

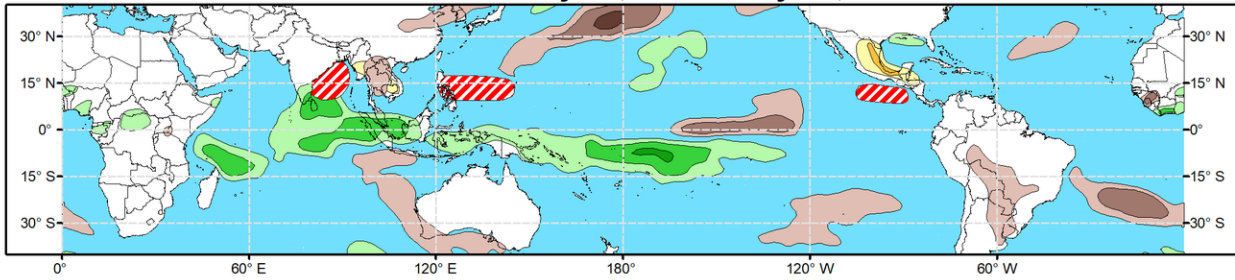


Global Tropics Hazards Outlook

Climate Prediction Center

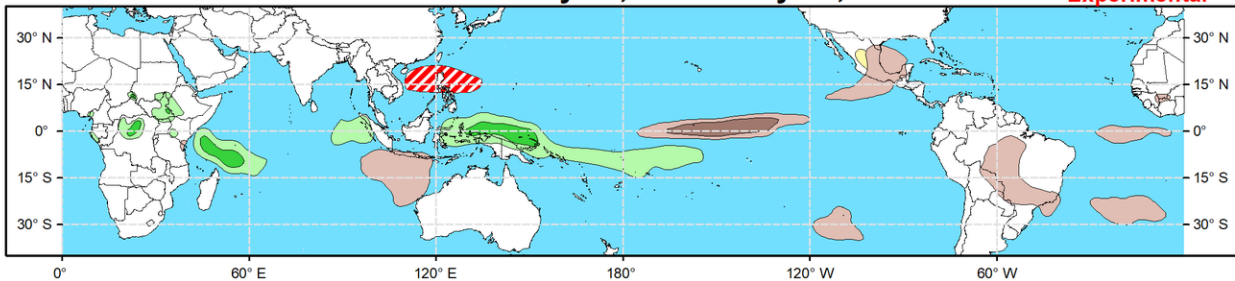


Week 2 - Valid: May 15, 2024 - May 21, 2024



Week 3 - Valid: May 22, 2024 - May 28, 2024

**** Experimental ****



Tropical Cyclone (TC) Formation Probability

>20% >40% >60%

Tropical Depression (TD) or greater strength

Above-Average Rainfall Probability

>50% >65% >80%

Weekly total rainfall in the Upper third of the historical range

Below-Average Rainfall Probability

>50% >65% >80%

Weekly total rainfall in the Lower third of the historical range

Above-Average Temperatures Probability

>50% >65% >80%

7-day max temperatures in the Upper third of the historical range

Below-Average Temperatures Probability

>50% >65% >80%

7-day min temperatures in the Lower third of the historical range

Issued: 05/07/2024
Forecaster: Pugh

This product is updated once per week and targets broad scale conditions integrated over a 7-day period for US interests only. Consult your local responsible forecast agency.

According to the RMM-based MJO index, the MJO amplitude increased during late April with recent eastward propagation from the Indian Ocean to the Maritime Continent. The observed 200-hPa velocity potential anomaly field depicts a coherent wave-1 pattern with anomalous divergence (convergence) centered over the Maritime Continent and West Pacific (Atlantic). This spatial pattern of 200-hPa velocity potential anomalies has also shown an eastward propagation during the past week which is consistent with an MJO. The GFS and ECMWF models generally agree on an MJO propagating rapidly east over the Western Hemisphere during the next two weeks. Also, there is expected to be a Kelvin wave out ahead of this MJO and an equatorial Rossby wave shifting west from the Pacific to the Indian Ocean during mid-May. The multiple modes of subseasonal variability are complicating the RMM-based index forecast from the dynamical models.

Following a few weeks of no tropical cyclones (TCs) over the southern Indian Ocean, the recent strengthening MJO may have contributed to the development of Tropical Cyclone Hidaya across the western Indian Ocean on May 1. Heavy rainfall, associated with Hidaya, triggered more flooding across Kenya and Tanzania. During May, the Southern Hemisphere typically becomes much less active with TCs while the West and East Pacific basins begin to ramp up especially later in the month. The large-scale environment across the East Pacific is expected to be briefly favorable for TC development (20 to 40 percent chance) from May 15 to 21, following the passage of the Kelvin wave and MJO. The number of GFS and ECMWF ensemble members featuring TC development in this region has increased the past two days. An equatorial Rossby wave along with dynamical model output supports at least a 20 to percent chance of TC genesis in the Bay of Bengal from May 15 to 21. Based on dynamical models, a 20 to 40 percent chance of TC development is also posted for the West Pacific from

May 15 to 21 and this favored area expands to include the South China Sea one week later.

The precipitation outlook for weeks 2 and 3 are based on a historical skill weighted blend of the GEFS, CFS, ECCO, and ECMWF models along with considerations of multiple subseasonal modes of variability. The equatorial areas of Africa, the Indian Ocean, and Maritime Continent are forecast to be relatively wet during mid to late May, while Mexico and parts of Brazil become increasingly drier. From May 15 to 21, a nearly stationary front is expected to enhance rainfall amounts across the northern Gulf of Mexico and parts of the Gulf Coast of the United States. Although a > 50 percent probability of above-average rainfall doesn't extend east to the Florida Peninsula, mid-May is expected to be wetter than the previous weeks.

The greatest signal for hazardous heat exists for Mexico and the Rio Grande Valley of Texas from May 15 to 21 and this heat risk continues for parts of Mexico through May 28. This increased chance of above-normal temperatures is related to a stronger than normal subtropical ridge.

For hazardous weather conditions in your area during the coming two-week period, please refer to your local NWS office, the Medium Range Hazards Forecast produced by the Weather Prediction Center, and the CPC Week-2 Hazards Outlook. Forecasts made over Africa are made in coordination with the International Desk at CPC.