

The MJO begins the GTH forecast period in RMM Phase 3, with its active convection over the Indian Ocean. Nearly every dynamical model forecasts the MJO to weaken during Week-1 and remain inactive for the duration of Week-2. The MJO-related convection over the Indian Ocean is enhanced by an atmospheric Kelvin wave that is forecast to zoom through the MJO envelope and excite convection as it moves past the Maritime Continent during Week-1, and is one of the main reasons that above-average rainfall is forecast along the Equator between 150E and 150W.

Anomalously warm SSTs associated with the El Nino in the central Pacific also contribute to the forecast for above-average rainfall during Weeks 1 and 2. Below-average rainfall is forecast just to the south of this region during Week-1, which is consistent with the MJO forecast. Above-average rainfall is expected to continue into Week-2 over the central Pacific, but confidence is lower than the Week-1 forecast due to a weak MJO signal.

There is high confidence of tropical cyclone formation in the Mozambique Channel during Week-1, along with above-average rainfall in its vicinity. Further east, there is also high confidence of tropical cyclone

formation during Week-1 in the Timor Sea, just north of the Australian coastline. The GFS has also consistently hinted at the formation of another tropical cyclone in the Gulf of Carpentaria during Week-2 over the past few days. We have issued a moderate confidence of tropical cyclone formation in this region.

The Joint Typhoon Warning Center is forecasting Tropical Cyclone Haleh, currently in the southern Indian Ocean, to track nearly due south during Week-1. Above-average rainfall is forecast along its path (and below-average rainfall in its wake) during the first few days of Week-1 before it undergoes extratropical transition and is swept eastward by the Southern Hemisphere jet stream.

The ITCZ appears to be displaced south of its climatological location off the northeastern coast of South America, resulting in the forecast dipole of below-normal rainfall to the north and above-normal rainfall just to its south during Week-1 (high confidence) and Week-2 (moderate confidence).

Forecasts over Africa are made in coordination with CPCs international desk, and can represent localscale conditions in addition to global-scale variability.