Global Tropics Hazards And Benefits Outlook

8/17/2021

Brad Pugh

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

Cool shading
More clouds/rain

Warm shading
Less clouds/rain
Synopsis of Climate Modes

**ENSO: (August 12, 2021 Update)**
- ENSO Alert System Status: [La Niña Watch](#)
- ENSO-neutral is favored for the remainder of the Northern Hemisphere summer and probabilities of La Niña increasing to 60 percent by September-October-November.

**MJO and other subseasonal tropical variability:**
- The MJO remains active but interference from Rossby waves stalled its eastward propagation during the past week.
- Resumed eastward propagation across the Indian Ocean is predicted for week-1 with forecast uncertainty increasing beyond that time.
- Elevated chances for tropical cyclone (TC) development through week-1 for the tropical Atlantic, followed by an expected lull during week-2.
- Chances for TC development likely to increase across the West Pacific by week-2.
Global Tropics Hazards and Benefits Outlook - Climate Prediction Center

Week 1 - Valid: Aug 18, 2021 - Aug 24, 2021

Week 2 - Valid: Aug 25, 2021 - Aug 31, 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.

Produced: 08/17/2021
Forecaster: Pugh

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.
Wave-2 asymmetry as a Kelvin wave ahead of the main MJO envelope crossed the Atlantic.

Enhanced phase over the Western Hemisphere, note Rossby wave interference over the Maritime Continent.

Anomalous upper-level divergence persists over the tropical Atlantic and Africa, but anomalous upper-level convergence shifting east of the Date Line.
Large spread among GFS ensemble members but consensus is for a weakening MJO later this month.
Average Conditions when the MJO is present

CAVEAT: These panels are representative of robust MJO events.
Tropical Storm Henri
Tuesday August 17, 2021
11 AM AST Advisory 7
NWS National Hurricane Center

Current information: x
Center location 30.4 N 64.3 W
Maximum sustained wind 50 mph
Movement WSW at 6 mph

Forecast positions:
● Tropical Cyclone ○ Post/Potential TC
Sustained winds:
D < 39 mph
S 39-73 mph H 74-110 mph M > 110 mph

Potential track area:

Watches:

Warnings:

Current wind extent:
Tropical Storm Grace
Tuesday August 17, 2021
11 AM EDT Advisory 17
NWS National Hurricane Center

Current information: x
Center location 18.3 N 76.8 W
Maximum sustained wind 50 mph
Movement W at 15 mph

Forecast positions:
● Tropical Cyclone ○ Post/Potential TC
Sustained winds:
D < 39 mph
S 39-73 mph H 74-110 mph M > 110 mph

Potential track area:
- Watches:
- Warnings:
- Current wind extent:
GFS Total Accumulated Precipitation (inches) from 06z17Aug2021 to 00z25Aug2021

Init: 06z Aug 17 2021  Forecast Hour: [186]  valid at 00z Wed, Aug 25 2021
Note: The cone contains the probable path of the storm center but does not show the size of the storm. Hazardous conditions can occur outside of the cone.

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**Hurricane Linda**
Tuesday August 17, 2021
5 AM HST Advisory 30
NWS National Hurricane Center

**Current information:**
Center location 17.5 N 127.4 W
Maximum sustained wind 85 mph
Movement W at 10 mph

**Forecast positions:**
- Tropical Cyclone
- Post/Potential TC
  - Sustained winds: D < 39 mph
    - S 39-73 mph
    - H 74-110 mph
    - M > 110 mph

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**Potential track area:**
- Day 1-3
- Day 4-5

**Watches:**
- Hurricane
- Trop Stm

**Warnings:**
- Hurricane
- Trop Stm

**Current wind extent:**
- Hurricane
- Trop Stm
Connections to U.S. Impacts
Week 2 – Temperature and Precipitation

8-14 Day Outlook
Temperature Probability
Made 16 Aug 2021
Valid Aug 24 - 30, 2021

8-14 Day Outlook
Precipitation Probability
Made 16 Aug 2021
Valid Aug 24 - 30, 2021

Dashed black lines are climatology. Colored areas are percentiles. Values above 75th or below 25th percentile are above or below normal. Shaded areas are near-normal.
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