Global Tropics Hazards And Benefits Outlook

8/30/2022

Nick Novella

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

H = Hinnamnor (West Pacific; 8/28)

Cool shading
More clouds/rain

Warm shading
Less clouds/rain
Synopsis of Climate Modes

**ENSO:** (August 11, 2022)  
*next update on Thursday, September 8th*

- ENSO Alert System Status: [La Niña Advisory](#)

- La Niña is favored to continue into the Northern Hemisphere Fall (86% chance), with probabilities decreasing to 60% during Dec-Jan-Feb 2022-23.

**MJO and other subseasonal tropical variability:**

- During the past week, the MJO has shown better signs of organization as supported by upper-level velocity potential anomaly analyses and RMM observations.

- However, the renewed interseasonal activity is likely to be short lived, with dynamical models favoring a gradual decrease in amplitude as the signal propagates eastward across the Indian Ocean and Maritime Continent during the next two weeks.

- Regardless of a less coherent MJO moving forward, there are increased chances for tropical cyclone (TC) development across the Pacific and Atlantic heading into September, also coinciding with climatological peak of TC activity in these basins.
La Nina continues to dominate over the Pacific and Maritime Continent. A Kelvin Wave has led to upper-level divergence across Africa.

Anomalous upper-level divergence continues across Africa and the Indian Ocean, with upper-level convergence (suppressed convection) expanding across the West Pacific.

A wave-1 pattern emerged in late August suggestive of the MJO becoming better organized with a more uniform distribution of suppressed conditions overspreading the East Pacific and Americas.
There is a consensus in the dynamical models favoring the continued weakening of the MJO signal during the next two weeks.

Some ensemble members suggest possible reemergence of MJO signal over the Maritime Continent and western Pacific (ECMWF + CFS) beyond the week-2 period, but uncertainty is high given potential destructive interference with La Nina.
Average Conditions when the MJO is present

CAVEAT: These panels are representative of robust MJO events.
At present, **MJO** activity coming is through the upper-level velocity potential filtering over the Indian Ocean, with the suppressed phase over the Pacific.

In early Sept, the wave-1 pattern breaks down due to **Kelvin wave** activity emerging over the eastern Pacific with enhanced conditions extending into the Atlantic.

Though not depicted in the forecast, **low frequency** contours depict ENSO cold conditions along and west of 120E.
2 factors driving forecast uncertainty:
- Competing steering synoptic pattern to slow system
- Binary interaction with 98W
Five-Day Graphical Tropical Weather Outlook
National Hurricane Center Miami, Florida

Current Disturbances and Five-Day Cyclone Formation Chance:
- < 40%
- 40-60%
- > 60%

Tropical or Sub-Tropical Cyclone:
- Depression
- Storm
- Hurricane
- Post-Tropical Cyclone or Remnants

8:00 am EDT
Tue Aug 30 2022

5:00 am PDT
Tue Aug 30 2022

www.hurricanes.gov
Connections to U.S. Impacts
Models do not show much amplification of the height pattern over higher latitudes of North America when Hinnamnor eventually becomes absorbed in westerlies by next week.
Since we are in a stable pattern today’s outlooks are likely to be similar.
Global Tropics Hazards and Benefits Outlook - Climate Prediction Center

Week 1 - Valid: Aug 31, 2022 - Sep 06, 2022

Week 2 - Valid: Sep 07, 2022 - Sep 13, 2022

Confidence

<table>
<thead>
<tr>
<th>High</th>
<th>Moderate</th>
</tr>
</thead>
</table>

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: 08/30/2022
Forecaster: Novella

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.