Global Tropics Hazards And Benefits Outlook

June 17, 2014

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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:**
- The chance of El Niño is 70% during the Northern Hemisphere summer and reaches 80% during the fall and winter
- ENSO Alert System Status: [El Niño Watch](#)

**MJO and other subseasonal tropical variability:**
- Although there was a strong projection of an enhanced convective phase over the western Maritime Continent on the MJO indices, little to no eastward propagation was evident. The indices are likely responding to enhanced monsoonal flow along the Meiyu front coupled with low-level easterly anomalies near the Date Line.
- There is considerable spread among the dynamical model MJO forecasts, with some weakening the signal and others building a signal over the central Pacific during Week-2

**Extratropics:**
- Although enhanced convection over SE Asia and the far western Pacific isn’t necessarily MJO related, current and forecasted conditions for the CONUS seem consistent with both direct and time lagged composites of U.S. temperature and precipitation anomalies given an MJO enhanced phase over the Maritime Continent.
Global Tropics Hazards and Benefits Outlook - Climate Prediction Center

Week 1 - Valid: Jun 18, 2014 - Jun 24, 2014

Week 2 - Valid: Jun 25, 2014 - Jul 01, 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: 06/17/2014
Forecaster: Allgood

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

Coherent, Wave-1 pattern
Average Conditions when the MJO is present (May-Sep)

CAVEAT:
Dashed lines – MJO activity

Green Box – persistent enhanced convection over the EPAC, including TCs

Arrows – enhanced convection, smaller scale than robust MJO activity, likely signals from TS Nanauk (left) and TS Hagibis/monsoon flow (right)

Decreased signal over the central Pacific during May and June
June Tropical Storm Formation by MJO phase

- Phase 1 (104 days) 14 storms
- Phase 2 (92 days) 11 storms
- Phase 3 (57 days) 10 storms
- Phase 4 (80 days) 6 storms
- Phase 5 (77 days) 8 storms
- Phase 6 (92 days) 17 storms
- Phase 7 (45 days) 16 storms
- Phase 8 (70 days) 15 storms
- Null (423 days) 71 storms
30% (moderate) chance of development through Day-5
Mid/upper level trough from NW Bahamas through Central America – no TC development but enhanced convection
TC Genesis favored over EPAC during Week-1 (existing wave), then again late in the Week-2 period.

Some ensemble members develop a TC during late Week-2 NW of the Date Line (low confidence)
Connections to U.S. Impacts
Week 2 – Temperature and Precipitation
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Week 1 - Valid: Jun 18, 2014 - Jun 24, 2014

- Tropical Cyclone Formation
  - High: Development of a tropical cyclone (tropical depression - TD, or greater strength).
  - Moderate: Weekly total rainfall in the upper third of the historical range.

- Above-average rainfall
  - Yellow: Weekly total rainfall in the lower third of the historical range.

- Below-average rainfall
  - Green: 7-day mean temperatures in the upper third of the historical range.

- Above-normal temperatures
  - Orange: 7-day mean temperatures in the lower third of the historical range.

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