

The suppressed phase of the MJO extends from the Indian Ocean to the Maritime Continent this week, although the MJO projection on the RMM index is weak because the strongest convective signal is well north of the Equator. Most dynamical models suggest that the suppressed convection will move eastward and be replaced by active convection over the Indian Ocean during the next few days. This will likely result in a stronger projection onto the RMM index in Phases 1 and 2 and we expect a typical progression eastward over the next few weeks, although there is considerable model disagreement about how strong the MJO will be and how far east it will propagate before breaking down.

The active phase of a convectively coupled atmospheric Kelvin wave is over the Date Line now and expected to propagate eastward during Week-1. Its convective signal should dissipate once it reaches the Americas, but most model guidance indicates that the circulation component of the Kelvin wave will race over the Americas and Atlantic and re-couple to convection over the Indian Ocean during Week-2. This wave may act as a potential trigger for tropical cyclogenesis in the East Pacific during the last few days of the Week-2 period. The GFS has consistently created a tropical cyclone in the East Pacific during the last few days. An area with moderate confidence of TC formation and above-average rainfall has

been forecast for Week-2 to reflect this potential due both to the dynamical guidance and the passage of the aforementioned Kelvin wave.

There is moderate confidence that low pressure over India will bring above-average rainfall to the Northeastern part of the country, as well as over the Bay of Bengal. This forecast is supported by ECMWF guidance and the possible development of active MJO convection during Week-1.

There is high confidence that a stalled frontal zone will bring moisture to a region north of the Philippines stretching up to southern Japan during Week-1 and moderate confidence that the front will remain stalled during the first part of Week-2. There is also high confidence of an area of above-average rainfall north of Papua New Guinea and an area of below-average rainfall to its southwest during Week-1. These regions align with anomalously warm SSTs to the north and anomalously cold SSTs to the south.

There are several regions in the Central Pacific north of the Equator that are forecast, with moderate confidence, to receive above-average rainfall during both forecast weeks. Kelvin wave and MJO activity will probably be the driving force behind the anomalous rainfall, but anomalously warm SSTs in the same regions will be an important contributing factor. We also have high confidence that low pressure north of New Zealand will contribute to above-average rainfall during Week-1 and moderate confidence that it will remain during Week-2.

A southern shift in the ITCZ is expected over the south-central Atlantic causing high confidence in a region of below average rainfall over this area and moderate confidence in the same during Week-2.

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