

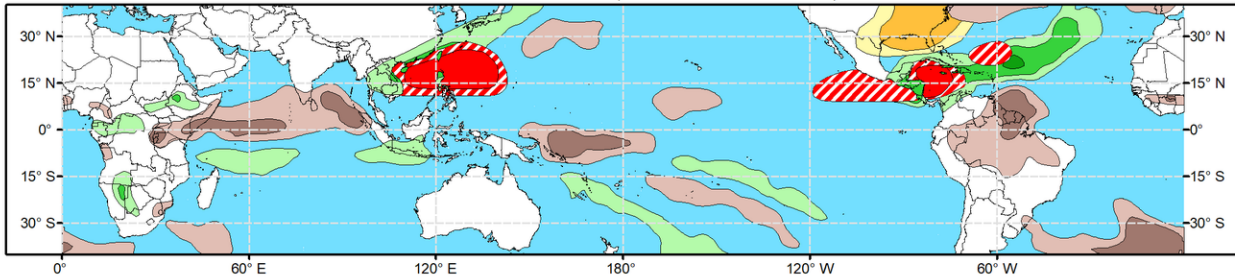


Global Tropics Hazards Outlook

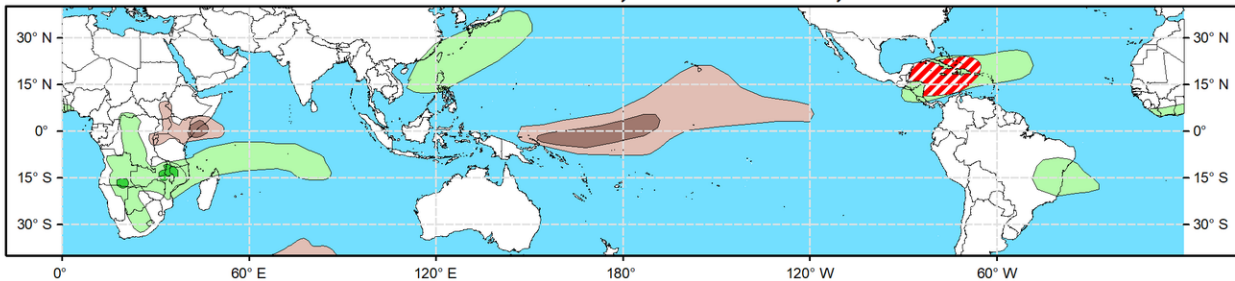
Climate Prediction Center



Week 2 - Valid: Oct 30, 2024 - Nov 05, 2024



Week 3 - Valid: Nov 06, 2024 - Nov 12, 2024



Tropical Cyclone (TC) Formation Probability

Tropical Depression (TD) or greater strength

Above-Average Rainfall Probability

Weekly total rainfall in the Upper third of the historical range

Below-Average Rainfall Probability

Weekly total rainfall in the Lower third of the historical range

Above-Average Temperatures Probability

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

Below-Average Temperatures Probability

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

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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.

The Madden-Julian Oscillation (MJO) completed a circumnavigation of the global tropics by mid-October with its enhanced phase currently over the Maritime Continent. During the past week, the MJO strengthened based on the RMM index and the 200-hPa velocity potential anomalies. Recently, the anomalous upper-level divergence (convergence) increased over the Maritime Continent (Americas and Africa). Despite destructive interference between the MJO and the emerging weak La Nina during the next week, the GFS and ECMWF models are in good agreement and consistent that a moderate to strong MJO propagates eastward to the western Hemisphere. By early November, the MJO is predicted to shift east from the Americas to Africa and the Indian Ocean. Based on the strength of the MJO during the next three weeks, MJO composites for both favored tropical cyclone (TC) development and anomalous precipitation are a major prognostic tool in the weeks 2 and 3 outlook.

A pair of tropical cyclones (Nadine and Oscar) formed over the Atlantic basin this past week. Nadine was a short-lived TC and Oscar rapidly became a hurricane as it tracked north of Hispaniola. The GFS and ECMWF ensemble members support a 40 to 60 percent chance of TC development across the Caribbean Sea from October 30 to November 5. Many of these ensemble members depict TC genesis occurring as early as October 29. Regardless of the exact timing, forecast confidence is high that another TC forms across the Caribbean Sea by the end of October. Model guidance is also depicting an elevated chance of a subtropical low pressure system or tropical cyclone forming at a higher latitude over the southwestern Atlantic. This would be consistent with climatology and thus a 20 to 40 percent chance is posted for this region during week-2. From November 6 to 12, a 20 to 40 percent chance of TC development is posed for the Caribbean Sea based on climatology and since the MJO is likely to maintain a favorable large-scale environment for a late season TC through at least mid-November.

On October 21, Tropical Storm Kristy developed in the East Pacific. The National Hurricane Center predicts that Kristy intensifies to a major hurricane (Category-3) as it tracks westward. Although the East Pacific typically becomes less active by the end of October, MJO composites and model guidance support a 20 to 40 chance of TC development from October 30 to November 5. Beyond that time, chances decrease below 20 percent given the time of year.

The MJO and other modes of subseasonal variability contributed to enhanced convection and decreasing wind shear across the West Pacific during mid-October. By October 21, TC Trami formed just east of the Philippines. Trami is forecast to track westward to southeastern China or Vietnam. The Joint Typhoon Warning Center is monitoring potential formation areas east of the Philippines and the Bay of Bengal. From October 30 to November 5, MJO composites and dynamical models support a broad 40 to 60 percent chance of TC development from the South China Sea and east of the Philippines. Although the West Pacific is likely to have multiple TCs during the next two weeks, there is no apparent signal for a recurving strong typhoon over the West Pacific at this time. CPC forecasters will closely monitor this potential as a recurving typhoon could alter the mid-latitude circulation pattern downstream over North America. By week-3, MJO composites would favor a less active pattern over the West Pacific. Later in November, the MJO may help to kick off the southern Indian Ocean TC season.

The precipitation outlook for weeks 2 and 3 was based on the historical skill weighted blend of the GEFs, CFS, ECCO along with MJO precipitation composites for phases 8, 1, and 2. Although chances for TC development are expected to decrease across the West Pacific from November 6 to 12, there is a lingering enhanced chance of above-average rainfall for parts of the West Pacific. Central America and the Caribbean Sea region are likely to have above-normal rainfall through early to mid-November. Since the MJO is likely to return to the Indian Ocean by week-3, a quick transition from favored dryness to wetness is forecast across portions of the Indian Ocean from week 2 to 3.

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.