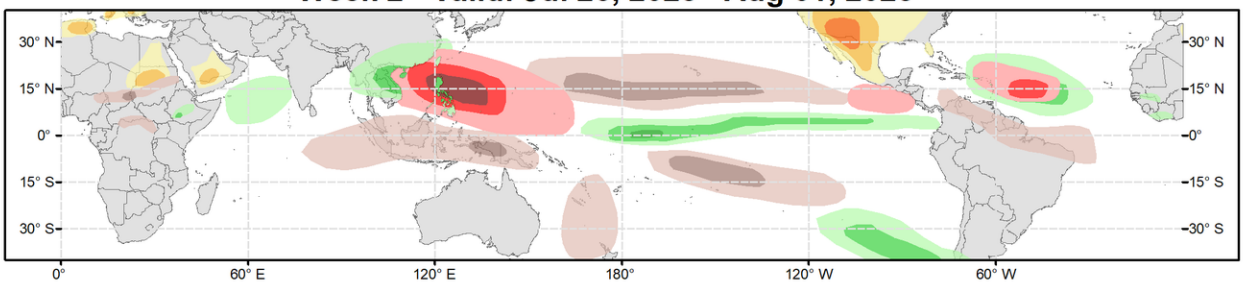
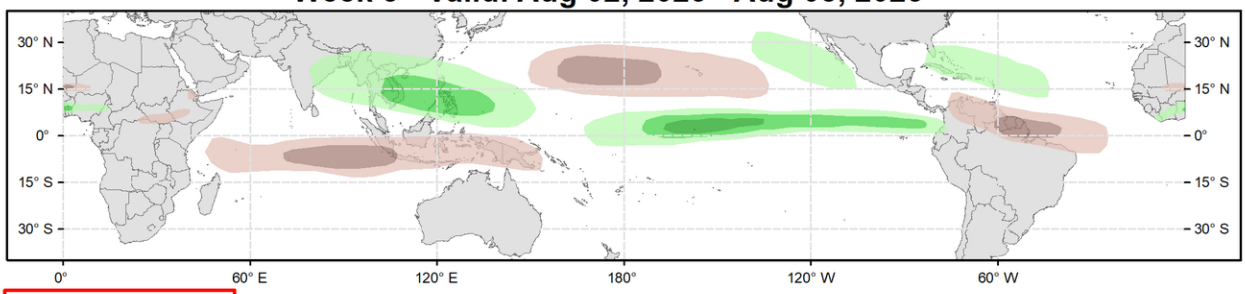
Global Tropics Hazards Outlook

Climate Prediction Center

Week 2 - Valid: Jul 26, 2023 - Aug 01, 2023



Week 3 - Valid: Aug 02, 2023 - Aug 08, 2023



Week-2 Only
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

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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 Madden-Julian Oscillation (MJO) has continued to be largely disorganized since mid-June, with other modes of variability contributing to the convective anomalies throughout the global tropics, including El Nino conditions which continue to impact large-scale convection patterns over the Equatorial Pacific. Looking ahead, dynamical models indicate the potential for a reemergence of MJO activity over the Maritime Continent and Western Pacific in the coming weeks. Most dynamical modelsâ€™ depictions of the RMM-based MJO index favor a reemergence of the MJO signal in phase 5 or 6 in week-1, propagating into the Western Pacific during weeks 2-3. Any renewed MJO activity is expected to constructively interfere with the El Nino base state. The large-scale environment is expected to be quite favorable for tropical cyclone (TC) formation in the Western Pacific, while chances across the Eastern Pacific and Western Atlantic remain elevated due to anomalously warm SSTs despite unideal shear conditions.

Late on July 11, TC Calvin formed off the southern coast of Mexico and tracked westward, eventually strengthening to a category-3 hurricane. It has since weakened down to a tropical storm, and is currently continuing to track west through the Central Pacific, favored to pass near the Hawaiian Islands in the coming days. On July 14, TC Don formed east of Bermuda, and has been meandering around the North Atlantic, eventually attaining tropical storm strength. Don is forecast to continue to drift around the North Atlantic in the near future and is not expected to affect land. Please refer to the National Hurricane Center (NHC) for the latest information on Calvin and Don. In the Western Pacific, TC Talim formed east of the Philippines on July 13. It tracked across Luzon and then strengthened to a Typhoon over the South China Sea. Talim is currently coming ashore on the southern coast of China. For the latest information on Talim please refer to the Joint Typhoon Warning Center.

During week-2 dynamical models generally place the MJO in phase 5-6 (Maritime Continent/W. Pacific) which enhances TC formation for the Western Pacific basin. Both the GEFS and ECMWF indicate enhanced probabilities (over 60%) for TC formation for both the Philippine and South China Seas. Suppressed convection is depicted in the model guidance for much of the East Pacific and West Atlantic basins, but nonetheless the GEFS and ECMWF both indicate the potential for TC genesis in both basins where SSTs are anomalously warm. The MJO-related suppressed convection over the Eastern Pacific offsets genesis probability somewhat, resulting in an indicated 20% chance of TC genesis, while conditions east of the Lesser Antilles are less influenced by the MJO, resulting in a 40% probability of TC genesis.

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 southern 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. Anomalously strong subtropical highs over the southern United States and the Mediterranean Sea result in increased chances for above normal temperatures for the southern U.S. and northern Mexico, Italy and Greece, the Nile Valley, and the Arabian Peninsula during 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.