Global Tropics Hazards And Benefits Outlook

7/7/2020

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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

- Edouard (7/4)
- Cristina (7/7)

Cool shading
More clouds/rain

Warm shading
Less clouds/rain
Synopsis of Climate Modes

**ENSO: (June 11, 2020 Update)**

- ENSO Alert System Status: Not Active

- There is a ~60% (from 65%) chance of ENSO-neutral during Northern Hemisphere summer 2020, with roughly equal chances (~40-50%) of La Nina or ENSO-neutral during the autumn and winter 2020-2021.

**MJO and other subseasonal tropical variability:**

- Velocity potential anomalies suggest a weak and incoherent pattern.

- Dynamical model guidance suggests the MJO may emerge over the western Indian Ocean during the next few days, but there is uncertainty as to how long the signal propagates eastward before falling into the RMM circle.

- TC potential remains weak over the West Pacific, with moderate chances over the Atlantic and East Pacific during the next week.
Global Tropics Hazards and Benefits Outlook - Climate Prediction Center

Week 1 - Valid: Jul 08, 2020 - Jul 14, 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: 07/07/2020
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.
The wave-1 pattern remains broken up by the Kelvin wave now over the East Pacific.

Continued eastward progression of both features, but the Indian Ocean center remains more slowly evolving relative to the Kelvin wave.

Enhanced convection shifted westward over Africa / Indian Ocean with suppressed envelope expanding across Pacific.
Both the CFS and ECMWF means show a eastward propagation over the western Indian Ocean for week-1 before falling into unit circle by week-2.
A Kelvin wave is seen crossing the dateline into the East Pacific in the OLR field.

Rossby wave activity evident over the Indian Ocean since late June.

While not objectively analyzed, there appears to be a low frequency component with enhanced convection since mid-June starting near 60E, and currently over the Indian Ocean. Could this grow to become a new MJO event?

$N=5$

Current Season Northwest Pacific Ocean ACE (1981–2010 Clim)

$N=2$


$N=3$
July Tropical Storm Formation by MJO phase

Phase 1 (144 days) 37 storms
Phase 4 (40 days) 14 storms
Phase 7 (57 days) 21 storms
Phase 2 (74 days) 20 storms
Phase 5 (63 days) 11 storms
Phase 8 (61 days) 24 storms
Phase 3 (49 days) 17 storms
Phase 6 (60 days) 23 storms
Null (480 days) 130 storms
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.

Tropical Storm Cristina
Tuesday July 07, 2020
10 AM CDT Advisory 4
NWS National Hurricane Center

Current information: x
Center location 12.2 N 102.8 W
Maximum sustained wind 40 mph
Movement WNW at 13 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:
Day 1-3  Day 4-5

Watches:

Warnings:

Current wind extent:
Five-Day Graphical Tropical Weather Outlook
National Hurricane Center  Miami, Florida

All Disturbances

8:00 am EDT
Tue Jul 7 2020

Current Disturbances and Five-Day Cyclone Formation Chance:

- X < 40%
- X 40-60%
- X > 60%

Tropical or Sub-Tropical Cyclone:
- ○ Depression
- ▼ Storm
- ◇ Hurricane

Post-Tropical Cyclone or Remnants

www.hurricanes.gov
Days 1-4

Day 5-8

Day 9-12

Day 13-15
Connections to U.S. Impacts
warmer/drier conditions expected across much of CONUS.
Global Tropics Hazards and Benefits Outlook - Climate Prediction Center

Week 1 - Valid: Jul 08, 2020 - Jul 14, 2020

Week 2 - Valid: Jul 15, 2020 - Jul 21, 2020

Confidence
High Moderate

Tropical Cyclone Formation | Development of a tropical cyclone (tropical depression - TD, or greater strength).
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