

The MJO remained active over the past week with the enhanced convective phase entering the western Pacific. In addition to the MJO, equatorial Rossby (ER) wave activity has enhanced convection in parts of the Indian Ocean, while destructively interfering with the MJO signal in the western Pacific, limiting convection near the Equator thus far. Suppressed convection remained near the Date Line and for parts of northeastern Brazil, where low-frequency drying has occurred recently.

There is some spread in the dynamical model forecasts for the predicted evolution of the RMM index. Most models persist the signal over the western Pacific in a high RMM-2 state (phases 6/7) before continuing eastward propagation late in Week-2. Some weakening of the signal's amplitude seems likely based on the dynamical models. The pause that is occurring in phase 6 is likely due to the aforementioned interference by an ER wave. The consensus forecast of the MJO is for continued eastward propagation at the slow end of the envelope of MJO phase speed, hidden in the short term by ER wave activity and also by extratropical wave breaking into the sub-tropics. The outlook is primarily based on impacts associated with the MJO and the other types of subseasonal tropical variability, namely the aforementioned ER wave. The forecasts are adjusted by model guidance where deemed helpful especially during Week-1. For Week-1, above median rainfall is favored for an area extending from the eastern Maritime Continent and far northern Australia extending southeastward past the Date Line, well south of the Equator. The MJO supports elevated odds for below-median rainfall for portions of southeastern Africa, Madagascar, the eastern Indian Ocean, and parts of Brazil. The ER wave contributes to more uncertainty over parts of the central Indian Ocean, where tropical cyclone formation is favored south of the Equator. The MJO and current areas of disturbed weather continue to favor tropical cyclogenesis for waters northeast of Australia. A persistent region of suppressed convection is moderately favored to continue along the Equator near the Date Line based on model forecasts and the slow evolution of the MJO.

During Week-2, suppressed convection is forecast to shift slowly eastward and elevated odds of belowmedian rainfall are shown for a region stretching from the eastern Indian Ocean to the western Maritime Continent, consistent with the MJO. A small area favoring below-median rainfall is depicted over the Mozambique Channel based on MJO composites and supported by model guidance. Abovemedian rainfall shown in Week-1 is forecast to shift subtly eastward and organize across the southwest Pacific as the MJO slowly evolves. Suppressed convection is still favored for parts of northern Brazil, supported by model guidance and recent trends.

The observed circulation stretching from the deep Tropics across the North Pacific has been reasonably consistent with the evolution of the MJO over the past couple of weeks. At 200-hPa, the circulation is dominated by an amplified wave pattern across southern Asia, more indicative of extratropical forcing than MJO. It remains to be seen whether this pattern becomes positioned in a way that promotes feedback with the MJO phase in the Pacific. Down stream the western Hemisphere is dominated by the negative AO/NAO and associated high-latitude blocking. Should the MJO maintain amplitude through the Pacific, it would support an extension of the climatological jet stream through the central Pacific which would be in phase with a negative annular mode.