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
Tropical Cyclone Caleb
- Short-lived and relatively weak over the South Indian Ocean

Tropical Cyclone Debbie
- Developed on March 24 offshore of Queensland
- Rapidly intensified to a cyclone with max sustained winds of near 100knots
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.

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: 03/28/2017
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
**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.
Connections to U.S. Impacts
Week 2 – Temperature and Precipitation
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