

The MJO remains generally weak and unorganized and similar to the last several weeks, other subseasonal, coherent tropical variability are dominating the pattern of anomalous tropical convection. Along with the ongoing low frequency background conditions, two important subseasonal features are playing strong roles, namely a robust westward moving equatorial Rossby wave (ERW) located across the western Pacific and a strong, somewhat slow moving eastward propagating atmospheric Kelvin wave (KW) in the central Pacific. Both these features are anticipated to produce impacts in the Tropics in the upcoming outlook period.

During the past week, enhanced convection was observed for an area stretching from India across Southeast Asia into the western Pacific to near the Date Line. Suppressed convection was evident along the equatorial Indian Ocean and parts of Central America, the Caribbean and northern South America. Typhoon Matmo developed east of the Philippines during the past week and is expected to make landfall in Taiwan just prior to the start of this forecast period. Also, tropical cyclone Wali developed in the central Pacific and a small scale tropical depression developed in the central Atlantic in recent days.

The majority of dynamical model forecasts of the RMM index continue to indicate weak or incoherent MJO activity during the next two weeks. These include the GFS, Canadian, JMA and Taiwan Central Weather Bureau models. The ECMWF and CFS forecasts, however, indicate a more amplified, eastward propagating signal over the next weeks. The propagation speed is somewhat fast and of generally only weak to moderate amplitude and may be primarily in response to the somewhat slowly evolving KW mentioned above. The MJO is unlikely to play a major role in anomalous tropical convection and highlighted impacts are principally based on the KW and ERW evolution, the tilt toward a warm ENSO base state and model guidance.

Typhoon Matmo is expected to produce areas of heavy rainfall along its track as it makes a second landfall in eastern China early in the period. Moisture from this system is favored to produce above average rainfall across South Korea during the period as well. The evolution of the ERW in the western Pacific is consistent with model guidance for wet conditions in much of the western Pacific during the next two weeks along with the threat for additional tropical cyclogenesis east of the Philippines during Week-1 and later during Week-2 centered at about 20 N, 135E. Considerable drying associated with the suppressed phase of the KW in Week-1 and any potential evolving weak MJO signal favors below median precipitation along the equator from the eastern Indian Ocean across the Maritime continent over the course of the outlook. This is supported by model guidance.

KW activity likely to continue crossing the Pacific basin elevates the threat for tropical cyclogenesis in both the central and eastern Pacific basins and this is supported by model guidance. The east Pacific ITCZ continues to be shifted south and west compared to climatology and so the threat for tropical development continues in Week-2, but somewhat displaced from the Mexico coast. Suppressed rainfall is favored to continue across significant areas of Central America, Mexico and the Caribbean.

Strong frontal activity as indicated by model guidance is highlighted during Week-1 in proximity to southern Brazil. Forecasts of enhanced or suppressed convection across some parts of Africa are based on regional scale anomaly features and were produced based on collaboration with the CPC Africa Desk.