Global Tropics Hazards And Benefits Outlook
02/20/2018

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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

TC Kelvin
2/16-2/18

TC Gita
2/9-2/19

Cool shading
More clouds/rain

Warm shading
Less clouds/rain

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

Week 2 - Valid: Feb 14, 2018 - Feb 20, 2018

7-Day Average OLR Anomaly
2018/02/12 - 2018/02/18
Synopsis of Climate Modes

**ENSO:**
- ENSO Alert System Status: La Niña Advisory
- February 8th Update: A transition from La Niña to ENSO-neutral is most likely during the Northern Hemisphere spring (~55% chance of ENSO-neutral during the March-May season).

**MJO and other subseasonal tropical variability:**
- The MJO remained active, with the enhanced phase crossing the Pacific.
- Dynamical and statistical models continue to propagate the MJO with slowly eastward across the Pacific with a significant reduction in amplitude, especially during Week-2.

**Extratropics:**
- Dynamical models forecast the Arctic and North Atlantic oscillations to turn negative within the Week-1 period and remain negative into Week-2.
Global Tropics Hazards and Benefits Outlook - Climate Prediction Center

Week 1 - Valid: Feb 21, 2018 - Feb 27, 2018

Week 2 - Valid: Feb 28, 2018 - Mar 06, 2018

Produced: 02/20/2018
Forecaster: Finan

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.
Enhanced phase of the MJO is seen over the Central Pacific while the suppressed phase spreads over the Maritime Continent and Indian Ocean.

The pattern becomes noisier as the MJO weakens and suppressed convection spreads out over South America.

The MJO signal continues to weaken and the large-scale pattern becomes more noisy. Kelvin and Rossby wave activity contribute to the noise, especially over the Pacific.
Models continue to propagate the MJO envelope eastward the next two weeks after stalling in Phase 7 this week. The GEFS and CFS are slower than the ECMWF model, as these two models suggest more interaction with Rossby waves. All three models do portray a significant weakening of the MJO amplitude the next two weeks.
Average Conditions when the MJO is present

CAVEAT: These panels are representative of robust MJO events.

Week-1: Phase 8/1
Week-2: Phase 1/2, weakening

CAVEAT: These panels are representative of robust MJO events.
The **MJO** enhances convection into the central and eastern Pacific, weakening as it interacts with the **low-frequency pattern**. The enhanced convection is forecast to re-emerge in the western Indian Ocean. **Rossby wave** activity is expected to interact with the **MJO** suppressed convective envelope over the western Pacific and Maritime Continent, possibly slowing its eastward propagation.
Connections to U.S. Impacts
Week 2 Forecast
From GFS
Week 2 – Temperature and Precipitation

8-14 DAY OUTLOOK
TEMPERATURE PROBABILITY
MADE 19 FEB 2018
VALID FEB 27 - MAR 05, 2018

8-14 DAY OUTLOOK
PRECIPITATION PROBABILITY
MADE 19 FEB 2018
VALID FEB 27 - MAR 05, 2018
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