

The MJO remained active during the past week with the enhanced convective phase now centered over the Maritime Continent (MC). The enhanced phase of an atmospheric Kelvin wave (KW) shifted eastward across the Indian Ocean during the period and excited convection for some areas in the central and eastern Indian Ocean. An equatorial Rossby wave moved westward across the Maritime Continent, and the superposition of the Rossby wave with the other features resulted in dry conditions across much of Southeast Asia.

Weekly averaged Outgoing Longwave Radiation anomalies show enhanced convection was observed over the Arabian Sea, Eastern Indian Ocean, Maritime Continent and portions of the Central Pacific Ocean. Suppressed convection was observed near the intersection of the Date Line and the Equator, Central America, and the Southern Indian Ocean. Sea surface temperatures continue to indicate La Nina conditions, with below normal temperatures extending across the equatorial pacific west of the Date Line.

The WH MJO index showed eastward propagation during the past week with some constructive interference with the equatorial Rossby wave and background La Nina conditions. The convectively active phase moved eastward across the Maritime Continent. Forecasts of the MJO by dynamical models indicate rapid eastward propagation of the signal. The speed of the propagation is more consistent with an atmospheric Kelvin Wave. Statistical models have both this fast eastward propagation and slower signals. The official forecast is more aligned with the statistical tools through the end of Week-2.

Tropical depression 24 formed over the South China Sea. As of the release time for the GTH, TD24 is not expected to reach tropical storm strength. Over the Arabian Sea, Tropical Cyclone 4 is forecast to move toward the Gulf of Aden. Landfall is forecast across either Yemen or Somalia. Tropical Storm Sean formed over the western Atlantic and is forecast to remain over the open waters.

The current forecast for Week-1 calls for continued propagation of the MJO signal with enhanced precipitation across most of the Maritime Continent and Southeast Asia. Some enhanced rainfall is likely for parts of Thailand, but the event is not expected to be widespread over the entire country. Below-average precipitation is forecast for much of the Indian Ocean Basin. A small area of above-average precipitation is expected to follow the path of Tropical cyclone 4. Below-average rainfall is also expected across the Central Pacific in association with the on-going La Nina conditions. Wet conditions are anticipated across Hawaii also.

During Week-2, the area of below-average rainfall over the Indian Ocean is expected to shift eastward and encompass parts of the Maritime Continent. The area of enhanced convection associated with the MJO is expected to move eastward to the western Pacific. Much of the signal is expected to move into the Northern and Southern mid-latitudes as it splits around the area of coldest sea surface temperatures in the central Pacific. The dry conditions across the central equatorial pacific are expected to continue, as are the wet conditions over Hawaii. The convectively suppressed phase of the MJO is expected to support below-average rainfall across Central America, although some dynamical models indicate a slightly elevated chance for tropical cyclone formation across the western Caribbean.