

The RMM-based and CPC velocity potential based MJO indices both indicate a continued weak signal through the past week, with enhanced convection favored over the western Pacific and little eastward propagation. The pattern remains dominated by the low frequency El Nino state, with some influence from transient high frequency Kelvin Wave activity. Low-level westerly wind anomalies over the western equatorial Pacific are very strong, some of the strongest observed this year.

Dynamical model forecasts of the RMM-based MJO index indicate little to no signal, with the primary area of enhanced convection over the west-central Pacific. The UKMet Office model shows the strongest signal through Week-1. Tropical cyclone activity and aliasing of Kelvin Wave activity are the most likely factors driving the strengthening signals in the dynamical models. The statistical tools all depict a weak signal that remains weak during the next two weeks. Given the near consensus for a weak signal, the MJO is not likely to play a large role in convection during the next two weeks.

Typhoon Dolphin developed over the western North Pacific and is forecast to move generally westnorthwestward before recurving. Super Tyhpoon Noul is currently east of Taiwan and is forecast to impact southern Japan. During the next two weeks, a Kelvin wave is forecast to move across the Indian Ocean to the Maritime Continent, which slightly increases the odds for tropical cyclone development over the North Indian Ocean. Tropical cyclone formation odds are also increased over the North Pacific, from about 150E to 170E, with a potential new tropical cyclone in the wake of Typhoon Dolphin. During Week-2, some models give indications of increased activity southeast of Hawaii, but the uncertainty is too high with that region to depict an area.

During Week-1, enhanced convection associated with Typhoon Noul is forecast over the northwestern Pacific, extending to the northeast from just east of Taiwan. Tropical cyclone Dolphin, and a potential new cyclone to the east, favor above average precipitation from about 150E to 170E, along 10N. Dynamical models also indicate the potential for enhanced convection over parts of the central Indian Ocean, both north and south of the Equator. From near the Date Line to about 120W, above average rains are favored, due to El Nino. Some models are indicating heavy rains over the eastern Pacific as well, likely tied to the passage of a Kelvin Wave. Consistent with the ENSO state, below average rains are likely over the Maritime Continent, and over portions of northern South America and the Caribbean.

During Week-2, enhanced convection is favored across parts of the central and eastern equatorial Pacific, related to ongoing El Nino conditions. Below average precipitation is again likely over much of the Maritime Continent, although the skill in predicting the below average precipitation across that region has been low in recent days, so confidence is lower in that part of the outlook.

Depicted areas of enhanced or suppressed rainfall over Africa are produced in collaboration with CPC's Africa Desk.