Global Tropics Hazards And Benefits Outlook
August 16, 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**

La Niña is favored to develop during August - October 2016, with about a 55-60% chance of La Niña during the fall and winter 2016-17.

**MJO and other subseasonal tropical variability:**
- Moderate MJO present over Western Pacific as per Wheeler-Hendon RMM Index.
- Dynamical models favor a tendency to uncharacteristically shift the MJO pattern westward over the forecast period, with some bringing the signal back over the Maritime Continent. This behavior is apparently tied to interactions of the MJO with the monsoon trough, and may also be influenced by tropical cyclone activity.
- Direct MJO impacts were downplayed in the forecast due to uncertainty about the progression and whether diagnostic indices are properly capturing the MJO signature. Additionally, Pacific precipitation and East Pacific and Atlantic tropical cyclone activity expectations fail to match those typical of the observed MJO conditions.

**Extratropics:**
- Positive heights over the NW Pacific may be tied to MJO and tropical convective activity. Recurring Tropical Storm Chanthu may also have downstream influences on the U.S. pattern.
IR Satellite & 200-hpa Velocity Potential Anomalies

Green: Enhanced Divergence  Brown: Enhanced Convergence

Wave-2 pattern, convective enhancement over Indian Ocean and eastern Pacific.

Wave-1 pattern, convective enhancement over the eastern Indian Ocean and western Pacific.

Still generally wave-1 pattern, with enhancement across western and central Pacific. Some weakness in convective suppression over the Atlantic.
Wheeler-Hendon based analyses of model forecasts indicate a westward shift of the MJO signal, with the GEFS bringing the MJO back over the Maritime Continent while the European maintains the signal over the Western Pacific.
This analysis suggests the enhanced convective signal with the MJO broke down in the past week. Suppressed convective signals remain.

Overall tropical convective mode activity forecast to be weak to non-existent.
Average Conditions when the MJO is present

Phase 5 and 6 generally support suppressed convection in the eastern Pacific and Atlantic. Enhanced convection is favored across the western and central Pacific.

CAVEAT: These panels are representative of robust MJO events.
Graphical Tropical Weather Outlooks

Chanthu: 35 kt

(next 24 hours)

(next 48 hours)

"X" denotes position of systems discussed in the Tropical Weather Outlook. Color indicates probability of tropical cyclone formation within 48 hours.
Connections to U.S. Impacts
AO: Observed & ENSM forecasts

1000mb Z (Obs: 19Apr2016 – 16Aug2016) AD index
mean: -0.0932

1000mb Z (7day Forecast) AD index
mean: -0.2042  cor(w/obs)=0.8991

1000mb Z (10day Forecast) AD index
mean: -0.2768  cor(w/obs)=0.6880

1000mb Z (14day Forecast) AD index
mean: -0.3765  cor(w/obs)=0.3911
Global Tropics Hazards and Benefits Outlook - Climate Prediction Center


Confidence

Tropical Cyclone Formation
High
Moderate

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.

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Forecaster: D. Harnos

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.