

A robust MJO signal continued during the past week according to multiple diagnostic tools along with the RMM and 200-hpa Velocity Potential indices. The propagation of the MJO recently slowed as it shifted to the western Maritime Continent, and the OLR anomaly field indicates an atmospheric Kelvin wave crossing the Date Line. Current satellite imagery indicates an axis of convection oriented from the Arabian Sea southeast to the Maritime Continent which is typical of a mature MJO signal during the Northern Hemisphere summer. Tropical Cyclone 2A developed over the Arabian Sea on June 27 and is forecast to dissipate during the next 48 hours. Dynamical model forecasts indicate eastward propagation of a MJO signal into early July, but an atmospheric Kelvin Wave and potential tropical cyclones across the east Pacific are likely influencing the RMM index.

The precipitation outlook during Week-1 is based on CFS and ECMWF model guidance, MJO precipitation composites for Phases 5 and 6, and influence from an atmospheric Kelvin Wave crossing the Western Hemisphere. Above-median rainfall is favored from India southeast to southern China and Vietnam. Although there is an elevated risk of tropical cyclone formation across the South China Sea, confidence is too low to depict an area on the map. Below-median rainfall is expected to develop across the eastern Indian Ocean and the western Maritime Continent as convection begins to shift north during

the next week. A small region of above-median rainfall is also forecast across the Arabian Sea, associated with the ongoing tropical cyclone. The evolving low-frequency state favors below-median rainfall across parts of the western Pacific. Model guidance generally supports above-median rainfall across the eastern Pacific and remains consistent that a tropical cyclone develops late in Week-1, originating from a westward-moving tropical wave now over Central America.

During Week-2, the off-equator MJO response is expected to result in above-median rainfall across parts of the Bay of Bengal, northern India, and eastern Pakistan, while below-median rainfall expands north to include Sri Lanka and southern India. Below-median rainfall is forecast to persist across parts of the western Pacific although model guidance differs on the most favored area. If the MJO signal remains robust, enhanced convection is likely to intensify across the eastern Pacific later in Week-2. Forecast confidence for this outcome is limited, considering that many of the dynamical model forecasts depict a decrease in the amplitude of the MJO signal. The GFS model remains consistent with a elevated risk of another tropical cyclone to form during Week-2 across the eastern Pacific. The moderate confidence for above-median rainfall across parts of northwest Mexico, the Gulf of California, and Baja Peninsula is related to the likelihood of tropical cyclone activity in the east Pacific during the next two weeks and the increasing potential for an enhancement of low-level moisture.

Forecast over Africa are made in consultation with CPCs international desk, and can represent localscale conditions in addition to global-scale variability.