Global Tropics Hazards And Benefits Outlook

5/8/2018

Dan Harnos

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

No tropical cyclone development occurred during the past week.

Cool shading
More clouds/rain

Warm shading
Less clouds/rain
Synopsis of Climate Modes

**ENSO:**

- ENSO Alert System Status: [La Niña Advisory](#) – *updates Thursday, 10 May!*
- La Niña is expected to transition to ENSO-neutral during April-May, with ENSO-neutral then likely (greater than 50% chance) to continue through the Northern Hemisphere summer 2018.

**MJO and other subseasonal tropical variability:**

- The MJO re-emerged over the Western Hemisphere during the past week.
- Kelvin wave activity and the active phase of the MJO are likely to enhance convection across the Western Hemisphere this week, while the suppressed phase of the MJO should help dampen convection from Southeast Asia through the West Pacific.
- The MJO and Kelvin wave activity over the Western Hemisphere may help spin up the first tropical cyclone of the season in the East Pacific (hurricane season does not officially begin here until the 15th of May).

**Extratropics:**

- Teleconnection responses across North America are weak in response to an active MJO over the Western Hemisphere, particularly during this time of year.
Global Tropics Hazards and Benefits Outlook - Climate Prediction Center

Week 1 - Valid: May 09, 2018 - May 15, 2018

Week 2 - Valid: May 16, 2018 - May 22, 2018

Produced: 05/08/2018
Forecaster: D.Harnos

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.

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.
The anomaly field was relatively weak during late April.

By the end of April, the circulation was slightly more anomalous but remained noisy, with the highest amplitude signal over the West Pacific.

During early May, a wave-1 signal consistent with an active MJO event re-emerged, with enhanced convection across the Americas, Atlantic, and Africa.
Wheeler-Hendon based analyses of model forecasts indicate propagation to the east during the next two weeks, with the event reaching the Indian Ocean during Week-2. The GEFS is slightly slower and higher amplitude relative to the ECWMF.
Average Conditions when the MJO is present

Expectations

Week-1: Phase 1

Week-2: Phase 1/2

CAVEAT: These panels are representative of robust MJO events.
Active **MJO**, **Rossby wave** and **Kelvin wave** influences exist across the Western Hemisphere.

The suppressed phase of the **MJO** is making its way across the Maritime Continent.

**Low frequency** signals are enhancing convection over the western Indian Ocean.
May Tropical Storm Formation by MJO phase

Week 1
Week 2

Phase 1 (65 days) 7 storms
Phase 2 (76 days) 5 storms
Phase 3 (70 days) 9 storms
Phase 4 (65 days) 9 storms
Phase 5 (66 days) 9 storms
Phase 6 (97 days) 10 storms
Phase 7 (111 days) 15 storms
Phase 8 (111 days) 11 storms
Null (349 days) 33 storms
No new tropical cyclones are expected during the next five days.
Ensemble-based Probability (%) of TC genesis using these global ensembles: NCEP CMC ECMWF
For forecasts during the 00–120h period from initial time = 2018050800
Connections to U.S. Impacts
Today’s Week-2 outlook likely wetter across the northern tier from the Great Plains eastward.
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