

Both the RMM-based and velocity potential-based MJO indices portray the active phase of the Madden-Julian Oscillation (MJO) across the Western Hemisphere. Objective filtering of intraseasonal activity suggests the joint presence of a Kelvin wave over the Americas while the slower-moving MJO envelope is analyzed across the tropical Atlantic. Model guidance is relatively consistent in bringing the MJO envelope across Africa (Phase 1) during Week-1 of the outlook, and shifting to the western Indian Ocean (Phase 2) by the middle of Week-2. Historically such an evolution is associated with suppressed convection initially across the Maritime Continent shifting into the West Pacific, while enhancement of convection weakens across the East Pacific in favor of the Indian Ocean. Lastly, the background state continues to trend away from La Nina in the tropical Pacific, with positive near-surface heat content across nearly the entire basin, limiting low frequency impacts on the Central Pacific.

No tropical cyclones (TCs) developed globally during the past week. With the active Kelvin wave and MJO presence over the Western Hemisphere, chances are elevated for TC development in the East Pacific. Currently the National Hurricane Center is monitoring a disturbance near 10N/121W for development, and as of 1 PM PDT on 8 May giving this system a 50% (50%) chance of becoming a TC in the next 48 hours (5 days). This system does not appear to be a threat to land if it develops, but remains

noteworthy as it would develop prior to the official beginning of the East Pacific Hurricane Season on 15 May. Moderate confidence exists in this outlook for the system to become a TC during Week-1. Elsewhere, a disturbance in the West Pacific, currently near 13N/154E, is forecast to track to the westnorthwest in the coming days yet is not forecast to develop per dynamical model guidance. Given the lack of development noted in model guidance and historical TC activity in the West Pacific not being favored with an active MJO across the Western Hemisphere, no TC development is anticipated at this time. Week-2 also looks quiet for possible TC activity, with the possibile exception of something in the Arabian Sea that tracks from off the western coast of India towards Yemen, that would be in line with MJO activity reaching the Indian Ocean prior to monsoon season.

High confidence exists during Week-1 relating to below-normal precipitation chances across Southeast Asia, the South China Sea, and the Southwest Pacific due to the suppressed phase of the MJO shifting across the area and substantial negative precipitation anomalies forecast by dynamical model guidance. High confidence for above-normal precipitation exists across portions of the Florida Peninsula, Bahamas, and far western Atlantic during Week-1, where an extratropical disturbance could drop several inches of rain. Moderate confidence for above-normal precipitation during Week-1 also exists in association with the disturbances mentioned previously that may develop into TCs in the West Pacific and East Pacific basins. Moderate confidence for above-normal precipitation in the western Indian Ocean is consistent with the MJO pushing across Africa. The remaining area of moderate confidence for above-normal rainfall across the South Pacific are a result of consensus between the GEFS, CFS, and ECMWF ensembles. Lastly, high confidence for above-normal temperatures exists stretching from the southern High Plains across much of the South and then up the eastern seaboard in the lee of the Appalachians where high temperatures of 10-degrees F or greater are generally anticipated during Week-1 associated with an amplified ridge pattern that is forecast to drift eastward. This setup could yield the first 90degree days for many parts of the Southeast this year.

In Week-2, high confidence for below-normal precipitation is anticipated to continue across Southeast Asia with a secondary region north of New Guinea, in association with the suppressed phase of the MJO across the region. Moderate confidence for above-normal rainfall exists across much of the western and central Indian Ocean basin in association with the MJO being likely to emerge here. Remaining areas favoring above-normal precipitation with moderate confidence in Week-2 are once more a result of agreement among dynamical model ensemble suites.

Forecast areas favoring above- or below-average rainfall over Africa are drawn in consultation with CPC's Africa Desk and may depict mesoscale to synoptic scale variability.