

The MJO became less coherent during the past week, as other subseasonal variability combined with the low-frequency state overwhelmed what had been a coherent wave-1 MJO signal. There have been a series of Kelvin waves that propagated rapidly eastward from the Indian Ocean to the Pacific. This has served to pull any remnant enhanced MJO phase eastward toward the Maritime Continent. The RMM index suggests a weak MJO, while the CPC velocity potential index suggests a slightly stronger signal emerging over the far western Pacific. This discrepancy between the two indices is indicative of the generally weak signal at work, one that is easily influenced by higher-frequency variability, the low-frequency state, and the extratropical circulation.

Dynamical and statistical forecasts of the MJO suggest a continued weak signal over the next one to two weeks. Based on recent observations and these model forecasts, the MJO is forecast to remain weak during the period, with any enhanced phase expected to propagate into the Pacific.

The outlooks for Week-1 and Week-2 are based largely on dynamical model consensus, especially where the model forecasts are supported by statistical forecasts that account for the higher-frequency

variability. Additionally, the low-frequency state is accounted for, with the outlook reflecting the tendency toward El Niño conditions across the tropical Pacific.

During Week-1, a Kelvin wave currently moving across the far eastern Indian Ocean is expected to enhance convection across parts of the Bay of Bengal and the western Maritime Continent. Another Kelvin wave is forecast to move eastward into the far western Indian Ocean over the next several days, favoring enhanced convection in that region. Suppressed convection is favored in the wake of both of the aforementioned Kelvin waves. Enhanced convection is forecast across much of the equatorial Pacific, supported by the model guidance and the low-frequency state. Suppressed convection is favored across parts northern South America and Central America as well as across parts of the northwestern Pacific and South China Sea. The former is supported by any remnant suppressed MJO phase, while both are supported by excellent agreement among dynamical tools. Enhanced convection is favored over the above-normal SSTs is the far eastern Pacific, while enhanced convection over the southwestern portion of Mexico is expected to extend northward into the south-central U.S. This convection is likely related to an atmospheric Kelvin wave, while the extratropical circulation is expected to be favorable for northward transport of moisture.

For Week-2, the low-frequency state is highlighted across the Pacific, with other shapes depicted based on model consensus. It is worth noting that the forecast suppressed rainfall across parts of the Indian subcontinent would suggest a delay in the onset of the monsoon.

There has not been any tropical cyclone activity during the past week, which is not too unusual for May. There are three areas worth monitoring over the next week or so: the Bay of Bengal, the eastern Pacific, and the western North Pacific. The first two areas are associated in part with atmospheric Kelvin waves and contain active tropical disturbances at this time. Both of these areas have a low to moderate chance of developing into a tropical cyclone during the next few days. The area well east of the Philippines has been highlighted in some guidance, though the chances of development there are currently low. The climatology in this region suggests more activity, however, over the next few weeks.