

The RMM-based and CPC velocity potential based MJO indices both indicate a continued weak signal through the past week, with enhanced convection favored over the western Pacific and little eastward propagation. The pattern remains dominated by the low frequency El Nino state, with some influence from transient high frequency Kelvin Wave activity. Additionally, slow eastward propagation of an envelope of enhanced convection was observed over the eastern Indian Ocean since the beginning of April. This feature is considerably slower than canonical MJO activity, and is potentially related to a transition of the Indian Ocean Dipole from negative to positive.

Dynamical model MJO index forecasts depict a wide range of solutions, with some, including the GFS and CMC, showing eastward propagation of a subseasonal signal over the western Pacific. The ECMWF shows a much weaker signal, while the UKMET depicts no eastward propagation whatsoever. It is possible that constructive interference among Kelvin Wave activity, tropical cyclone activity in the West Pacific, and the ENSO state may be contributing to these projections over the West Pacific. Given the high amplitude ENSO signal and model uncertainty, the MJO is not anticipated to play a significant role in the global tropical convective pattern, although eastward propagation of a weak subseasonal signal or

Kelvin Wave over the Pacific may act to modulate the El Nino related convection and possibly engender tropical cyclogenesis over the eastern Pacific during the late Week-2 or Week-3 periods.

Two tropical cyclones developed during the past week. Cyclone Quang developed south of Java on April 28, quickly intensifying into a Category-4 storm on the Saffir-Simpson scale. Increasing vertical wind shear weakened Quang as it moved southward before making landfall over Western Australia. Typhoon Noul developed over the northwestern Pacific south of Guam on 3 May, and is currently impacting the Yap Islands. Noul is forecast to intensify to a major tropical cyclone (Category-3 or greater) as it moves west-northwestward or northwestward over the next several days. During Week-1, an area of disturbed weather over the northern Bahamas associated with an open trough has the potential to organize and acquire subtropical or tropical characteristics. An NHC special outlook indicates a 40 percent chance of development over the next 5 days. Slow movement of this system is anticipated if it develops. Dynamical guidance indicates that a robust disturbance over the western Pacific east of Typhoon Noul has a high potential for development during the next several days. Most model forecasts bring this potential tropical cyclone on a recurving track well east of the Philippines. During Week-2, the GEFS members do not indicate any areas for potential tropical cyclone formation; however, based on both the potential for weak subseasonal or Kelvin Wave activity impacting the eastern Pacific basin during late Week-2 or Week-3 as well as the background ENSO state, a moderate potential for tropical cyclogenesis is indicated on this outlook. The most favorable region for development over the eastern Pacific would be east of 105W.

During Week-1, enhanced convection associated with Typhoon Noul is forecast over the northwestern Pacific, extending to the northern Philippines and Taiwan. Dynamical models also indicate the potential for enhanced convection over parts of the southeastern Indian Ocean. A wide swath of enhanced convection associated with El Nino is forecast across much of the central and eastern Pacific. In contrast, suppressed convection is favored across southeastern Asia, the central Maritime Continent, parts of central and northern South America, and the tropical Atlantic.

During Week-2, enhanced convection is favored across parts of the Coral Sea as well as persisting across the central and eastern Pacific. Enhanced rainfall is possible along the west coasts of Ecuador and Colombia as well. Suppressed convection is favored to persist over parts of Southeast Asia and northern South America. Suppressed convection in part due to subsidence around tropical cyclones is also favored north of New Guinea and over the Philippines. An area of enhanced precipitation is possible across northeastern Mexico, in association with an eastward moving trough. Depicted areas of enhanced or suppressed rainfall over Africa are produced in collaboration with CPC's Africa Desk.