

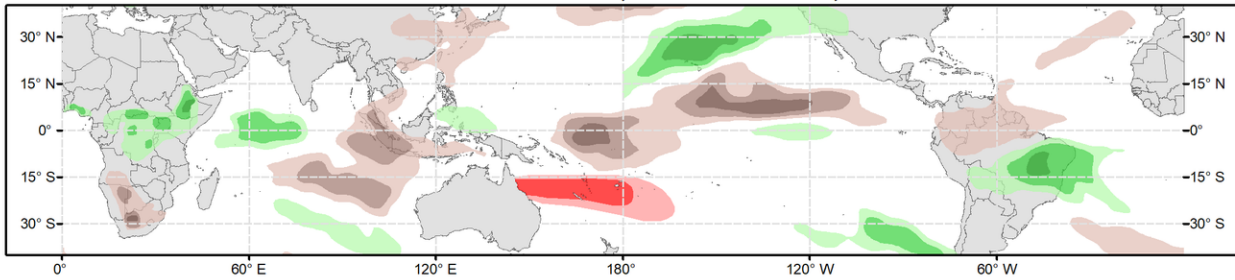


Global Tropics Hazards Outlook

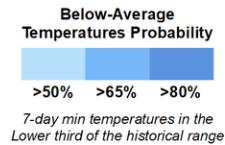
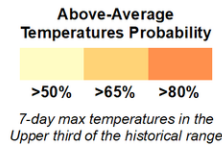
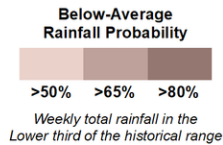
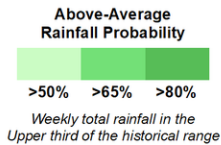
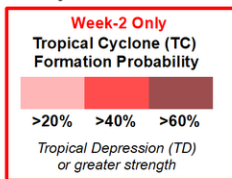
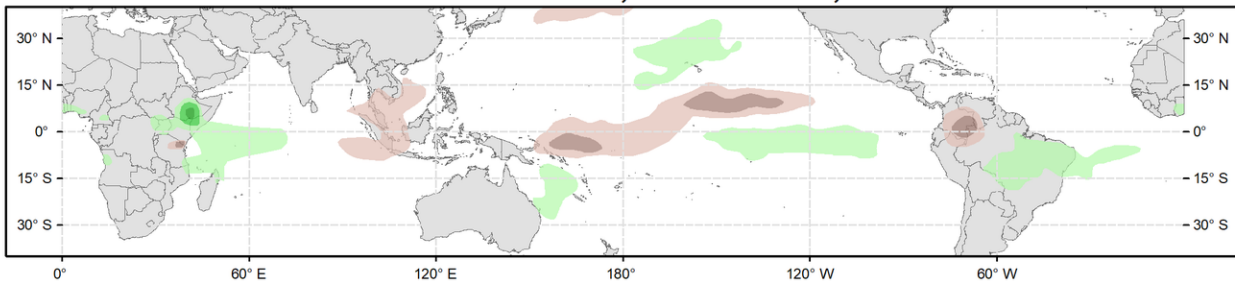
Climate Prediction Center



Week 2 - Valid: Mar 15, 2023 - Mar 21, 2023



Week 3 - Valid: Mar 22, 2023 - Mar 28, 2023



Issued: 03/07/2023

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) strengthened during the first week of March as a more coherent pattern of anomalous upper-level divergence (convergence) developed over the East Pacific (Indian Ocean). The amplitude of the RMM-based index increased since the beginning of the month and dynamical models maintain a strong MJO with eastward propagation over the Western Hemisphere during the next two weeks. By week-3, the MJO is forecast to be centered across Africa and the western Indian Ocean. The magnitude of the 200-hPa velocity anomalies are forecast to be very large through week-2, which raises forecast confidence that the MJO influences global tropical rainfall and modulates tropical cyclone development. In addition, the MJO is likely to enhance subtropical moisture feeding into the west coast of the United States through mid-March.

Tropical cyclone (TC) Kevin developed across the South Pacific on March 1 and then intensified to maximum sustained winds of 135 knots on March 4. Kevin made landfall on Vanuatu only a few days after TC Judy crossed the South Pacific island. Long-lived TC Freddy has tracked west across the entire basin during early to mid-February, made its first landfall at Mananjary, Madagascar on February 21, and a second landfall near Vilankulos, Mozambique on February 24. According to the Joint Typhoon Warning Center, Freddy is forecast to make another landfall in central Mozambique on March 10 or 11. Recent model solutions have Freddy reemerging across the Mozambique Channel late in week-1 or by early in week-2. No TC development area is posted for the Mozambique Channel since this would be the remnant low associated with Freddy. Depending on the future track of Freddy, a risk for heavy rainfall, flooding, and high winds may continue for Mozambique and Madagascar from March 15 to 21. However, due to large forecast uncertainty on the fate of Freddy by this time period, a 50 percent chance of above-average rainfall is not posted for these areas.

A moderate (40 percent) chance of TC formation is posted for the Coral Sea and South Pacific from March 15 to 21. This favored area for genesis is supported by MJO composites and the deterministic model runs. It should be noted that within the slight (20 percent) chance region, multiple TCs may form prior to the start of week-2, March 15. The large-scale environment is likely to be unfavorable for additional TC development over the South Indian Ocean through week-2, March 15-21.

The precipitation outlook for weeks 2 and 3 are based on a historical skill weighted blend of the GEFS, CFS, ECCO, and ECMWF models, MJO precipitation composites for phases 8, 1, 2, and 3, and considerations of the ongoing La Nina background state. The MJO strongly supports above-average rainfall across eastern Brazil during week-2, while below-average rainfall is favored for the western Maritime Continent. From March 15 to 21, increased chances (above 50 percent, or higher) for above-average rainfall are posted from Hawaii eastward to the western United States. During weeks 2 and 3, favored above-average rainfall is forecast across parts of the Horn of Africa and western Indian Ocean.

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.