

The MJO has remained disorganized since late March with El Nino contributing to enhanced (suppressed) convection across the west-central Pacific (Maritime Continent). A second area of enhanced convection is ongoing across the tropical Atlantic and western Africa. Dynamical model forecasts are in good agreement that the amplitude of the MJO increases during Week-2 as enhanced convection shifts east from Africa to the Indian Ocean. If the MJO becomes better organized during the next two weeks, the duration of the event is highly uncertain as its enhanced phase would likely encounter destructive interference with the background state.

The precipitation outlook during the next two weeks is based on influences from El Nino, the model consensus among the CFS, ECMWF, and GFS models, and the expectation that the MJO becomes more organized over the Indian Ocean during Week-2. The dipole of above average rainfall along and south of the equator across northeast Brazil and below average rainfall along 5 degrees N is expected to persist during the next two weeks. Also, El Nino favors a continuation of above (below) average rainfall across parts of the west-central Pacific (Maritime Continent) through late April. Above average rainfall is forecast to expand across the Indian Ocean during Week-2, with this anomalous rainfall predicted as far north as Sri Lanka. This above average rainfall area is consistent with MJO precipitation composite for

Phase 2. Forecasts over Africa are made in consultation with CPCs international desk, and can represent local-scale conditions in addition to global-scale variability.

Anomalous westerlies at 850-hPa with a connection to the tropical Atlantic contributed to enhanced convection and above-average rainfall across northern Africa and the Middle East since late March. Flash flooding has affected parts of Iran and Afghanistan. This pattern with above average rainfall and a high risk of additional flash flooding is likely to continue across Iran and Afghanistan during the next week. Meanwhile, premonsoon heat recently developed across parts of Rajasthan in western India where maximum temperatures were as high as 44.5 degrees C. Based on the GFS and ECMWF temperature forecasts, a moderate risk of above normal temperatures that are considered hazardous is posted for parts of western India (Gujarat, Madhya Pradesh, and Rajasthan) along with southeast Pakistan.

Tropical cyclone Wallace formed offshore of the Kimberley Coast of Australia during the first week of April and is forecast to dissipate by April 10. Enhanced moisture associated with the remnants of Wallace, along with a mid-latitude trough, is forecast to result in above average rainfall across parts of Western Australia. The number of tropical cyclones (TC) is typically low globally during April and May. Although chances for TC development may increase across the southern Indian Ocean during Week-2, forecast confidence is too low to designate an area on the map.

A mid-latitude low pressure system coupled with enhanced low-level moisture from the subtropics is likely to result in above average rainfall across parts of the continental United States, including the lower Mississippi Valley, Tennessee Valley, and northern Gulf Coast. Any heavy rainfall could trigger flash flooding and worsen river flooding.