Global Tropics Hazards And Benefits Outlook

May 31, 2016

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Outline

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

Cool shading
More clouds/rain

Warm shading
Less clouds/rain
Synopsis of Climate Modes

**ENSO:**
- La Niña Watch in effect as of 14 April 2016

ENSO Neutral likely during late spring/early summer 2016; possible La Niña conditions to develop by late summer/early fall. El Niño is weakening, though large area of 30°C SSTs still exists over central South Pacific (0-15S, DL-150W). More than sufficient to sustain convection.

**MJO and other subseasonal tropical variability:**
- MJO weak in RMM index last week. Velocity potential index indicates enhanced phase over the Western Hemisphere.
- Most dynamical model MJO index forecasts depict the MJO signal to remain weak early in Week-1, followed by redevelopment over the Indian Ocean during Week-2. **High uncertainty.**

**Extratropics:**
- The extended range temperature and precipitation forecasts for the U.S. are not likely to be impacted by the MJO or the decaying El Niño, but more likely impacted by mid-latitude frontal/cyclonic activity.
Global Tropics Hazards and Benefits Outlook - Climate Prediction Center

Week 1 - Valid: Jun 01, 2016 - Jun 07, 2016

Week 2 - Valid: Jun 08, 2016 - Jun 14, 2016

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: 05/31/2016
Forecaster: Baxter

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 pattern.

Eastward propagation of pattern from prior week.

More coherent wave-1 pattern.
Wheeler-Hendon based analyses of model forecasts indicate a weak signal during Week-1, with an emerging signal over the Indian Ocean later in Week-2.
El Niño appearance suppressed relative to earlier this year.

Complicated pattern with MJO, multiple Kelvin waves, and equatorial Rossby wave influences.
No new tropical cyclones are expected during the next five days.
Connections to U.S. Impacts
AO: Observed & ENSM forecasts

1000mb Z (Obs: 02Feb2016 – 31May2016)  AD index
mean = -0.1872

1000mb Z (7day Forecast)  AD index
mean = -0.3922  cor(w/obs) = 0.8477

1000mb Z (10day Forecast)  AD index
mean = -0.4455  cor(w/obs) = 0.6183

1000mb Z (14day Forecast)  AD index
mean = -0.6376  cor(w/obs) = 0.2226
Week 2 – Temperature and Precipitation
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