

The MJO strengthened (according to the wheeler-Hendon MJO Index) and became more spatially coherent (CPC MJO Index) during the last week. The convectively active phase is now located over the eastern Maritime Continent, with some residual convection over southern Asia. Other modes of variability (atmospheric Kelvin waves) are likely to play a role in the forecast as well.

Dynamical model outputs generally indicate continued propagation of the MJO signal during the next two weeks, with the convectively active phase moving across the western North Pacific to the Central Pacific. Statistical model forecasts align with the dynamical model forecasts, although the signal in those is weaker in general, so the current outlook reflects a stronger and more coherent MJO, aligned with the dynamical models.

Tropical Storm 04W (Leepi) developed over the Western North Pacific while Tropical Depression 2 developed near the coast of Belize. TS Leepi is forecast to move very close to the coast of mainland Japan, impacting the islands between the Philippines and Japan. TD 2 is forecast to move slowly across southern Mexico, bringing heavy rains to that area. The current Global Tropical Hazards/Benefits

Outlook calls for an increased threat of tropical cyclogenesis over the western North Pacific. Additionally, a Kelvin wave is likely to increase the threat of tropical cyclogensis over the eastern Pacific during the latter part of Week-1, with the MJO providing a prolonged period of enhanced likelihood for Week-2 over the eastern Pacific.

The Week-1 outlook is based on variability associated with the MJO (composites and dynamical model outputs) and on-going tropical cyclone activity. The outlook calls for an increased threat of above-average rainfall from Southeast Asia to the western North Pacific (related to the MJO), and across Mexico (tropical cyclone activity). Below-average rainfall is likely over the eastern Indian Ocean and western Maritime Continent, as well as over central Africa. A northward displacement of the West African Monsoon rains is also likely, resulting in a dry area along the coast.

The Week-2 outlook is based largely on the forecast MJO state, with the convectively active phase moving into the Western Hemisphere. This increases the potential for heavy rains across Central America and Mexico, with some residual activity across the Western Pacific. Dry conditions are likely to expand over India, the Indian Ocean, and the Maritime Continent.