Global Tropics Hazards And Benefits Outlook
10/19/2021
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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

No TCs formed since Wed 10/13

Cool shading
More clouds/rain

Warm shading
Less clouds/rain
ENSO: (September 9, 2021 Update)  

next update on 11th of Nov.

• ENSO Alert System Status: La Niña Advisory

• La Niña conditions have developed and are expected to continue with an 87% chance of La Niña in December 2021 - February 2022.

MJO and other subseasonal tropical variability:

• The RMM index shows the MJO weakened substantially during the last week, tied to destructive interference with the developing La Niña.

• RMM forecasts point to the reemergence of the intraseasonal signal over the Western Hemisphere, with some uncertainty in regards to its amplitude.

• This transition of the MJO favors tropical cyclone formation across the East Pacific on the near term, with increasingly favorable conditions for development over the Caribbean/Atlantic during late October and early November.
A more coherent wave-1 pattern became established in early Oct, with a Kelvin wave over the East Pacific.

The wave-1 pattern persists with limited propagation. The Kelvin wave formerly over the East Pacific is now near the Prime Meridian.

The wave-1 pattern has since devolved likely due to destructive interference over the Pacific. Enhanced conditions observed east of the Date Line.
MJO activity is coming through the filtering east of the Date Line, as the suppressed phase destructively interferes with the low frequency signal over the Maritime Continent.
There is fair agreement in the models which show the intraseasonal signal gaining amplitude over the Western Hemisphere during the next two weeks, with several ensemble members depicting a high amplitude event. Note that, due to the building La Nina, points in RMM space are likely skewed towards the right (phases 4 and 5).

Decreasing RMM1 values (x-axis) in the forecast appears to be driven by the development of anomalous low-level westerlies favored in the models over the eastern Pacific and Caribbean, implicative of increased tropical cyclone potential.
Average Conditions when the MJO is present

CAVEAT: These panels are representative of robust MJO events.
No new tropical cyclones are expected during the next five days.
Connections to U.S. Impacts
Possibly wetter today across the Southern Plains due to the weakness in the circulation on the prior slide.
Global Tropics Hazards and Benefits Outlook - Climate Prediction Center

Week 1 - Valid: Oct 20, 2021 - Oct 26, 2021

Week 2 - Valid: Oct 27, 2021 - Nov 02, 2021

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.