

The MJO remained active during the past week with the enhanced convective phase centered over the Indian Ocean (IO). There was only slight eastward propagation as indicated by a few different MJO metrics due to contributions from other subseasonal variability, primarily a strong Equatorial Rossby Wave (ERW) located across the IO and Maritime continent (MC). The enhanced phases of the MJO and the ERW contributed to a large area of enhanced convection over the IO during the past week. Likewise the combination of the suppressed phases of the MJO and ERW considerably reduced convection over much of the MC over the past week. Background La Nina conditions continued to support drier than normal conditions across the western equatorial Pacific.

Despite the interference from the Equatorial Rossby Wave (ERW), the Wheeler-Hendon (WH) MJO index maintained a nearly steady amplitude over the past week. Dynamical forecasts of the WH MJO Index contain some spread, so there is some uncertainty about the forecast. Despite the uncertainty, most models indicate continued eastward progression of the MJO signal to Phase 5 by the end of the next two weeks. Statistical forecasts also indicate eastward propagation of a coherent signal. Anomalous convection will also be influenced by the interaction between the MJO and the ERW, further increasing uncertainty to the forecast.

During week-1, an enhanced threat of tropical cyclone formation exists both west and east of Madagascar. The Joint Typhoon Warning Center(JTWC) issued a tropical cyclone formation alert for the area over the Mozambique Channel. An additional area of potential formation is located across the central, southern Indian Ocean near 11.6S 69.4E, approximately 310NM southwest of Diego Garcia. An increased likelihood of above-average rainfall is associated with these two potential tropical cyclones.

The convectively active phase of the MJO is expected to be centered over the eastern Indian Ocean and western Maritime Continent during week-1 and week-2. That forecast supports the inclusion of an area of above-average rainfall across the eastern IO, southeast Asia, and northern Australia, with an area near normal rains over the central Maritime Continent. The MJO and La Nina should constructively interfere to produce below normal rains across the equatorial Pacific, near the Date Line. Downstream, an active ITCZ over Brazil and anomalous inflow across South America should support above-average rains over the Amazon and Andes, with an area of drier than average conditions over eastern Brazil.

During week-2, the convectively active portion of the MJO is forecast to move eastward, and become centered wholly over the Maritime Continent. Above-average rains are favored over the entire MC, northern Australia, extreme southeast Asia, and the Philippines. Drier than average conditions are favored over Central Africa and Madagascar. Much of eastern Brazil should also experience below-average precipitation.

The eastward shift in the convectively active region of the MJO should support an enhanced threat of tropical cyclogenesis from the southeast Indian Ocean to the Timor Sea, north of Australia.