

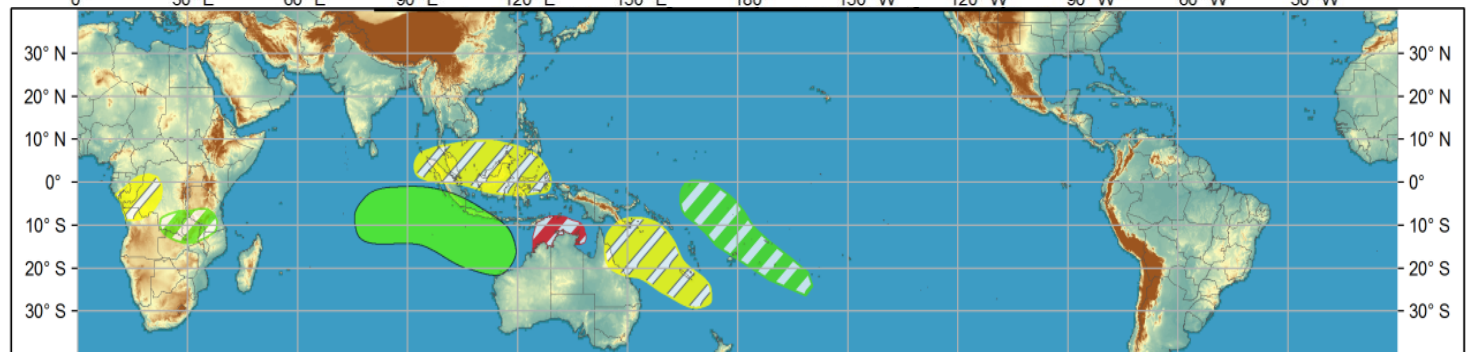
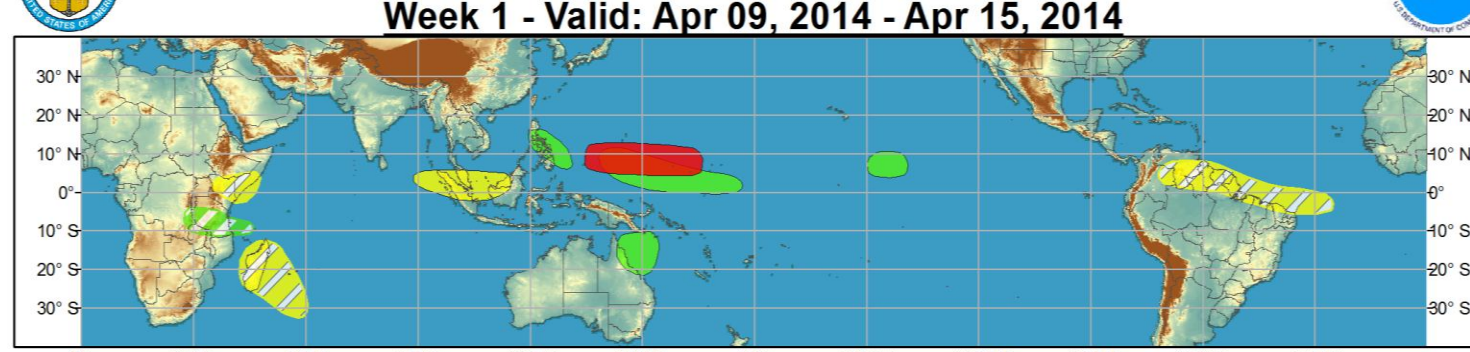
Global Tropics Hazards And Benefits Outlook

April 15, 2014

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



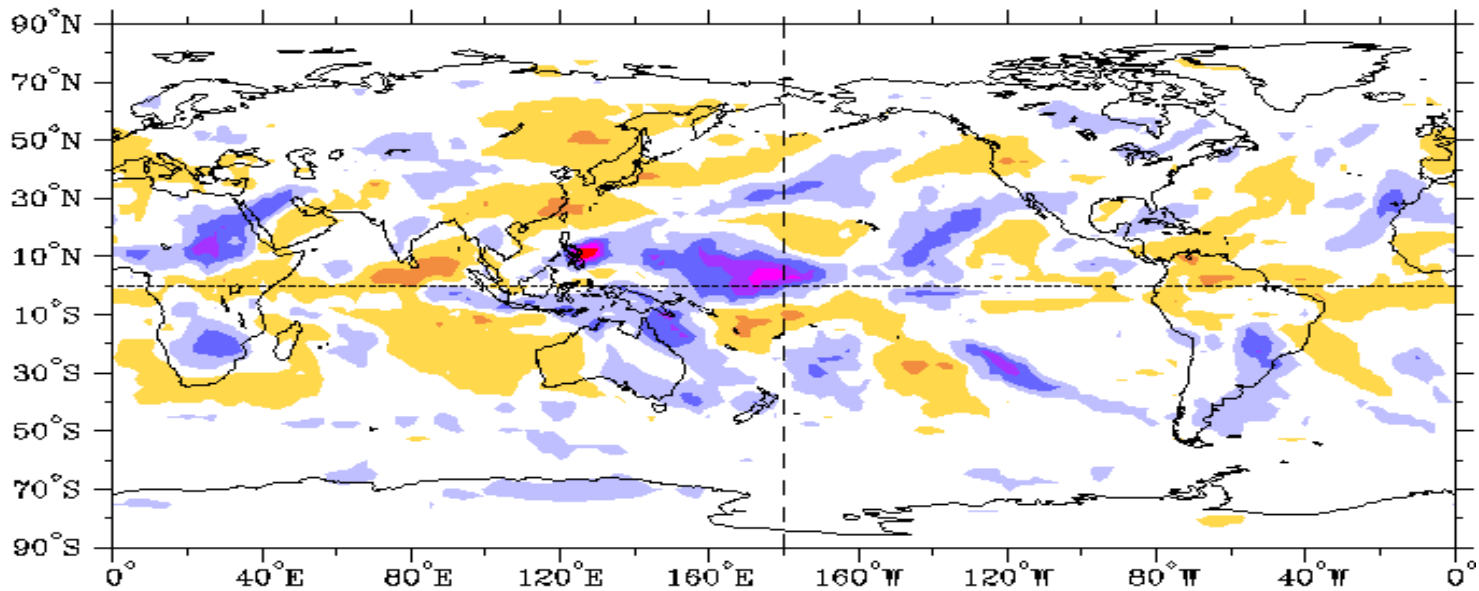
Confidence

Produced: 04/01/2014

Outlook Review

Cool shading
More clouds/rain

Warm shading
Less clouds/rain



Synopsis of Climate Modes

ENSO:

- While ENSO-neutral is favored for Northern Hemisphere spring, the chances of El Niño increase during the remainder of the year, exceeding 50% by summer, and 66% by the end of 2014.
- ENSO Alert System Status: El Niño Watch

MJO and other subseasonal tropical variability:

- The MJO remained weak during the past week. Other modes of variability are aliased into some of the MJO indices.
- Dynamical model MJO index forecasts differ on the strength of the signal during Week-2, with indications of a weak signal. The models are keying in on Kelvin Waves and the developing background state.

Extratropics:

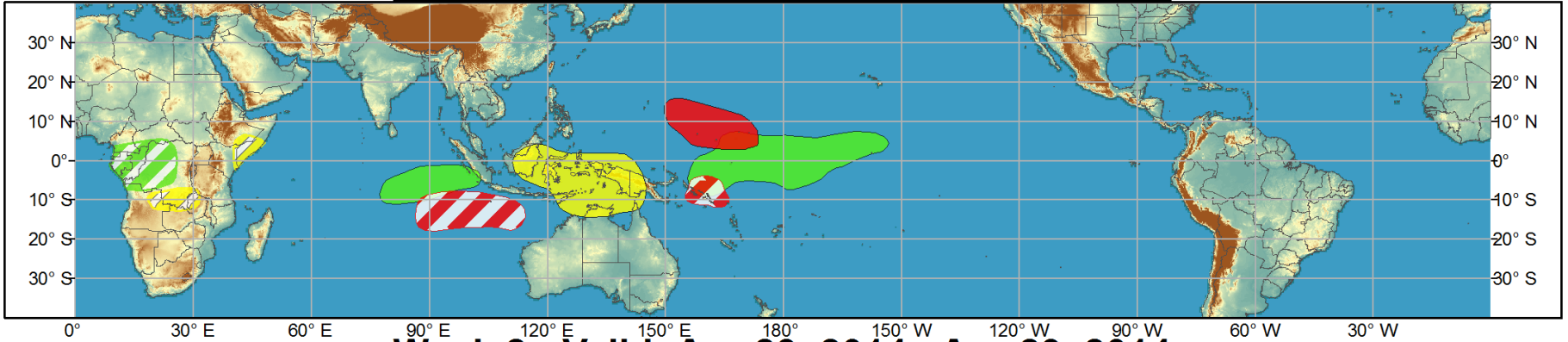
- The extended range forecast for the U.S. is not expected to be impacted greatly by the MJO. Current outlooks indicate above-normal temperatures are favored from the Great Basin to the Central and Southern Plains, while below-normal temperatures are favored from the Northern Great Plains to the Northeast, and along the Gulf Coast. Above-median rains are likely over the CONUS except the southwest (near-median) and southeast (below-median). Above-normal temperatures and below-median precipitation are likely over western Alaska.



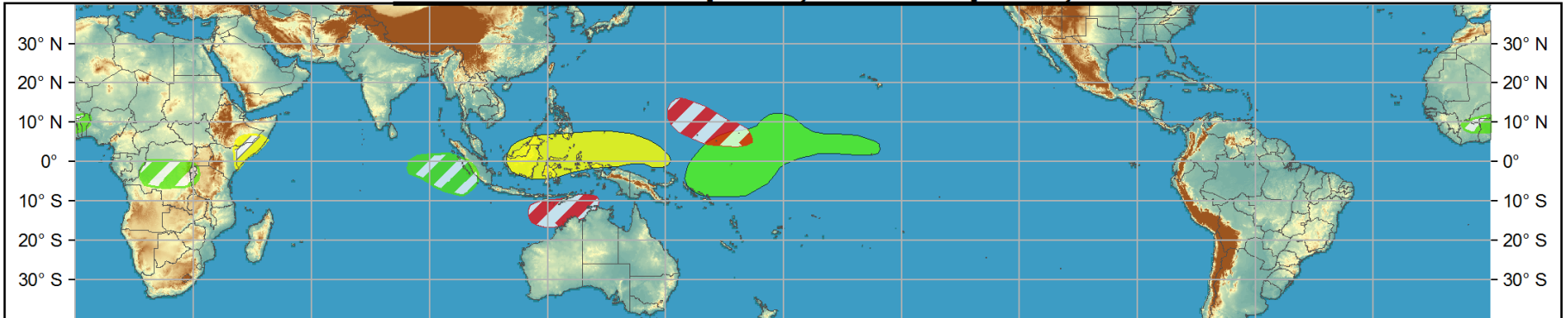
Global Tropics Hazards and Benefits Outlook - Climate Prediction Center



Week 1 - Valid: Apr 16, 2014 - Apr 22, 2014



Week 2 - Valid: Apr 23, 2014 - Apr 29, 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.
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Produced: 04/15/2014

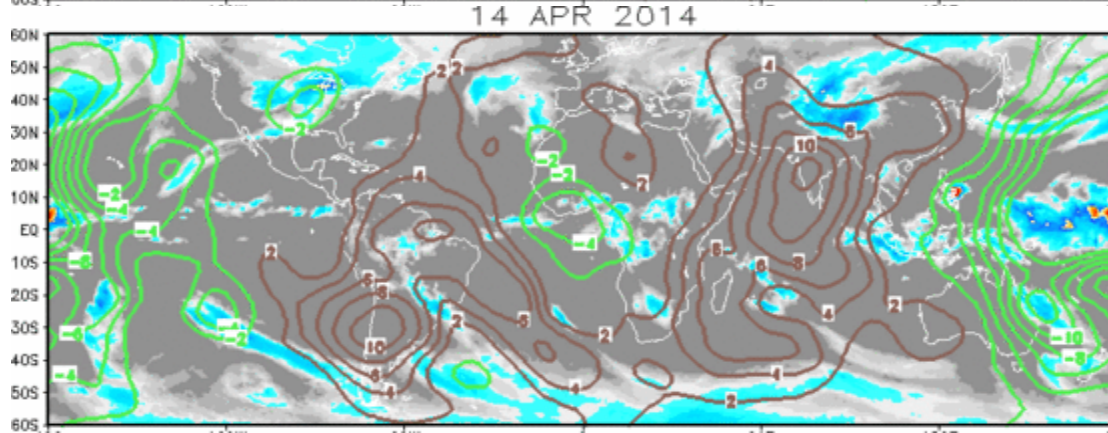
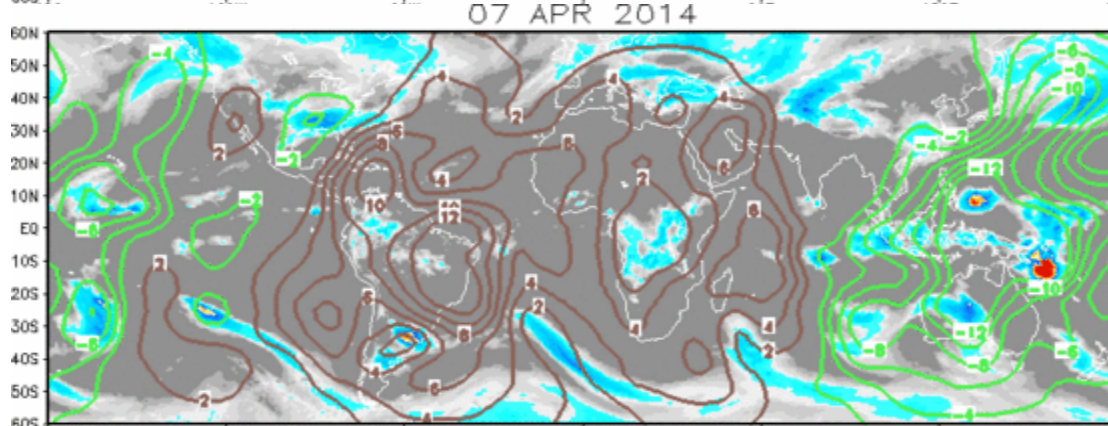
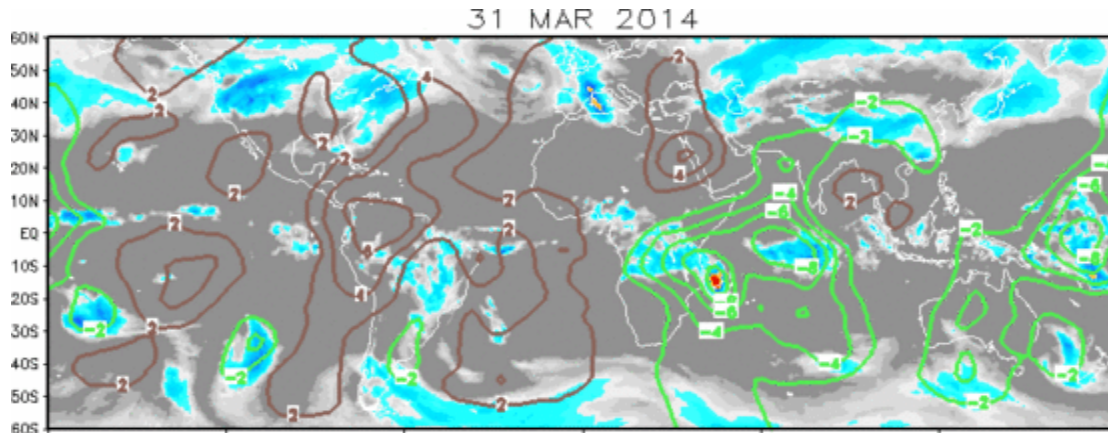
Forecaster: Rosencrans

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



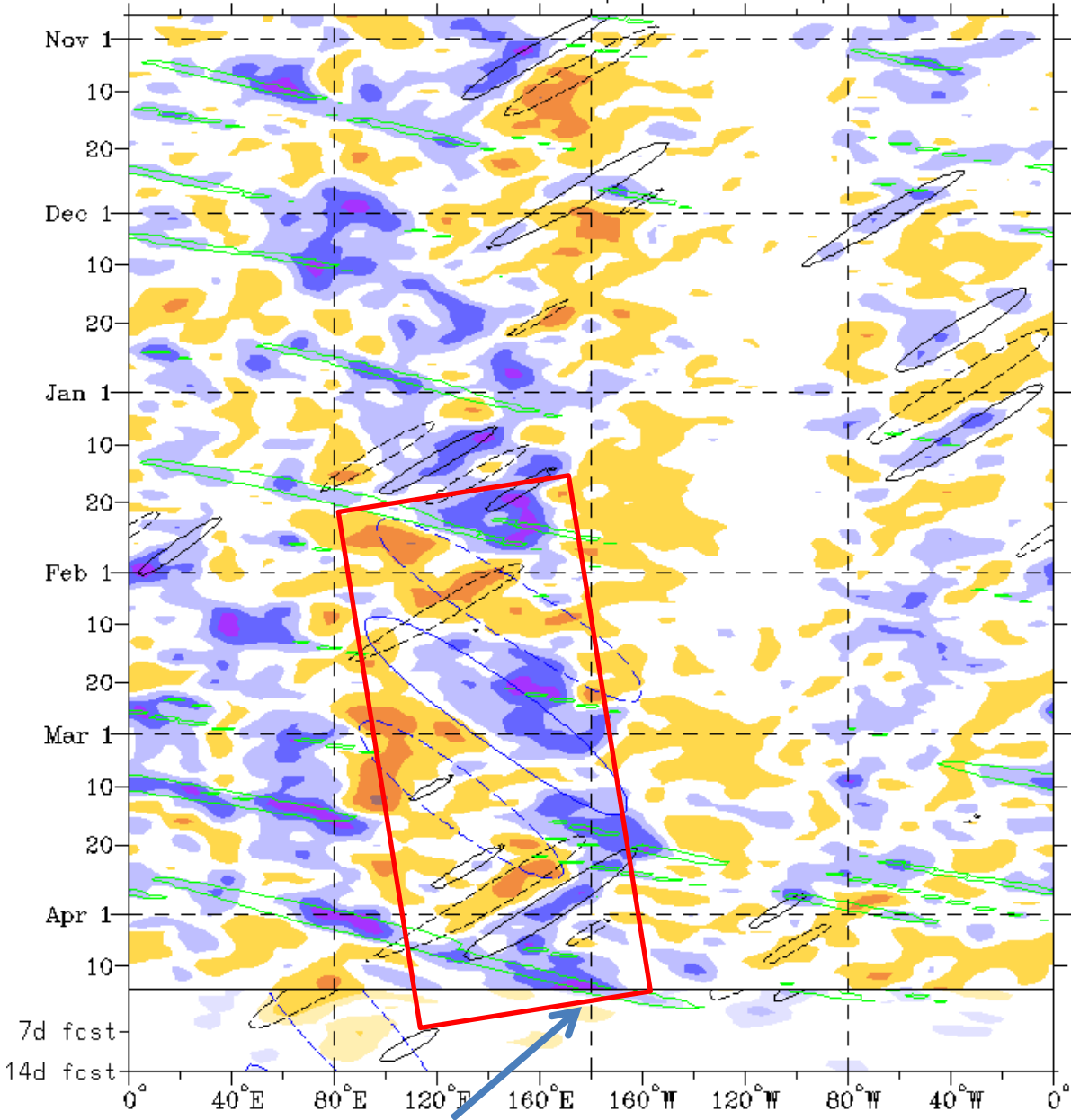
Pattern is not coherent with MJO activity.

Evidence of other modes of variability.

MJO signal faded a few weeks ago.

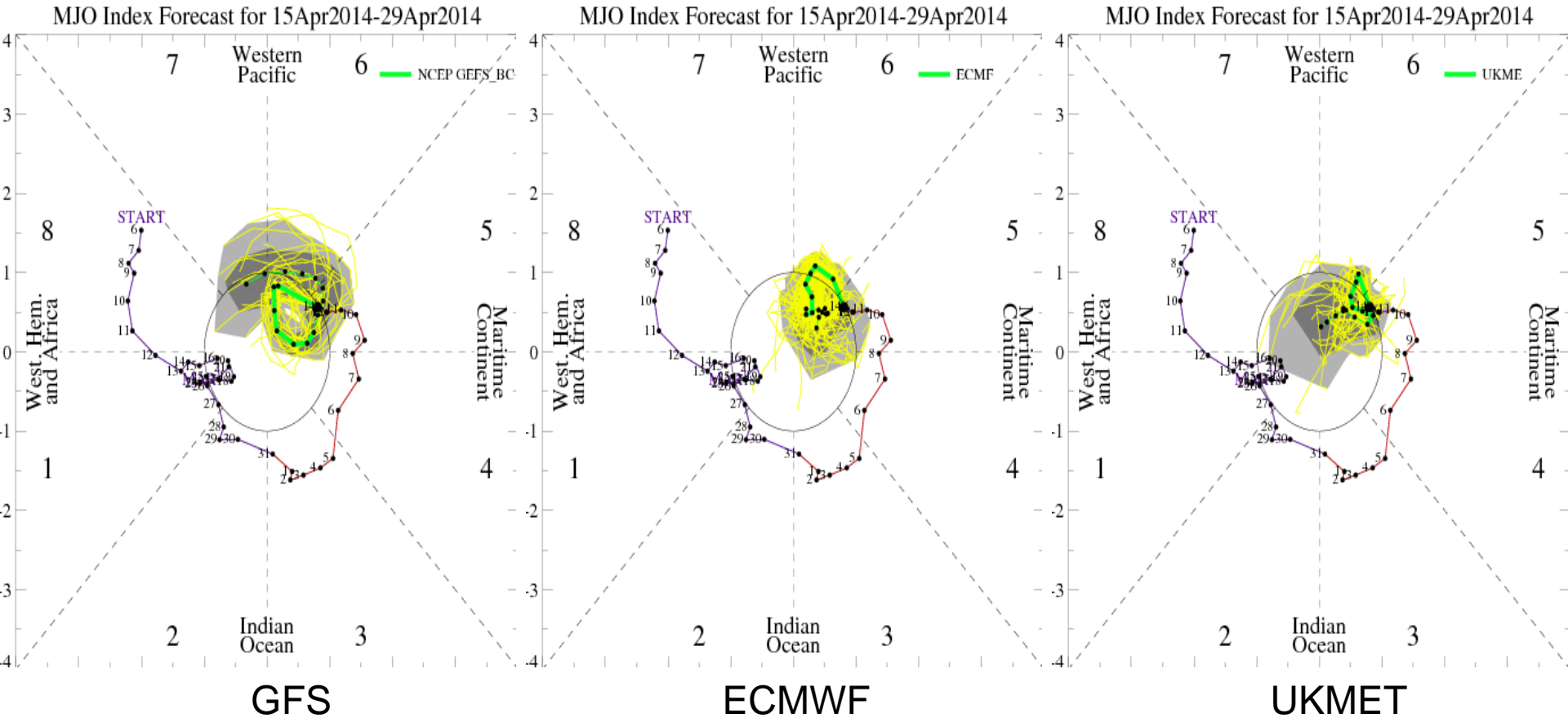
Main drivers are now:

- 1) Atmospheric Kelvin waves (green ovals)
- 2) Equatorial Rossby Waves (black oval, tilted to bottom left)
- 3) Interseasonal state (red box)

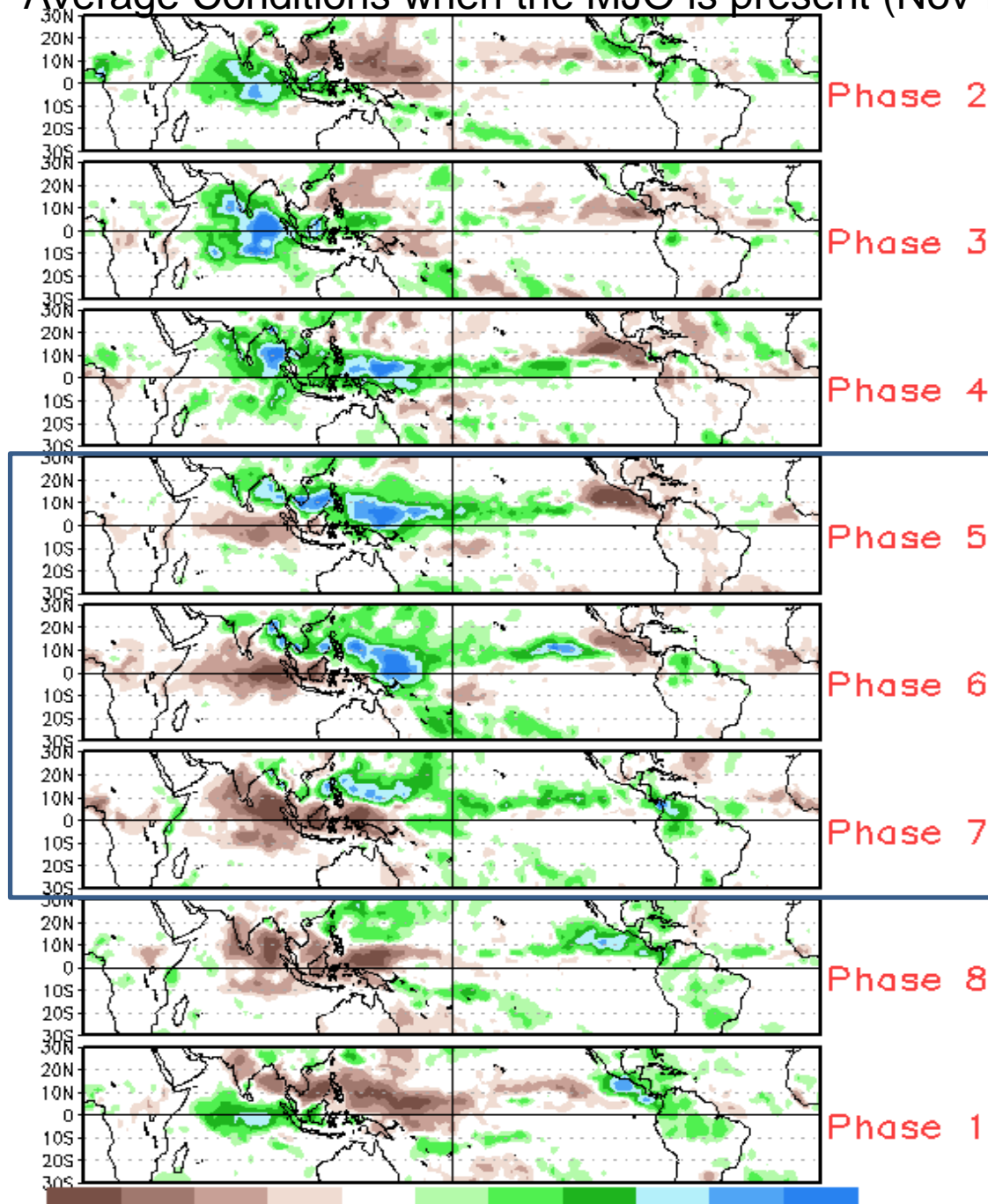


Enhanced convection over west/central Pacific

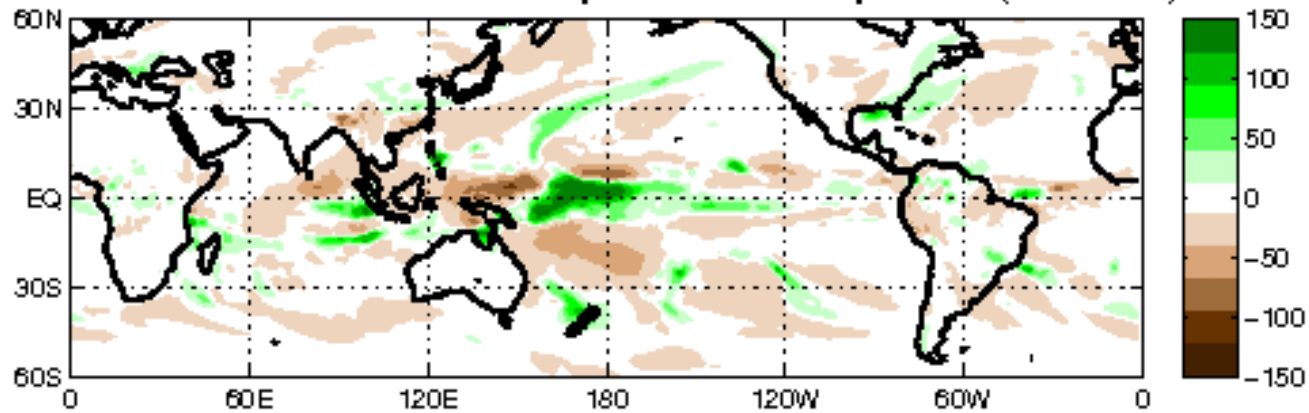
MJO Observation/Forecast



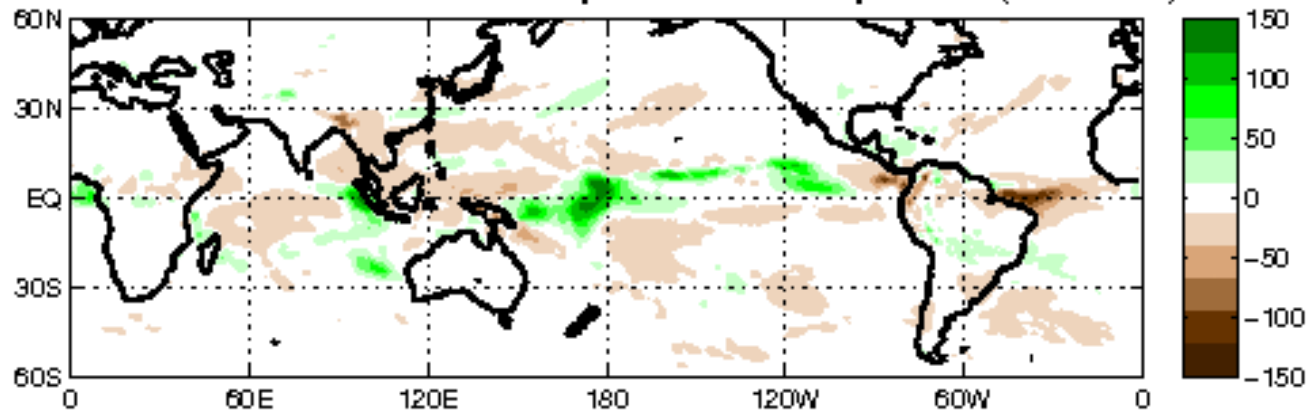
Average Conditions when the MJO is present (Nov-Mar)



CFS: Anom. PREC Week1: 15-Apr-2014 to 21-Apr-2014 (mm/week)

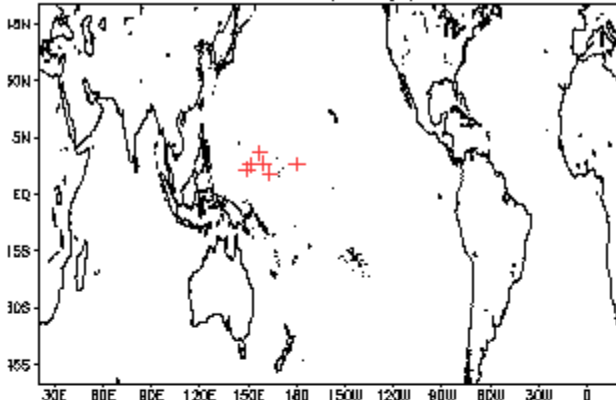


CFS: Anom. PREC Week2: 22-Apr-2014 to 28-Apr-2014 (mm/week)

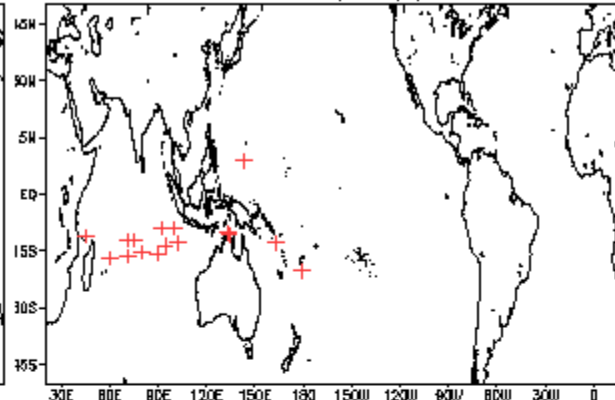


April Tropical Storm Formation by MJO phase

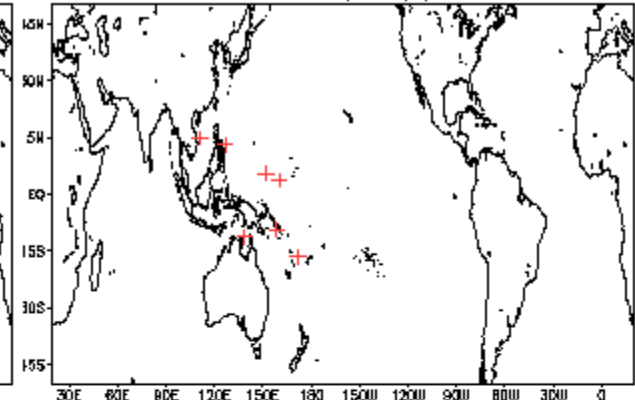
Phase 1 (70 days) 7 storms



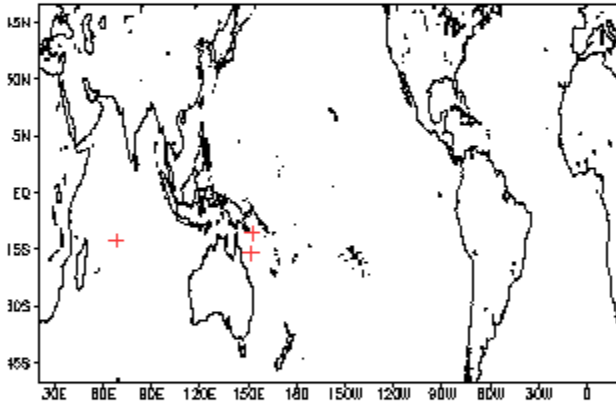
Phase 4 (95 days) 17 storms



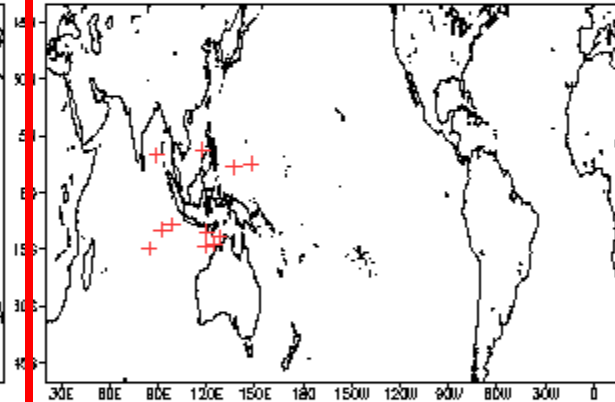
Phase 7 (87 days) 8 storms



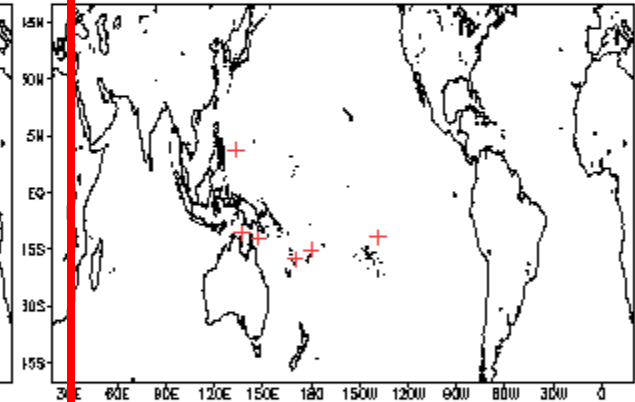
Phase 2 (65 days) 4 storms



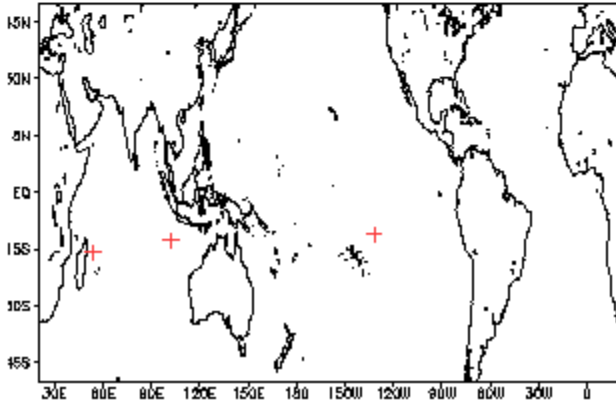
Phase 5 (77 days) 12 storms



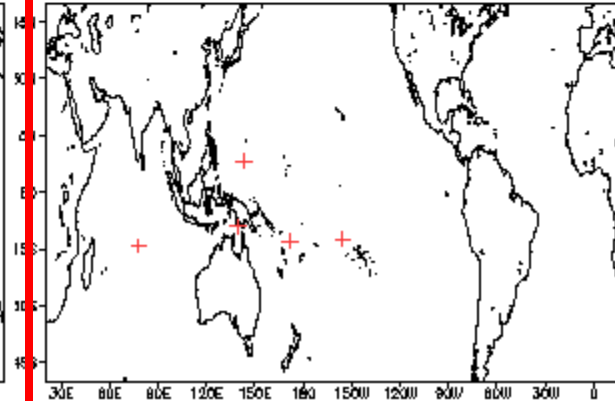
Phase 8 (75 days) 7 storms



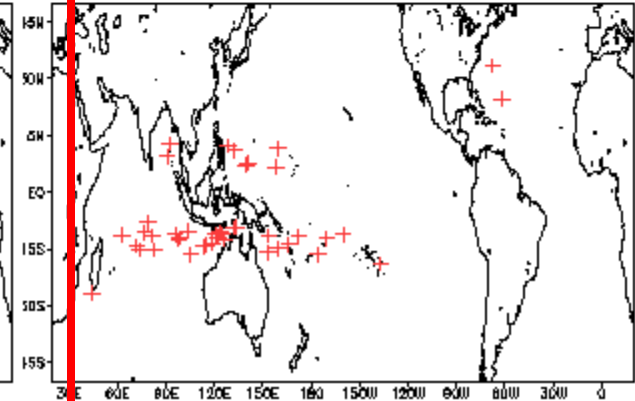
Phase 3 (68 days) 4 storms



Phase 6 (65 days) 8 storms



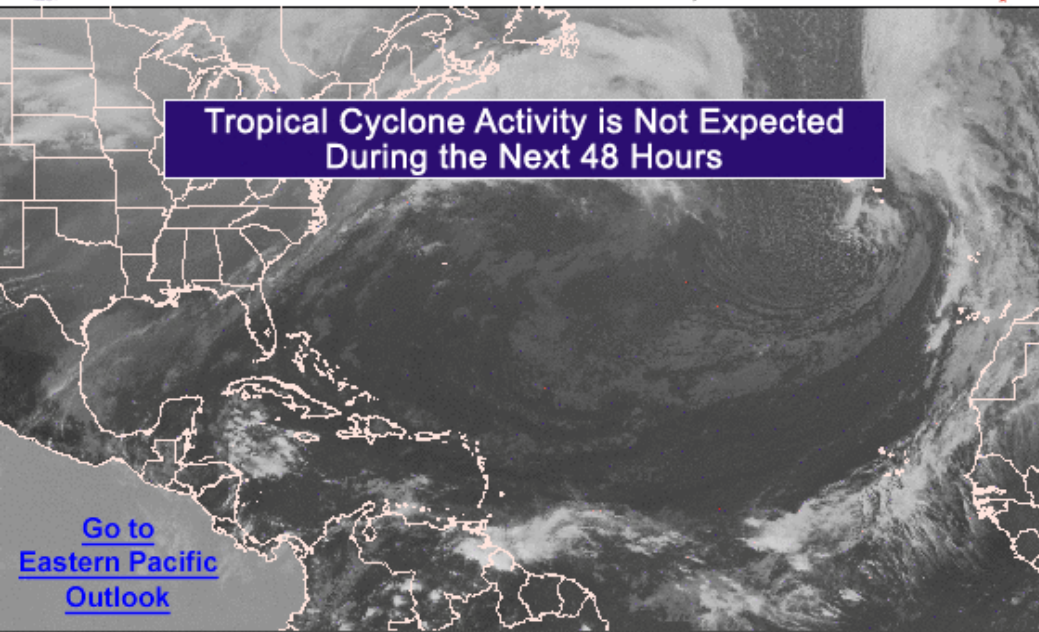
Null (388 days) 43 storms





Graphical Tropical Weather Outlook

National Hurricane Center Miami, Florida



655 AM EST SAT DEC 7 2013

Satellite Image: 0400 PM EST

Outlined areas denote current position of systems discussed in the Tropical Weather Outlook. Color indicates probability of tropical cyclone formation within 48 hours.

Low <30%
 Medium 30-50%
 High >50%

Graphical Tropical Weather Outlook

National Hurricane Center Miami, Florida

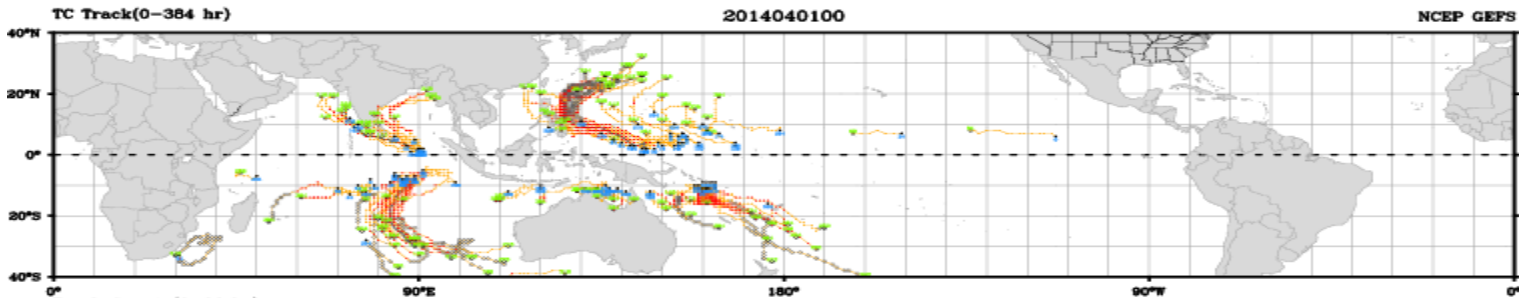


1000 PM PST SAT NOV 30 2013

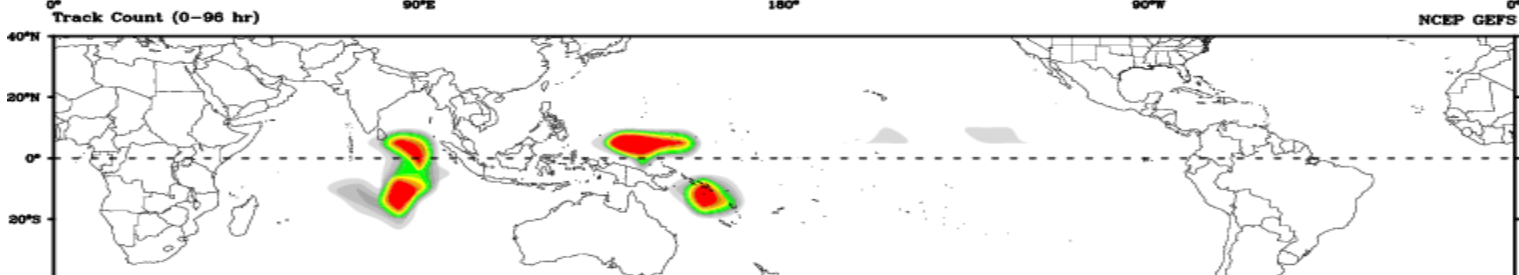
Satellite Image: 0822 PM PST

Outlined areas denote current position of systems discussed in the Tropical Weather Outlook. Color indicates probability of tropical cyclone formation within 48 hours.

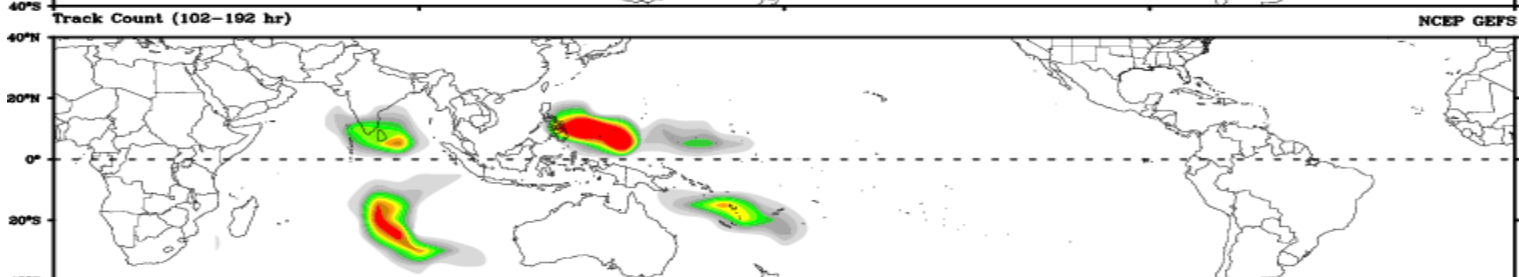
Low <30%
 Medium 30-50%
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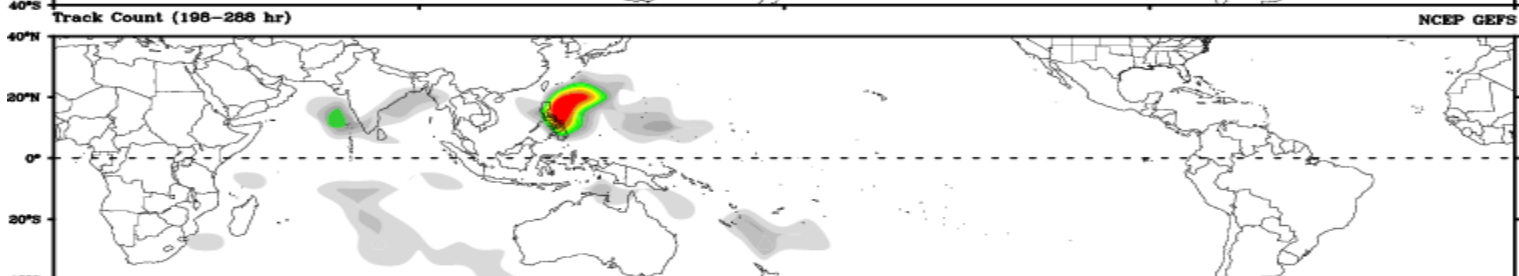
Days 1-4



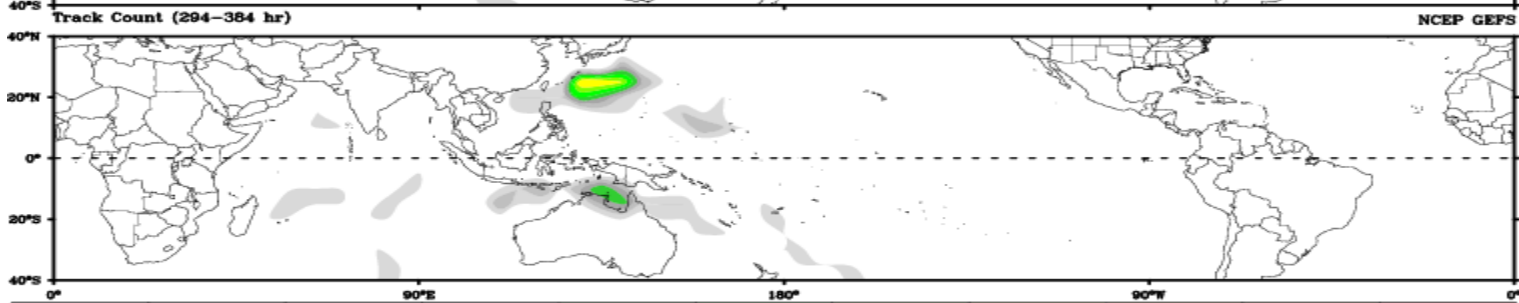
Day 5-8

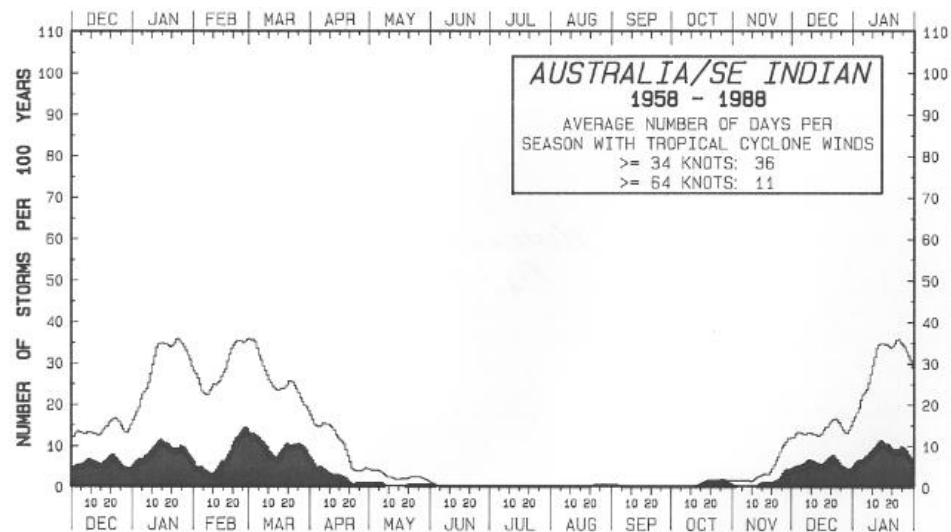
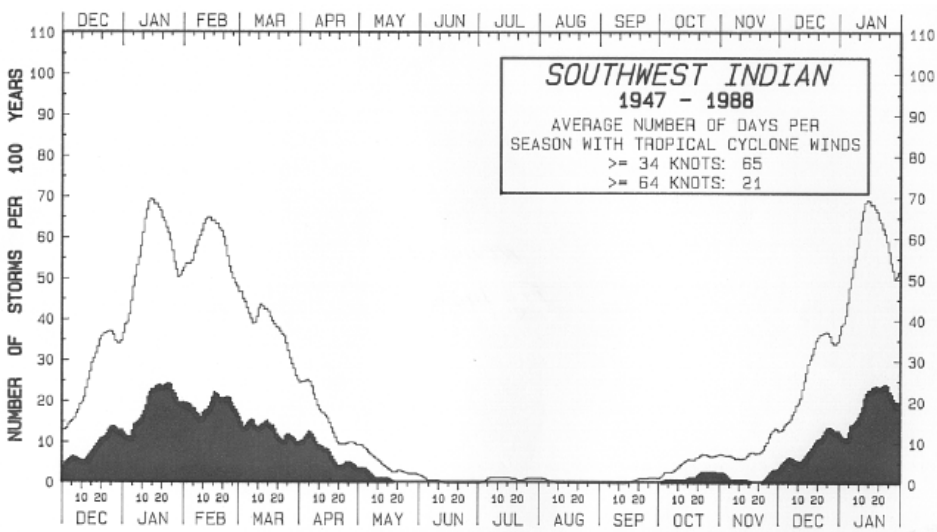
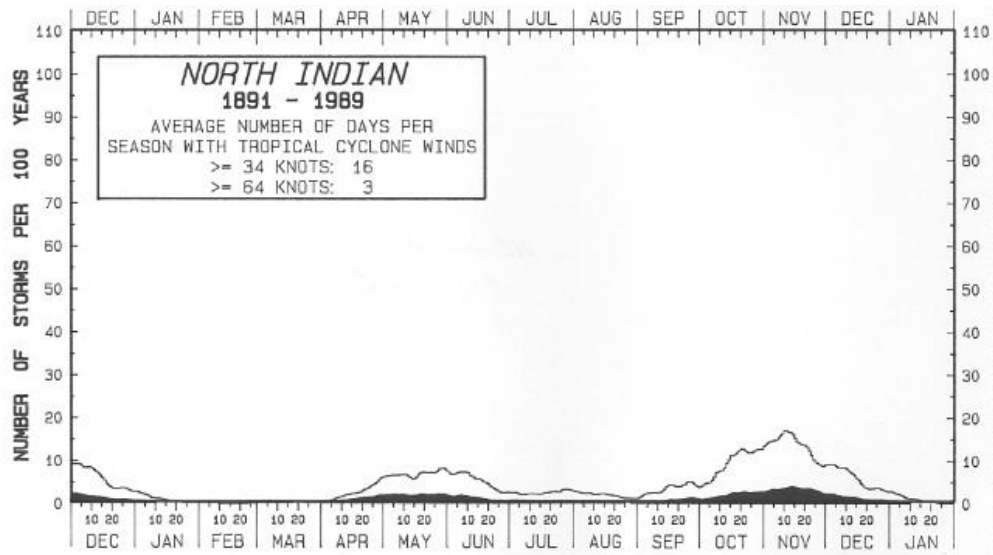


Day 9-12



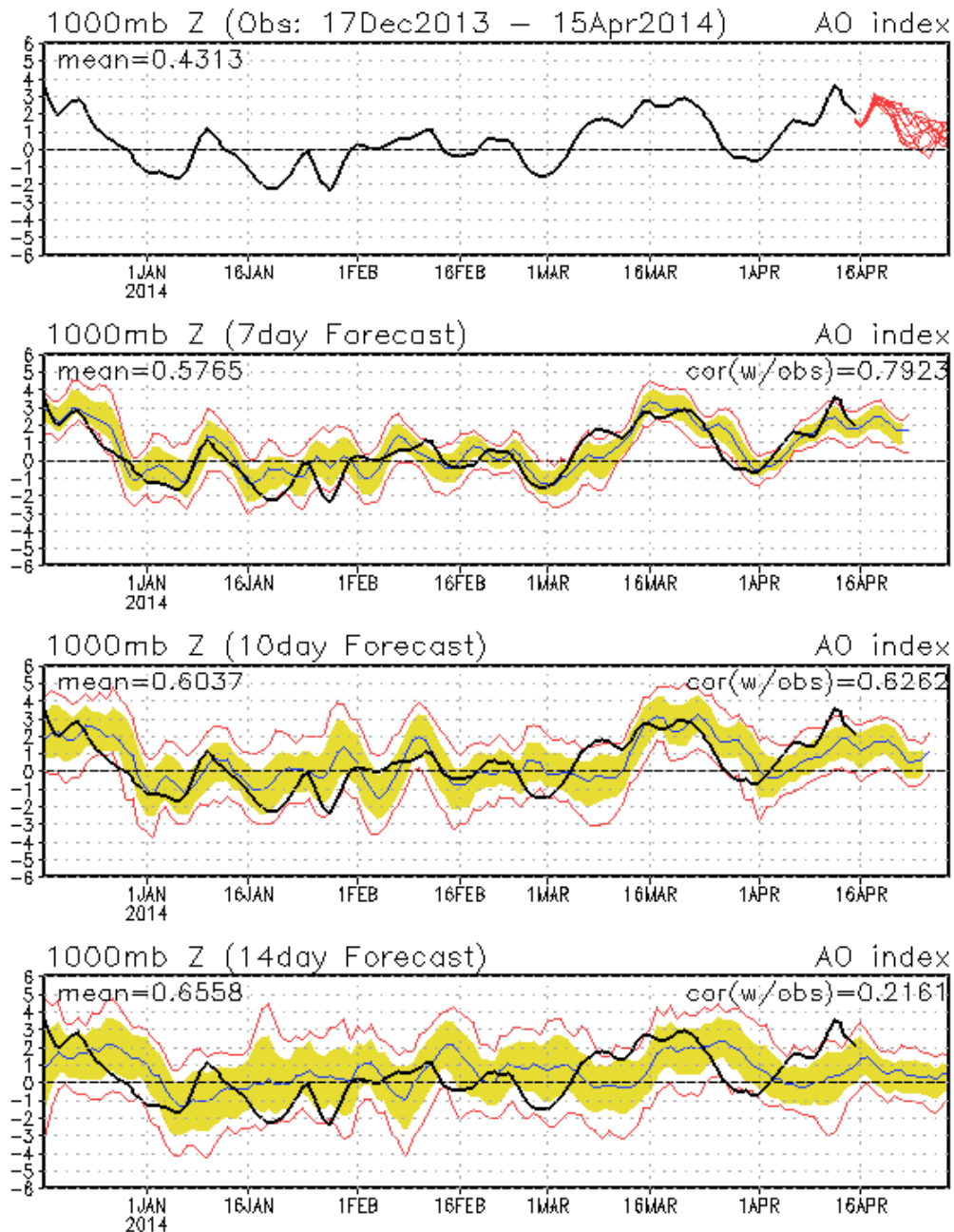
Day 13-15

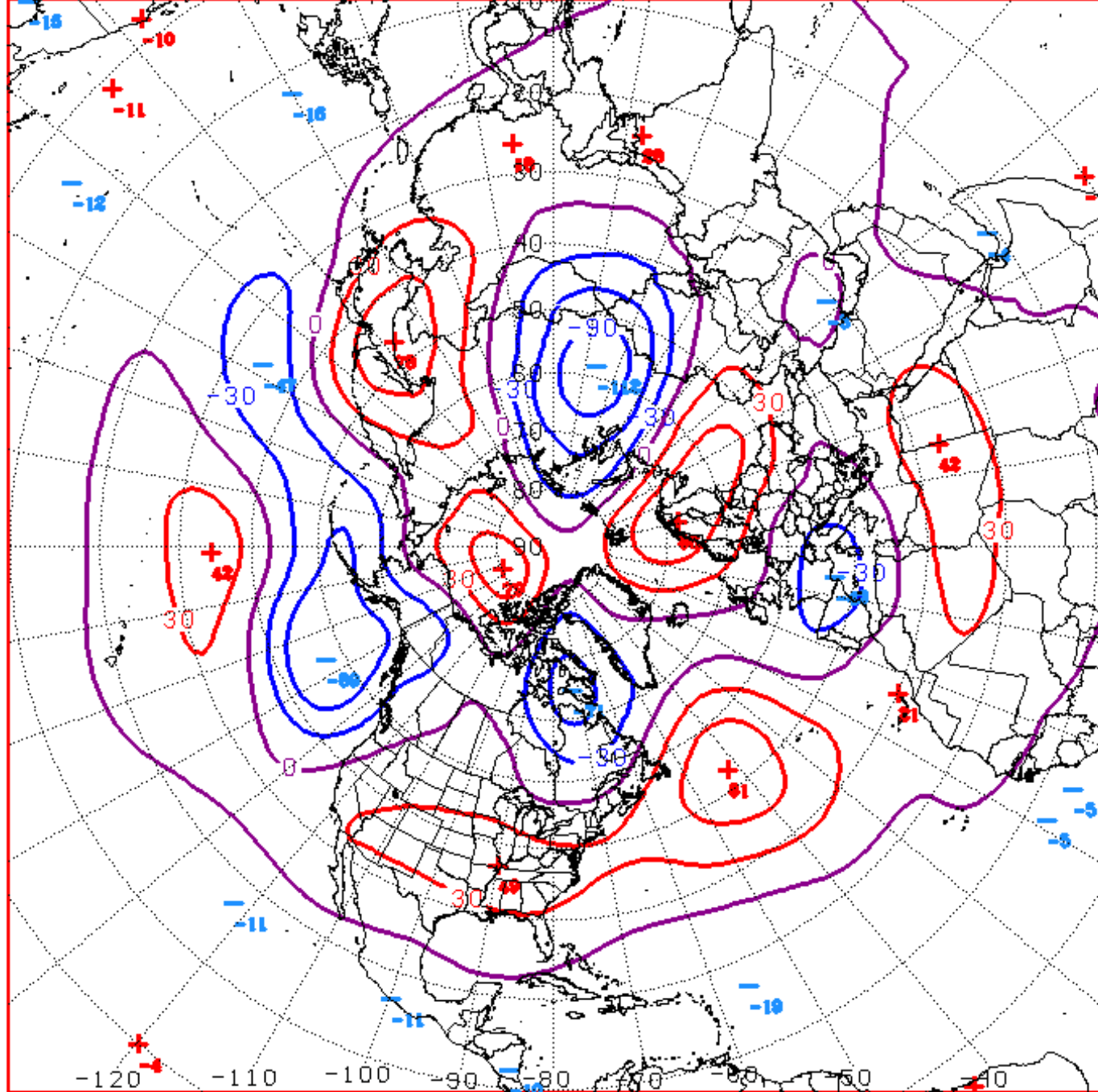




Connections / U.S. Impacts

AO: Observed & ENSM forecasts

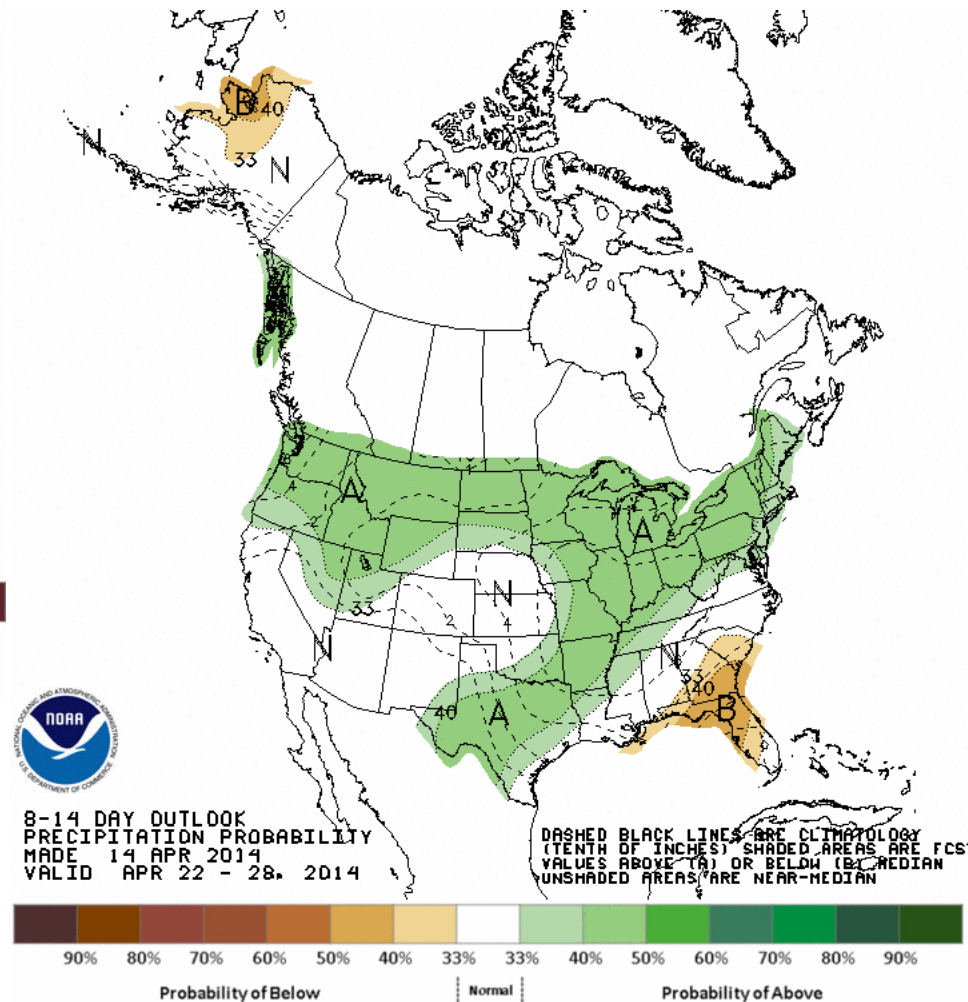
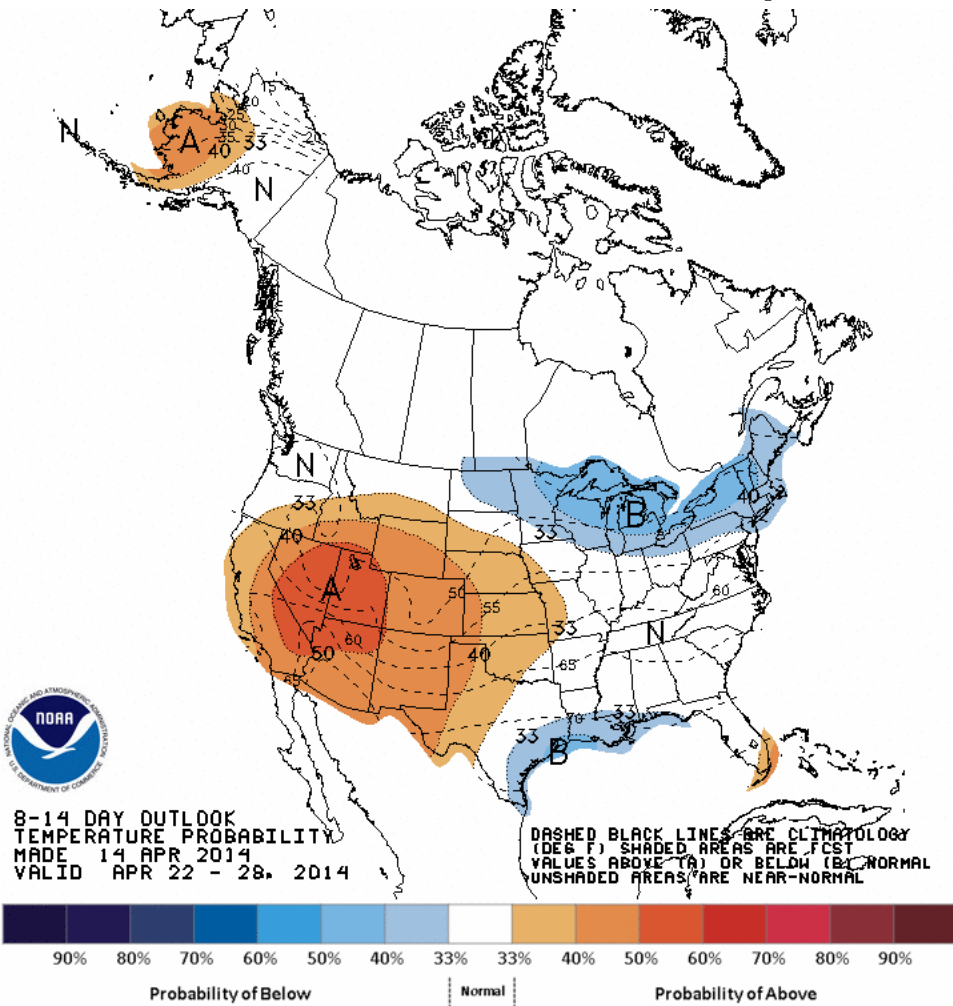




D+11 500 MB ANOMALIES FROM 00Z ECMM
CPC MAP MADE APR 15 2014 1102 UTC CNTD APR 26 2014

Week 2 – Temperature and Precipitation

Seeing some patterns consistent with lagged impacts from Phase 5/6 MJO, but not proper linkages over the Pacific to allow preliminary attribution.

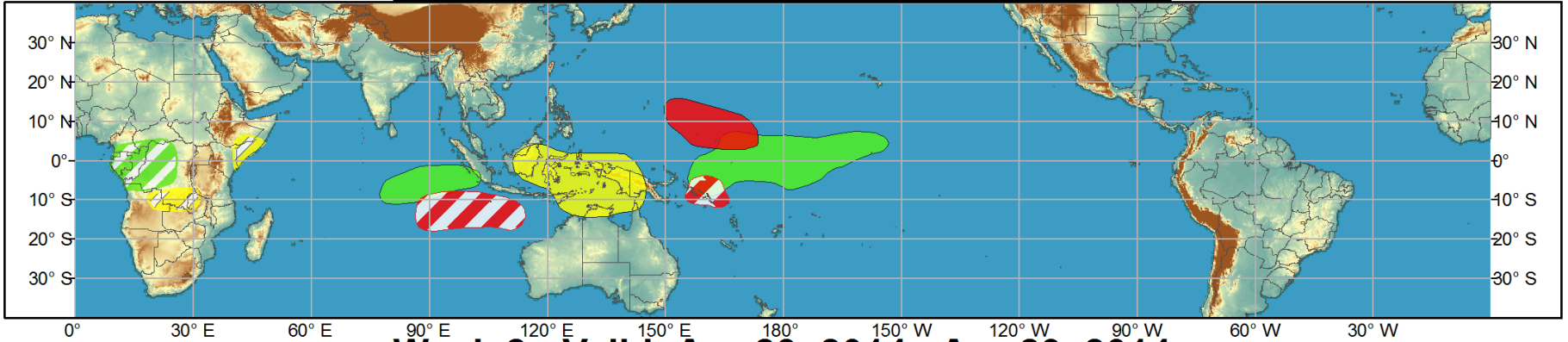




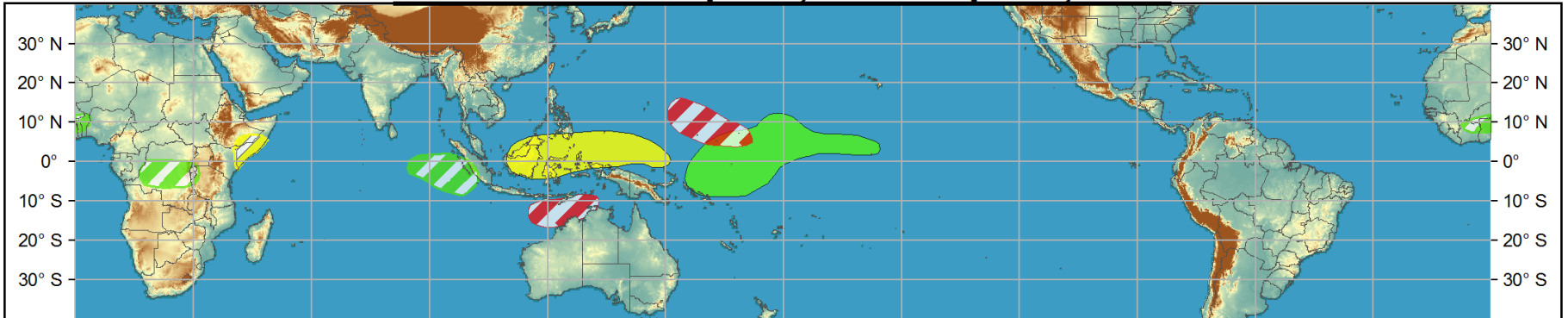
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