

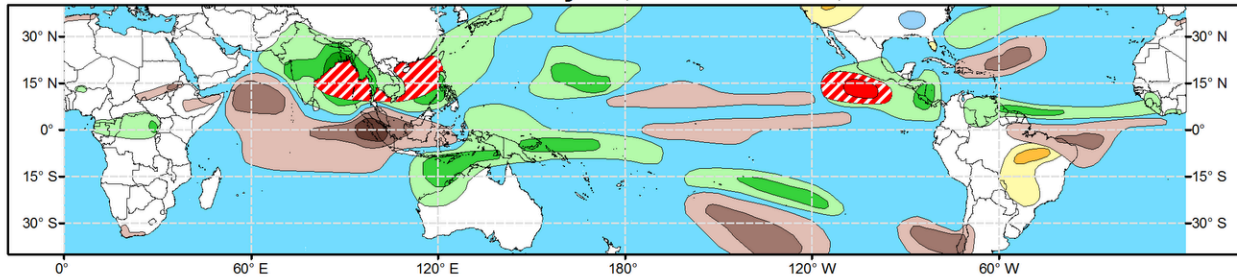


Global Tropics Hazards Outlook

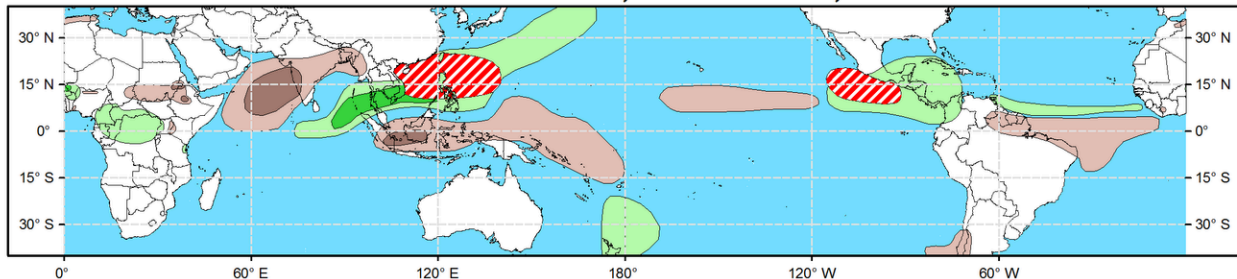
Climate Prediction Center



Week 2 - Valid: May 28, 2025 - Jun 03, 2025



Week 3 - Valid: Jun 04, 2025 - Jun 10, 2025



Tropical Cyclone (TC)

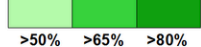
Formation Probability



Tropical Depression (TD)
or greater strength

Above-Average

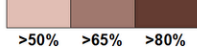
Rainfall Probability



Weekly total rainfall in the
Upper third of the historical range

Below-Average

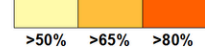
Rainfall Probability



Weekly total rainfall in the
Lower third of the historical range

Above-Average

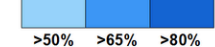
Temperatures Probability



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: 05/20/2025

Forecaster: Novella

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.

Based on RMM and 200-hPa velocity potential anomaly observations, the Madden-Julian Oscillation (MJO) remains weak and incoherent through mid-May. Objective wave filtering of several MJO related variables show that equatorial Kelvin wave activity and a low frequency convective footprint established along and east of 120E remain the dominant modes of tropical variability, with little indication of organized subseasonal activity since late March. Looking ahead, there is agreement in the dynamical model RMM forecasts depicting an uptick in amplitude of the MJO signal over the Maritime Continent during the next week. However, this renewal is favored to be short-lived and absent of any sustained eastward propagation, likely pointing to other tropical modes remaining at play. In the extended range though, there is growing support in some of the models favoring a more canonical eastward propagation of the MJO signal over the western Pacific, albeit at a low amplitude. This is reflected in the velocity potential anomaly forecasts from the CFSv2 and ECMWF, which feature more of a wave-1 pattern developing with the enhanced divergence envelope shifting across the western Pacific and western Hemisphere by the start of June. But given the lack of support of this realization from the GEFS, and phasing differences of subseasonal activity between the CFSv2 and ECMWF, there remains a good deal of uncertainty at this lead, as the outlook continues to mainly rely on dynamical model guidance for anomalous precipitation and temperature conditions. Likewise, favored areas of Tropical Cyclone (TC) development in the outlook are primarily based on probabilistic genesis tools and where models agree on transient higher frequency tropical mode passages.

No TCs formed during the past week. For week-1, TC development appears most likely over the Arabian Sea tied to a band of strongly anomalous lower-level westerlies established over the northwestern Indian Ocean. Heading into next week, an equatorial Rossby wave propagating westward from the western Pacific

is favored to intersect an approaching Kelvin Wave and result in a region of strongly enhanced divergence aloft over the eastern Indian Ocean and Maritime Continent. Coupled with the aforementioned anomalous lower-level westerlies that are favored to shift eastward over the northern Indian Ocean, the Bay of Bengal and the South China Sea appear to become conducive for TC development and 20% chances are posted for week-2. Higher chances were considered, however there is some uncertainty in regards to timing with some deterministic solutions pointing towards formation late in week-1. Tied to an equatorial Kelvin wave passage favored in the eastern Pacific, there continues to be good run-to-run continuity in both the ensemble mean and probabilistic guidance signaling the first TC of the season to the south of Mexico. Based on shearing trends north of 10N, and near unanimity in the latest deterministic solutions depicting a closed low forming near 105W early in week-2, 40% chances are issued, with a broader region of 20% chances from approximately 95W to 115W.

For week-3, probabilistic tools remain somewhat modest in the western Pacific, though both the extended range ECMWF and GEFS feature a band of anomalous lower-level westerlies becoming better established over the South China and Philippine Seas after the start of June to support a broad area of 20% chances being posted. Similarly, lower-level zonal winds forecasts also appear favorable for TC genesis potential persisting in the eastern Pacific, and 20% chances are posted where probabilistic tools maintain elevated signals closer to Mexico. Should subseasonal activity become better organized in June, a western Hemisphere MJO event (as the ECMWF would imply), historically favors enhanced chances for tropical cyclogenesis in the eastern Pacific, and this potential will be closely monitored in upcoming outlooks. There is also an increase in TC genesis signals over the Caribbean and western Atlantic in the GEFS during week-3, but this potential is less supported in the other model tools at this time.

As noted above, forecasts for enhanced and suppressed precipitation are based on an historical skill weighted blend of GEFS, ECMWF, and CFSv2 dynamical model guidance and anticipated TC tracks, with little consideration from seasonal MJO and ENSO composites. Due to antecedent wet conditions over parts of southern Asia, above-normal and possibly heavy precipitation during the next two weeks may trigger localized flooding and other adverse ground impacts. Based on bias-corrected and calibrated temperature tools, above-normal temperatures are posted for the western CONUS and parts of South America where there are increased chances for daytime highs possibly exceeding 90 and 95 degrees F, respectively. For hazardous weather concerns in your area during the next two weeks, please refer to your local NWS office, the Medium Range Hazards Forecasts produced by the Weather Prediction Center, and the CPC Week-2 Hazards Outlook. Forecasts issued over Africa are made in coordination with the International Desk at CPC.