Global Tropics Hazards And Benefits Outlook

September 16, 2013

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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:**
- Current: ENSO-neutral
- Outlook: The chance of El Niño is at 60-65% during the Northern Hemisphere fall and winter.

**MJO and other subseasonal tropical variability:**
- The MJO remained weak with atmospheric circulation not coherent with a robust MJO. Equatorial Rossby waves, Kelvin Waves, and vacillations in the Asian Monsoon are impacting the overall pattern.
- Dynamical model MJO index forecasts depict little to no movement, potential just the index aligning to the base state and little MJO activity. The statistical tools show eastward propagation but little to no signal strength.

**Extratropics:**
- The extended range forecast for the U.S. aligns well with the typical circulation patterns based on the current and forecast phases of the MJO. These include above normal rains along the southern tier. Potential tropical cyclone formation near Hawaii, could bring high waves and rains to Hawaii during late Week-1.
Global Tropics Hazards and Benefits Outlook - Climate Prediction Center

Week 1 - Valid: Sep 17, 2014 - Sep 23, 2014

Week 2 - Valid: Sep 24, 2014 - Sep 30, 2014

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: 09/16/2014
Forecaster: Rosencrans

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

01 SEP 2014

08 SEP 2014

15 SEP 2014
Wheeler-Hendon based analyses of model forecasts indicate no coherent signal.

Models indicate convection aligns with MJO phase 7-8.
Average Conditions when the MJO is present (May-Sep)

CAVEAT: These panels are representative of robust MJO events.
Weak, active phase of the MJO forecast to impact Indian Ocean and Maritime Continent.

Evolving ENSO also contributing.

Equatorial Rossby Waves to impact western Pacific/Maritime Continent (with drier conditions)

Kelvin Wave to impact ePAC and ATL.
September Tropical Storm Formation by MJO phase
Tropical Cyclone Formation Potential for the 5-Day Period Ending 8:00 am EDT Sun Sep 21 2014
Chance of Cyclone Formation in 5 Days:  ▶️ Low < 30%  ▶️ Medium 30-50%  ▶️ High > 50%
X indicates current disturbance location; shading indicates potential formation area.

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Connections to U.S. Impacts
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