# Global Tropics Hazards And Benefits Outlook <u>February 24, 2015</u>

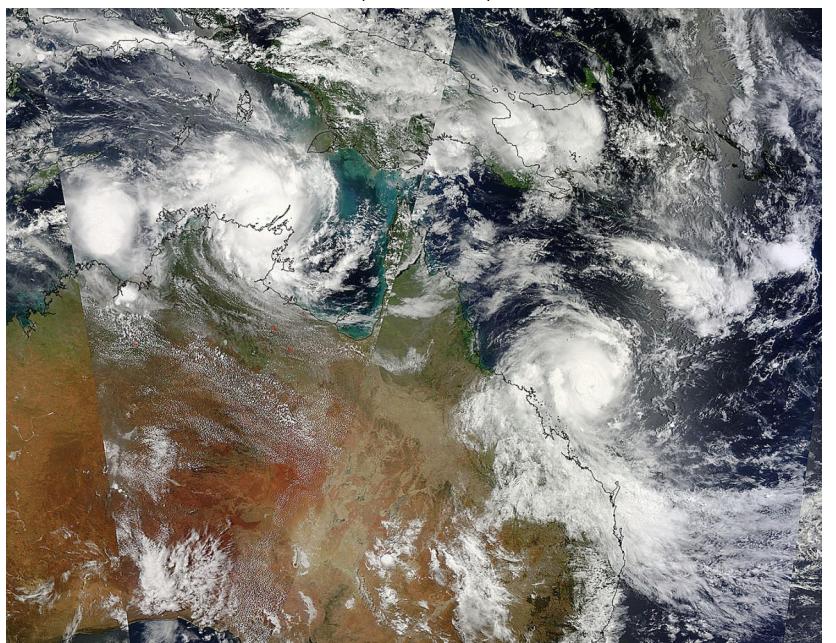
Adam Allgood

### <u>Outline</u>

- 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: Feb 18, 2015 - Feb 24, 2015 30° № 30° N 20° № 20° N 10° N 40° N 0°-10° S 40° S 20° S -20° S 30° S 30° S 30° E 60° E Week 2 - Valid: Feb 180° 2015 - Feb 24, 2015 60° W 30° W 30° N 30° N 20° N 20° N 10° N 10° N IIIA 10° S -10° S 20° S -20° S 30° S 30° S 7-Day Average OLR Anomaly 2015/02/16 - 2015/02/22 30E 60E 90E 150E 60W 30W 120E 180 150W 120W 90W

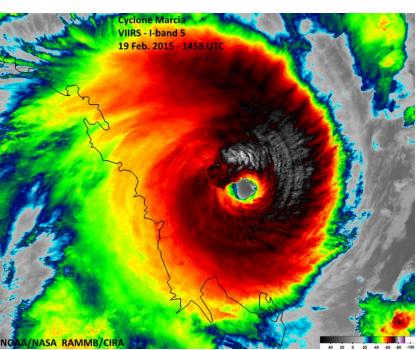
Two TC Landfalls near Australia: Lam (Northern Territory, Cat-2) and Marcia (QLD, Cat-3)



## **Cyclone Marcia**

- Category-3 Intensity before landfall
- Landfall over QLD, near Yeppoon and Rockhampton







Wind, flood damage in Yeppoon, QLD

# Synopsis of Climate Modes

#### **ENSO:**

- Current: ENSO-neutral (El Nino Watch)
- Outlook: There is an approximately 50-60% chance of El Niño conditions during late winter/early Spring, with ENSO-neutral favored thereafter..

#### MJO and other subseasonal tropical variability:

- The MJO remained weak during the past week. Transient Kelvin Waves, Equatorial Waves dominating a largely incoherent global tropical convective pattern.
- The GFS ensembles favor a continued weak MJO signal through Week-2, while the ECMWF, Canadian, and operational UKMET favor increasing signal over the Maritime Continent during Week-2.

#### **Extratropics:**

• With a largely incoherent large-scale anomaly global tropical convective anomaly, pattern, internal, mid-latitude variability is likely to drive much of the pattern of the CONUS through Week-2.



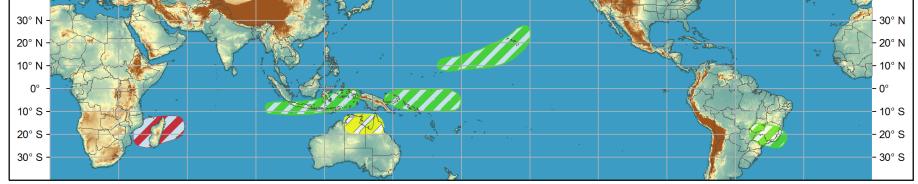
#### Global Tropics Hazards and Benefits Outlook - Climate Prediction Center







Week 2 - Valid: Mar 04, 2015 - Mar 10, 2015



Confidence Produced: 02/24/2015
High Moderate Forecaster: Allgood

Tropical Cyclone Formation Development of a tropical cyclone (tropical depression - TD, or greater strength).

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.

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.





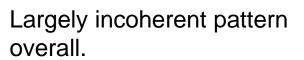


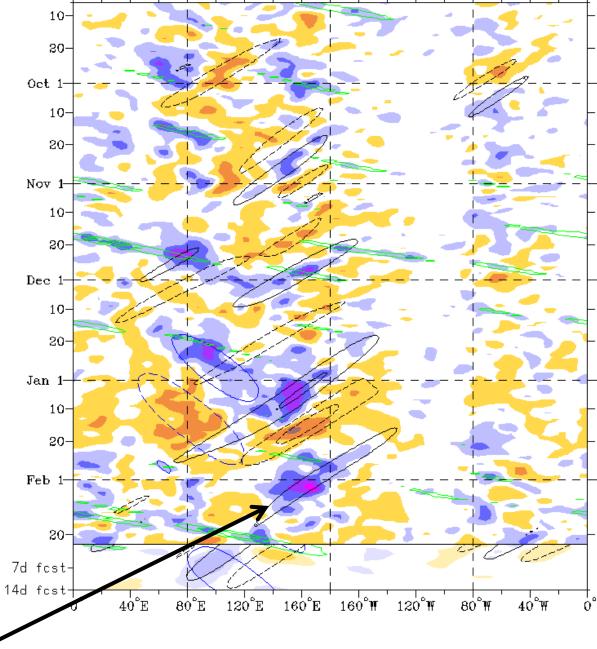








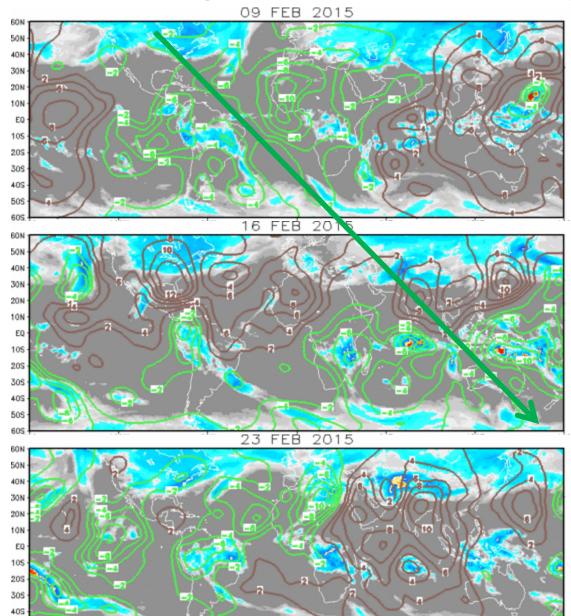




Slow, weakening ERW activity

#### IR Satellite & 200-hpa Velocity Potential Anomalies

Green: Enhanced Divergence Brown: Enhanced Convergence



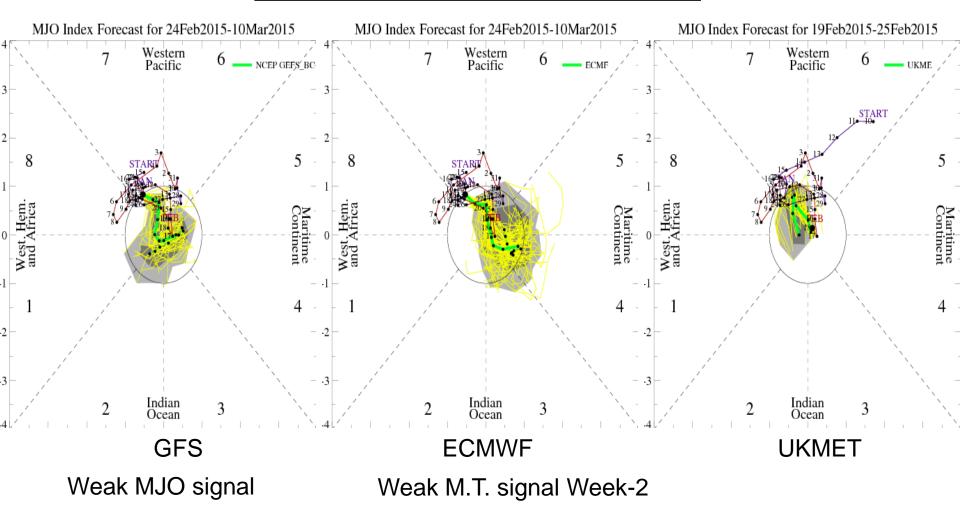
MJO Activity not apparent.

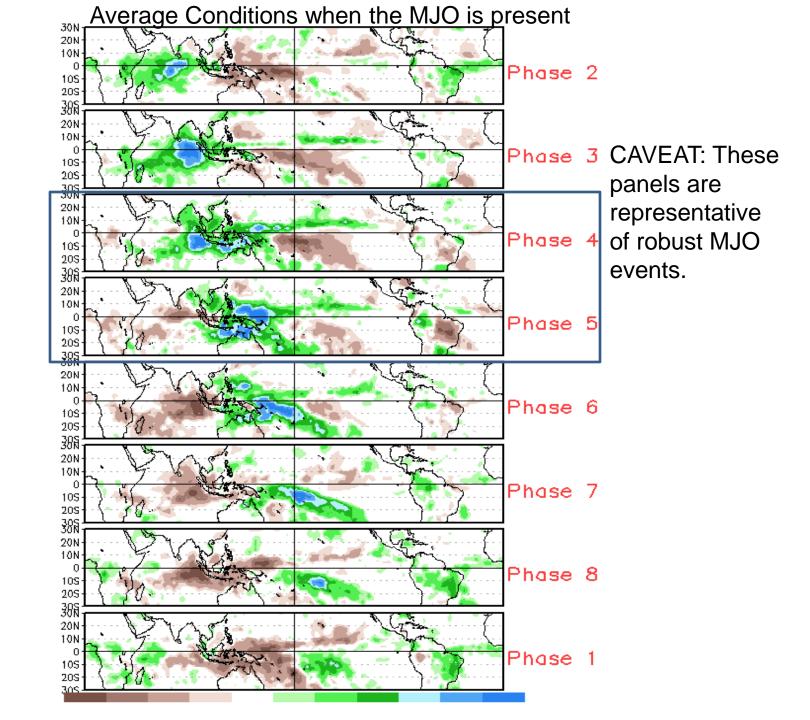
More transient KW activity (Green Line)

ERW Activity less apparent due to interference

50\$

## MJO Observation/Forecast





CFS: Anom. PREC Week: 1: 25-Feb-2015 to 03-Mar-2015 (mm/week). 150 60N mass. 100 30 N 50 EQ Ю -50 308 -100**6**0S -150 120E 60E 180 120W 60W 0 CFS: Anom. PREC Week: 2: 04-Mar-2015 to 10-Mar-2015 (mm/week) 60N (THESE 150 100 30 N 50 EQ 10 -50308 -100

180

-150

0

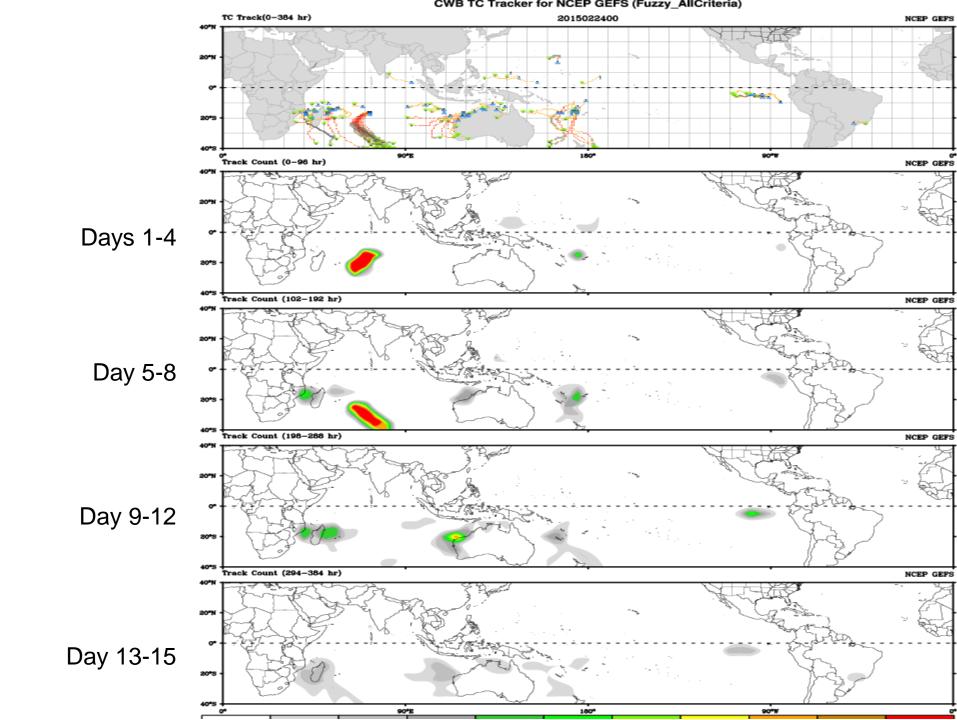
60W

120W

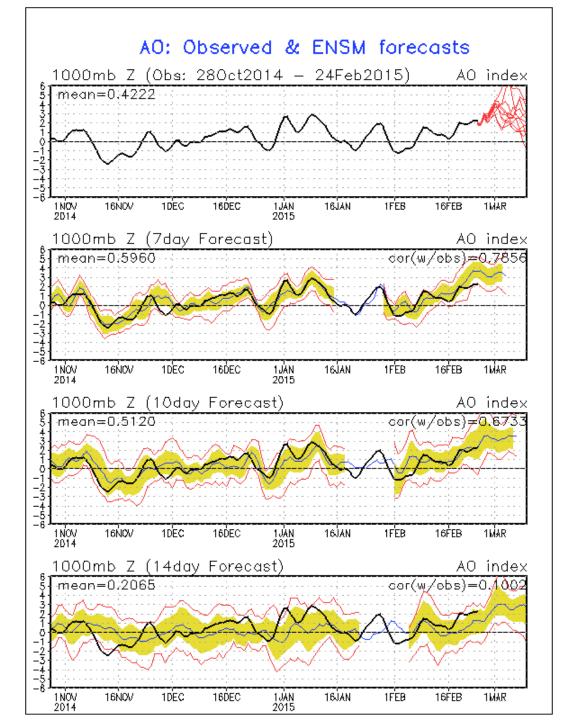
**6**0S

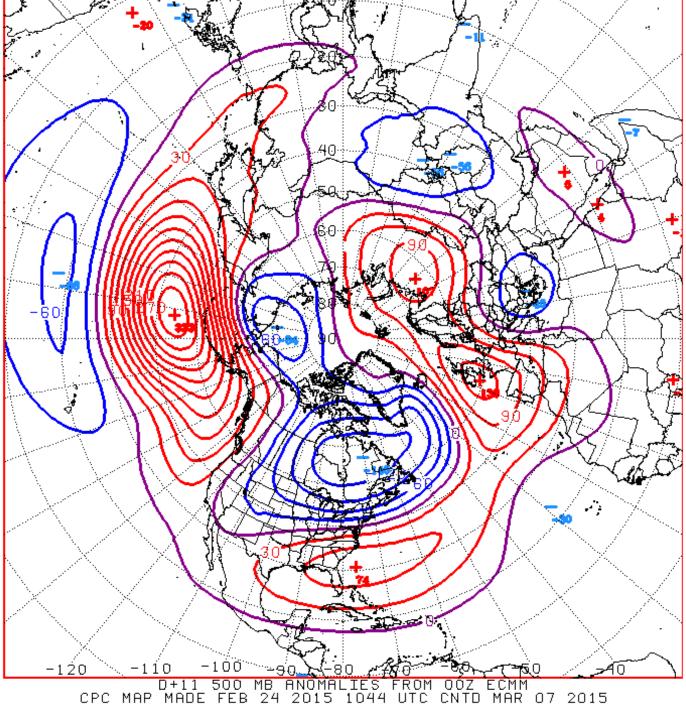
60 E

120E

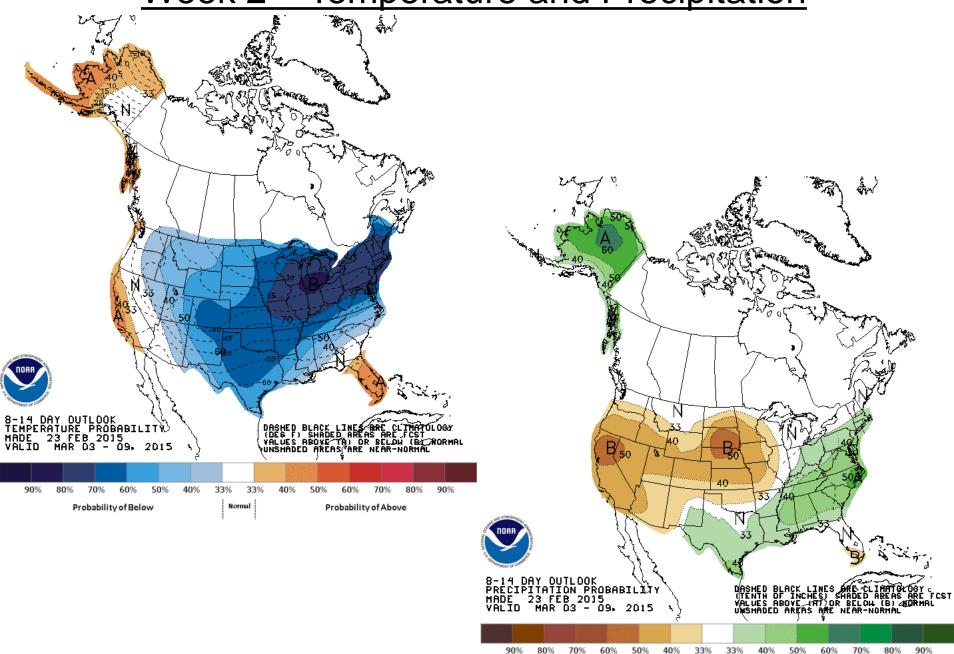


# Connections to U.S. Impacts





Week 2 - Temperature and Precipitation



Probability of Below

Normal

Probability of Above



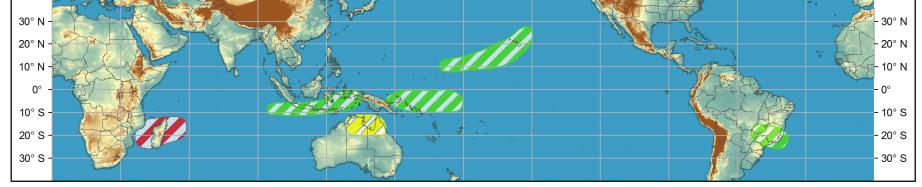
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Confidence High Moderate

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