Global Tropics Hazards And Benefits Outlook

Jun 28, 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
Synopsis of Climate Modes

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

ENSO-neutral conditions are present and La Niña is favored to develop during the Northern Hemisphere summer 2016, with about a 75% chance of La Niña during the fall and winter 2016-17.

**MJO and other subseasonal tropical variability:**
- Enhanced phase of MJO shifting from the eastern Indian Ocean to western Maritime Continent.
- Most dynamical model MJO index forecasts depict a fast, eastward propagation during the next weeks.
- An atmospheric Kelvin Wave and potential tropical cyclone activity in the east Pacific are likely influencing these forecasts.

**Extratropics:**
- Tropical cyclone development in the east Pacific could enhance the low-level moisture across northern Mexico and eventually the desert Southwest.
Global Tropics Hazards and Benefits Outlook - Climate Prediction Center

Week 1 - Valid: Jun 29, 2016 - Jul 05, 2016

Week 2 - Valid: Jul 06, 2016 - Jul 12, 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: 06/28/2016
Forecaster: Pugh

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.
More coherent pattern developed during mid-June

Eastward propagation of pattern from prior week

Continued eastward propagation of a robust MJO signal

Kelvin Wave ahead of the MJO
Wheeler-Hendon based analyses of model forecasts indicate good agreement between the UKMET and ECMWF (Phases 5 and 6).
El Niño appearance suppressed relative to earlier this year.

Green opal represents the Kelvin Wave crossing Western Hemisphere.
Days 1-4

Day 5-8

Day 9-12

Day 13-15
Week 2 – Temperature and Precipitation

8-14 DAY OUTLOOK
TEMPERATURE PROBABILITY
MADE 27 JUN 2016
VALID JUL 05 - 11, 2016

DASHED BLACK LINES ARE CLIMATOLOGY
(GEOM) SHADED AREAS ARE PDF
VALUES ABOVE OR BELOW 0.90 NORMAL
UNSHADED AREAS ARE NEAR-NORMAL

90% 80% 70% 60% 50% 40% 33% 33% 40% 50% 60% 70% 80% 90%
Probability of Below | Normal | Probability of Above

8-14 DAY OUTLOOK
PRECIPITATION PROBABILITY
MADE 27 JUN 2016
VALID JUL 05 - 11, 2016

DASHED BLACK LINES ARE CLIMATOLOGY
(MONTH INCHES) SHADED AREAS ARE PDF
VALUES ABOVE OR BELOW 1.00 NORMAL
UNSHADED AREAS ARE NEAR-NORMAL

90% 80% 70% 60% 50% 40% 33% 33% 40% 50% 60% 70% 80% 90%
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