

The MJO remains active over the West Pacific. Model guidance is mostly in agreement that the MJO will propagate eastward and enter RMM phases 7 and 8 over the next two weeks. The GFS ensemble's MJO forecast is an outlier and depicts the MJO stalling over the West Pacific for at least a week. This does not seem like a particularly likely solution, but it's worth noting because the GFS has predicted this consistently for several days. There is also a strong equatorial Rossby Wave over the Maritime Continent that is expected to head into the Indian Ocean during Week-1.

The Week-1 forecast is mostly based on the MJO being in Phase 7. High confidence forecast areas of below-average rainfall over the Maritime Continent, northern Australia, and the Central Pacific/Hawaii areas are all predicted and well-aligned with model guidance and RMM composites. The SPCZ is predicted to be active with high confidence of above-average rainfall stretching from the northeastern coast of Australia southeast to 40S/120W. There are a few concentrated areas of vorticity within this band that could develop into tropical cyclones during Week-1. JTWC is monitoring 98P, 99P, and 94P, all of which are near each other within that band and are represented here by a single high confidence shape for tropical cyclone formation.

Tropical depression 36W, Pabuk, recently formed just south of Vietnam and is forecast by JMA to track northwestward over the Malay Peninsula during the end of this week. There is high confidence of above-average rainfall along Pabuk's forecast track. Tropical Cyclone Penny, currently in the Gulf of Carpentaria, is forecast to move eastward and south along the northeast coast of Australia during Week-1. There is also high confidence of above-normal temperatures throughout parts of interior eastern Australia during Week-1. Interested parties are encouraged to monitor the Australia Bureau of Meteorology's forecasts for localized updates regarding the heatwaves.

The Week-2 forecast is quieter. There are no credible threats of tropical cyclone formation at this time. Above-average rainfall is expected over parts of the western Indian Ocean and central Pacific. The western Maritime Continent and central Pacific, including Hawaii, are forecast to receive below-average rainfall. These areas are broadly consistent with a weak MJO in Phase 8. The dry conditions forecast for Hawaii in both weeks are also consistent with the expected low-frequency footprint during January.

Forecasts over Africa and South America are made both in consultation with the CPC international desk and using dynamical model consensus, and therefore can represent local scale conditions in addition to global scale variability.