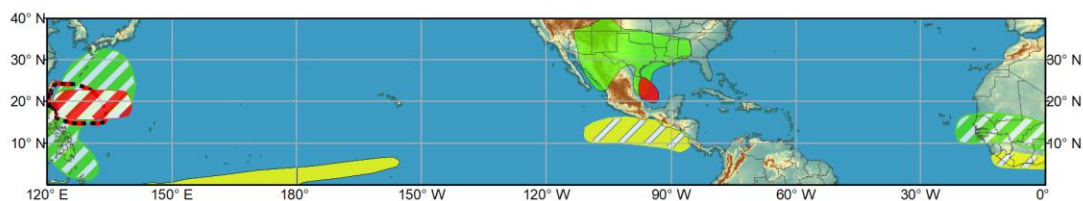




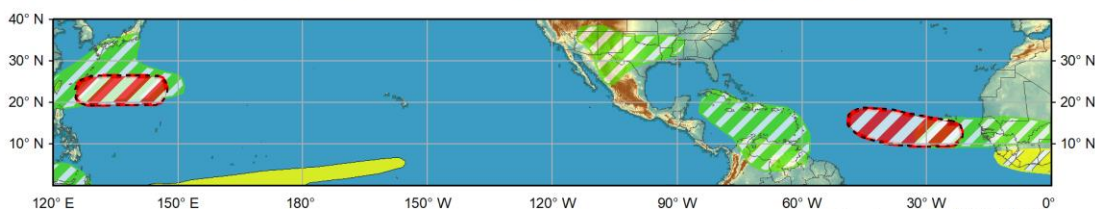
Global Tropics Hazards and Benefits Outlook - Climate Prediction Center



Week 1 - Valid: Aug 20 2022 - Aug 23 2022



Week 2 - Valid: Aug 24 2022 - Aug 30 2022



Confidence
High Moderate

Produced: 08/19/2022
Forecaster: Pugh

- | | | |
|-----------------------------------|--|--|
| Tropical Cyclone Formation | | Development of a tropical cyclone (tropical depression - TD, or greater strength). |
| Prior TC Formation Outlook | | Tropical cyclone outlook from previous release. |
| 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. The product targets broad scale conditions integrated over a 7-day period for US interests only. Consult your local responsible forecast agency.**



中央氣象局
Central Weather Bureau



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State University of New York



The MJO remains incoherent but is beginning to show signs of a more wave-1 structure. The GFS and ECMWF ensemble means are consistent that the MJO strengthens over Africa with an eastward propagation to the Indian Ocean during late August. In the wake of the predicted enhanced phase of the MJO, there is likely to be a favorable large-scale environment for easterly waves to emerge off the coast of Africa. Also, a Kelvin Wave is currently crossing the Date Line and is forecast to rapidly shift eastward to the Caribbean Sea and tropical Atlantic. The evolving MJO pattern, passage of a Kelvin Wave, and climatology favor maintaining a moderate confidence for tropical cyclone (TC) development across the Main Development Region of the Atlantic from Aug 24-30. Meanwhile, a broad area of low pressure is located over the Bay of Campeche. As of 2pm EDT on Aug 19, the National Hurricane Center states that there is a 70 percent chance of TC formation before it moves inland into northeastern Mexico. Regardless of development, heavy rain could spread northward to the lower Rio Grande Valley.

The Joint Typhoon Warning Center is monitoring the potential for TC development over the West Pacific, to the east of the Philippines. Moderate confidence of TC formation exists in this region through Aug 23. During the following week, model solutions continue to feature TC development at a relatively high latitude of the West Pacific.

Modifications to the favored areas of above- and below-average rainfall from the previous outlook are based on recent GFS, CFS, and ECMWF precipitation output. The addition of the above-average rainfall to the Caribbean region, from Aug 24-30, is related to the passage of a Kelvin Wave and is supported by model guidance.

The previous discussion released on August 16 follows.

During early to mid-August, the MJO remained weak and incoherent with La Nina and other modes of tropical variability influencing global tropical rainfall and tropical cyclone (TC) development. A Kelvin Wave recently shifted eastward from the Americas to Africa. The 200-hPa velocity potential field depicts two centers of anomalous upper-level divergence over western Africa and the Maritime Continent. The GFS and ECMWF ensemble means indicate a strengthening MJO across Africa with eastward propagation over the Indian Ocean during the next two weeks. This evolving pattern would enhance easterly waves from Africa and increase chances for TC genesis across the Main Development Region (MDR) of the Atlantic by late August. Also, the number of TCs emerging from the MDR typically begins to increase during late August. A tropical wave, currently located over the southwestern Caribbean Sea, is forecast to track northwest to the Bay of Campeche later in week-1. Forecast confidence is too low to depict a favored TC development area for this region but will be reassessed with the updated outlook on August 19. Unlike the previous few weeks, TC development is unlikely for the East Pacific through late August. Although a TC is expected to develop across the West Pacific during the next two weeks, timing and location vary among model solutions.

On August 13, short-lived Tropical Depression Ivette formed in the East Pacific which followed multiple TCs in the basin since late June. Over the West Pacific, a high latitude Tropical Storm Meari developed just south of Japan on August 11. A weak TC formed across the northern Arabian Sea on August 12, which is very rare for this time of year.

The precipitation outlook during the next two weeks is based on a consensus of GEFS, CFS, and ECMWF model solutions, La Nina precipitation composites, and also considerations of a strengthening MJO propagating east from Africa to the Indian Ocean. Later in week-2, the MJO may begin to constructively

interfere with the ongoing La Nina, resulting in more widespread enhanced rainfall throughout the Maritime Continent. The North American Monsoon is forecast to remain robust through the remainder of August, due to a favorable mid-latitude circulation pattern and potentially an influx of enhanced moisture from the southwestern Gulf of Mexico.

For hazardous weather concerns during the next two weeks across the U.S., please refer to your local NWS Forecast Office, the Weather Prediction Center's Medium Range Hazards Forecast, and CPC's Week-2 Hazards Outlook. Forecasts over Africa are made in consultation with the International Desk at CPC and can represent local-scale conditions in addition to global scale variability.