

The MJO became less coherent over the past week as expected (at least as monitored by the RMM index), largely due to interference with other tropical modes of variability. There are two competing centers over action where enhanced convection is currently observed: one over Southeast Asia extending eastward to the Northwest Pacific, the other over the East Pacific associated in part with two tropical cyclones (TCs). The latter is expected to become more coincident with the lower-frequency MJO signal as it propagates toward Africa by Week-2, while the suppressed phase of the MJO is expected to cause a drying trend over Southeast Asia over the next two weeks. Dynamical model guidance from the GEFS, CFS, and ECMWF, all suggest the reemergence of a coherent MJO structure with enhanced phase over Africa during Week-2, with differences in details regarding the speed of eastward propagation across the Indian Ocean.

Three TCs formed in the past week: Hurricanes Aletta and Bud over the East Pacific, and Tropical Storm Maliksi over the West Pacific. Hurricane Bud is currently weakening off the coast of Mexico, but is expected to produce a surge of tropical moisture into Mexico and the Southwest CONUS during Week-1. Tropical Storm Maliksi is undergoing extratropical transition over the North Pacific and is playing a role in the development and maintenance of the long wave pattern for the PNA region. During Week-1,

there is a moderate risk of TC formation from the northern South China Sea eastward to parts of the East China and Philippine Seas. Any formation here would likely be a tropical depression that rapidly undergoes extratropical transition. There are three additional areas where there is a low risk of tropical cyclogenesis, but where confidence is too low to warrant a hazard depiction: east of the Philippines near 145E, over the East Pacific near 100W, and over the western Caribbean and southwestern Gulf of Mexico.

Areas favoring above- or below-average rainfall during Week-1 are based on dynamical model consensus and expected MJO evolution, along with forecast or ongoing tropical cyclone activity. A broad area favoring below-average rainfall is depicted for the central and eastern Indian Ocean eastward across much of the Maritime Continent, now extending into the Philippines. This is consistent with the dynamical model guidance and the current/forecast state of the MJO. Remnant enhanced convection is favored over parts of Southeast Asia and over the far northwestern tropical Pacific. Above-average rainfall is favored over much of southwestern North America and Central America, which is forecast to continue into Week-2 as the MJO enhanced phase constructively interferes with ongoing convection.

During Week-2, confidence decreases along with overall forecast coverage. Continued eastward MJO propagation is inferred by the northward shifting regions favoring below-average rainfall over the West Pacific and Southeast Asia. The MJO enhanced phase increases odds of above-average rainfall over much of near-equatorial Africa, while the enhanced convection is expected to nose eastward across the equatorial Indian ocean toward the western Maritime Continent.

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