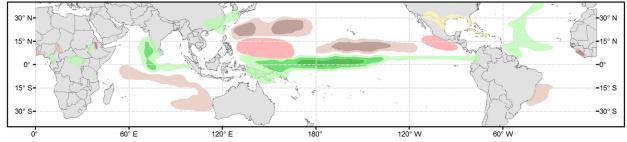


Global Tropics Hazards Outlook

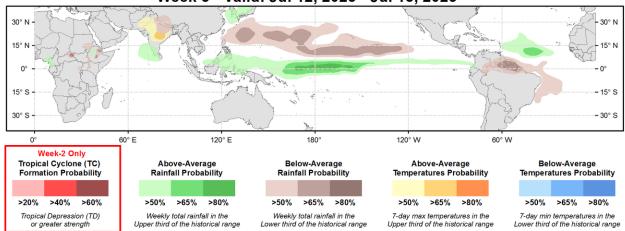
Climate Prediction Center



Week 2 - Valid: Jul 05, 2023 - Jul 11, 2023



Week 3 - Valid: Jul 12, 2023 - Jul 18, 2023



Issued: 06/27/2023 Forecaster: Allgood This product is updated once per week and targets broad scale conditions integrated over a 7-day period for US interests only.

The Madden-Julian Oscillation (MJO) remained weak during the past week, with the upper-level velocity potential pattern becoming increasingly incoherent. The Realtime Multivariate MJO (RMM) index depicts a weak signal just inside the unit circle over the Indian Ocean; however, recent observations of OLR anomalies show a lack of widespread enhanced convection across the equatorial Indian Ocean. Dynamical model MJO index forecasts are incoherent, with the ECMWF generally favoring a continued weak pattern and the GEFS ensembles showing a considerable spread of possible solutions. The current tropical convective pattern is broadly consistent with developing El Nino conditions, though it seems driven more by a response to extratropical blocking than the enhanced equatorial Pacific sea surface temperatures (SSTs). Based on the lack of a coherent MJO signal and dynamical model forecasts showing an increase in convection across the central Pacific, the strengthening El Nino is favored to be the dominant driver of the global tropical convective pattern during the Weeks 2-3 period.

One tropical cyclone (TC) formed globally during the past week. Following the highly unusual formation of Tropical Storm Bret over the Atlantic Main Development Region (MDR), a second TC, Tropical Storm Cindy, formed to the east of Bret on June 23. Cindy tracked generally west-northwestward for several days before dissipating east of the Bahamas. The National Hurricane Center (NHC) is currently monitoring the remnants of Cindy, with a 20-percent chance of redevelopment over the North Atlantic during the next week. Elsewhere during Week-1, the East Pacific basin is favored to become more active, with the NHC currently monitoring two disturbances south of Mexico with a high potential for development over the next few days. During the Week-2 period, a quieter pattern is anticipated overall. Despite a fairly lackluster depiction of tropical cyclone activity in the dynamical models, there is some support for potential

TC genesis over the Northwest Pacific between Guam and the Philippines during Week-2. Both climatology and the developing El Nino favor continued activity over the East Pacific, though probabilities are low due to a lack of clear model support. Dynamical models depict a somewhat more favorable environment for development over the northeastern portion of the East Pacific basin, closer to the southern coast of Mexico, rather than the southwestern portion of the basin where El Nino influences are typically stronger.

Forecasts for enhanced or suppressed precipitation across the global tropics for Weeks 2-3 are based on increasing influence from the developing El Nino, as well as a skill weighted blend of dynamical model guidance. Enhanced precipitation over the equatorial central Pacific is strongly associated with warmer SSTs, while suppressed convection to the north centered near 15N suggests an increasing atmospheric response to the El Nino conditions. Enhanced precipitation is favored to extend to the East Pacific, where SST anomalies are the highest, and may bring locally heavy rain to portions of Ecuador and Colombia, a pattern more typical when El Nino conditions are present during the boreal winter months. Enhanced convection is favored for the northern Indian Ocean, but the South Asian monsoon is favored to remain relatively weak, particularly during Week-3, when excessive heat becomes an increasing concern. Across the Western Hemisphere, anomalous ridging during Week-2 favors a potential for excessive heat across the southeastern US, northern Mexico, and the northern Caribbean basin. Enhanced rainfall across the central Atlantic and MDR may be partly associated with a weak presentation of the Saharan Air Layer (SAL) so far this year.

For hazardous weather conditions across the US 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. Precipitation forecasts over Africa are made in coordination with the International Desk at CPC.