

The enhanced phase of the MJO continued its eastward propagation from Africa to the western Indian Ocean during mid-May, while the suppressed phase became centered over the Pacific Ocean. According to the RMM index, the MJO has the same amplitude in Phase 2 compared to five weeks ago. Although there is low to moderate spread on the amplitude of the MJO during the next two weeks, the MJO is expected to continue to propagate east from the Indian Ocean to the Maritime Continent.

An equatorial Rossby wave contributed to enhanced convection and helped to initiate Tropical Cyclone Sagar over the far western Arabian Sea on May 16. Sagar made a rare westward track through the Gulf of Aden and resulted in heavy rainfall and flooding across northern Somalia and coastal Yemen. Sagar eventually dissipated as it tracked over Ethiopia. A second tropical cyclone (2A) formed a few days later across the western Arabian Sea. This tropical cyclone is forecast to strengthen during the next 72 hours and track north, with a landfall in Oman or Yemen later in Week-1.

As the enhanced phase of the MJO crosses the Indian Ocean, the large scale environment favors tropical cyclone (TC) development across the Bay of Bengal during Week-1. Although the chance of TC

development may linger into Week-2, the onset of the Southwest Monsoon across this region is expected to be a limiting factor. Elsewhere, a broad surface low is centered east of Belize. Although strong upper-level winds and dry air aloft are currently disrupting any organization, chances for TC development increase once this system lifts north into the central or eastern Gulf of Mexico. Large model spread continues on whether a TC develops and its subsequent track. The deterministic 0Z ECMWF model (May 22), which is the most consistent solution, indicates a closed surface low progressing to the central Gulf Coast this weekend and then becoming nearly stationary across the Southeast U.S. early next week. Regardless of TC development, heavy rainfall is likely across the Cayman Islands, western Cuba, Florida, and parts of the Southeast through Week-1. A weakness in the subtropical ridge and anomalous low-level moisture support a continuation of above-average rainfall along the central and eastern Gulf Coast into the beginning of June. Areas east of the Apalachicola and Chattahoochee Rivers have received locally more than 8 inches of rainfall during the past 30 days and are prone to flooding with any additional heavy rainfall.

The precipitation outlook during the next two weeks is based on MJO composites for phases 2 through 4 along with guidance from the CFS, ECMWF, and GFS models. These tools favor above-normal rainfall shifting from the Indian Ocean to the western Maritime Continent and West Pacific during the next two weeks. Increased chances for below-average rainfall are expected across southeast China, Taiwan, and the northern Philippines during Week-1, with the most likely area for below-average rainfall shifting to the East Pacific and parts of Central America during Week-2. An above-normal temperature hazard is posted for parts of Southeast Asia where the GFS model indicates maximum temperatures averaging more than 8 degrees C above normal and exceeding 35 degrees C.

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