Global Tropics Hazards And Benefits Outlook

9/12/2017

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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
7-day OLR Weekly Distribution (%) -- Ending: 20170912

Categorization of 7-Day OLR (#) -- Ending: 20170912

Forecast Map Grid -- Week-1 From: 20170905

Forecast Map Grid -- Week-2 From: 20170829

Forecast Map Grid Verification -- Week-1 From: 20170905

Forecast Map Grid Verification -- Week-2 From: 20170829

Hit: Green, Miss: Red
Heidke Skill Score: 19.2179

Heidke Skill Score: -3.7804
Synopsis of Climate Modes

**ENSO:** dated Aug 10
- ENSO-neutral is favored (~85% chance through Sept, decreasing to ~55% during Dec-Feb) through the Northern Hemisphere winter 2017-18

**MJO and other subseasonal tropical variability:**
- The MJO remained weak, with Kelvin wave activity over Pacific.
- Dynamical models indicate a weak, low amplitude signal in Week-1, which moves rapidly eastward across the Indian Ocean and western Maritime Continent. Week-2… MJO signal incoherent; possible emergence of weak signal over phase 8 (Western Hemisphere and Africa). Related to Kelvin wave activity? Westward-moving modes (ERWs) also interfering.

**Extratropics:**
- The extended range temperature and precipitation forecasts for the U.S. are not likely to be directly impacted by MJO activity (but indirect impacts could be realized through TC activity)
Global Tropics Hazards and Benefits Outlook - Climate Prediction Center

Week 1 - Valid: Sep 13, 2017 - Sep 19, 2017

Week 2 - Valid: Sep 20, 2017 - Sep 26, 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: 09/12/2017
Forecaster: Artusa

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-1 pattern

Wave-1 > Wave-2 pattern

Wave-2 pattern
Wheeler-Hendon based analyses of model forecasts show significant differences.
MJO, Rossby wave, Kelvin wave, Low-frequency pattern having an influence
Connections to U.S. Impacts
Week 2 – Temperature and Precipitation

8-14 Day Outlook
Temperature Probability
Made: 11 Sep 2017
Valid Sep 19 - 25, 2017

Probability of Below | Normal | Probability of Above

8-14 Day Outlook
Precipitation Probability
Made: 11 Sep 2017
Valid Sep 19 - 25, 2017

Probability of Below | Normal | Probability of Above

(NOAA Weather)