Global Tropics Hazards And Benefits Outlook

5/26/2020

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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

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Week 1 - Valid: May 20, 2020 - May 26, 2020

Week 2 - Valid: May 20, 2020 - May 26, 2020

Cool shading
More clouds/rain

Warm shading
Less clouds/rain

7-Day Average OLR Anomaly

2020/05/18 - 2020/05/24
Synopsis of Climate Modes

**ENSO: (May 14, 2020 Update)**

- ENSO Alert System Status: Not Active
- There is a ~65% chance of ENSO-neutral during Northern Hemisphere summer 2020, with chances decreasing through the autumn (to 45-50%).

**MJO and other subseasonal tropical variability:**

- The enhanced phase of the slower MJO envelope diminished as a strong Kelvin wave began crossing the Pacific.
- The Kelvin wave appears to be convectively coupled with the North Pacific ITCZ, and will help conditions become more favorable for East Pacific tropical cyclogenesis during Week-1.
- During Week-2, the area of favorability may expand to include parts of the Gulf of Mexico and western Caribbean. Numerous GEFS ensemble members depict a tropical cyclone formation.
- Dynamical model MJO index forecasts depict the Kelvin wave activity better than the remnant MJO.
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Week 1 - Valid: May 27, 2020 - Jun 02, 2020

Week 2 - Valid: Jun 03, 2020 - Jun 09, 2020

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: 05/26/2020
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.
Not a very coherent signal, but some evidence of enhanced (suppressed) phase over Western Hemisphere (Pacific)

Robust Indian Ocean signal, influenced heavily by extremely intense Cyclone Amphan

Equator-centered enhanced phase is weak as KW races ahead (central Pac), and remnants of Mangga merged with front over Australia
Note the very fast progression from the Indian Ocean to the West Pacific. This is evidence of the Kelvin wave.

GEFS and JMA key in on this KW and show the signal returning to the Indian Ocean at the end of Week-2.

The ECMWF shows the competing signals a bit more, with weaker amplitude.
CAVEAT: These panels are representative of robust MJO events.
Kelvin wave over the Pacific projects strongly in the 5N-15N band. It’s amplitude is weaker in equator-centered analyses.
May Tropical Storm Formation by MJO phase
Connections to U.S. Impacts
Since we are in an amplified, stable pattern today’s outlooks are likely to be similar.
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