

Global Tropics Hazards And Benefits Outlook

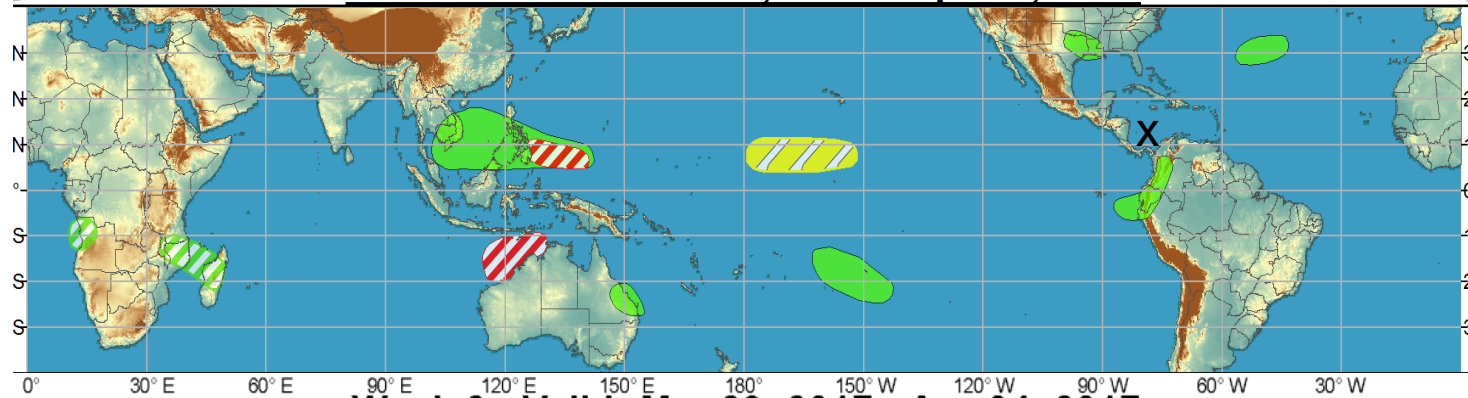
4/4/2017

Matthew Rosencrans

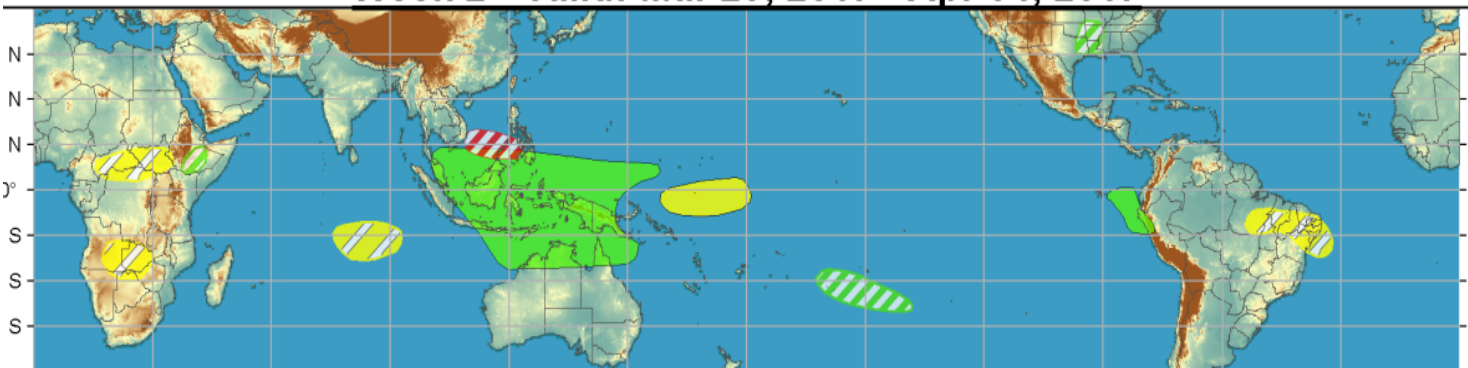
Outline

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

Week 1 - Valid: Mar 29, 2017 - Apr 04, 2017

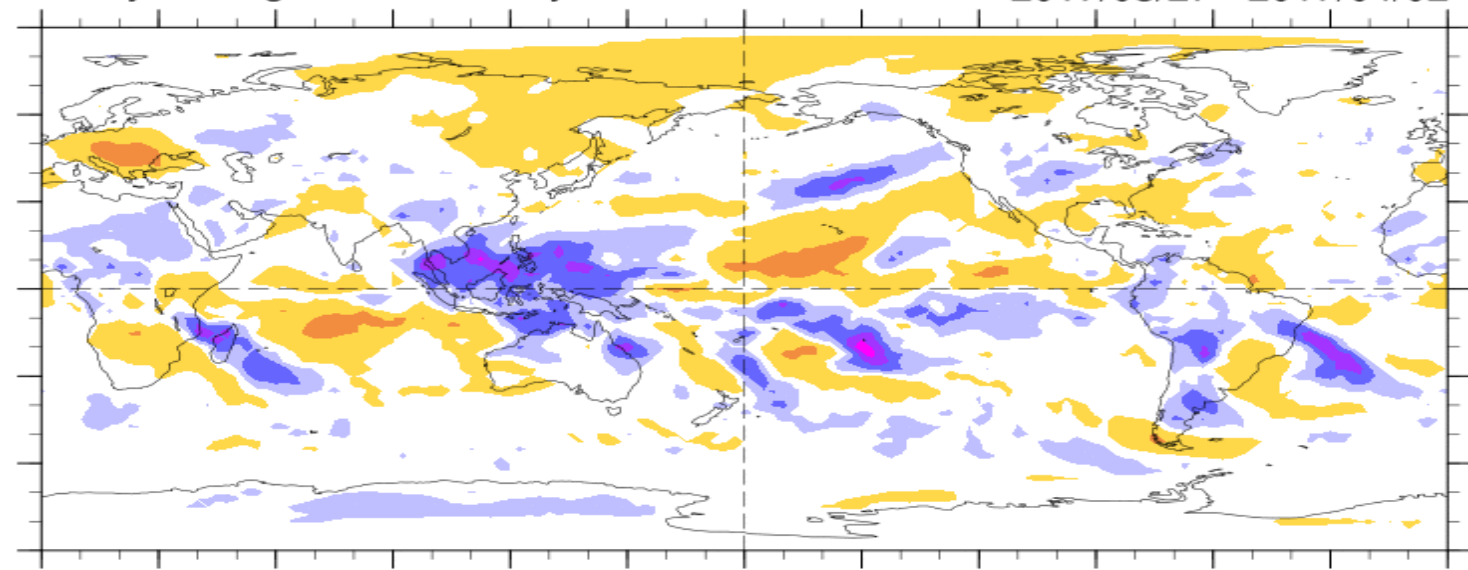


Week 2 - Valid: Mar 29, 2017 - Apr 04, 2017



7-Day Average OLR Anomaly

2017/03/27 - 2017/04/02

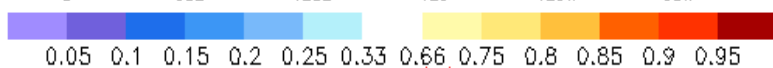
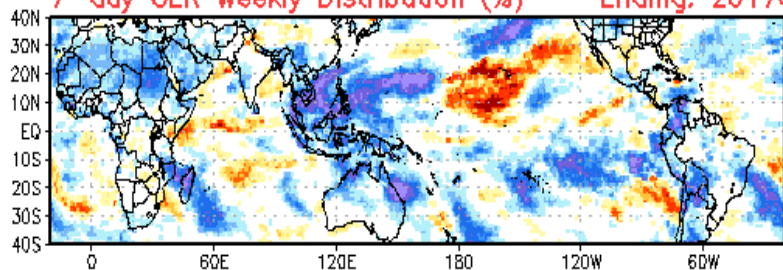


Outlook Review

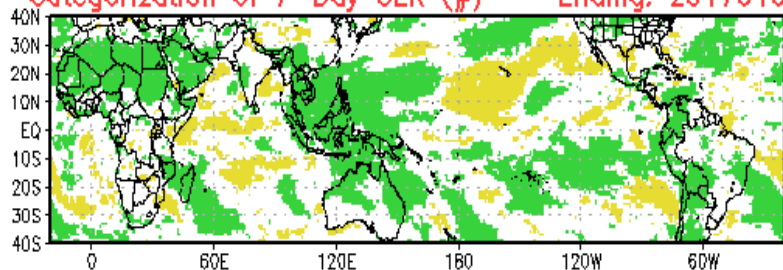
Cool shading
More clouds/rain

Warm shading
Less clouds/rain

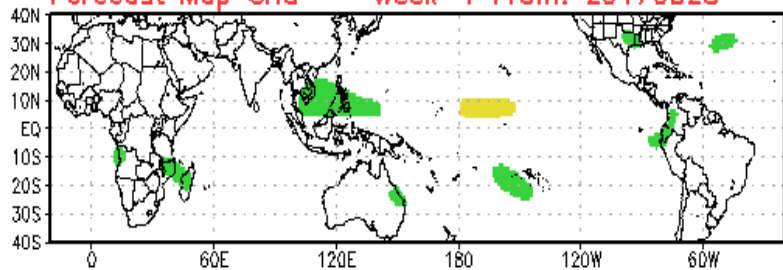
7-day OLR Weekly Distribution (%) -- Ending: 20170404



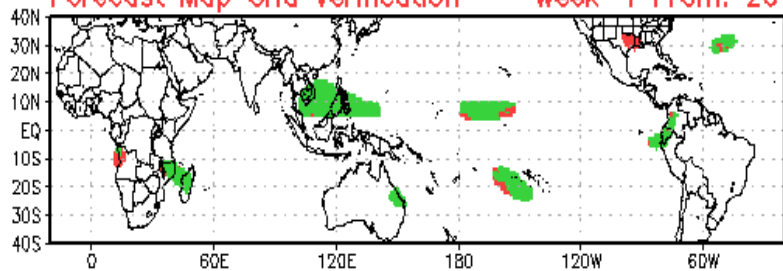
Categorization of 7-Day OLR (#) -- Ending: 20170404



Forecast Map Grid -- Week-1 From: 20170328

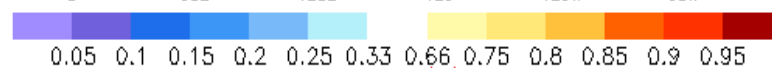
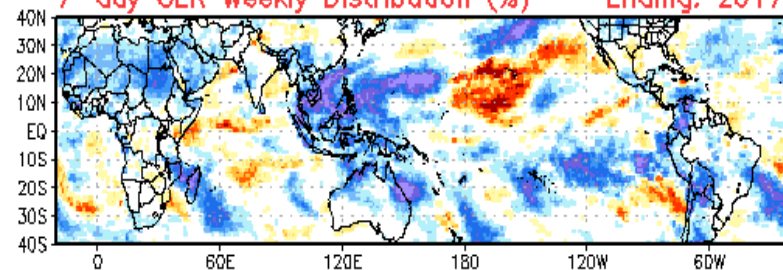


Forecast Map Grid Verification -- Week-1 From: 20170328

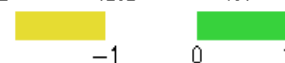
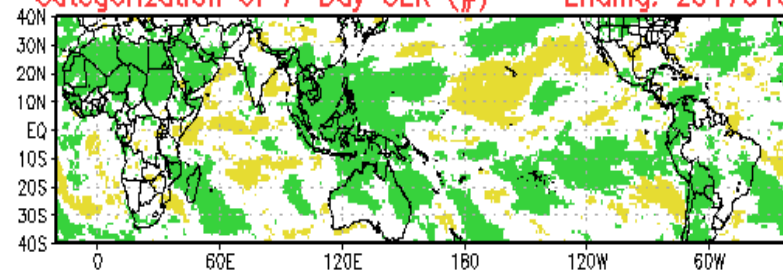


Hit: Green, Miss: Red
Heidke Skill Score: 80.4066

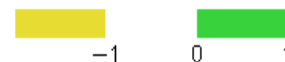
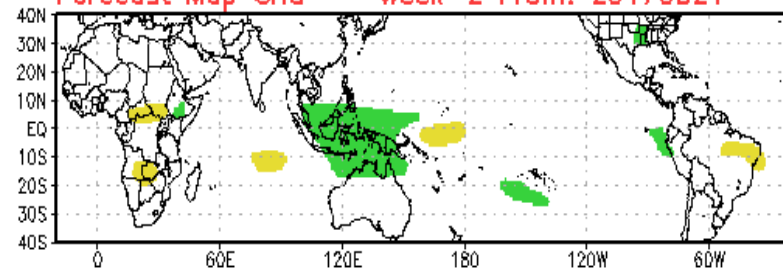
7-day OLR Weekly Distribution (%) -- Ending: 20170404



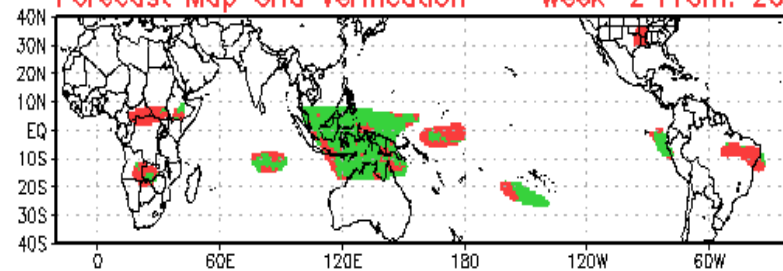
Categorization of 7-Day OLR (#) -- Ending: 20170404



Forecast Map Grid -- Week-2 From: 20170321



Forecast Map Grid Verification -- Week-2 From: 20170321



Hit: Green, Miss: Red
Heidke Skill Score: 42.7685

Synopsis of Climate Modes

ENSO:

- ENSO-neutral conditions are expected to continue through boreal Spring.
- Increasing chances of El Niño development through boreal Autumn.
- The next ENSO update will be released on 13 Apr 2017.

MJO and other subseasonal tropical variability:

- The MJO continued to remain weak, with the low frequency state dominating the global tropics. Tropical cyclones are likely to play a role in the upcoming 2 weeks.
- Dynamical models indicate a continuation of a weak signal during the next two weeks.

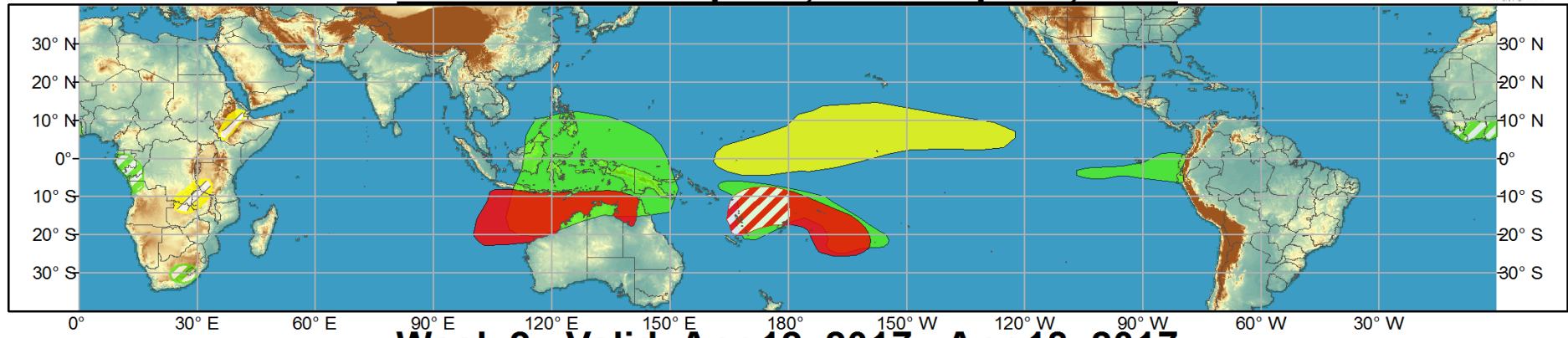
Extratropics:

- The extended range temperature and precipitation forecasts for the U.S. are not likely to be influenced by the MJO.
- Model solutions are in good agreement with an amplifying trough offshore of the West Coast during the next two weeks.

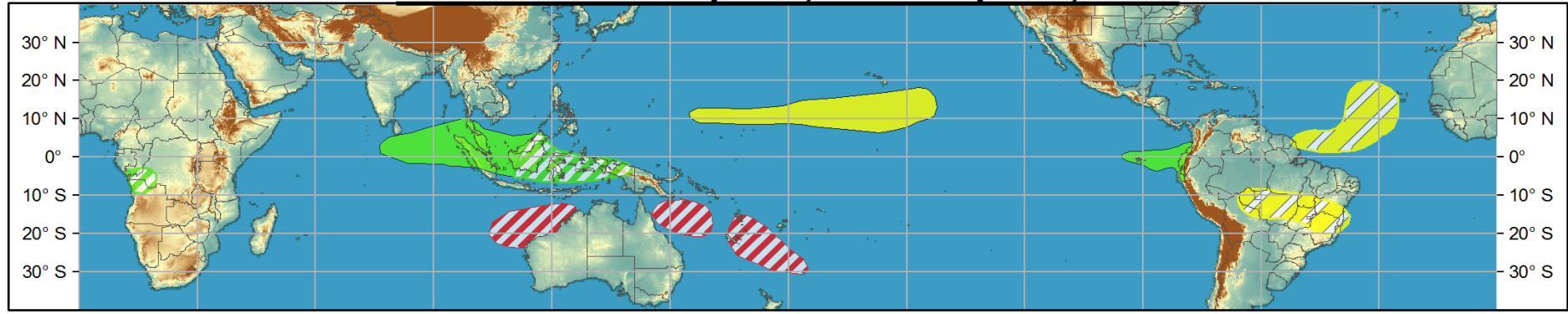


Global Tropics Hazards and Benefits Outlook - Climate Prediction Center

Week 1 - Valid: Apr 05, 2017 - Apr 11, 2017



Week 2 - Valid: Apr 12, 2017 - Apr 18, 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.
- 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: 04/04/2017

Forecaster: Rosencrans

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.

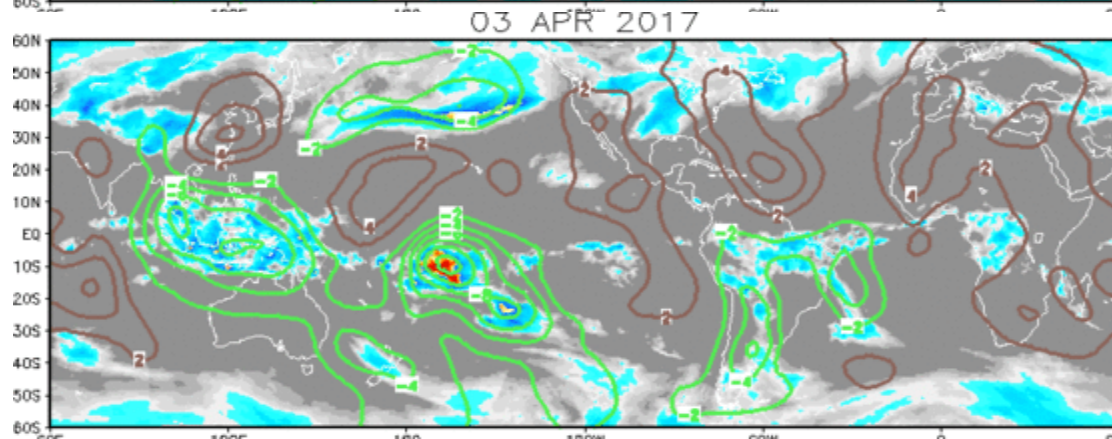
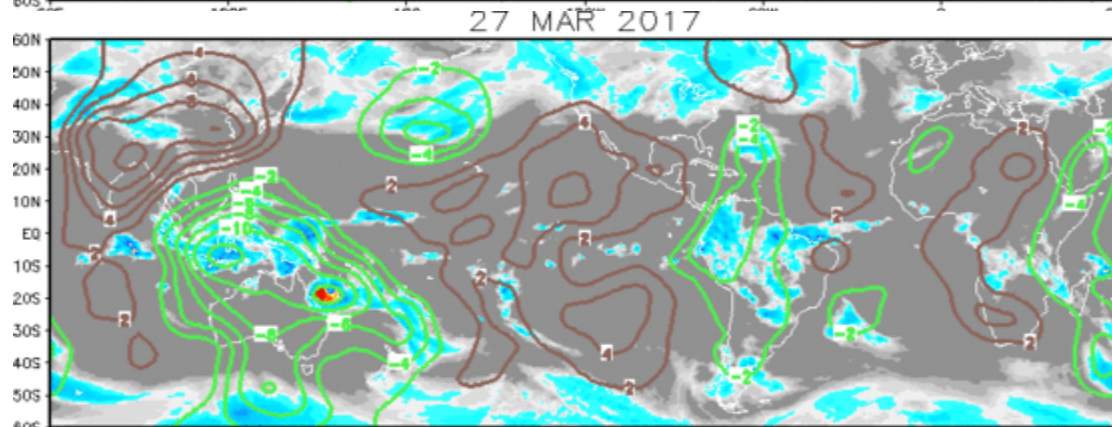
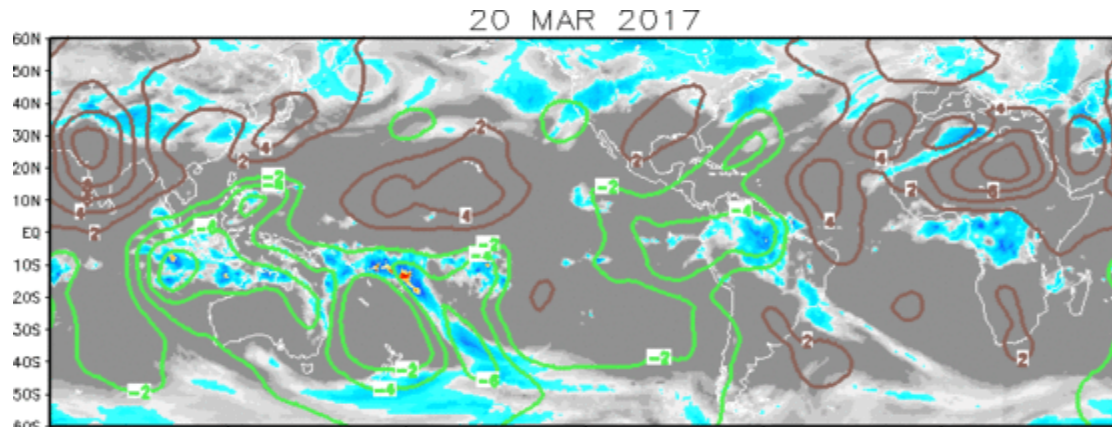


IR Satellite & 200-hpa Velocity Potential Anomalies

Green: Enhanced Divergence

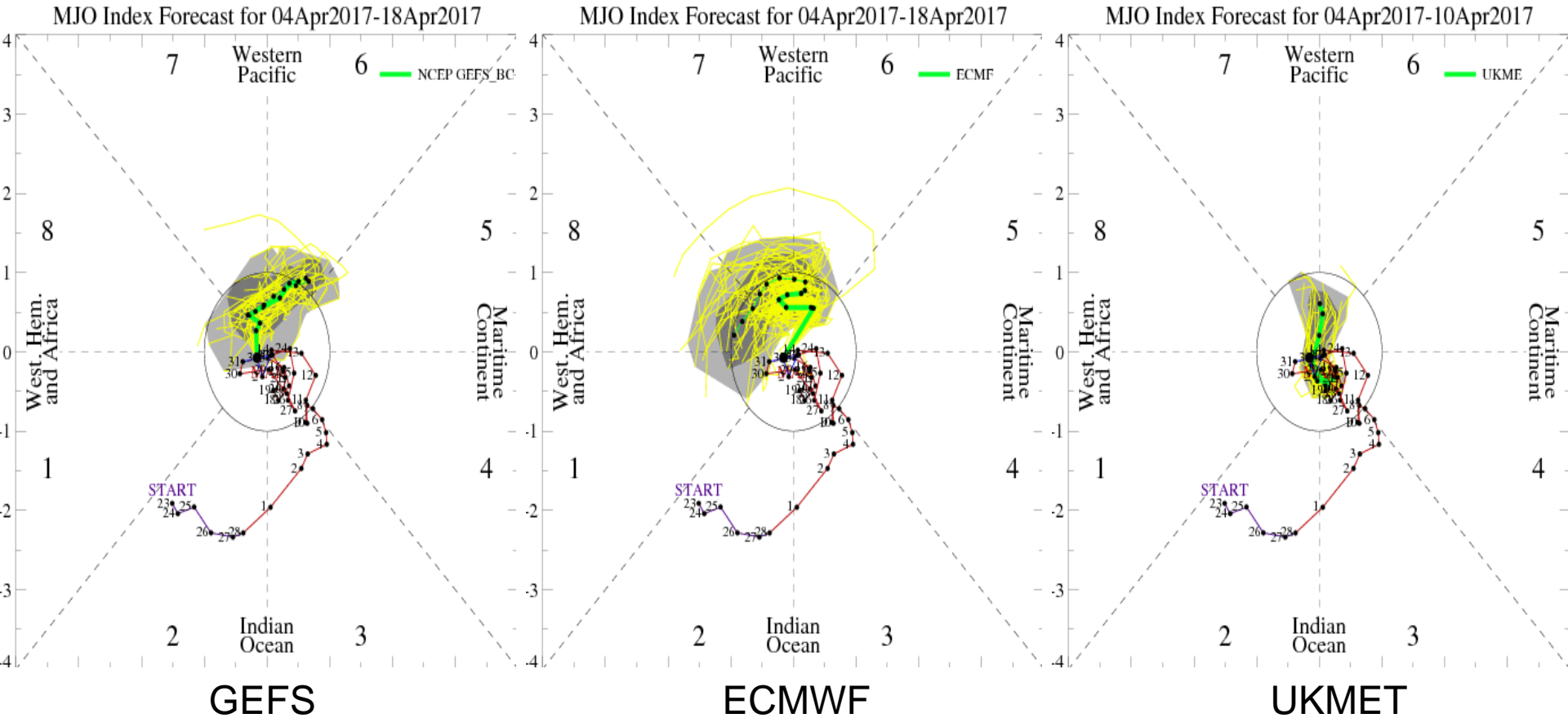
Brown: Enhanced Convergence

Wave-2 / Wave-3 not projecting onto MJO.
Enhanced convection over Maritime Continent and South America.

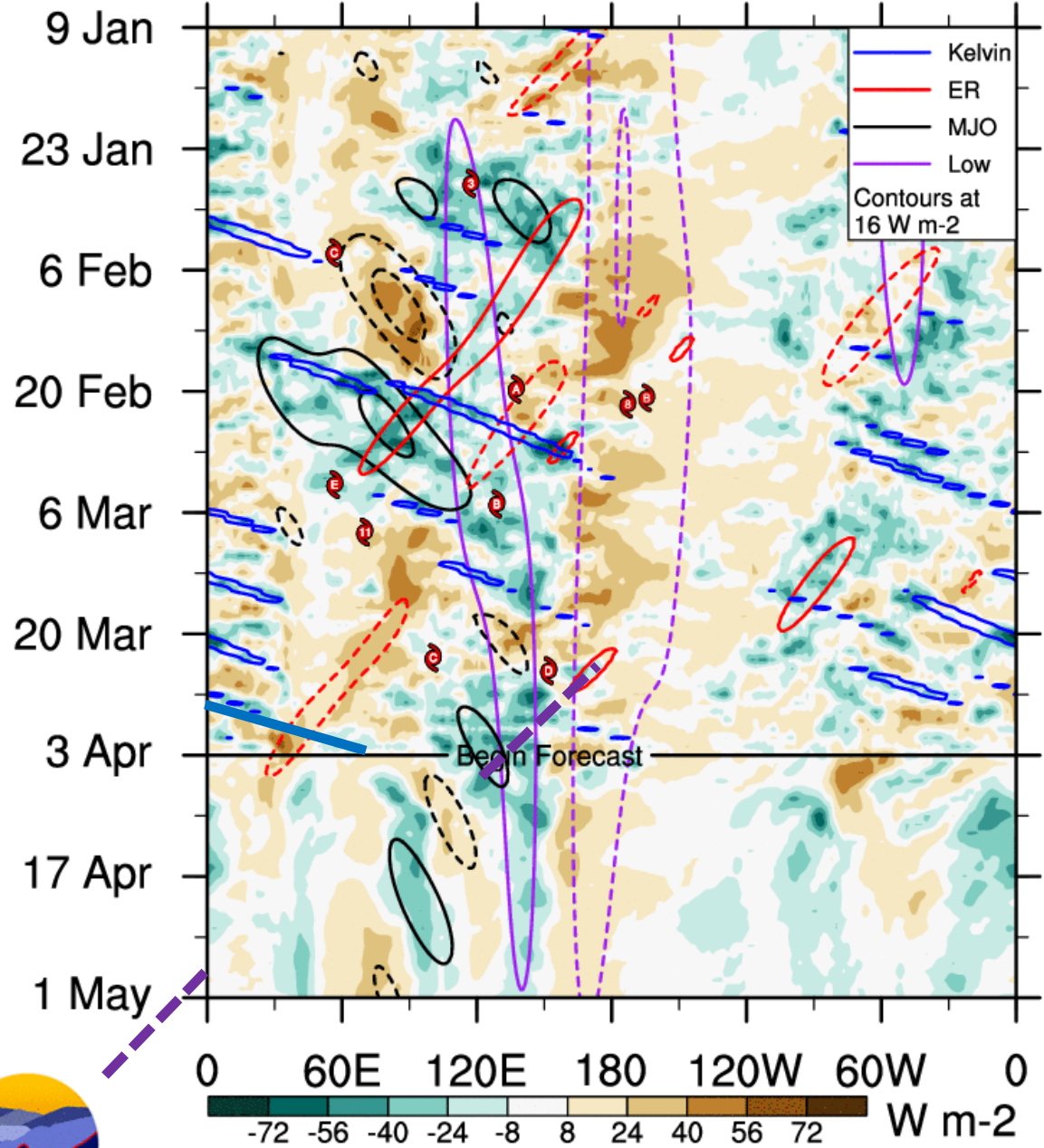


No strong relation to MJO.
South Pacific and Timor Sea area looking active.

MJO Observation/Forecast



Wheeler-Hendon based analyses of model forecasts indicate no signal for Week-1, with a potential, weak signal later in the period.

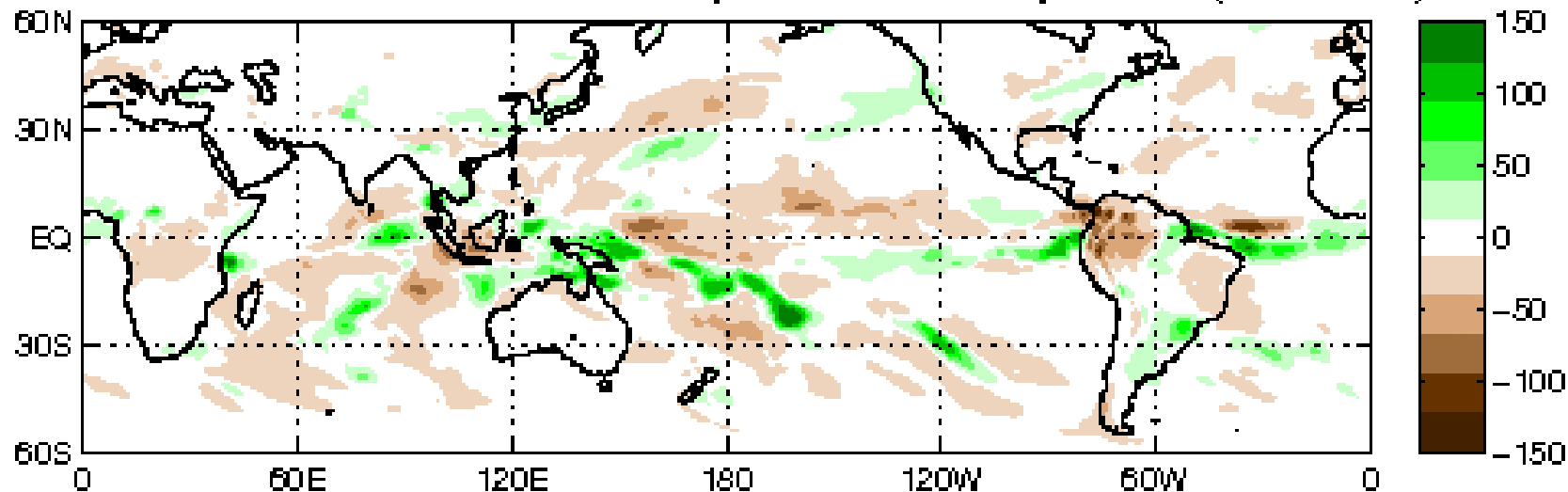


Rossby wave and Low-frequency pattern as the major influences.

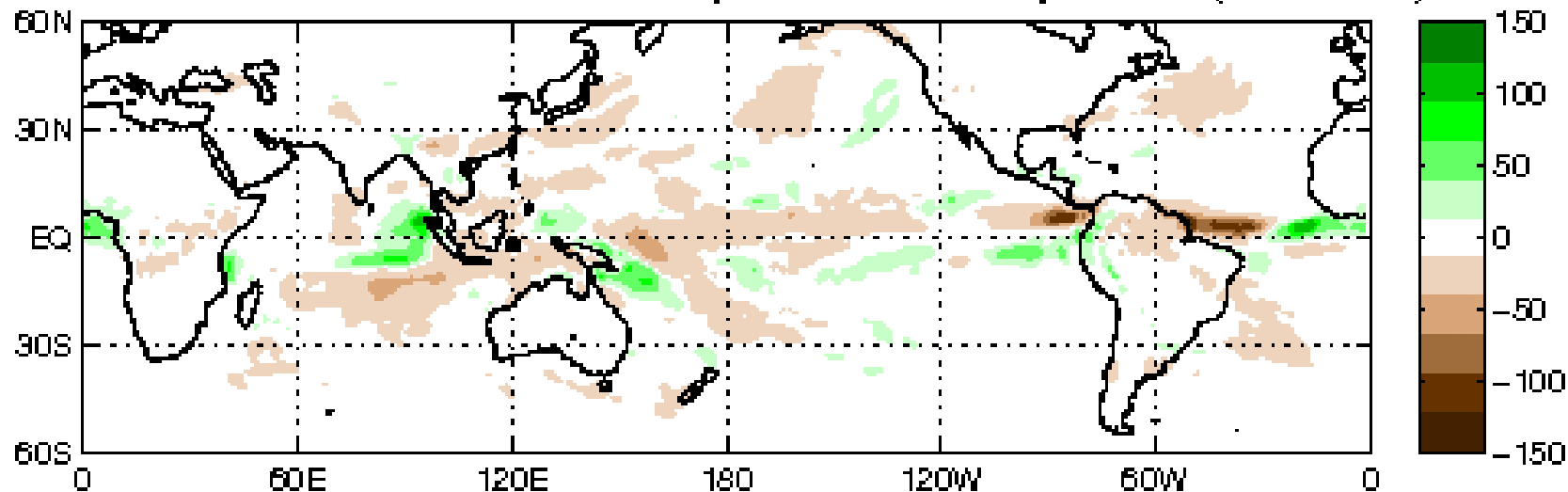
Smaller influence from Kelvin wave.

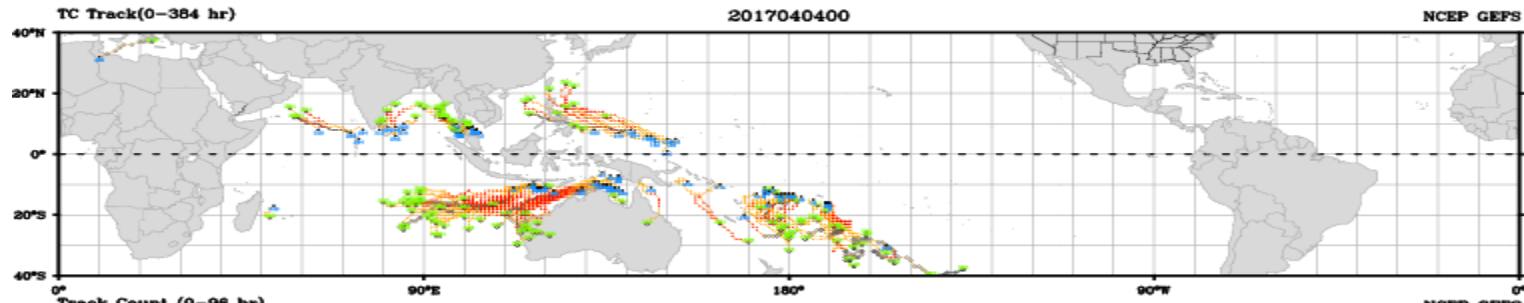


CFS: Anom. PREC Week: 1: 05-Apr-2017 to 11-Apr-2017 (mm/week)



CFS: Anom. PREC Week: 2: 12-Apr-2017 to 18-Apr-2017 (mm/week)



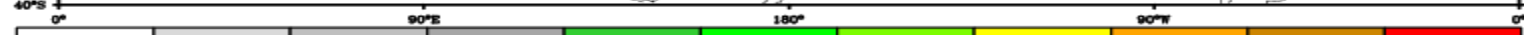
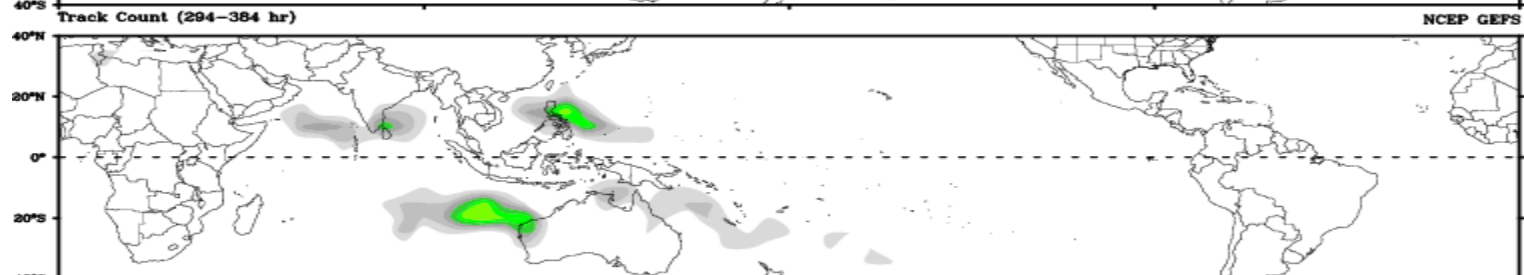
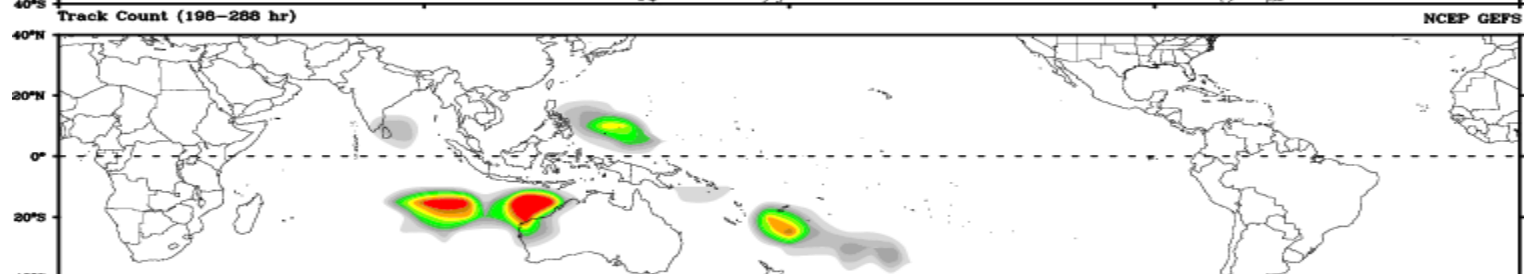
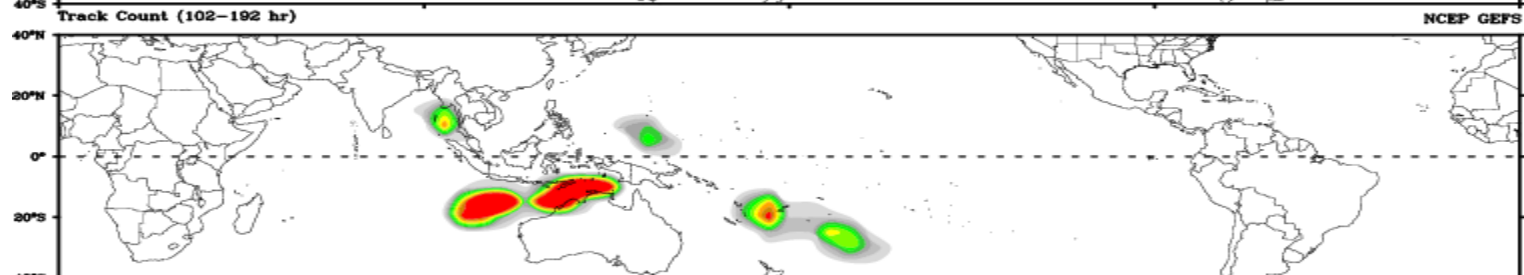
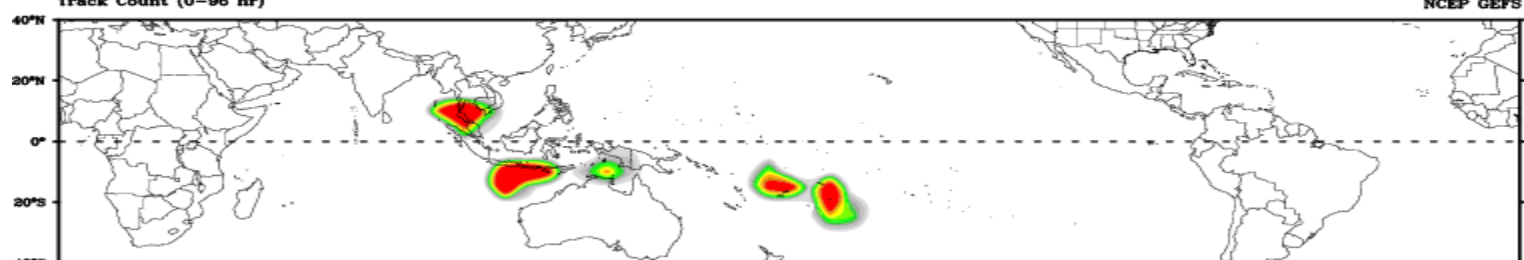


Days 1-4

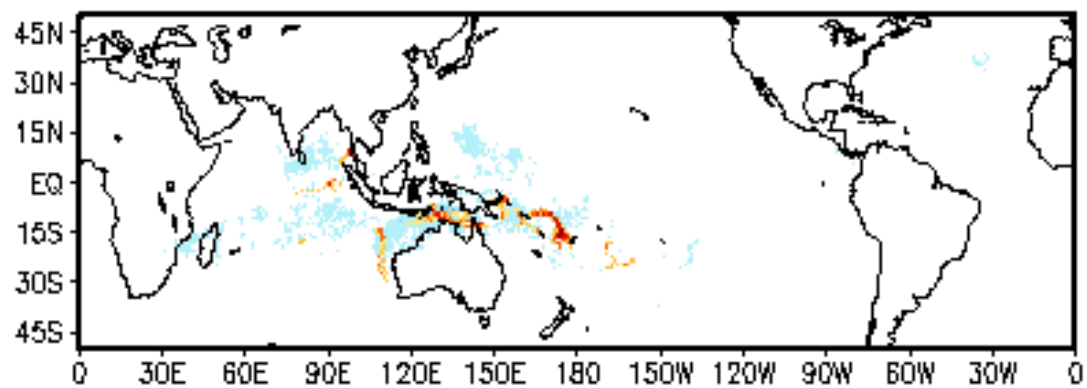
Day 5-8

Day 9-12

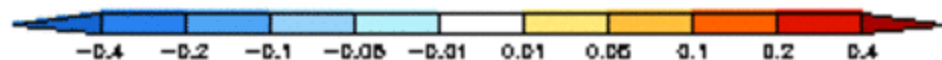
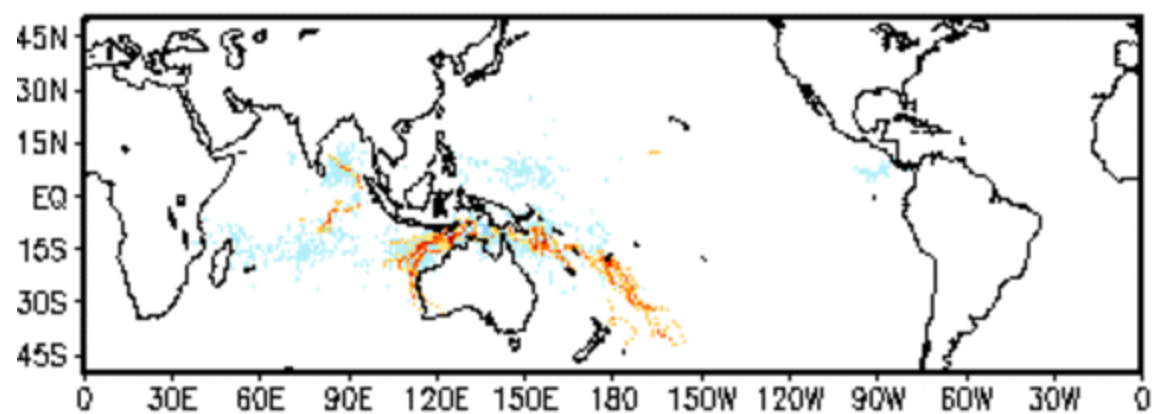
Day 13-15



c) Track Anomaly

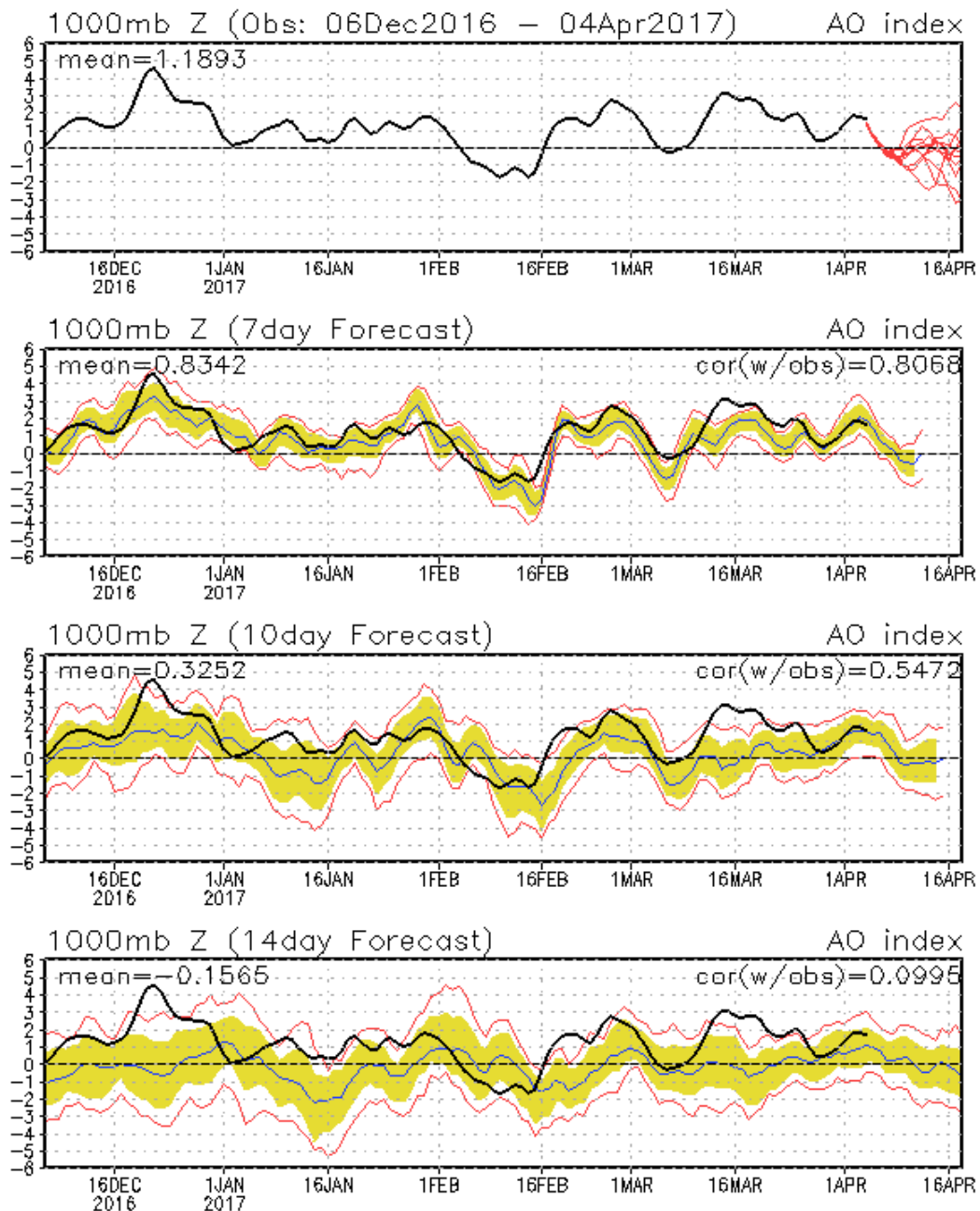


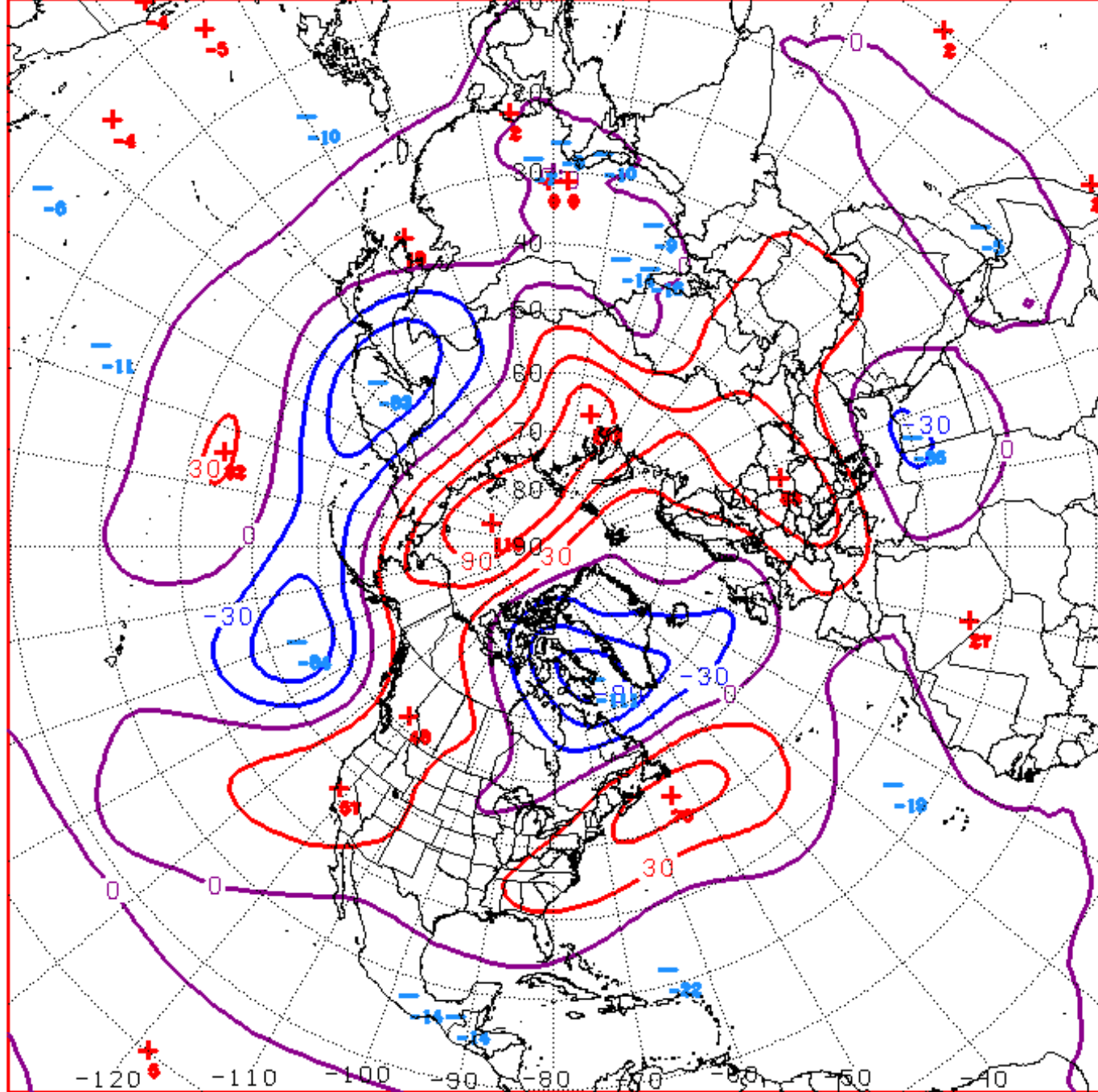
c) Track Anomaly



Connections to U.S. Impacts

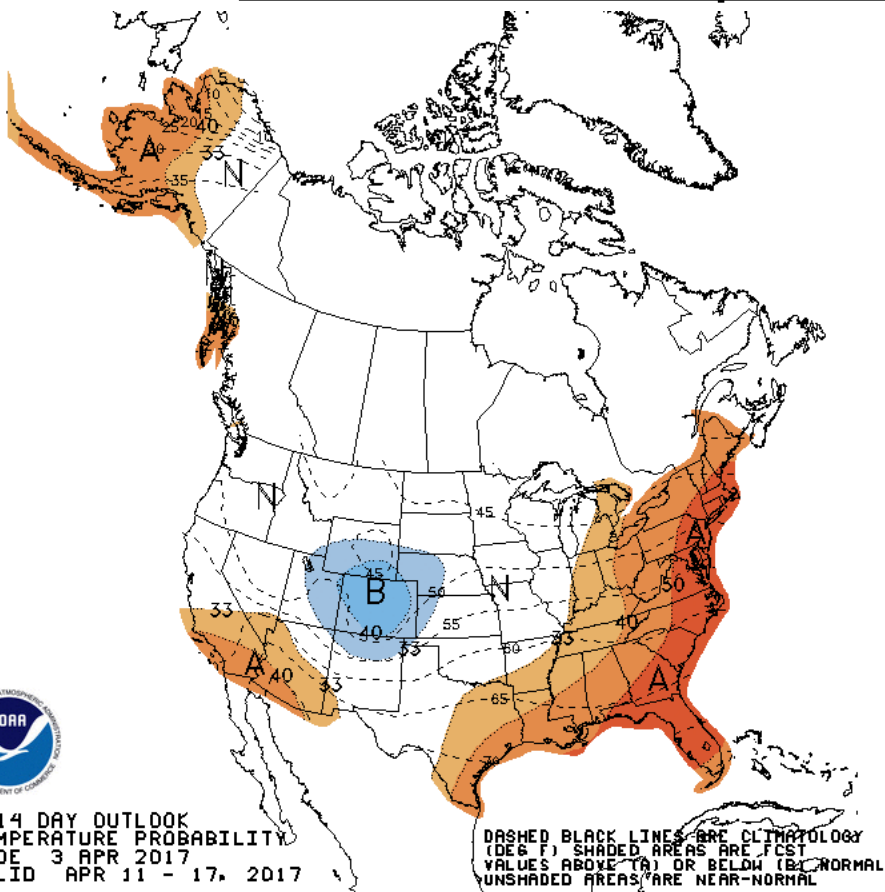
AO: Observed & ENSM forecasts





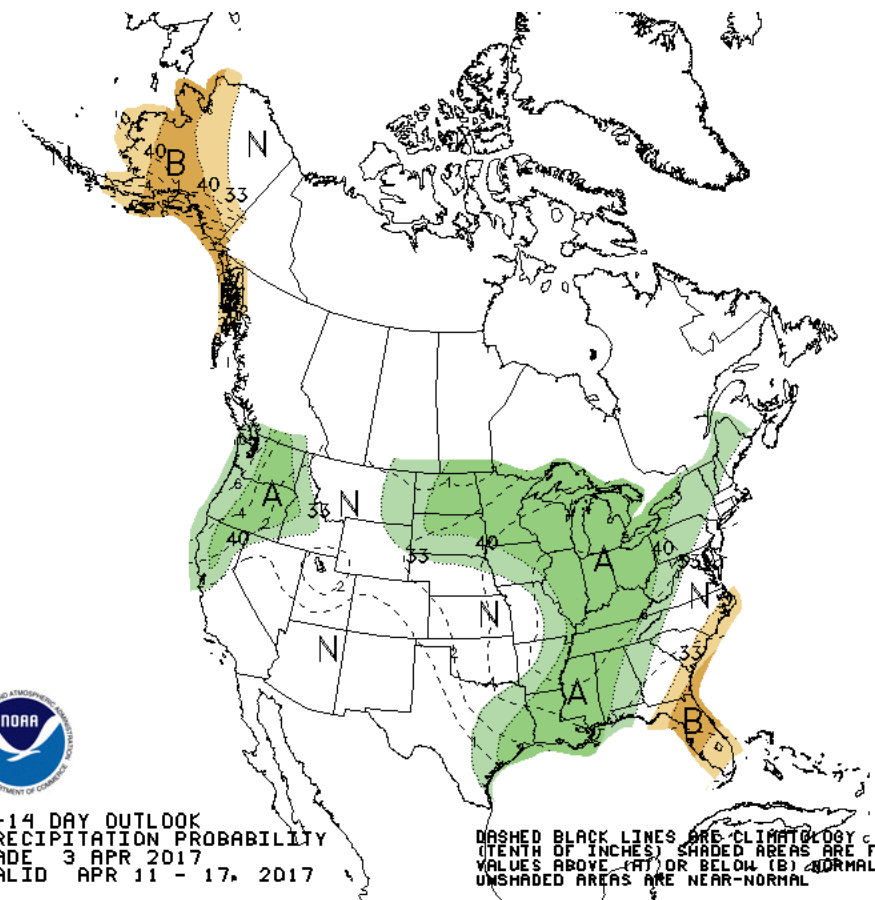
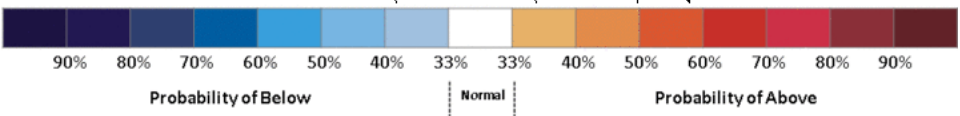
D+11 500 MB ANOMALIES FROM ALZ ENSM
CPC MAP MADE APR 04 2017 1337 UTC CNTD APR 15 2017

Week 2 – Temperature and Precipitation



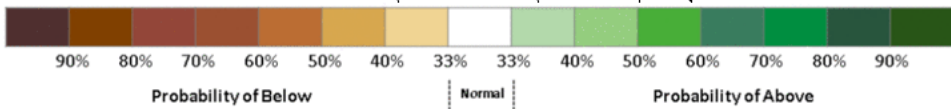
8-14 DAY OUTLOOK
TEMPERATURE PROBABILITY
MADE 3 APR 2017
VALID APR 11 - 17, 2017

DASHED BLACK LINES ARE CLIMATE
(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 3 APR 2017
VALID APR 11 - 17, 2017

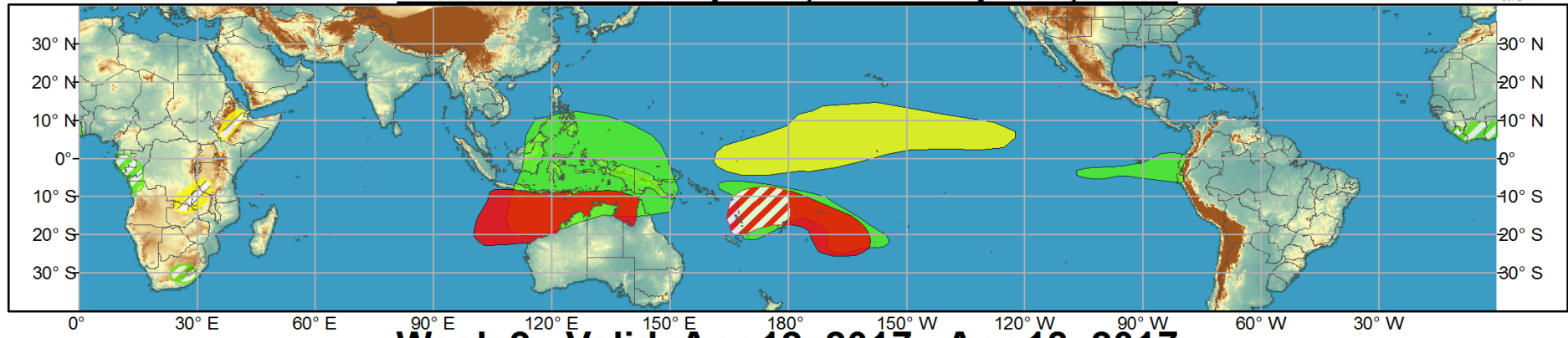
DASHED BLACK LINES ARE CLIMATE
(TENTH OF INCHES) SHADED AREAS ARE FCST
VALUES ABOVE (A) OR BELOW (B) NORMAL
UNSHADED AREAS ARE NEAR-NORMAL



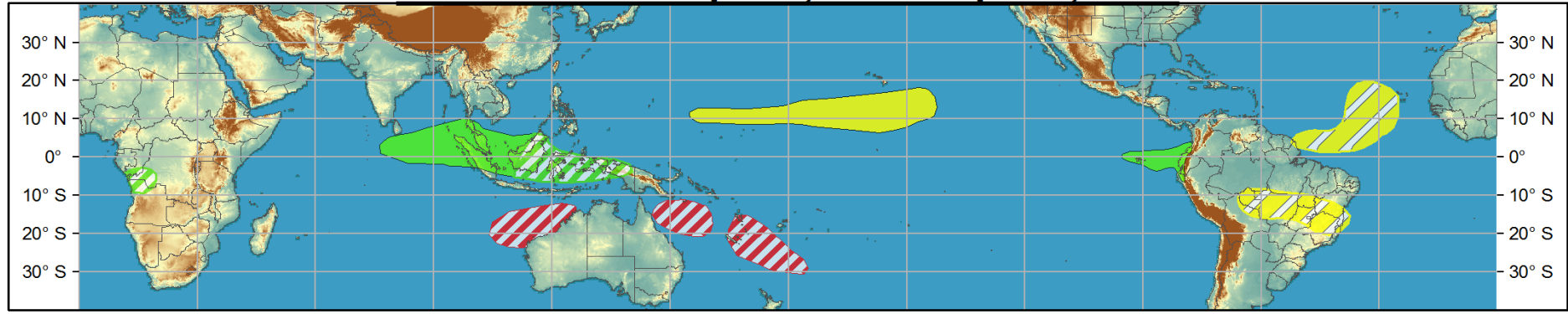


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