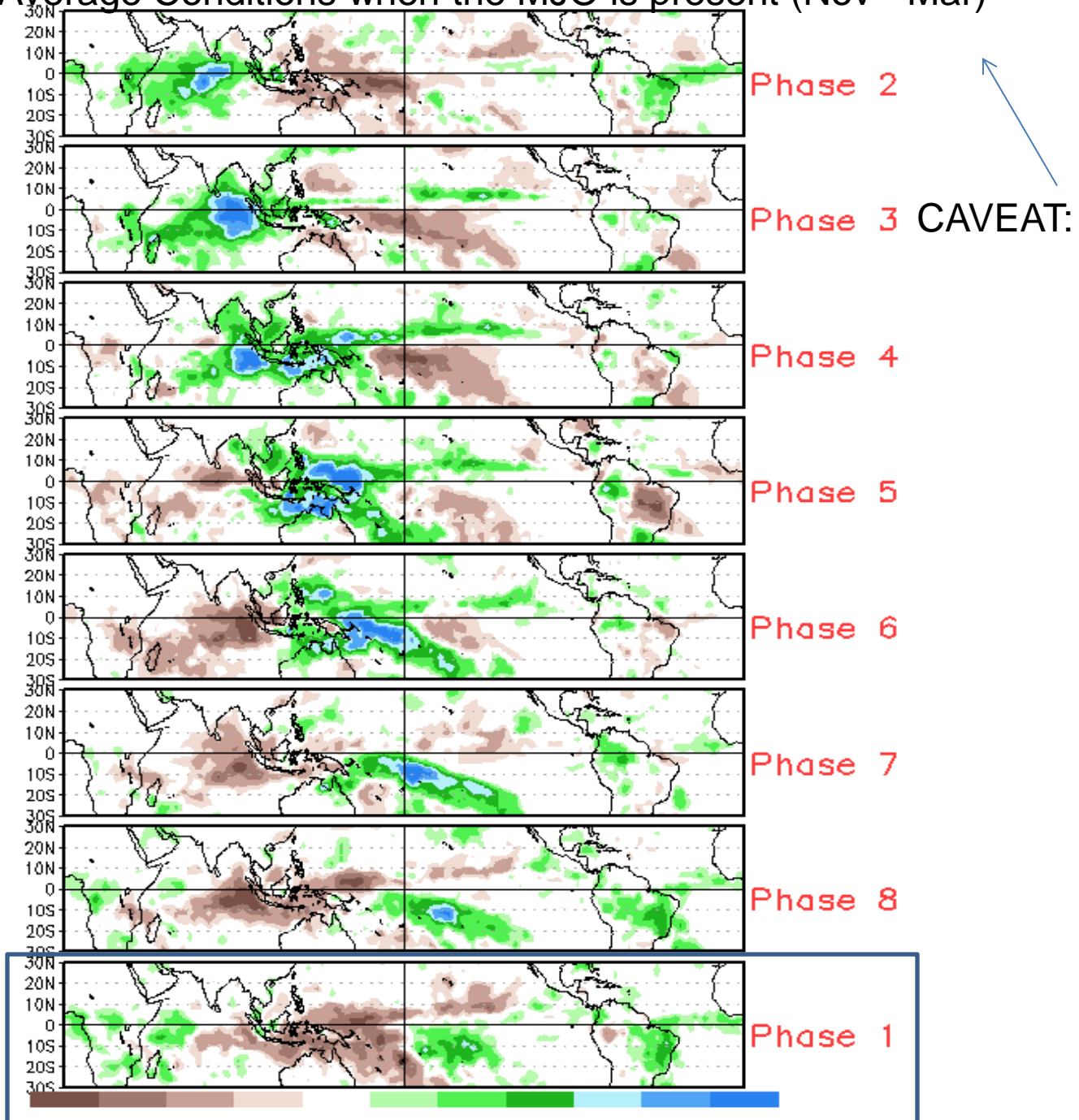
Note the persistence of enhanced convection over the SWP

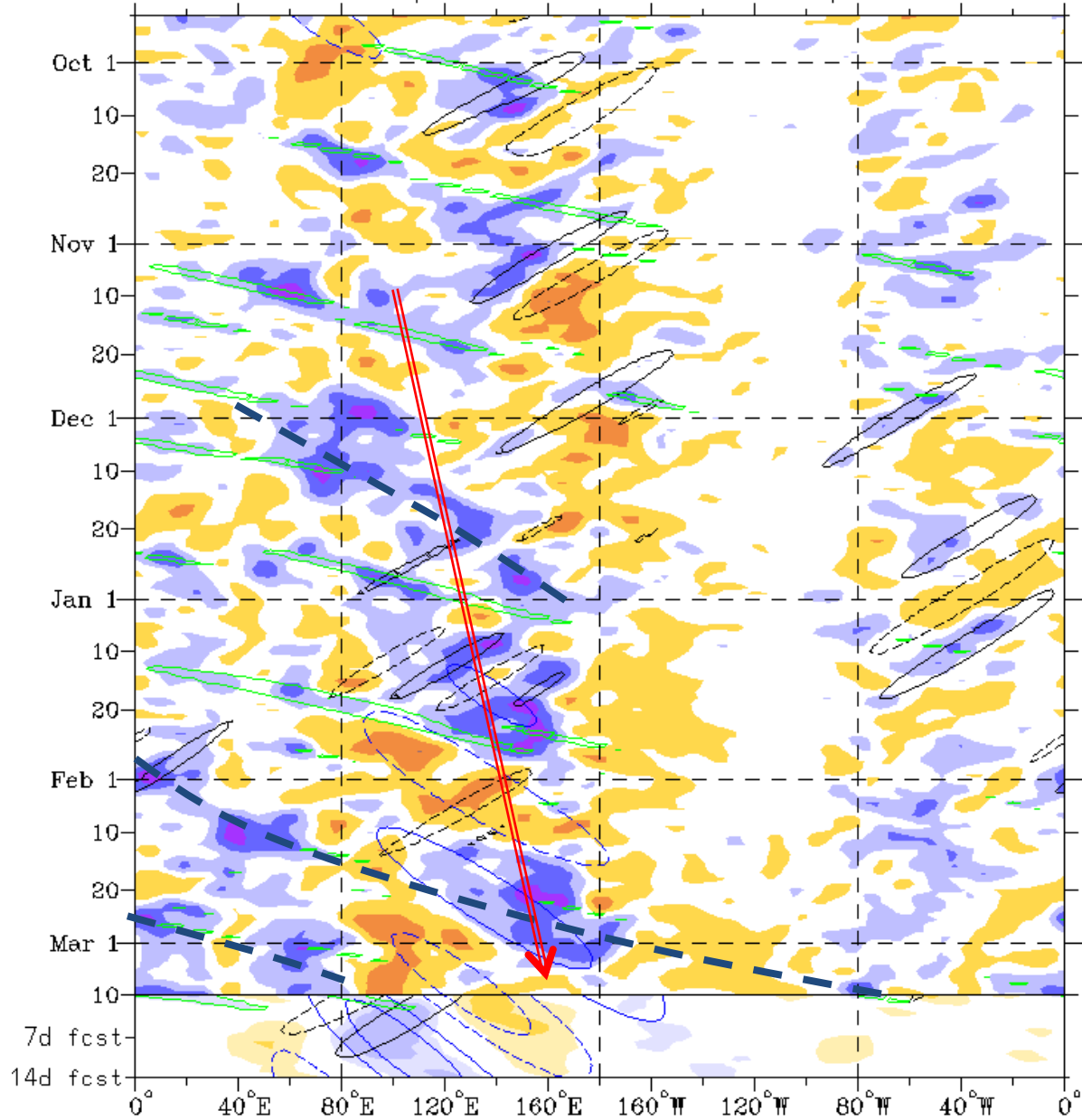
MJO Observation/Forecast



- The dynamical model MJO forecasts indicate a weakening MJO signal due to destructive interference with the base state favoring enhanced convection over the west-central Pacific
- The GFS breaks down the MJO signal quickly, while the UKMET indicates continued eastward propagation.

Average Conditions when the MJO is present (Nov - Mar)

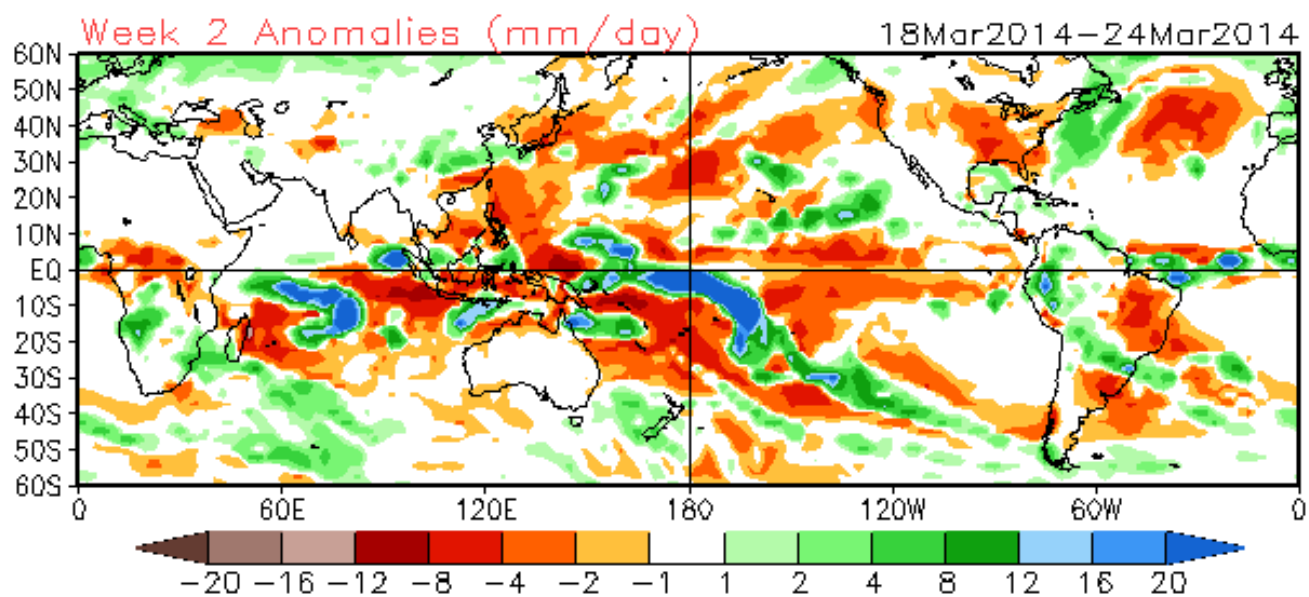
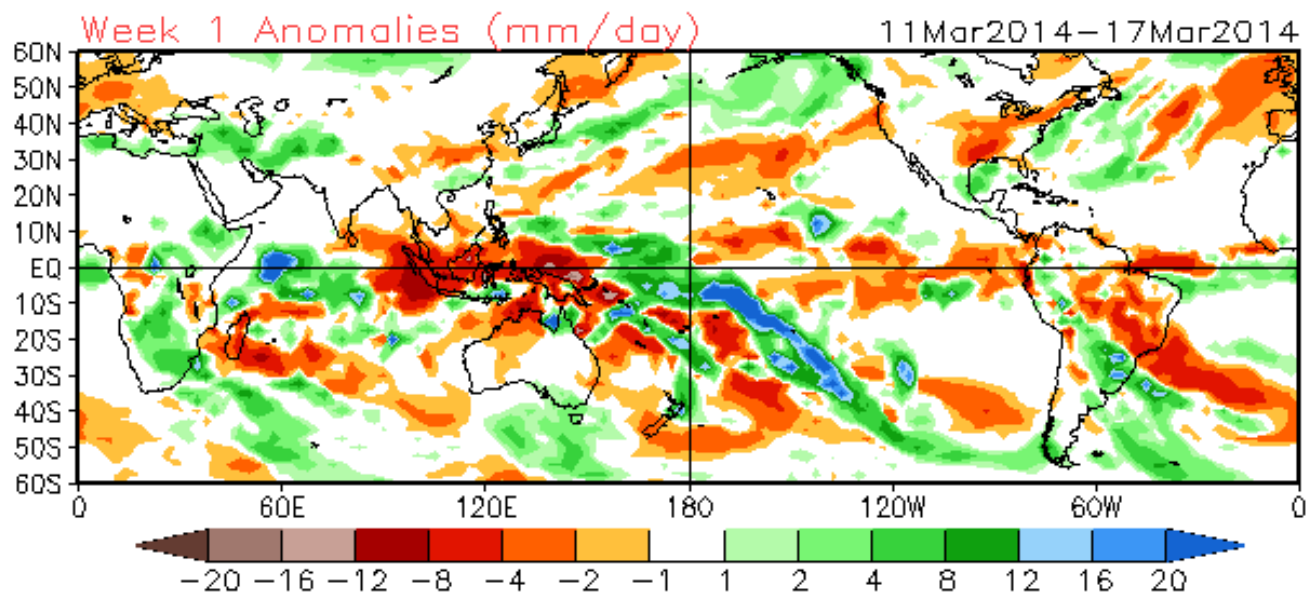


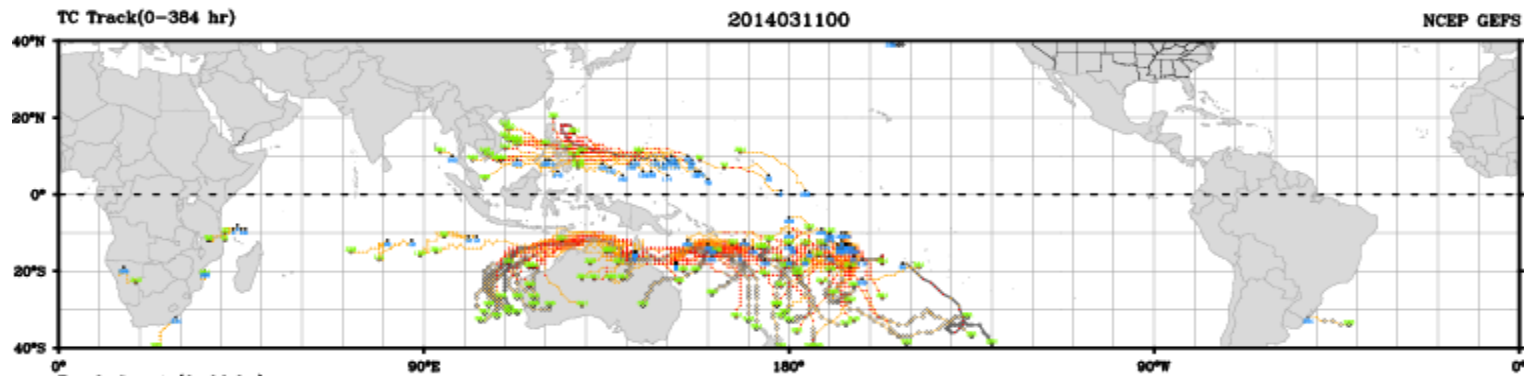


Slowly evolving base state favoring convection over the western Pacific (red arrow)

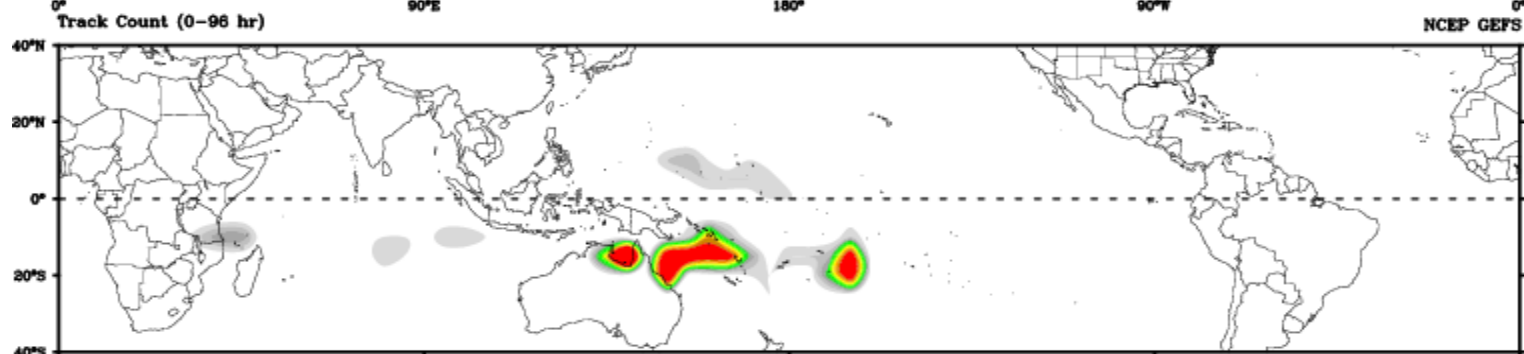
Active phase of the MJO over the Western Hemisphere (dashed lines), some enhanced convection over the western Indian Ocean.

Indications of other modes of variability, including mid-latitude influence near the Date Line.

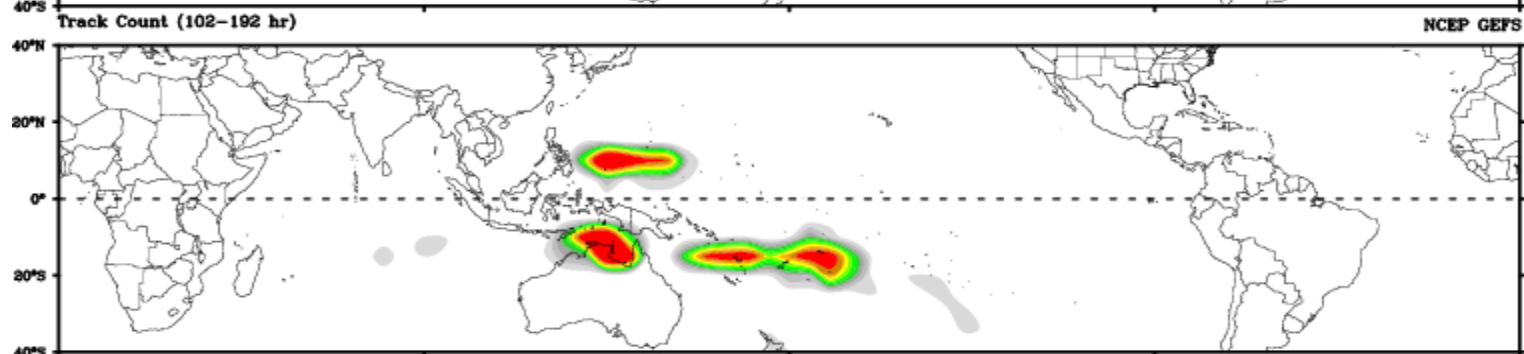




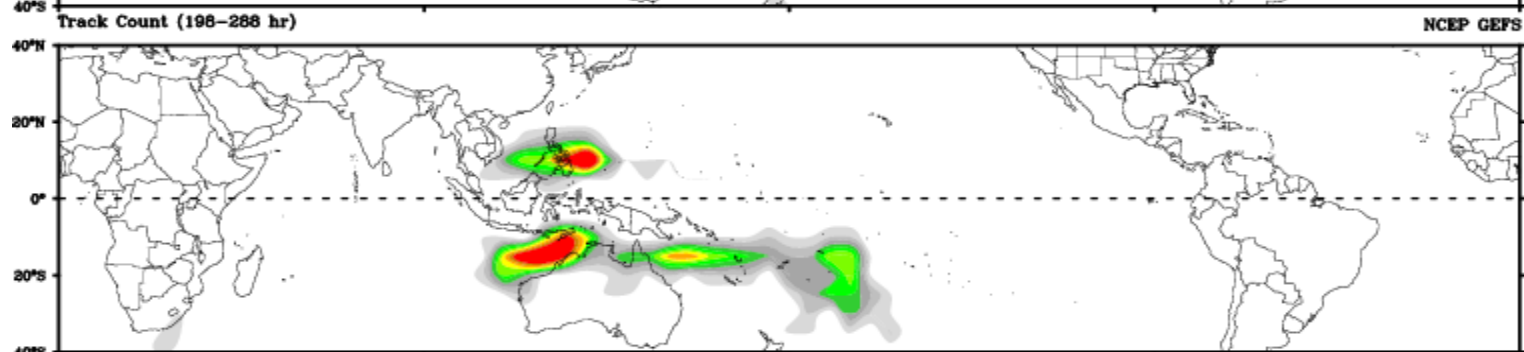
Days 1-4



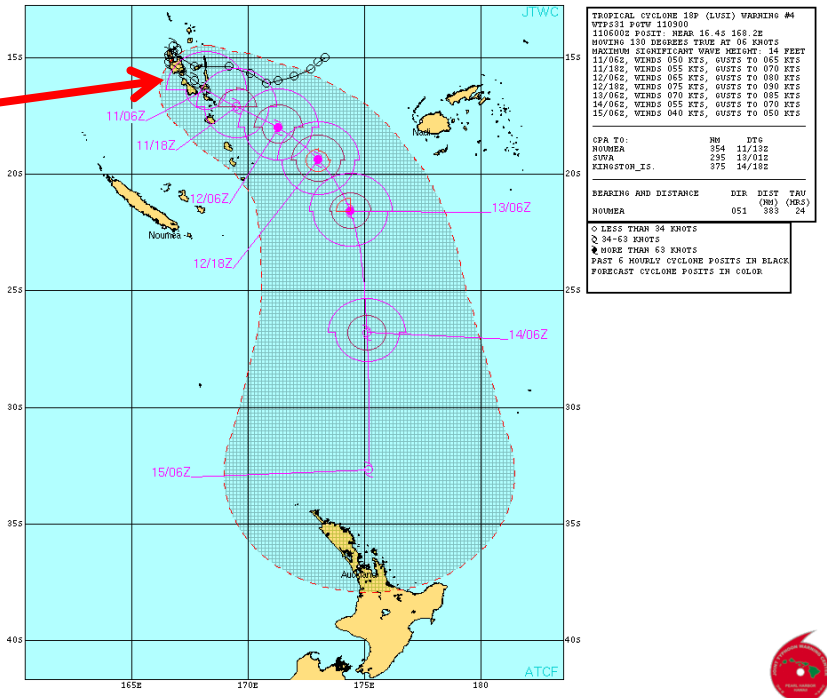
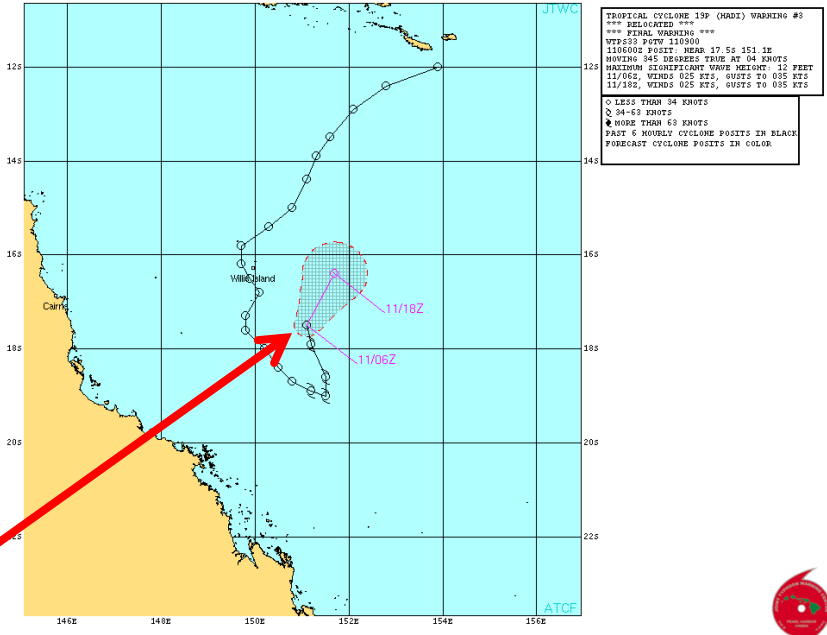
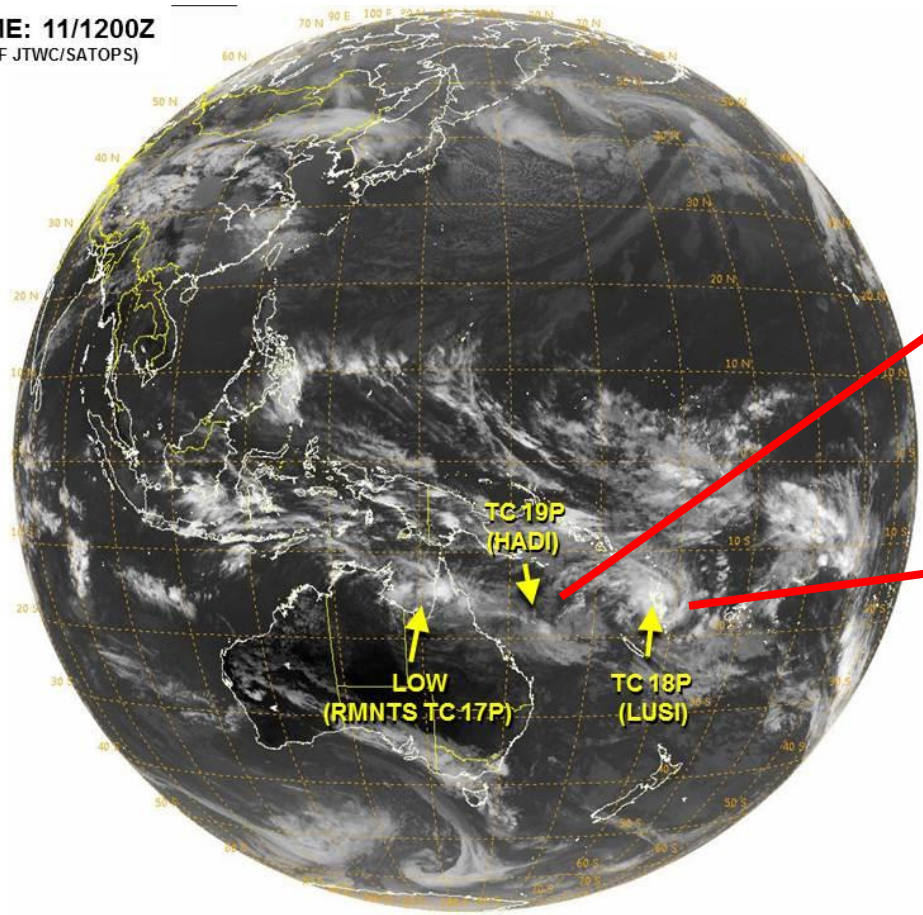
Day 5-8



Day 9-12

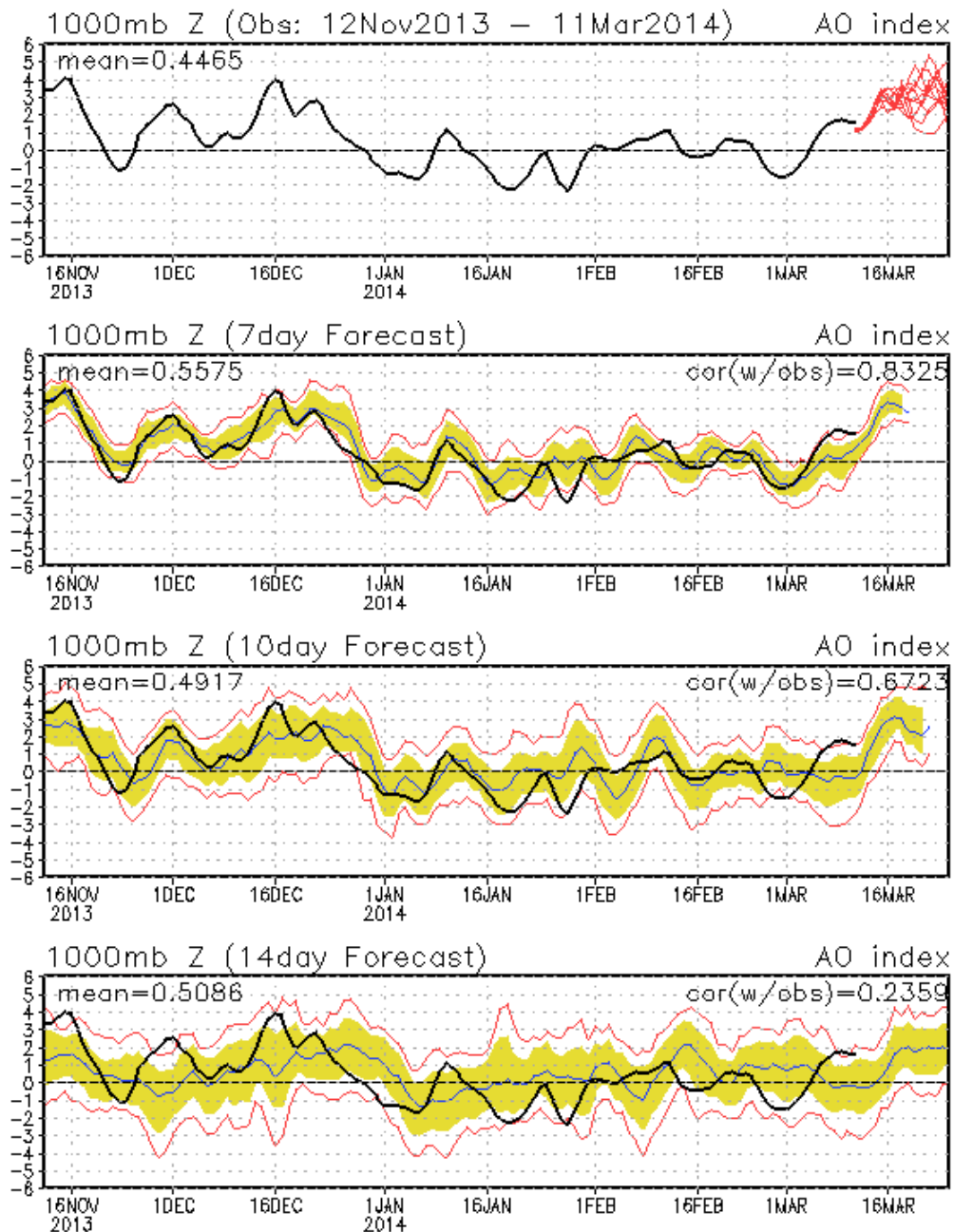


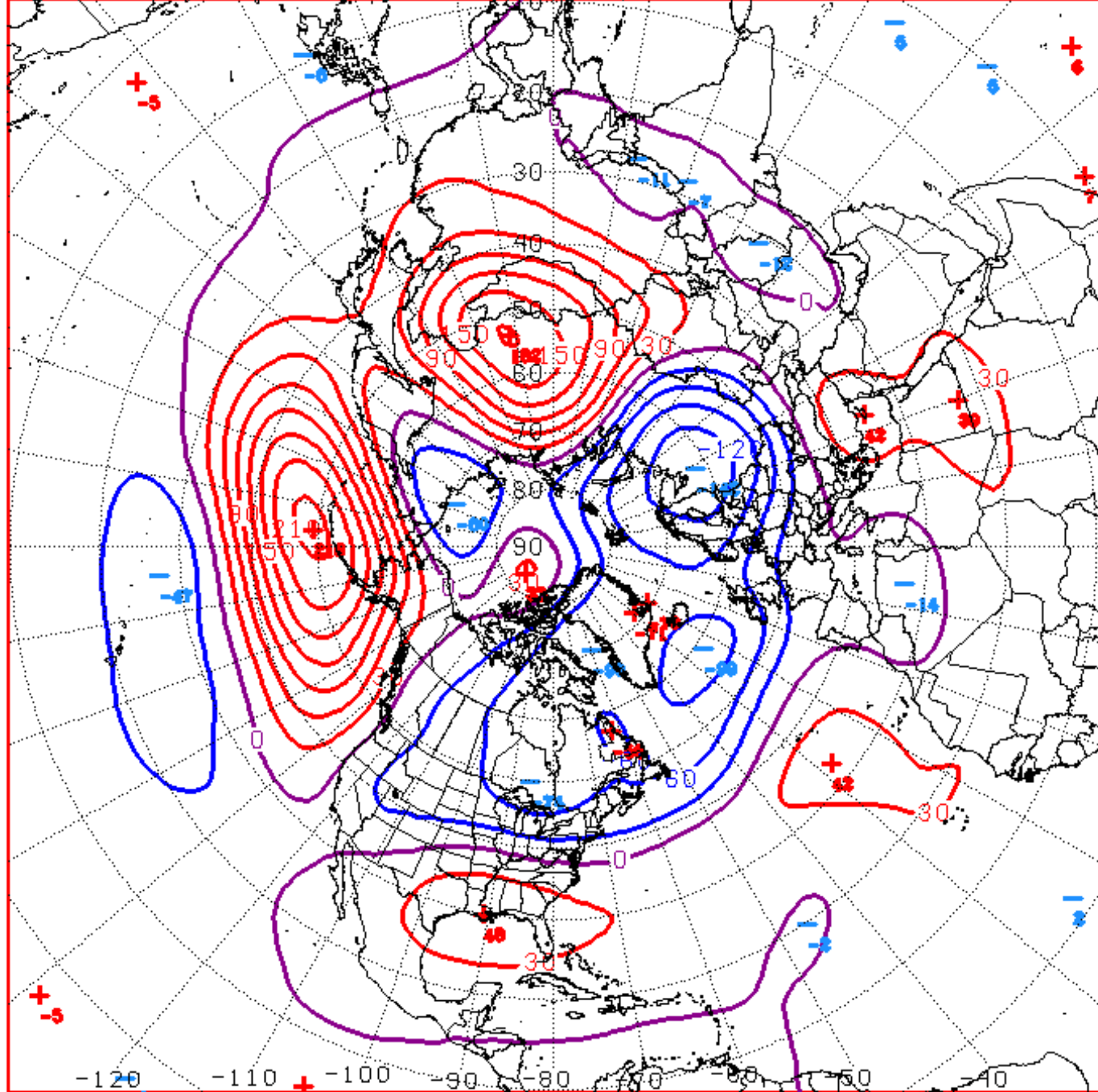
VALID TIME: 11/1200Z
(PRODUCT OF JTWC/SATOPS)



Connections to U.S. Impacts

AO: Observed & ENSM forecasts

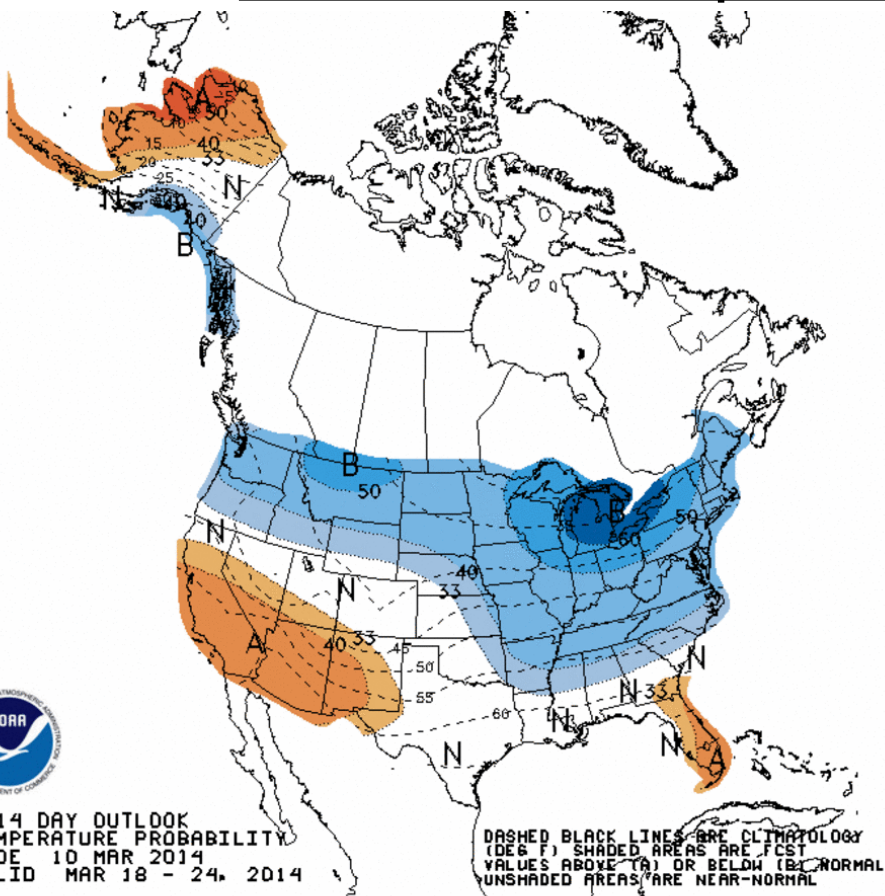




-120 -110 -100 -90 -80 -70 -60 -50

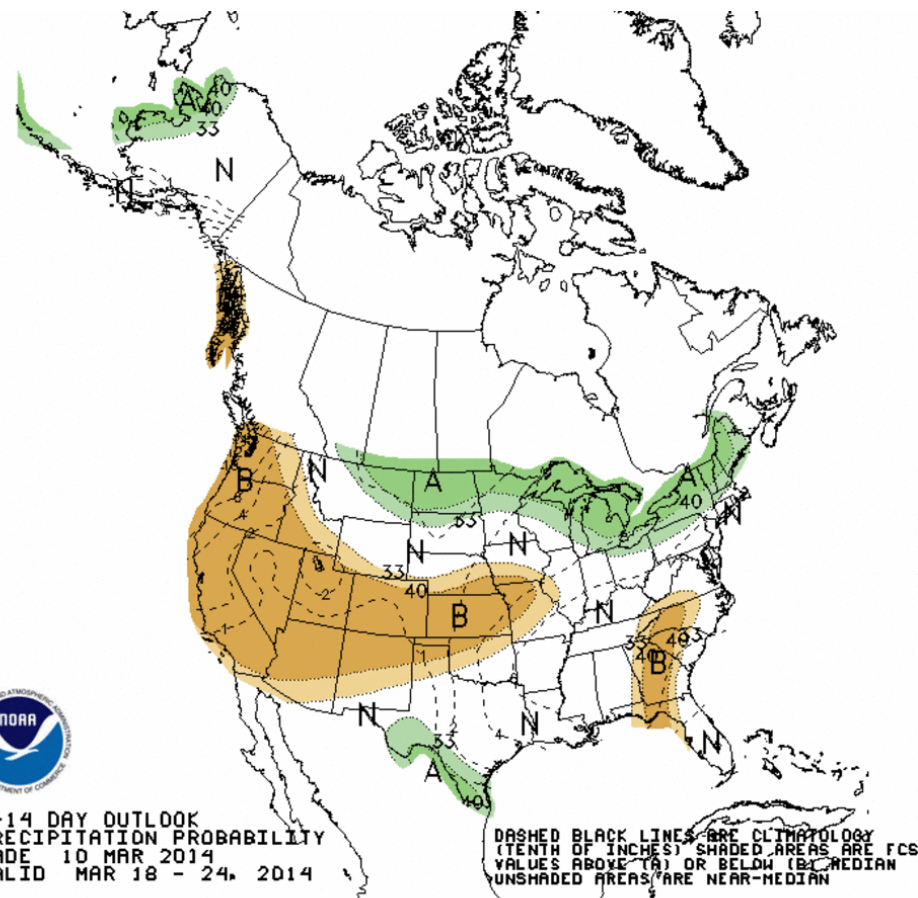
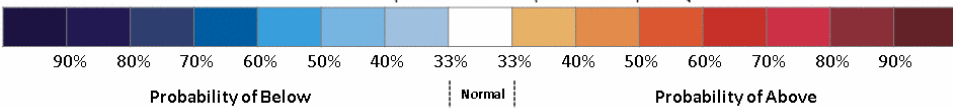
D+11 500 MB ANOMALIES FROM 00Z ECMM
CPC MAP MADE MAR 11 2014 1050 UTC CNTD MAR 22 2014

Week 2 – Temperature and Precipitation



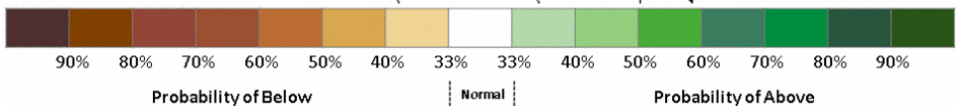
8-14 DAY OUTLOOK
TEMPERATURE PROBABILITY
MADE 10 MAR 2014
VALID MAR 18 - 24, 2014

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 10 MAR 2014
VALID MAR 18 - 24, 2014

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

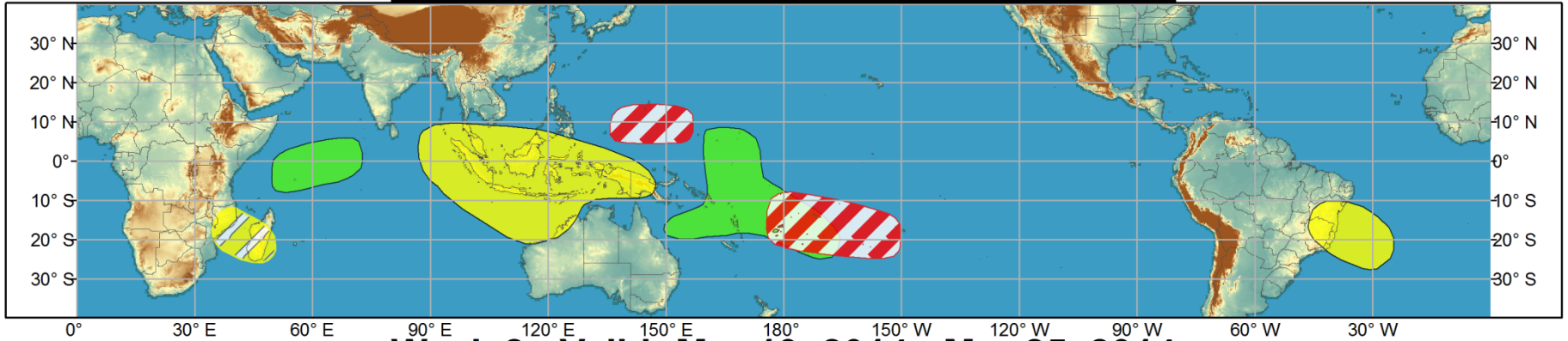




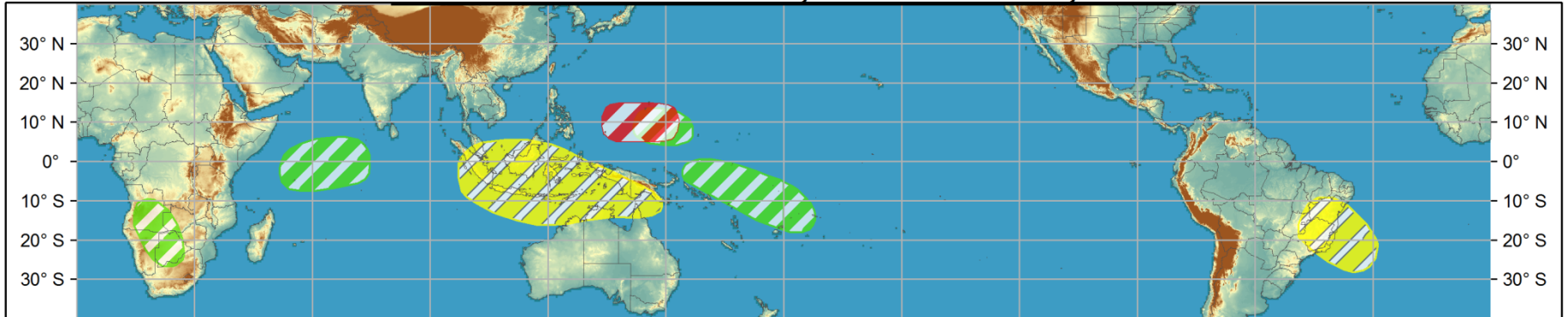
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