

Global Tropics Hazards And Benefits Outlook

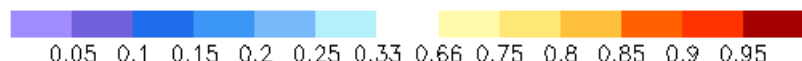
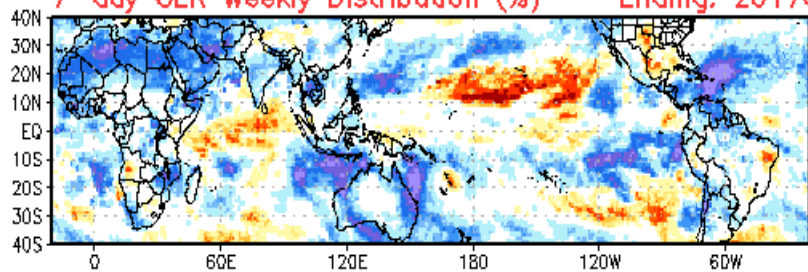
3/28/2017

Brad Pugh

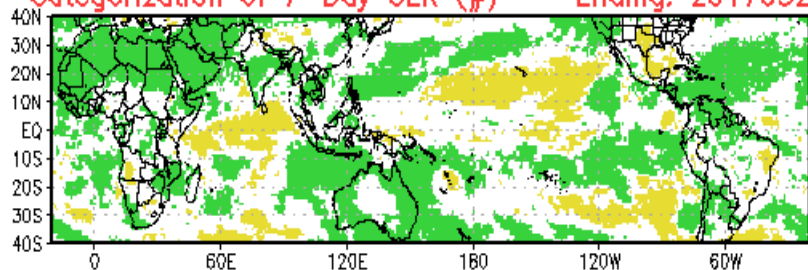
Outline

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

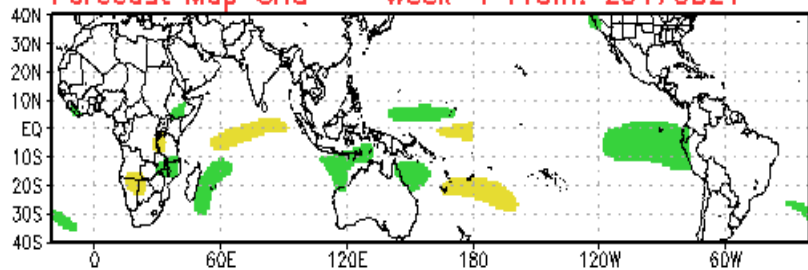
7-day OLR Weekly Distribution (%) -- Ending: 20170328



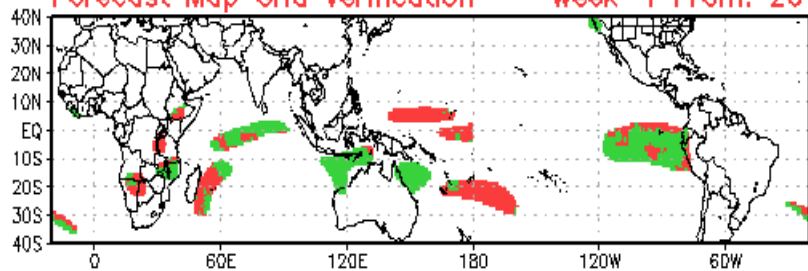
Categorization of 7-Day OLR (#) -- Ending: 20170328



Forecast Map Grid -- Week-1 From: 20170321

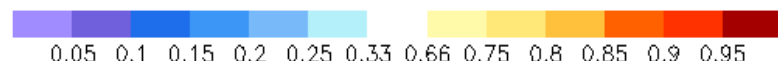
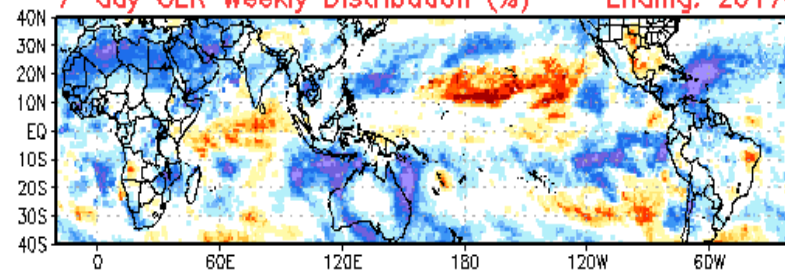


Forecast Map Grid Verification -- Week-1 From: 2017032

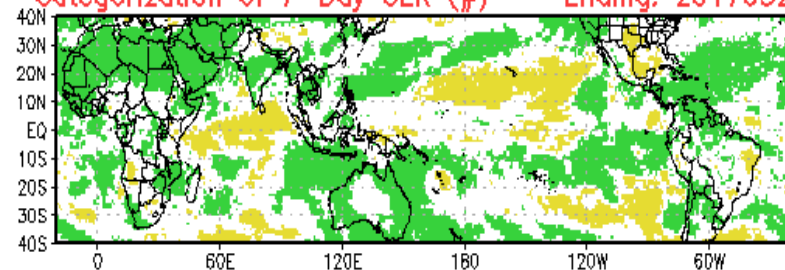


Hit: Green, Miss: Red
Heidke Skill Score: 32.8158

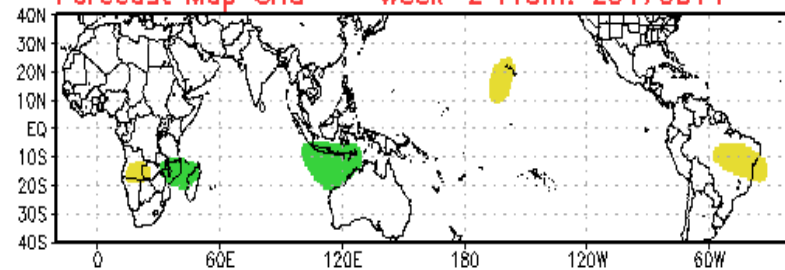
7-day OLR Weekly Distribution (%) -- Ending: 20170328



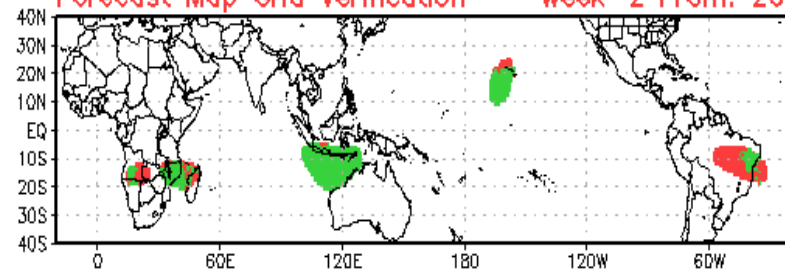
Categorization of 7-Day OLR (#) -- Ending: 20170328



Forecast Map Grid -- Week-2 From: 20170314

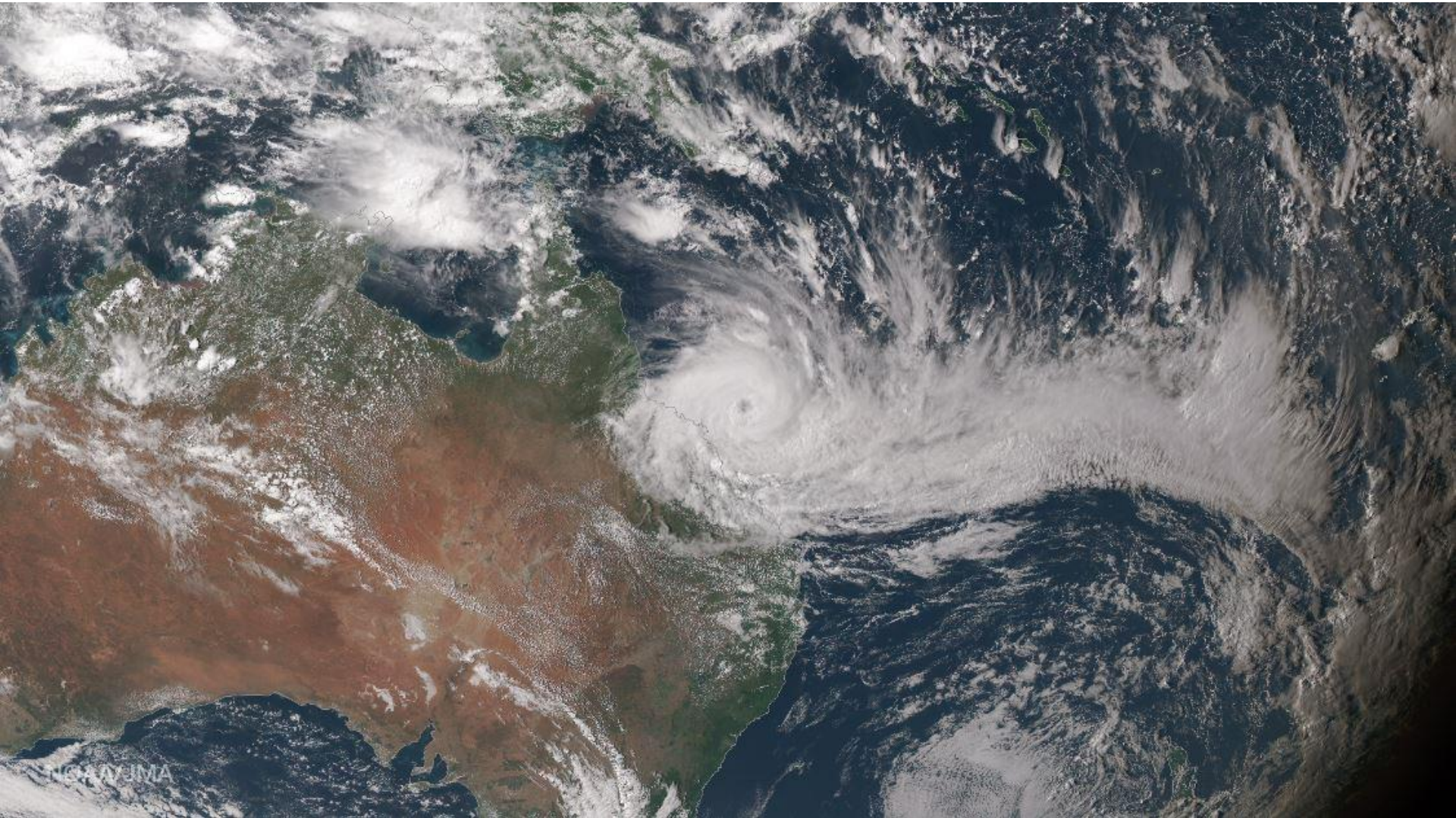


Forecast Map Grid Verification -- Week-2 From: 20170314



Hit: Green, Miss: Red
Heidke Skill Score: 51.7393

Tropical Cyclone Debbie



Australia BOM:
Peak wind gust of 142 knots on Hamilton Island
Observed rainfall of 470 mm at Mount William

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.
- Dynamical models indicate a continuation of a weak signal during the next two weeks.

Extratropics:

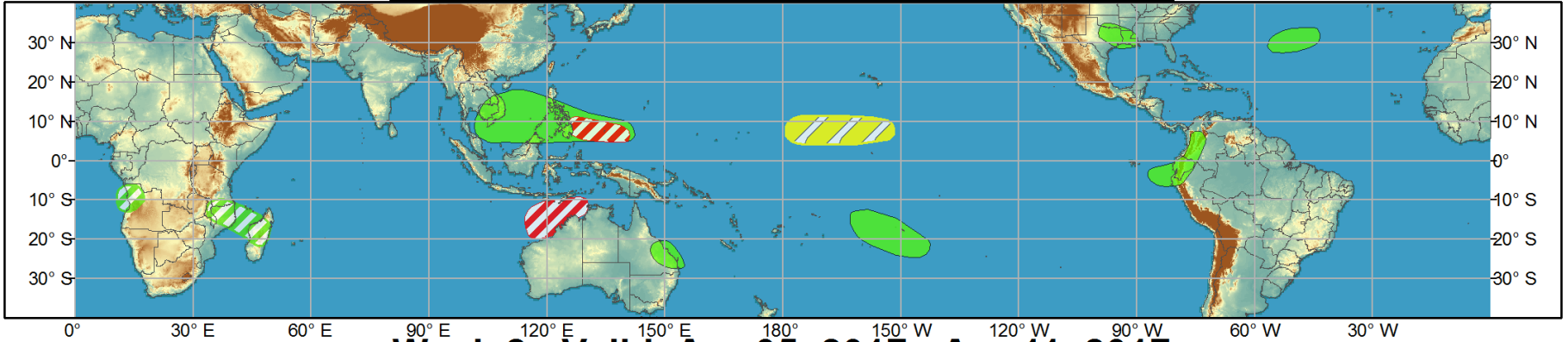
- The extended range temperature and precipitation forecasts for the U.S. are not likely to be influenced by the MJO.
- Model solutions are in good agreement with an amplifying trough offshore of the West Coast during the next two weeks.



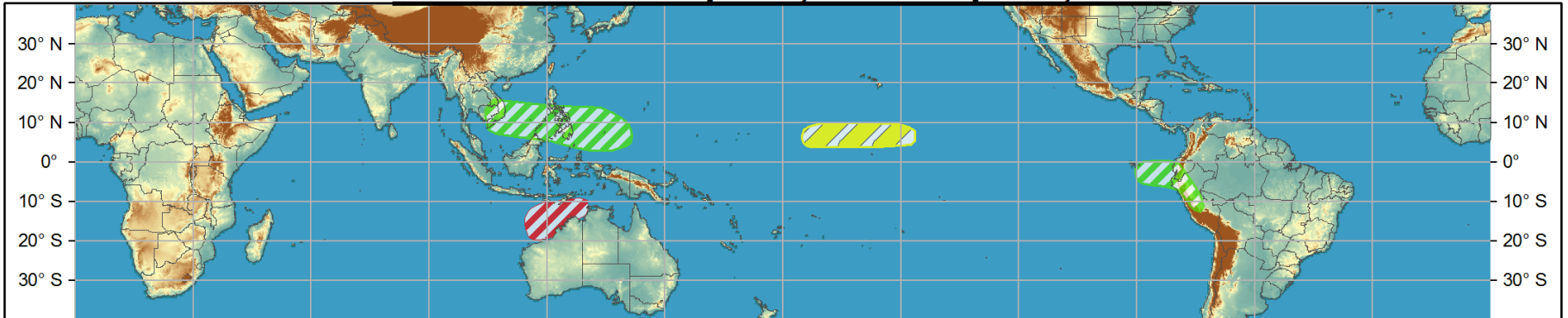
Global Tropics Hazards and Benefits Outlook - Climate Prediction Center



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



Week 2 - Valid: Apr 05, 2017 - Apr 11, 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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Produced: 03/28/2017
Forecaster: Pugh

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

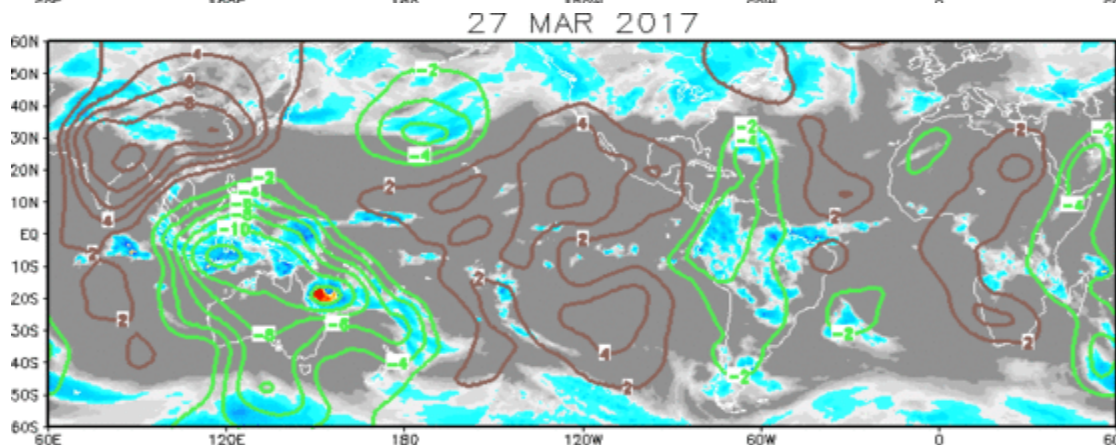
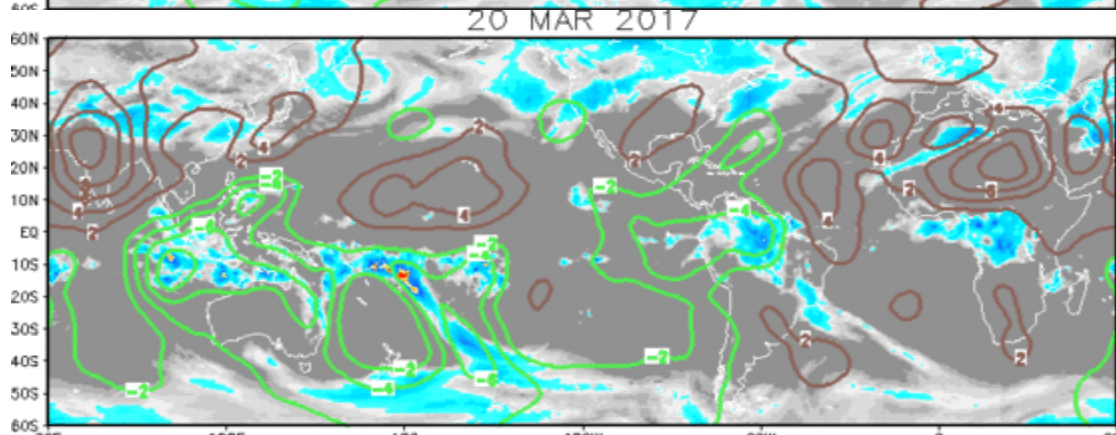
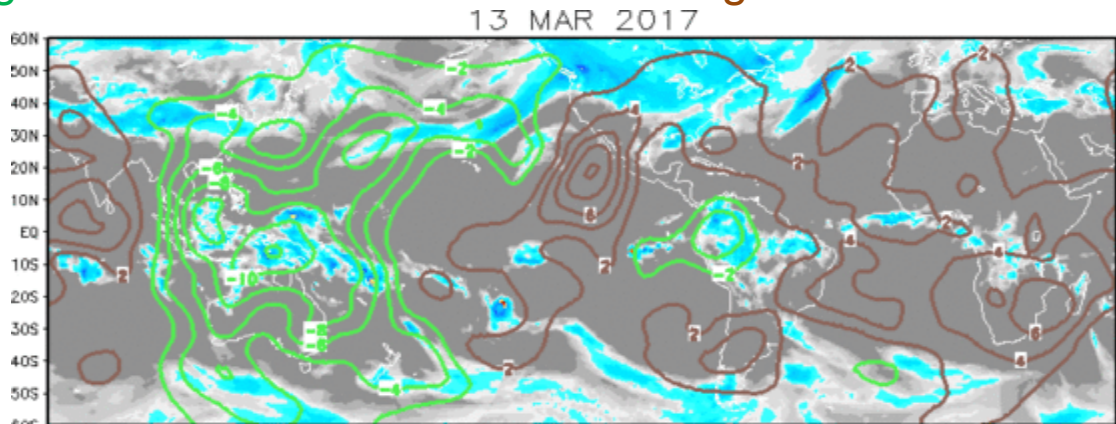
Green: Enhanced Divergence

Brown: Enhanced Convergence

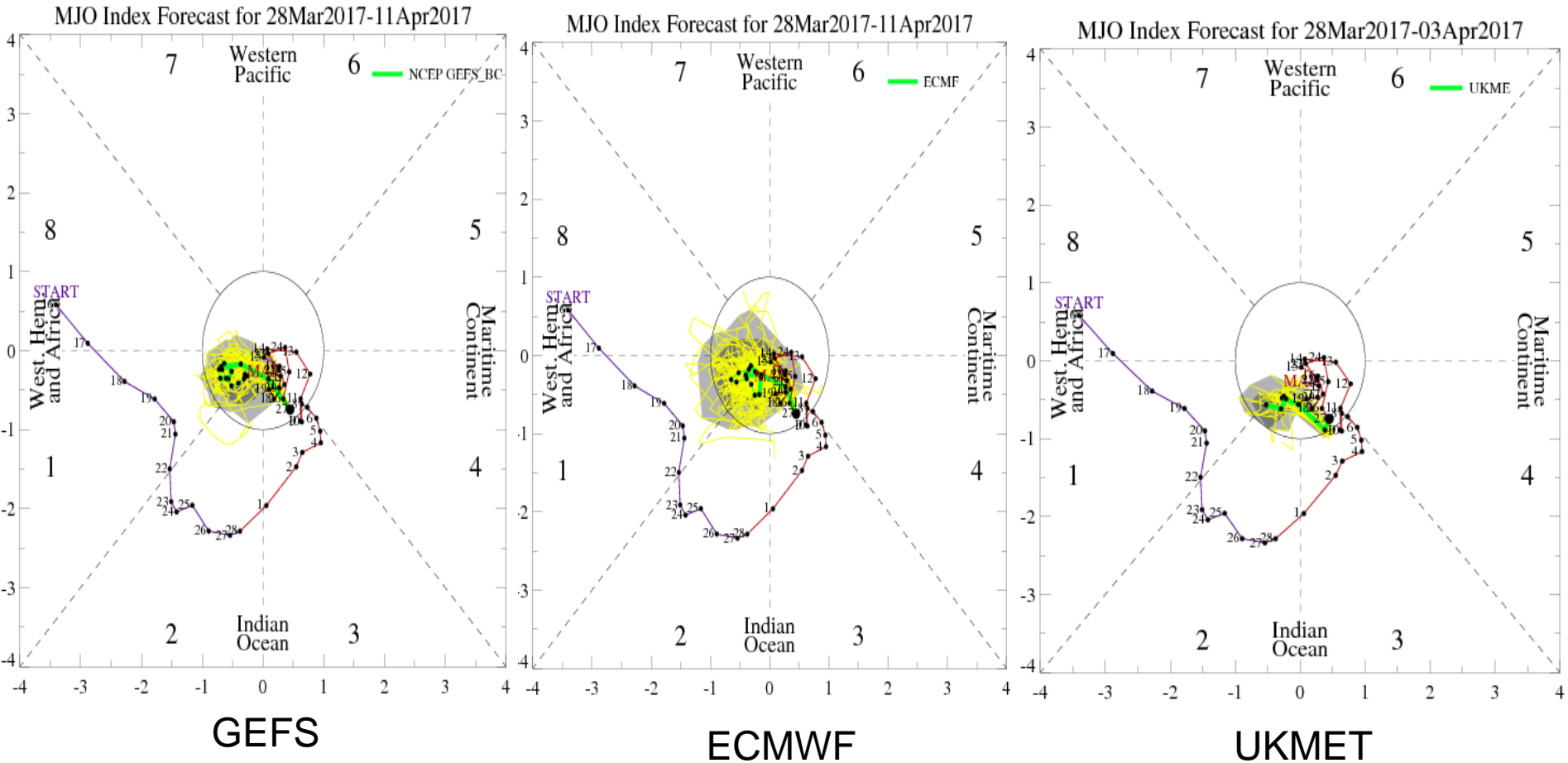
Generally wave-1 structure with enhanced phase over Eastern Hemisphere.

Pattern begins to break down, with two distinct enhanced phases over Maritime Continent and East Pacific/South America.

Dominant areas of enhanced divergence/lift persist over Maritime Continent and northern South America.

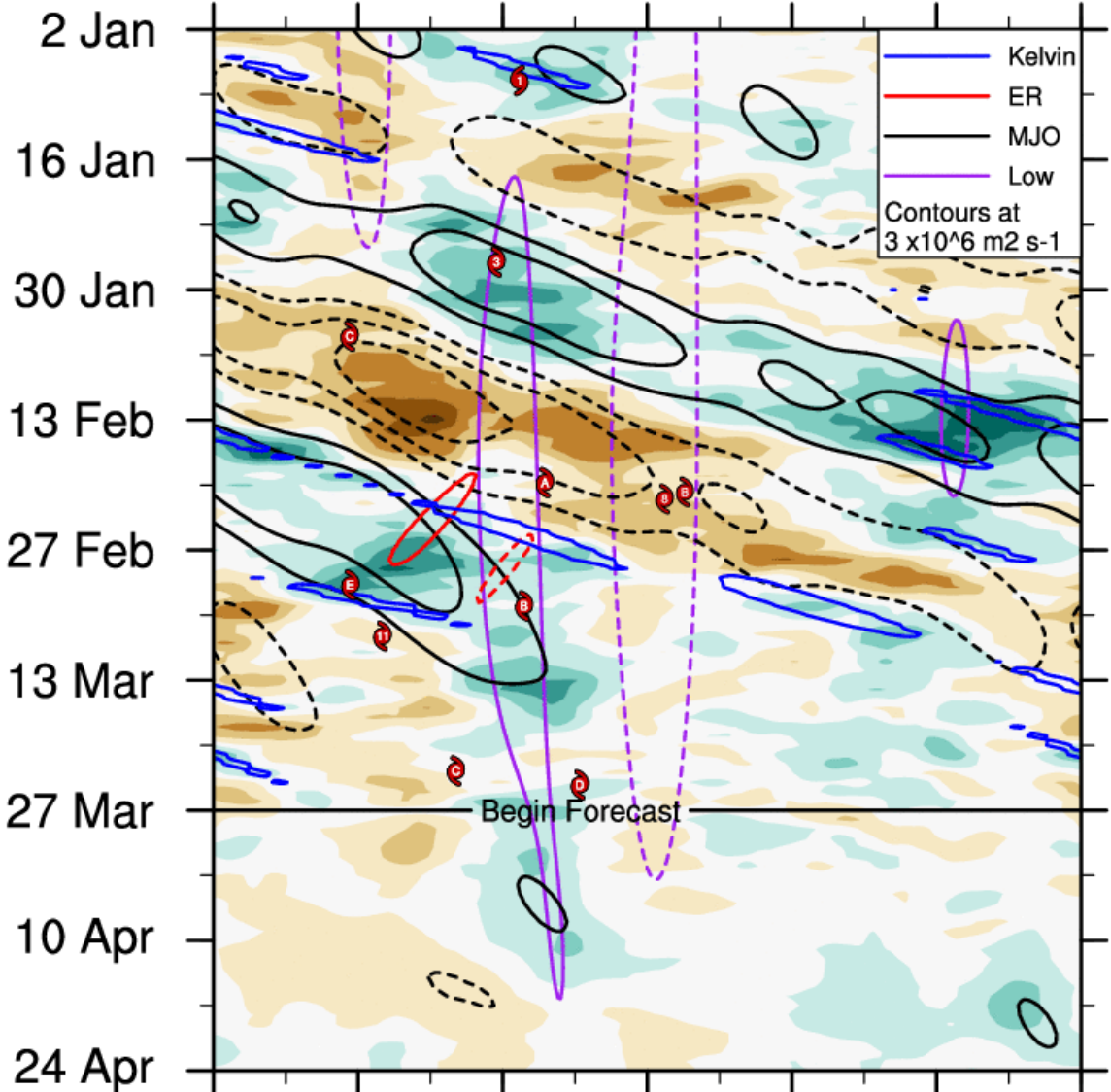


MJO Observation/Forecast

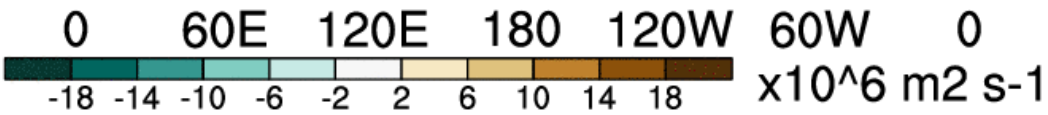


Good continuity and consensus for a weak signal through early April

CHI200 with CFS forecasts 5S - 5N



— Kelvin
 — ER
 — MJO
 — Low
 Contours at
 $3 \times 10^6 \text{ m}^2 \text{ s}^{-1}$

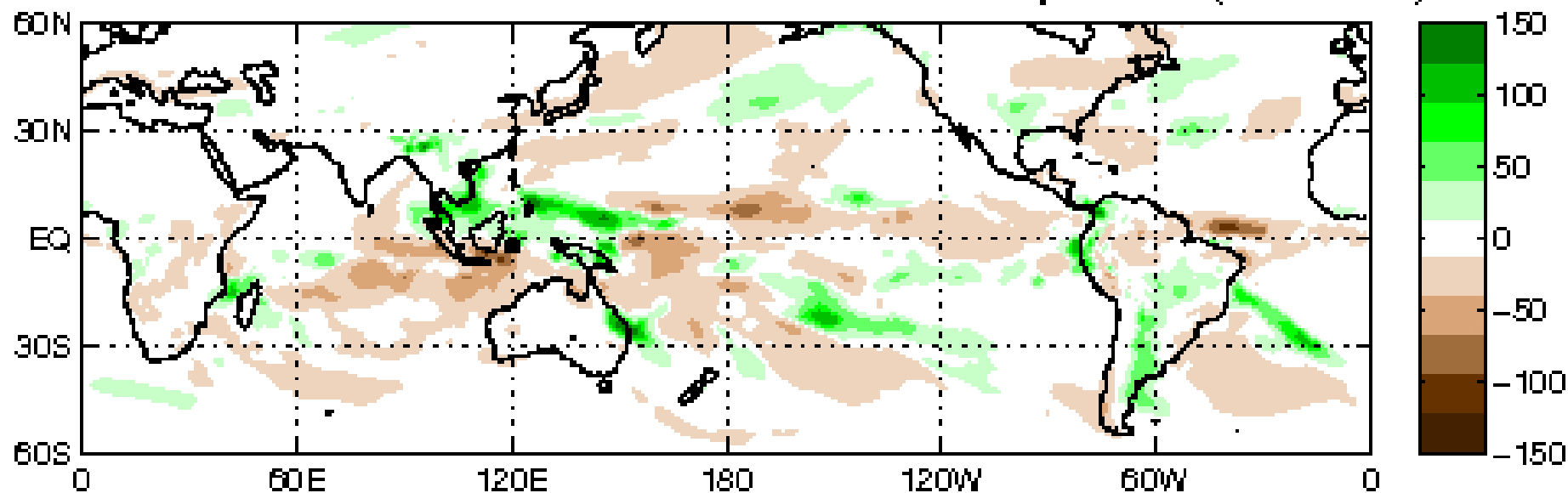


MJO activity not analyzed since early March.

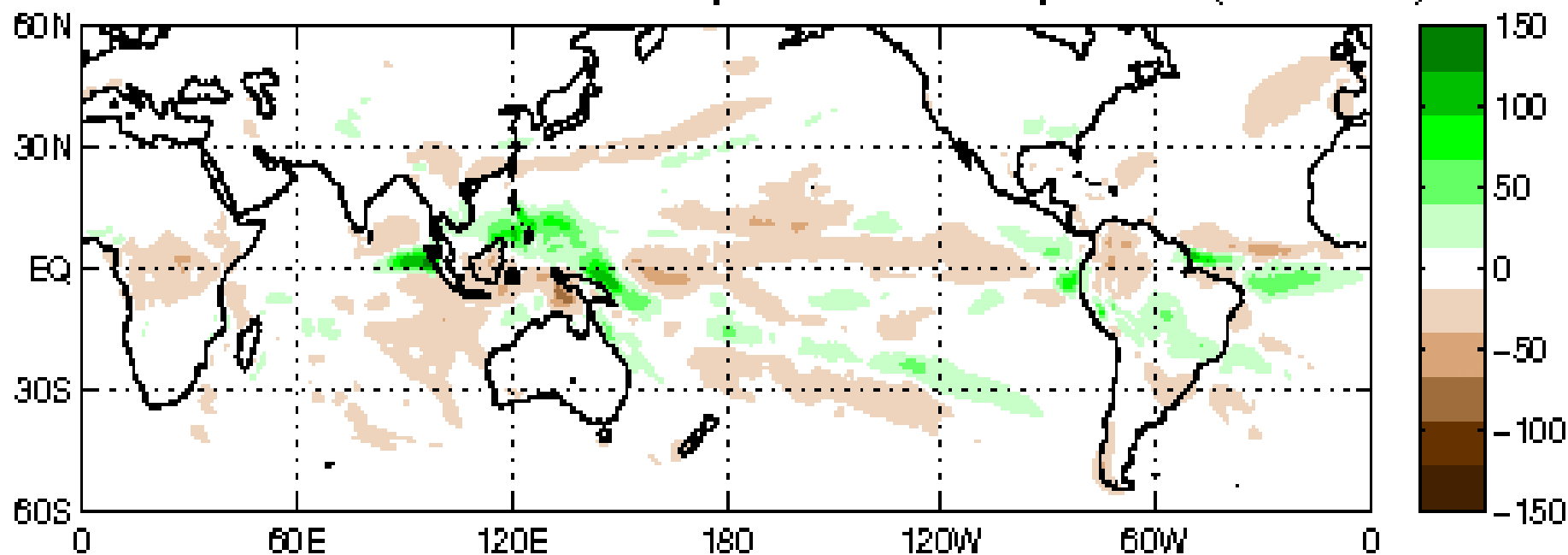
Low frequency signal apparent with convective enhancement over the Maritime Continent and East Pacific, suppression near Date Line.



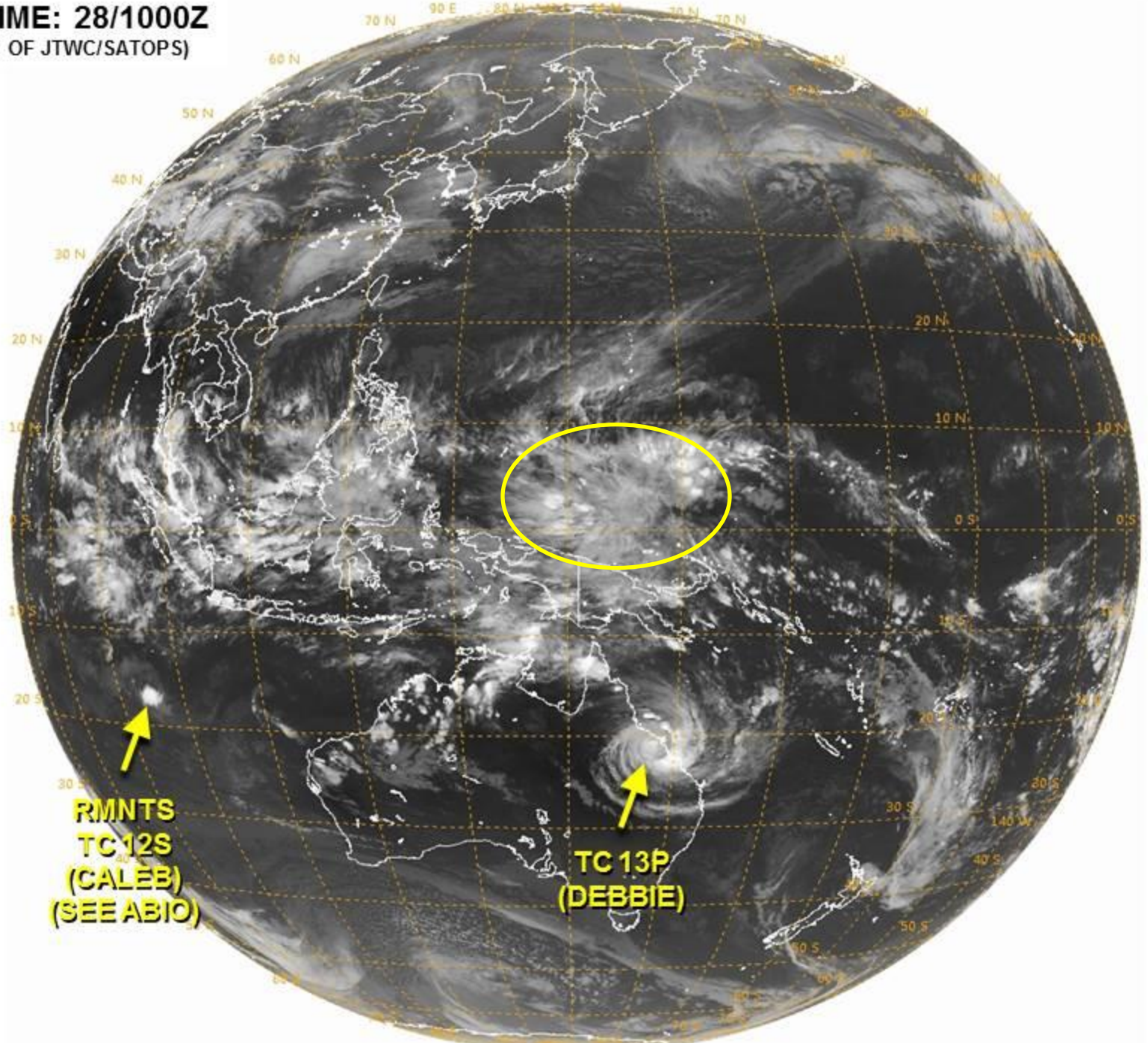
CFS: Anom. PREC Week: 1: 29-Mar-2017 to 04-Apr-2017 (mm/week)



CFS: Anom. PREC Week: 2: 05-Apr-2017 to 11-Apr-2017 (mm/week)

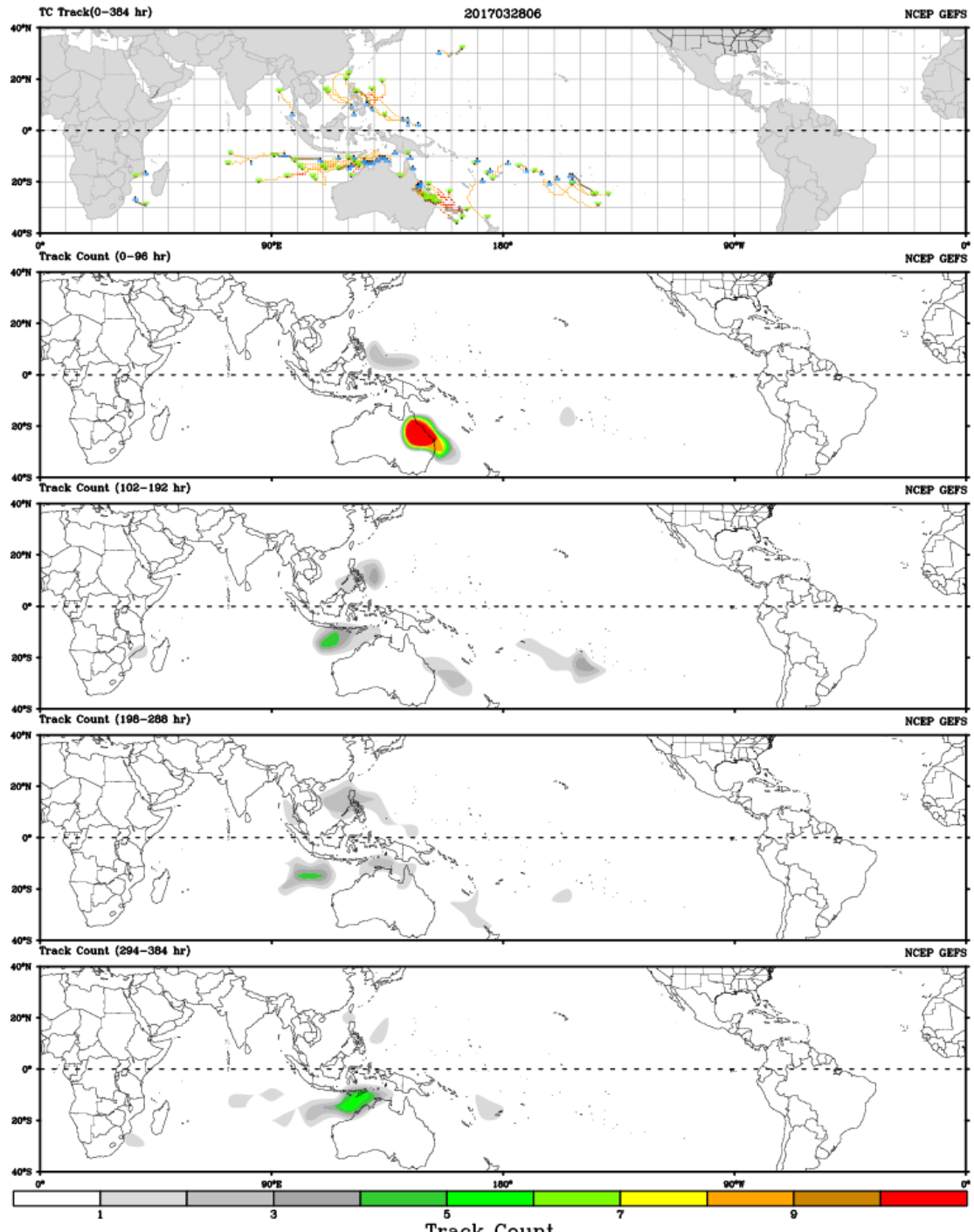


VALID TIME: 28/1000Z
(PRODUCT OF JTWC/SATOPS)

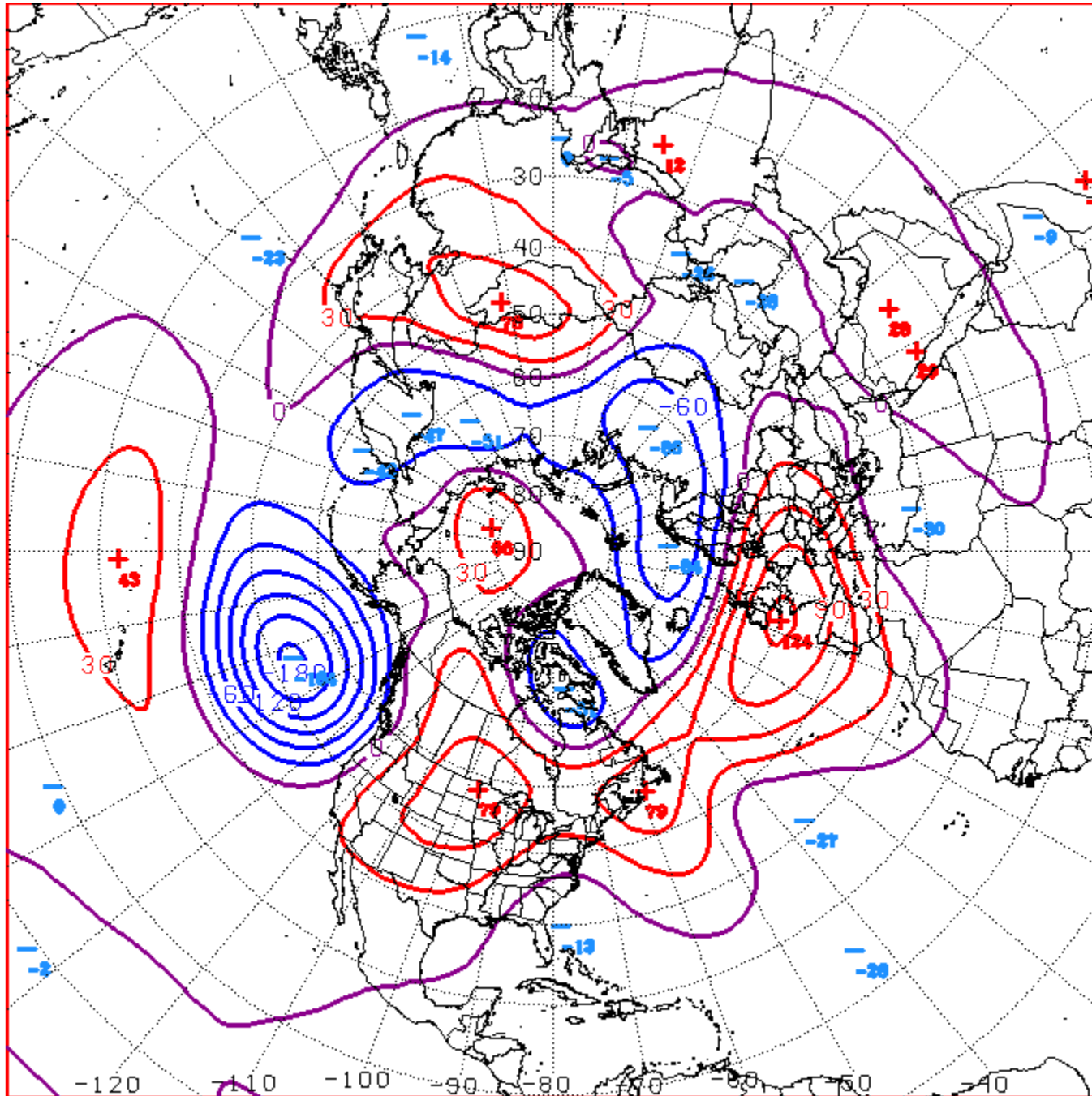


RMNTS
TC 12S
(CALEB)
(SEE ABIO)

TC 13P
(DEBBIE)

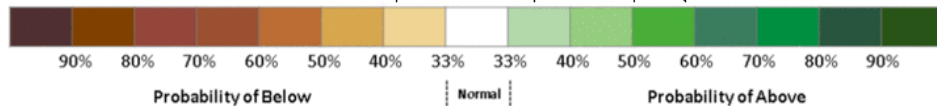
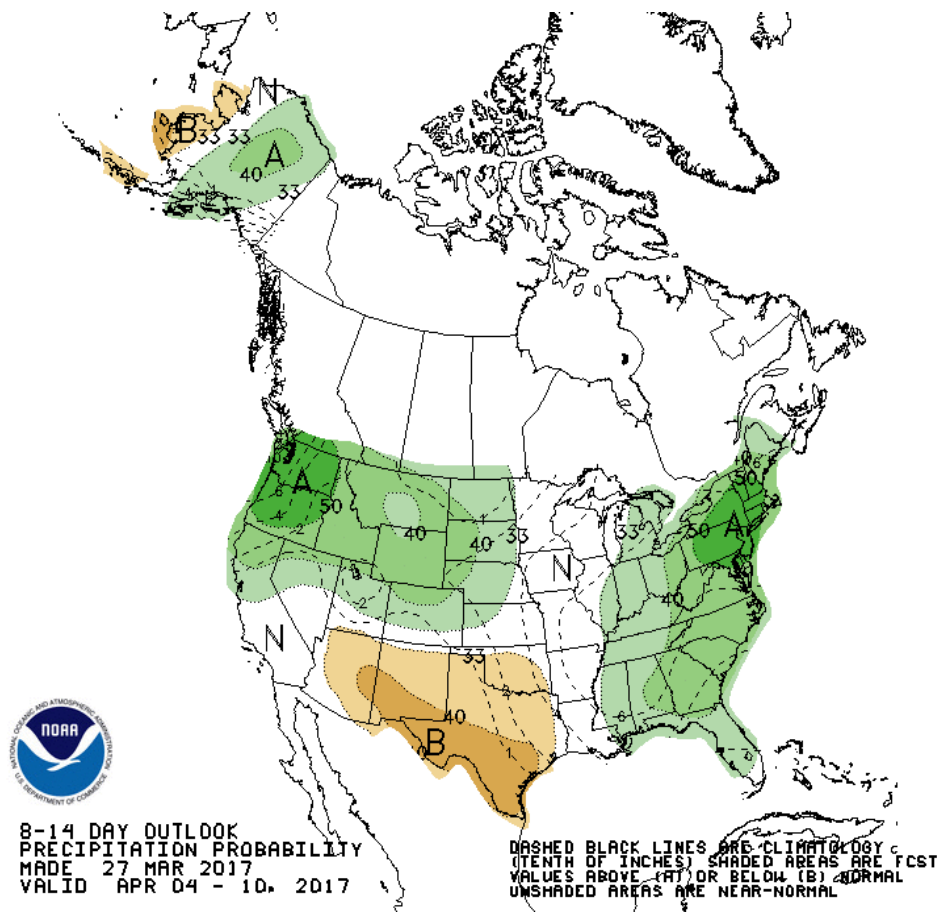
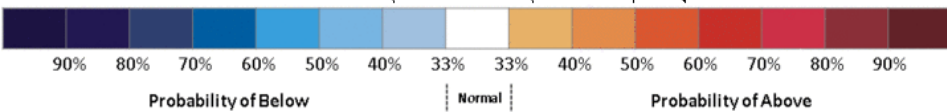
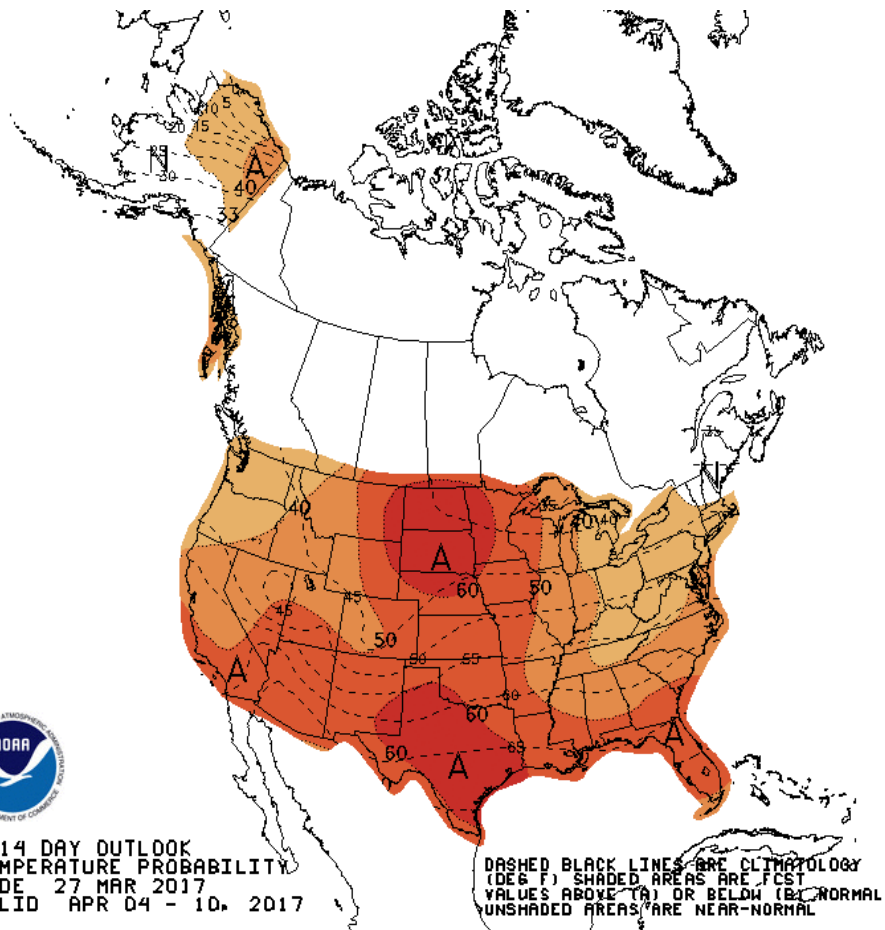


Connections to U.S. Impacts



D+11 500 MB ANOMALIES FROM 00Z ENSM
CPC MAP MADE MAR 28 2017 0636 UTC CNTD APR 08 2017

Week 2 – Temperature and Precipitation

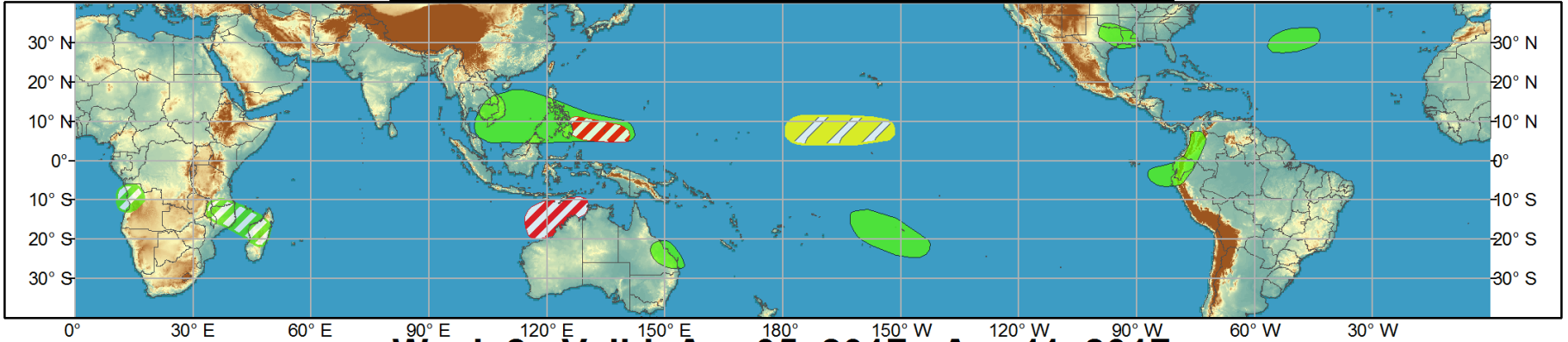




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