

The MJO remained weak during the past week. The amplitude increase of the RMM index in Phases 6 and 7 during late January is related to enhanced convection across the west Pacific and not associated with a coherent MJO signal. The dynamical models generally indicate little or no eastward propagation of a coherent MJO signal during the next two weeks. However, the constructed analog MJO forecast indicates eastward propagation which is typical when the RMM index is more than one standard deviation in magnitude.

The enhanced convection across the west Pacific is likely due a low-frequency state which has shifted slowly to the east since early December 2013. This low-frequency state is expected to contribute to enhanced convection persisting across northern Australia, eastern New Guinea, and the southwest Pacific through at least Week-1. The GFS and CFS models support the increased chance for above-average rainfall across these areas. Conversely, below-average rainfall is likely to continue at the Date Line across the equatorial Pacific Ocean. Satellite imagery indicates a lack of clouds extending from the eastern equatorial Indian Ocean to the western Maritime Continent where below-average rainfall is favored during the next week. Anomalous low-level convergence enhances the odds for above-average rainfall across eastern Namibia, southeast Angola, southern Zambia, Botswana, Zimbabwe, and South

Africa. MJO precipitation composites for Phase 6, current conditions, and model guidance support increased chances for below-average rainfall across parts of Brazil during Week-1.

An elevated risk of tropical cyclone development exists across the waters of northern Australia east to the South Pacific at the Date Line. A disturbance over the west Pacific, east of the Philippines, has a medium chance of tropical cyclone development during Week-1. As of January 28, a developing tropical cyclone is northeast of Queensland over the Coral Sea. This low pressure system is expected to become a tropical cyclone and track inland into northern Queensland which would be the first tropical cyclone to affect this part of Australia in more than two years. Meanwhile, a high chance for tropical cyclone development is forecast for the Mozambique Channel.

Chances for tropical cyclone development remain elevated near the Solomon Islands where enhanced convection is expected to persist into Week-2. The precipitation outlook for Week-2 across the Indian Ocean, Maritime Continent, and northern Australia is uncertain due to conflicting signals between the GFS and CFS models. Suppressed convection is likely to persist across the central equatorial Pacific. Model guidance remains consistent that above-average rainfall is likely to affect Hawaii which is consistent with the flow pattern expected across the north Pacific. A dipole of above and below-average rainfall is expected to develop across northern South America during Week-2. Elsewhere, interactions between tropical and mid-latitude systems are expected to enhance rainfall across eastern Namibia, Botswana, Zimbabwe, and parts of South Africa.