

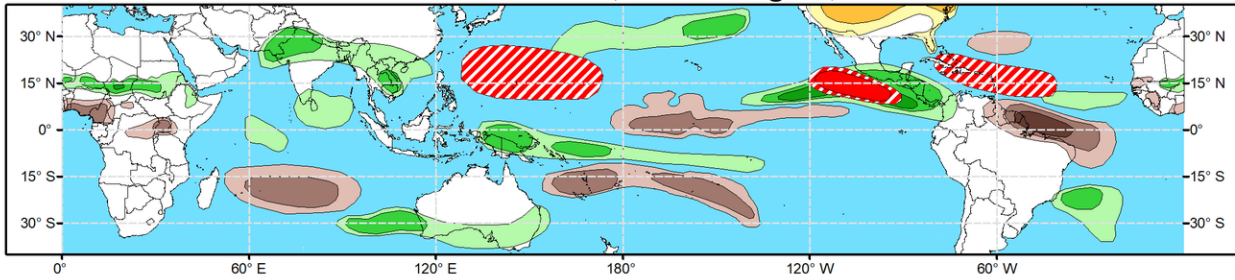


Global Tropics Hazards Outlook

Climate Prediction Center

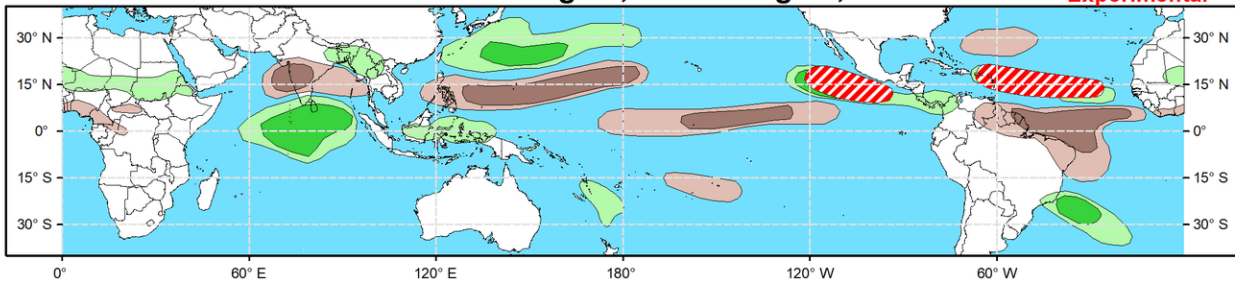


Week 2 - Valid: Jul 31, 2024 - Aug 06, 2024



Week 3 - Valid: Aug 07, 2024 - Aug 13, 2024

**** 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: 07/23/2024

Forecaster: Collow

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) has remained weak since June, staying within the RMM-based unit circle aside from occasional short bursts of activity. Destructive interference with enhanced equatorial Rossby Wave activity has resulted in reduced MJO amplification across the Eastern Hemisphere. Despite this, the global upper-level velocity potential pattern is more organized and resembles a wave-1 asymmetry. Anomalous upper-level divergence is noted across much of Asia and the Pacific, with anomalous convergence over the Americas and Atlantic. Dynamical models predict the MJO to remain weak, although some convective enhancement across the Western Hemisphere is depicted by week-2 in several GEFS and ECMWF ensemble members tied to a Convectively-Coupled Kelvin Wave (CCKW).

Tropical Cyclone (TC) activity has increased across the Western Pacific with 2 TCs developing on 7/20, Typhoon Gaemi to the east of the Philippines, and Tropical Storm Prapiroon over the South China Sea. The prevailing pattern favors increased tropical cyclone (TC) activity to continue over the Western Pacific, and expand into the Eastern Pacific. A 20-40 percent chance for TC development is posted across the Western Pacific for week-2, and is shifted northward and eastward compared to current activity. For the Eastern Pacific, the National Hurricane Center is highlighting 2 disturbances for potential TC development in week-1 (20 and 30 percent chances), and several 0z GEFS and ECMWF ensemble members depict continued TC activity in week-2 as the convective environment aloft becomes more favorable due to the aforementioned CCKW. Therefore, a 40-60 percent chance for TC formation is highlighted across the basin in week-2, decreasing to 20-40 percent in week-3.

The uptick in TC activity in the Eastern Pacific may spread into the Atlantic as well, although tools are not as robust. However, given the increasing

climatology and anomalously warm sea surface temperatures (SSTs), it is plausible that TC development could occur following a quiet period for the better part of July. For week-2, some ECMWF ensemble members depict TC development across the western Atlantic or northern Caribbean, with the GEFS not showing any signal. However, an increasing wave train off of Africa and an increasingly favorable environment support having a 20-40 percent chance of TC formation across the western Atlantic for week-2, with the highlighted area more focused on the Main Development Region during week-3.

The precipitation outlook for weeks 2 and 3 is based on potential TC activity, the anticipated state of El Nino and the MJO, and informed by GEFS, CFSv2 and ECMWF ensemble mean solutions. Enhanced rainfall is forecast across parts of the Eastern Pacific and Central America during weeks 2 and 3, with increased chances for below-normal rainfall over northern South America and the equatorial Atlantic. Above-normal rainfall is favored over parts of southeastern Asia and the western Pacific during week-2, but a shifting convective pattern favors decreasing chances in week-3 with some areas becoming more favored to have below-normal rainfall. Above-normal temperatures along with excessive heat conditions are forecast over much of the continental U.S. during early August.

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.