Global Tropics Hazards And Benefits Outlook
03/13/2018

Kyle MacRitchie

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:**
- ENSO Alert System Status: [La Niña Advisory](#)
- March 8th Update: A transition from La Niña to ENSO-neutral is most likely (~55% chance) during the March-May season, with neutral conditions likely to continue into the second half of the year.

**MJO and other subseasonal tropical variability:**
- The MJO is over the Indian Ocean and has weakened to an RMM amplitude of ~1.
- Dynamical and statistical models continue to forecast a weakening MJO through the forecast period, but some models suggest it will re-emerge around the end of March.
- The MJO’s OLR and wind fields remain stronger than the RMM index implies and contribute to the large-scale convection over the Indian Ocean.
- Equatorial Rossby wave activity over the Indian Ocean and Central Pacific is likely to continue. Some of the gyres associated with these waves may form into tropical cyclones.

**Extratropics:**
- The extratropical circulation is highly amplified and not driven primarily by the tropics. This is expected to continue as the MJO weakens.
- The NAO is near neutral and forecast to turn slightly negative over the forecast period. The AO is negative and forecast to stay negative but weaken.
Global Tropics Hazards and Benefits Outlook - Climate Prediction Center

Week 1 - Valid: Mar 14, 2018 - Mar 20, 2018

Week 2 - Valid: Mar 21, 2018 - Mar 27, 2018

Enjoyed 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.
Generally suppressed convection over the Pacific and Americas; enhanced convection over Africa and the Indian Ocean.

Wave-1 pattern weakens along with the MJO but generally broad convection lingers over the Indian Ocean.

Wave-1 pattern continues to weaken. Large-scale convection over Indian Ocean and Maritime Continent driven by MJO and equatorial Rossby waves.
Wheeler-Hendon based analyses of model forecasts indicate a weakening MJO. GEFS suggests that it may strengthen again around the end of March.
Average Conditions when the MJO is present

CAVEAT: These panels are representative of robust MJO events.
The **MJO** has weakened since early March.

**Equatorial Rossby waves** are over the Indian and Central Pacific oceans.

**Low-frequency pattern** is stationary.
The MJO has weakened since early March.

Equatorial Rossby waves are over the Indian and Central Pacific oceans.

Low-frequency pattern is stationary.
Connections to U.S. Impacts
Global Tropics Hazards and Benefits Outlook - Climate Prediction Center

Week 1 - Valid: Mar 14, 2018 - Mar 20, 2018

Week 2 - Valid: Mar 21, 2018 - Mar 27, 2018

Confidence

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: 03/13/2018
Forecaster: MacRitchie

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.