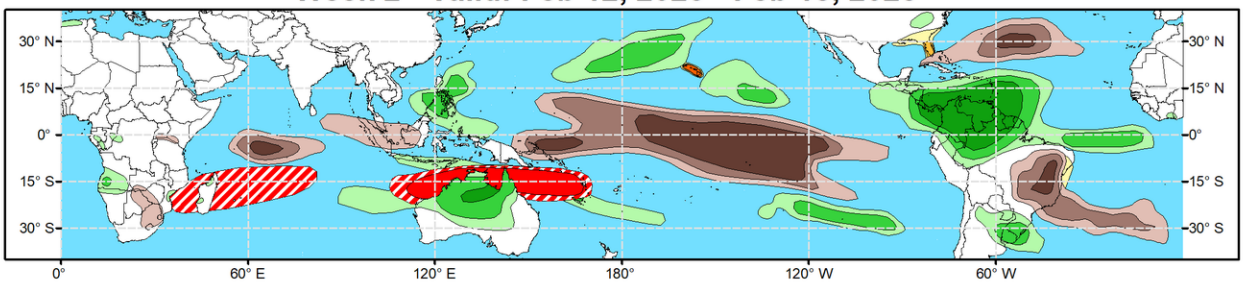
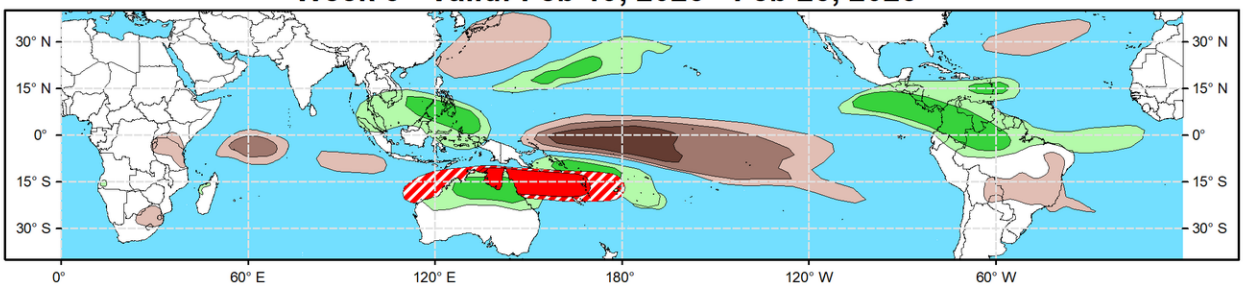
Global Tropics Hazards Outlook

Climate Prediction Center

Week 2 - Valid: Feb 12, 2025 - Feb 18, 2025



Week 3 - Valid: Feb 19, 2025 - Feb 25, 2025



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

Issued: 02/04/2025
Forecaster: Collow

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 RMM index depicts an active MJO across the Eastern Hemisphere, with the enhanced phase propagating from the Indian Ocean to the far Western Pacific (phase 6), aided in part by constructive interference with the low frequency La Nina base state. The GEFS and ECENS favor continued propagation of the MJO into the Western Hemisphere by mid-February, although there is more uncertainty regarding its amplitude as it destructively interferes with suppressed convection near the Date Line. However, the global upper-level velocity potential field derived from both models indicates enhanced divergence aloft reaching the Americas during week-2. The ongoing La Nina supports continued enhanced convection across the Maritime Continent and far Western Pacific, along with suppressed convection over parts of Africa and the Indian Ocean. The ECENS depicts a more robust eastward propagation of the suppressed phase of the MJO by week-3, with increased destructive interference with the low frequency enhanced convective signal across the Maritime Continent compared to the GEFS.

Several Tropical Cyclones (TCs) have developed across the climatologically active areas over the southern Indian Ocean and southwestern Pacific. TC Faida (1/28) formed across the south-central Indian Ocean (11 deg S, 76 deg E) and is weakening as it approaches the east coast of Madagascar. TC Elvis (1/29) was a short-lived system that brought flooding to southwestern portions of Madagascar. TCs Vince (2/1) and Taliah (2/2) formed across the eastern Indian Ocean and are forecast to track west to west-southwestward over the next week. Across the southwestern Pacific, TC Fifteen developed just to the north of New Caledonia (20 deg S, 166 deg E) and is expected to dissipate in the next few days as it tracks eastward. Another system in the same area (Invest 92P) is being closely monitored by the Joint Typhoon Warning Center (JTWC) for potential TC development.

During weeks 2 and 3, the highest chances for additional TC development (40-60 percent) are across the northern coast of Australia including the Kimberley Coast, Gulf of Carpentaria, and the Coral Sea consistent with the enhanced convection aloft due to La Nina and the active seasonal climatology. During week-3, 20-40 percent chances extend to the Date Line. Higher probabilities were considered, but the stronger suppressed phase of the MJO in the ECENS reduces confidence. While more suppressed convection aloft is forecast to build into the Indian Ocean, the GEFS and ECENS ensembles continue to depict elevated potential for additional TCs to develop. Therefore, a 20-40 percent chance of TC formation is highlighted across the Mozambique Channel and western Indian Ocean for week-2.

The precipitation outlook for weeks 2 and 3 is based on the historical skill weighted blend of the GEFS, CFS, and ECMWF ensemble system guidance, MJO precipitation composites for phases 6, 7, and 8, and La Nina composites. High probabilities (greater than 80 percent) for above-normal rainfall are indicated over portions of Central and northern South America for week-2 given the predicted placement of the enhanced convective envelope, with elevated probabilities (greater than 65 percent) continuing into week-3. There is also moderate to high confidence regarding increased potential for above-normal rainfall across the Western Pacific and northern Australia and below-normal rainfall across the equatorial Central Pacific tied to La Nina. Above-normal temperatures are forecast across Hawaii, the southeastern U.S., and eastern Brazil.

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.