

The MJO remained weak during the past seven days. The RMM-based MJO index indicated some strengthening near the Maritime Continent, but the CPC velocity potential index did not indicate strengthening or organization. The upper-level velocity potential pattern depicts a wave-2 structure, with enhanced convection over the Indian Ocean and over the Central Pacific, with subsidence from the Americas to Africa and over the Maritime Continent. Mid-latitude influence is also evident in 850-hpa and 200-hpa wind anomaly plots. OLR anomalies indicate some Equatorial Rossby wave activity over the Indian Ocean.

Dynamical model forecasts of the MJO indicate the development of a more coherent signal, with eastward propagation across the Maritime Continent to the Central Pacific. That implies destructive interference with the ongoing El Nino early in the outlook period, shifting toward potential constructive interference late in the outlook period. The destructive interference yields lower confidence for the early portions of the outlook.

No tropical cyclones developed during the past week. During Week-1, the passage of the Equatorial Rossby wave over the Indian Ocean is likely to enhance odds for tropical cyclone formation across the South Indian Ocean. Later in the week, odds for torpical cyclone formation increase of the South Pacific, where the odds of formation there remain enhanced into Week-2. Some model outputs also indicate a slight increase in tropical cyclone formation odds over the Central Indian Ocean, from about 60E to 80E.

Above-median precipitation is forecast across the the western and central Pacific Ocean, as well as portions of the Maritime Continent, although the Maritime Continent portion of the outlook is less certain for reasons mentioned above. The strongest signals for below-median precipitation are across the western North Pacific near the Philippines and across portions of Brazil, consistent with the ongoing El Nino. A pause in the Australian monsoon is also indicated for the outlook period. Some models indicate the potential for a cold air outbreak over Southeast Asia later in Week-1 and into early Week-2.

During Week-2, the strongest signals are all consistent with the ongoing El Nino, as the MJO is likely to be coming into phase with the ongoing El Nino. Above-median precipitation is likely over the Central Pacific, while below median precipitation is likely over the Maritime Continent and northern South America. Some model solutions are also indicating the potential for a cold air outbreak over East and Southeast Asia, with the odds of temperatures falling into the lowest 10 percentile being 4 times as likely as average. The cold air is expected to moderate quickly.

Forecasts over Africa are made in consultation with CPCs international desk, and can represent local-scale conditions in addition to global-scale variability.