

Some observations indicate a more coherent MJO signal during the past week. The CPC Velocity Potential based index indicates a Wave-1 structure but the fast propagation resembles a more transient atmospheric Kelvin Wave. The RMM index had an increase in amplitude with eastward propagation from the Americas to Africa. Dynamical and statistical models generally agree that a long-lived MJO signal is not likely with Kelvin Wave activity influencing anomalous convection across the global tropics during Week-1.

Gonzalo peaked as a Category-4 Hurricane with maximum sustained winds of 145 mph on October 16 before making landfall over Bermuda on October 17 as a Category-2 Hurricane with maximum sustained winds of 110 mph. Gonzalo was the second tropical cyclone to strike Bermuda in less than one week. Although Hurricane Ana tracked south of Hawaii, it resulted in heavy rainfall amounts including locally more than 11 inches across the Big Island and Oahu. Following a very active period of tropical cyclones including a pair Super Typhoons, no tropical cyclones formed during the past week over the West Pacific.

A stationary front is likely to remain the focus for heavy rainfall from the Bay of Campeche and Yucatan Peninsula east to the Bahamas and western Cuba. An area of low pressure currently in the southern Bay of Campeche could become a tropical cyclone before interacting with the stationary front later this week. Suppressed convection is expected to persist for coastal southern Brazil. A Kelvin wave and warm SSTs favor enhanced rainfall along and to the south of the equatorial Pacific east of New Guinea . The suppressed phase of the Kelvin Wave is anticipated to result in below-average rainfall for parts of the Maritime Continent. The enhanced rainfall areas depicted across the Arabian Sea and southern Indian Ocean are based on model guidance and warm SSTs. A moderate confidence for tropical cyclone development is posted for the southern Indian Ocean due to the likelihood of enhanced convection is this region and climatology. Anomalous low-level convergence is expected to enhance rainfall across parts of equatorial Africa.

During Week-2, confidence is relatively low due to an anticipated weak MJO and conflicting signals between the CFS and ECMWF models. Above-average rainfall is favored to continue east of New Guinea due to the base state with warm SSTs. Today's model solutions remain consistent with above-average rainfall for parts of the Indian Ocean and East Pacific. The GFS model indicates the potential for a late season tropical cyclone in the East Pacific, but chances are too low at this time to warrant a depiction on the map.