

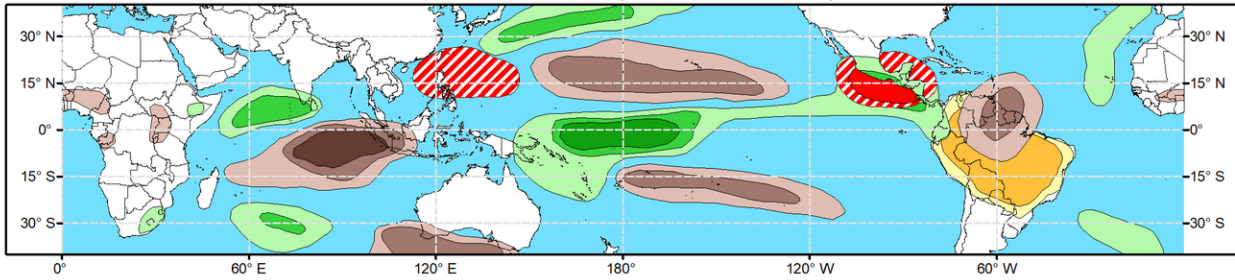


Global Tropics Hazards Outlook

Climate Prediction Center

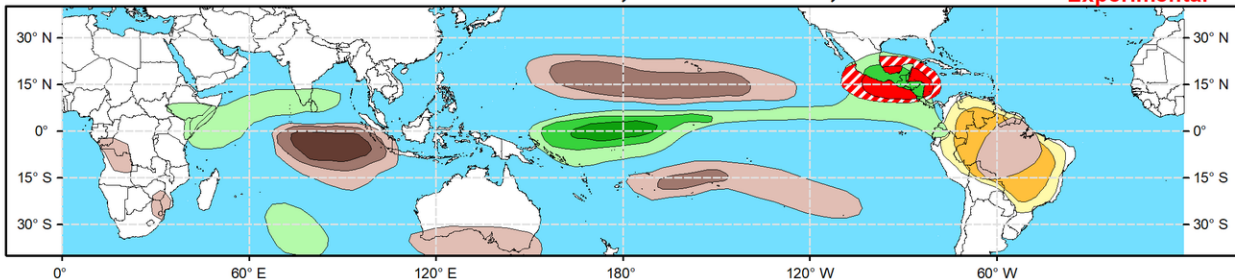


Week 2 - Valid: Oct 11, 2023 - Oct 17, 2023

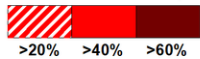


Week 3 - Valid: Oct 18, 2023 - Oct 24, 2023

**** Experimental ****

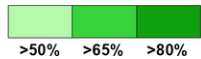


Tropical Cyclone (TC) Formation Probability



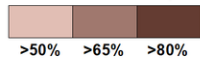
Tropical Depression (TD) or greater strength

Above-Average Rainfall Probability



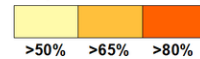
Weekly total rainfall in the Upper third of the historical range

Below-Average Rainfall Probability



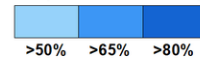
Weekly total rainfall in the Lower third of the historical range

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

Issued: 10/03/2023

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 active El Niño base state continues to have a significant impact on the global tropics, but the Madden-Julian Oscillation (MJO) has been active recently as well, as depicted by 200-hPa velocity potential anomalies despite the RMM-index indicating a very low amplitude of the MJO signal. Currently the enhanced convective envelope is over the Western Pacific, and dynamical models generally agree on a continued eastward propagation of this convective feature into the Western Hemisphere over the coming weeks. With the potential for MJO activity moving through the Western Hemisphere during weeks 2 and 3, probabilities of tropical cyclone (TC) formation are enhanced for the Eastern Pacific, while suppressed convection around the Maritime Continent will likely suppress TC genesis potential over the Western Pacific.

Four TCs have formed over the last week, each in a different basin. Tropical Storm Rina formed in the Main Development Region (MDR) of the Atlantic on September 28. It moved generally northwestward and dissipated quickly. Also on September 28, Typhoon Koinu formed in the Western Pacific east of Luzon. Koinu is still active, and in the coming days is forecast to pass near or over southern Taiwan before making landfall over southeastern Mainland China. For the latest information on Koinu please refer to the Joint Typhoon Warning Center (JTWC). On September 30, TC ARB02 formed in the Arabian Sea just west of the Indian coast. It quickly moved ashore and dissipated. Finally, early on October 3 Tropical Storm Lidia formed in the Eastern Pacific to the south of Mexico. It is currently tracking generally northwestward, but in the coming days Lidia is forecast to turn westward and away from the western coast of Mexico. For the latest information on Tropical Storm Lidia please refer to the National Hurricane Center (NHC).

The consensus among dynamical models depicts the MJO moving into the Western

Hemisphere during week-1 and propagating slowly over the coming month (phases 8-2), leading to a prolonged period of enhanced upper-level divergence over the Americas region. This would have the tendency to enhance tropical cyclone (TC) formation for the Eastern Pacific, where a moderate chance (40% probability) of TC genesis is posted. The Caribbean is also favored by this MJO configuration but models indicate increased wind shear over the Gulf of Mexico and Caribbean Sea, reducing the chances of TC formation somewhat. The Western Pacific typically has reduced TC activity when the MJO is in the Western Hemisphere, but nonetheless both the ECMWF and GEFS indicate elevated chances for TC development. Therefore, a slight chance (20%) is posted for much of the Western Pacific basin. Models favor the enhanced convective envelope to propagate quite slowly over the coming weeks, continuing to linger in the Western Hemisphere into week-3, albeit at a lower amplitude than what is depicted in the week-2 time period. With a similar overall large-scale environment, a moderate chance for TC formation continues for the Eastern Pacific and spreads into the Western Caribbean and southern Gulf of Mexico in week-3. For the Western Pacific, upper-level convergence is favored to increase during week-3, further reducing the probability of TC activity in the basin.

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, Canadian, 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. Above-normal temperatures are favored for much of northern South America throughout the forecast period.

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.