

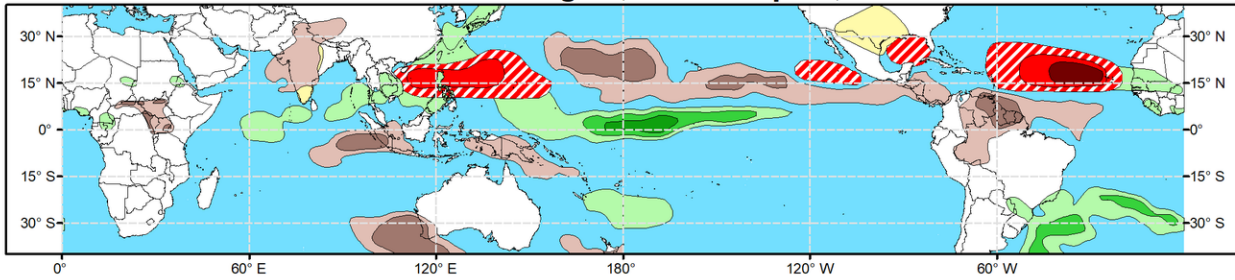


Global Tropics Hazards Outlook

Climate Prediction Center

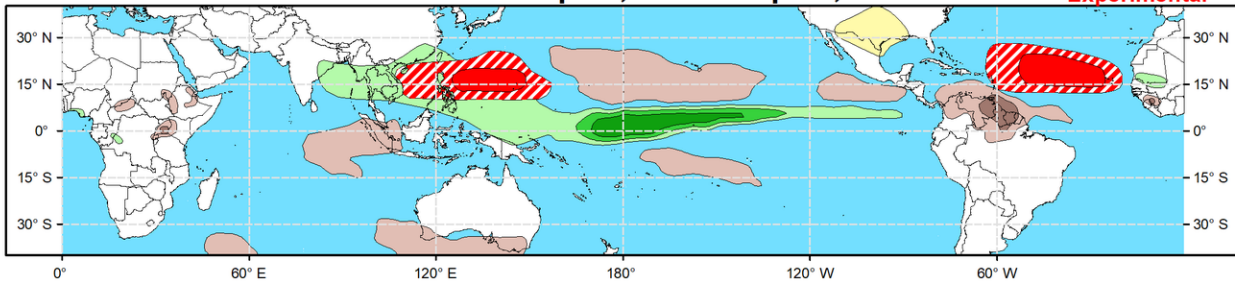


Week 2 - Valid: Aug 30, 2023 - Sep 05, 2023



Week 3 - Valid: Sep 06, 2023 - Sep 12, 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

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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 mid-August with an increase in the amplitude of the RMM-based index and a slight eastward propagation of the MJO over the Western Hemisphere. Dynamical model RMM forecasts feature large spread which may be due to destructive interference between the MJO and El Nino during the remainder of August. Despite the large ensemble spread, there is good model consensus that the MJO shifts eastward to the West Pacific by early September. Based on the GEFS and ECMWF forecasts of the 200-hPa Velocity Potential anomaly fields and climatology, tropical cyclone (TC) development is strongly favored for the Main Development Region of the Atlantic basin through early September. The large-scale environment is likely to become more (less) favorable for TC genesis over the West (East) Pacific during the next three weeks.

On August 16, a tropical depression formed in the East Pacific and rapidly strengthened to Hurricane Hilary within 24 hours. Hilary made landfall along the northern Baja California Peninsula on August 20 and then tracked inland, bringing heavy rainfall and flooding to southern California. Meanwhile, in the Atlantic basin, four TCs (Gert, Emily, Franklin, and Harold) developed from August 19 to 21. Tropical Storm Emily and Gert were short-lived TCs. On August 22, Tropical Storm Harold made landfall over Padre Island, Texas. Tropical Storm Franklin is forecast to track north across the Dominican Republic and then strengthen to become a hurricane, to the south of Bermuda. Its future track during the final week of August is uncertain with increasing ensemble spread from west-to-east over the western Atlantic. Please refer to the National Hurricane for the latest updates.

Based on MJO composites, good continuity and support from the dynamical models, and climatology, at least a 60 percent chance for TC development is posted for

the eastern Main Development Region (MDR) of the Atlantic basin during week-2. These same factors lead to the continuation of an elevated chance (more than 40 percent) for TC formation across the MDR through week-3. Recent GFS and ECMWF model runs support a 20 percent chance of TC genesis across the Gulf of Mexico during week-2. As the suppressed phase of the MJO shifts eastward by week-2, only a 20 percent chance of TC development is posted for the East Pacific during week-2. The West Pacific and the South China Sea are expected to have multiple TCs develop from the end of August through early September, and 40% chances for TC formation are posted for both weeks 2 and 3, consistent with dynamical model output.

The precipitation outlook for weeks 2 and 3 (August 30 - September 12) are based on a historical skill weighted blend of the GEFS, CFS, ECCO, and ECMWF models, typical summertime influences associated with El Nino, and composites with a MJO propagating east to the West Pacific. In general, the West Pacific and Southeast Asia are likely to experience greater chances of above-average rainfall while parts of Central America and northern South America are favored to have below-average rainfall. Although the Atlantic basin is expected to be quite active with tropical cyclones during weeks 2 and 3, uncertainty on eventual tracks of specific TCs precludes designation of a greater than 50 percent chance of above-average rainfall. The south-central United States is likely to experience a persistence of above-average temperatures through early September.

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.