

The MJO continues to show signs of strengthening for the second consecutive week. The 200-hpa velocity potential anomalies indicate a coherent pattern of upper-level convergence (divergence) centered over the Indian (Pacific) Ocean. During the past week, this Wave-1 pattern propagated east on the MJO time scale. Despite monitoring tools indicating a strengthening MJO signal, it is uncertain if a long-lived MJO becomes established during the next few weeks. Meanwhile, a low-frequency mode of enhanced convection shifting slowly to the east across the west Pacific remains a dominant feature across the global tropics.

The outlooks for the next two weeks are based primarily on the low-frequency mode of anomalous convection along with some contribution from a MJO signal. Model consensus between the GFS and CFSv2 precipitation forecasts were also used. Above-average (below-average) rainfall is favored for parts of the west and central Pacific (Indian Ocean and Maritime Continent). An atmospheric Kelvin Wave is forecast to result in above-average rainfall across the Amazon Basin of northern South America. Anomalous low-level convergence is expected to enhance rainfall across eastern Angola, Namibia, western Botswana, and western Zambia.

Conditions including warmer-than-normal SSTs are favorable for tropical cyclone development across the west and south-central Pacific. As of February 25, two disturbances are located near 10S/150E in the West Pacific and near the Date Line in the South Pacific. Given the background state, forecast confidence is high that both of these disturbances become tropical cyclones during Week-1.

During Week-2, above-average rainfall is forecast to persist across the South Pacific, surrounding the Date Line, while suppressed rainfall prevails across the Maritime Continent and northern Australia. Above-average rainfall is favored for parts of western and southern Africa which is consistent with MJO precipitation composites. A dipole of wet/dry conditions is forecast for southern Brazil. Enhanced chances for tropical cyclone development are expected to continue across the South Pacific but confidence is lower than Week-1.

The persistent and coherent pattern of anomalous tropical convection across the Indian and Pacific Oceans is expected to influence the extratropics. Below-normal 500-hpa heights are likely to persist south of the Aleutians with downstream ridging over western North America.