

The RMM index indicates that the MJO signal remains in Phase 6 currently after a period of rapid decay over the past week. The signal remained relatively stationary on the RMM index and in many of the spatial fields. The widespread enhanced convection over the Western Pacific basin, which has remained entrenched since early July, is expected to shift eastward over the next two weeks as the weakened MJO enhanced signal moves further into the eastern Pacific. Suppressed convection is forecast to move over the Maritime Continent. The previously seen Wave 1 pattern in the upper level velocity potential fields has broken down over the past week due to Rossby and Kelvin wave activity building over Africa and the eastern Indian Ocean. These shorter signals are expected to stay strong and propagate eastward, possibly interfering with the weakened MJO signal. MJO activity is likely to continue through the next two weeks, propagating eastward into phases 7/8, though there is unlikely to be a resurgence of amplitude on the RMM index due to the dominating signals of the higher frequency modes of variability. The low frequency state is also starting to become a larger influence on the tropics and likely to further dampen the MJO signal.

The Western Pacific is expected to stay active during Week-1, before the suppressed convective signal moves in, lessening the likelihood for tropical cyclone (TC) development for the Week-2 period. With

input from JTWC, two areas of possible formation are highlighted for Week-1; an area near Guam where there is high confidence for a TC formation toward the middle of Week-1 and an area of moderate confidence further east toward the central Pacific toward the end of Week-1. If formed, these systems will likely be short-lived, due to their expected tracks northward toward the mid-latitudes. The Eastern Pacific is also expected to become more active over the next two weeks. NHC has highlighted an area of possible formation near 115-125 W that has a 70% chance of formation in the next 5 days. A second disturbance, closer to the western coast of Central America (100 W), has high confidence of formation through Week-1. Models indicate that the basin is likely to remain active in Week-2. A broad area with moderate confidence in formation has been forecast, covering a region similar to that which is likely to be active for Week-1.

The precipitation patterns forecast for Week-1 largely stem from impacts of the current MJO signal. The western Pacific is expected to continue to experience enhanced convection, along with impacts from an active basin in Week-1. An area of high confidence is shown where model agreement is good and currently, a tropical depression formed within the past 24 hours. Areas of moderate confidence of above normal precipitation are in line with possible TC formations and a transitional area over the eastern Maritime Continent, as the suppressed phase of the MJO moves in. For the eastern Pacific, renewed TC activity and the enhanced pattern of the MJO as it moves into Phase 7/8 in Week-1 contribute to an area of high confidence for much above normal precipitation. Impacts from this moisture surge are forecast to influence parts of the Southwest US, which is shown in the Week 2 Extended Range Forecast and US Hazards Forecast. Upper-level convergence and dynamical model guidance support below average rainfall for the central Atlantic.

Confidence in the forecast for Week-2 is overall low, as there is uncertainty in the MJO influence and higher frequency variabilities (Kelvin and Rossby wave activity) are likely to play a larger role in the tropics. Several regions of below average rainfall are expected over the Maritime Continent as the previously entrenched enhanced convection shifts eastward. This shift of the enhanced convective envelope leads to a forecast of above average rainfall for parts of the central and eastern Pacific. TC activity in the eastern Pacific basin is expected to continue to influence monsoon rains over the Southwest. Forecasts over Africa are made in consultation with the CPC international desk, and can represent local-scale conditions in addition to global-scale variability.