

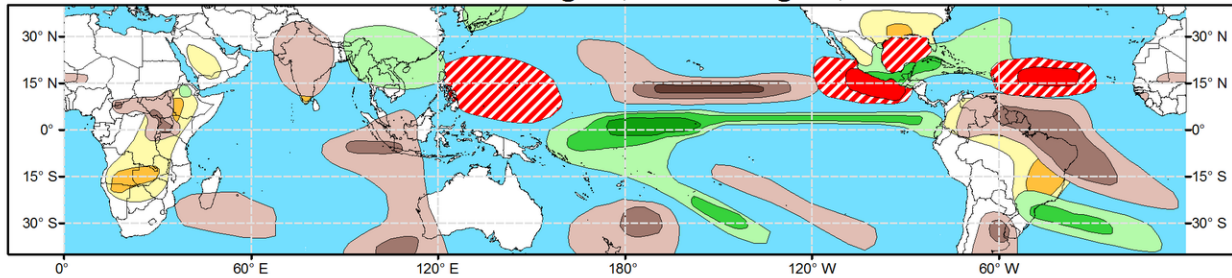


# Global Tropics Hazards Outlook

## Climate Prediction Center

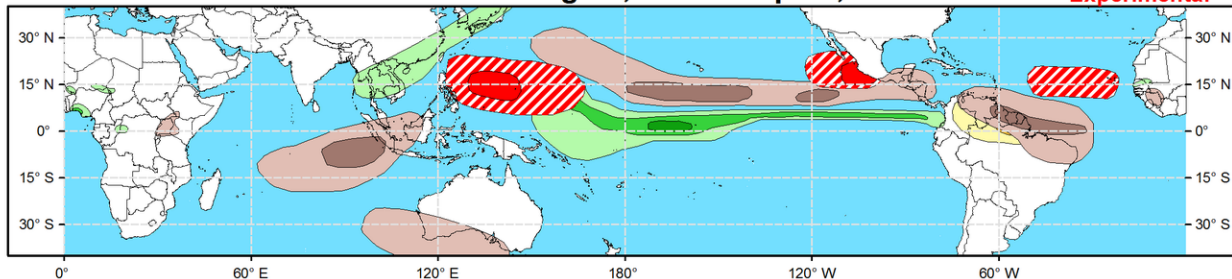


**Week 2 - Valid: Aug 23, 2023 - Aug 29, 2023**



**Week 3 - Valid: Aug 30, 2023 - Sep 05, 2023**

**\*\* 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: 08/15/2023**

**Forecaster: Barandiaran**

**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 RMM index, used to quantify the Madden-Julian Oscillation (MJO), has been stronger lately than in July, but upper-level velocity potential anomaly fields and a lack of eastward propagating features continue to reflect disorganized intraseasonal activity. The recent uptick in RMM amplitude may be more in response to tropical cyclone activity in the central Pacific, and/or a low frequency atmospheric circulation developing in the equatorial Pacific. Dynamical model RMM forecasts generally favor weakened MJO activity during the next several weeks. Some extended range solutions point to possible reemergence over the western Pacific or the western Hemisphere later in August, however ensemble spread remains very high and forecast confidence is limited. Even without a coherent MJO, upper-level velocity potential anomaly forecasts feature a large-scale environment conducive for tropical cyclone (TC) development in the eastern Pacific and Atlantic.

Two TCs formed in the last week, both in the East Pacific and both still active. On August 12, TC Fernanda formed south of Baja California. It has been tracking generally westward, and strengthened to a category 4 hurricane. It has since weakened and is currently a category 2 hurricane, still tracking westward into the Central Pacific. On August 14, TC Greg formed near the western edge of the East Pacific basin. It has reached tropical storm strength and like Fernanda has also been tracking generally west. Both storms are forecast to continue tracking west, bringing them into the Hawaii region. Fernanda, being further north, is more likely to have impacts on the islands. For the latest information on Hurricane Fernanda and Tropical Storm Greg, please refer to the National Hurricane Center (NHC).

During week-2 dynamical models generally place the MJO in phase 8 (Western Hemisphere) which enhances TC formation for the Eastern Pacific and Atlantic

basins. Both the GEFS and ECMWF indicate enhanced probabilities (over 40%) for TC formation off the Pacific coast of Mexico. The MJO effect in phase 8 on TC activity over the Atlantic basin is less pronounced than over the East Pacific, but nonetheless, indicated model guidance warrants a moderate chance (40% probability) of TC genesis for the Main Development Region (MDR). Suppressed convection is depicted in model guidance for much of the West Pacific basin, but nonetheless the GEFS and ECMWF both indicate the potential for TC genesis, east of the Philippines. With model guidance depicting a sluggish MJO with minimal eastward propagation, the week-3 TC forecast is very similar to the week-2 period. However, ECMWF and GEFS both depict a more favorable environment for TC genesis over the West Pacific as 200-hPa divergence increases and zonal shear eases, so probabilities for TC genesis over the basin are increased to 40%.

The precipitation outlook for the next two weeks is based on anticipated TC tracks, the anticipated state of the MJO, and consensus of GEFS, CFS, and ECMWF ensemble mean solutions. Above-normal precipitation continues for the Equatorial Eastern Pacific for both weeks, a response to the El Nino conditions, while suppressed precipitation is favored to the north and south of the El Nino-enhanced precipitation. Below-normal rainfall is also indicated for the western Maritime Continent and portions of the Indian Ocean throughout the forecast period. With enhanced TC activity anticipated, above-normal precipitation is favored for the Western Atlantic and especially for the Western Pacific and Southeast Asia. An anomalously strong subtropical high over the southern United States results in increased chances for above normal temperatures for the southern U.S. and northern Mexico during week-2. Above-normal temperatures are also enhanced for northern Brazil, as well as portions of central Africa and the Arabian Peninsula for week-2.

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.