

The MJO remained weak during the past 7 days. The CPC-MJO Index and the Wheeler-Hendon (WH) MJO Index both reflect incoherent signals during much of the past week, with only small projections from other modes of variability. The interaction between an atmospheric Kelvin Wave and an Equatorial Rossby Wave (ERW) produced enhanced convection over the Western Pacific and suppressed convection over the Indian Ocean. By contrast, very heavy rains feel over India as a monsoon depression moved westward over the country. Heavy rains were also evident over Central America, with some tools attributing it to ERW activity.

Hurricane Raymond continued to churn over the East Pacific while Super Typhoon Lekima moved across the Western North Pacific. Tropical Storm One formed over the Southern Indian Ocean, reaching a peak intensity of 35 knots. Tropical cyclone formation is likely over the western North Pacific, from 8-17N, 140-165E during the latter portions of Week-1 and the early portions of Week-2. Also, some models indicate an enhanced threat of tropical cyclone formation near the southern coast of Mexico later in Week-1. If the Kelvin Wave moving across the Pacific holds together, it should enhance the threat of tropical cyclone formation across the central southern Indian Ocean during Week-2, although that is a low confidence statement.

Dynamical model forecasts indicate a continued weak MJO signal during the next two weeks. Therefore, the precipitation outlook for Week-1 is based on current satellite imagery along with guidance from the CFS and GFS models. As mentioned, a tropical cyclone is likely to form east of the Philippines, so above-average rainfall is likely there. Models indicate enhanced rains across Central America and portions of Brazil and northern South America. Below-average precipitation is forecast over the central portions of Africa, specifically across parts of Cameroon, Central African Republic, and northern Democratic Republic of Congo, as easterly wind anomalies are forecast across that region, pulling air from a dry source region. Below-average precipitation is also forecast from southern India to Southeast Asia and across portions of the Maritime Continent in the wake of the atmospheric Kelvin Wave.

Due to an expected weak MJO signal, the precipitation outlook for Week-2 is based primarily on CFS and GFS model guidance. Above-average rainfall is forecast to continue for parts of the Americas, while below-average rainfall is favored for equatorial central Africa and from India to Malaysia to the Philippines. Wet and dry signals are rather weak across the remainder of the global tropics.