

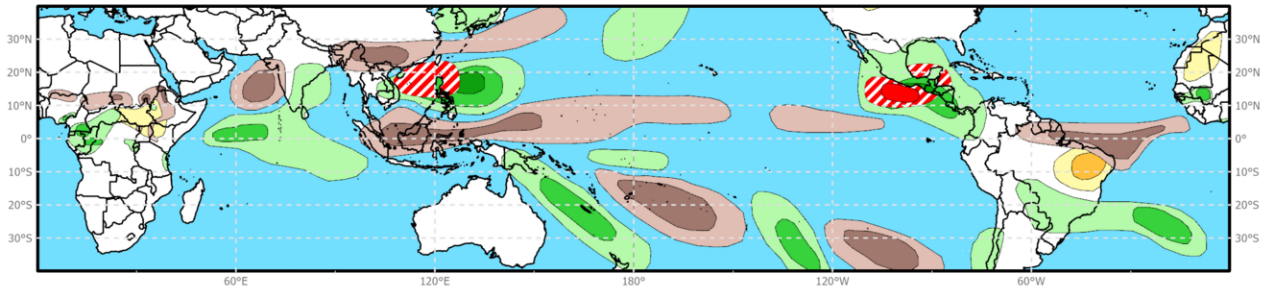


Global Tropics Hazards Outlook

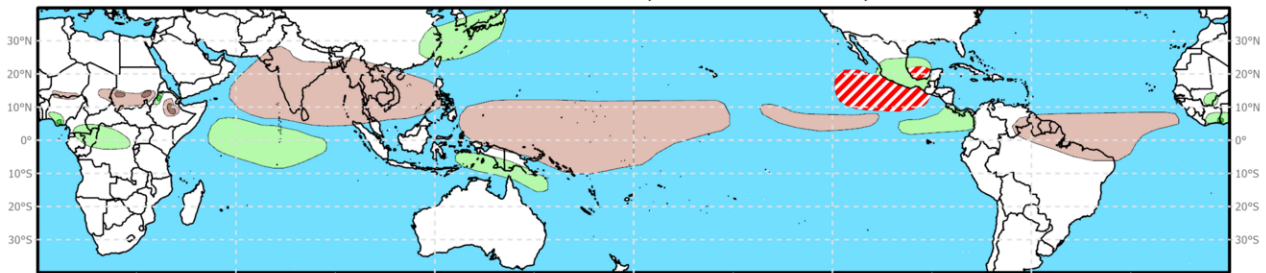
Climate Prediction Center



Week 2 - Valid: Jun 11, 2025 - Jun 17, 2025



Week 3 - Valid: Jun 18, 2025 - Jun 24, 2025

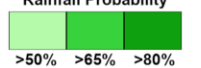


Tropical Cyclone (TC) Formation Probability



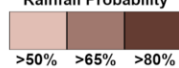
Tropical Depression (TD)
or greater strength

Above-Average Rainfall Probability



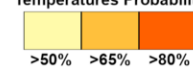
Weekly total rainfall in the
Upper third of the historical range

Below-Average Rainfall Probability



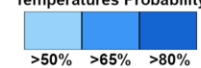
Weekly total rainfall in the
Lower third of the historical range

Above-Average Temperatures Probability



7-day mean temperatures in the
Upper third of the historical range

Below-Average Temperatures Probability



7-day mean temperatures in the
Lower third of the historical range

Issued: 06/03/2025

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.

Latest observations continue to point to disorganized MJO activity, with the RMM signal still meandering in and out of the unit circle over phases 4 and 5 during the past week. The recent tendency towards a positive RMM1 during the past few weeks is likely tied to the strong lower-level westerly anomalies mainly north of the equator over the Indian Ocean. This has contributed to a robust onset of the Indian monsoon, with the rest of the tropics continuing to be dominated by higher frequency modes and a low frequency convective response along/near 120E since late March. Consistent with previous dynamical model guidance, RMM forecasts continue to advertise a reorganizing MJO in June with the ECMWF remaining the most bullish with this realization. Notably, its latest RMM solutions depict a canonical eastward propagation over the Western Pacific and Western Hemisphere at a higher amplitude, with a tighter clustering of ensemble members around the ensemble mean in RMM space during the next two weeks. Moreover, there has been good consistency in the upper-level velocity potential forecasts favoring more of a wave-1 pattern taking shape with enhanced divergence aloft returning to the Eastern Hemisphere. By comparison, renewed MJO activity is also supported by the GEFS and CFSv2, but both fail to maintain propagation of the MJO, while favoring more of a low frequency response over the Maritime Continent resulting in a multiple upper-level divergence envelopes later in June. Given the continued discrepancies among the dynamical models, there remains a fair degree of uncertainty, especially at the longer leads, though there is overall better support for a more coherent MJO playing a role in the tropics in the updated outlook.

One Tropical Cyclone (TC) developed in the past seven days. As the first TC of the season for the eastern Pacific, Alvin formed on 5/29 to the south of Mexico near 105W, and strengthened to Tropical Storm intensity before dissipating near the tip of Baja California on 5/31. While Alvin was not a particularly impactful system near Mexico, its proximity to the mouth of the Gulf of California looks to have triggered an early season gulf surge event, ushering in tropical moisture into the southwestern CONUS, and led to locally heavy rainfall and flooding concerns over the Desert Southwest earlier this week. Combined with an approaching mid-level trough, the added mid-tropospheric moisture is expected to bring enhanced, and possibly excessive precipitation to parts of the central and western CONUS this week. Potentially heavy

precipitation is also possible this week over the coastal Southeast and Mid-Atlantic associated with an offshore low forecast, where the National Hurricane Center (NHC) gives 10% chances of this low acquiring tropical characteristics later this week. The NHC is also monitoring another area to the south of Mexico for TC development with 70% chances for genesis during week-1.

Following the potential TC development in the eastern Pacific during week-1, 40% chances are posted to the south of Mexico for additional development in the basin for week-2. Accompanied by renewed MJO activity favored to propagate into the Western Hemisphere, objective wave filtering of upper-level velocity potential forecasts also highlight the intersection of equatorial Kelvin and Rossby wave activity early in week-2. The superposition of these tropical modes is likely to produce strongly enhanced divergence aloft between 120W and 80W, conducive for genesis. However, inhibiting factors in the model guidance include strong subtropical ridging and high shearing over parts of the Gulf of America and the western Caribbean during week-2, which looks to suppress this potential. Therefore, a broader area of 20% chances is posted from approximately 110W and extending eastward to cover the Bay of Campeche and the Gulf of Honduras. This posted area falls in-line with the climatological increase in TC activity for mid-June, and also closely resembles the week-3 outlook issued last week. Although there is higher uncertainty with the strength and phasing of MJO later in June, 20% chances for TC development are again posted to the south of Mexico and Bay of Campeche for week-3 based on where there is greatest agreement in extended range probabilistic tools.

In the Eastern Hemisphere, medium range ECMWF probabilistic guidance shows increases in TC genesis signals centered over the Bay of Bengal and over the northern South China Sea. In consideration of the TC climatology tapering off by mid-June in the northern Indian Ocean due to monsoonal shearing, and the suppressed phase favored to overspread the basin, no TC shapes are posted. However, 20% chances are issued in the South China Sea where the environment looks to be more favorable for development. Should the MJO remain coherent during week-3, this would favor below-normal odds for TC formation in the western Pacific. Given stronger support for suppressed precipitation in the basin, with modest signals in the probabilistic tools, no shapes are posted for the western Pacific for week-3.

Forecasts for enhanced and suppressed precipitation are based on an historical skill weighted blend of GEFS, ECMWF, and CFSv2 dynamical model ensemble guidance, anticipated TC tracks, with some consideration of residual La Nina background conditions and phase 8 and 1 MJO composites for May-Jul. Due to antecedent wet conditions associated with robust onset of the Indian monsoon (where several areas in India and Southeast Asia have registered 2 to 6 times their normal rainfall accumulation over the past 30 days based on gauge measurements), any near to above-normal precipitation may trigger localized flooding and other adverse ground impacts during the outlook period. Above normal temperatures with the potential for extreme heat conditions are posted over parts of Africa, South America, and parts of the western and eastern CONUS for week-2. For hazardous weather concerns in your area during the next two weeks, please refer to your local NWS office, the Medium Range Hazard Forecast produced by the Weather Prediction Center (WPC), and the CPC Week-2 Hazards Outlook. Forecasts issued over Africa are made in coordination with the International Desk at CPC.