

Recent observations depict a more coherent MJO, with 200-hPa velocity potential anomalies exhibiting a Wave-1 pattern featuring the most anomalous upper-level divergence (convergence) centered over the West Pacific (Atlantic and Africa). The GEFS and ECMWF models are in good agreement that this MJO propagates eastward from the West Pacific to the Western Hemisphere during early to mid-March. Although there is spread among their ensemble members with the MJO amplitude, forecast confidence is higher than in previous weeks that the MJO influences global tropical rainfall along with tropical cyclone development during weeks 1 and 2. Therefore, MJO precipitation composites for phases 7, 8, and 1 were used in drafting this week's outlook. In addition to the MJO, the ongoing La Nina is also likely to remain a contributor to anomalous tropical rainfall during March.

A couple of tropical cyclones (TCs) developed during late February. Tropical Cyclone Marian, which initially formed to the south of Java, tracked westward and strengthened over the South Indian Ocean. As of 12Z March 2, Marian has sustained winds of 90 knots and is located at 18.7S/89.8E and is forecast to gradually weaken later in week-1 as it tracks poleward. Tropical Cyclone Niran has remained nearly stationary to the east of Cairns, Australia. The Joint Typhoon Warning Center calls for Niran to begin accelerating southeastward and could track over or near New Caledonia on March 5 or 6. During week-

1, multiple TCs are forecast to develop across parts of the South Indian Ocean and South Pacific. A weak area of low pressure is currently located over the Mozambique Channel, while another surface low is located to the east of Madagascar. Based on good model continuity and agreement, high confidence exists that both of these areas of low pressure become TCs from March 3-9. Meanwhile, the enhanced phase of the MJO and model guidance also support at least a moderate confidence of TC development over the South Pacific during week-1. Following this continued active period through early March, a less favorable large-scale environment is expected for TC development during week-2, as anomalous upper-level convergence is expected to overspread the Indian Ocean, Australia, and the South Pacific.

Favored areas of above and below median precipitation are based on: predicted tracks of TCs, a model consensus, MJO precipitation composites (phases 7, 8, and 1) and typical influences from La Nina. Much of the above median precipitation (week-1) across the Indian Ocean and South Pacific is related to either ongoing TCs and/or the additional development of TCs. An overall drying trend is anticipated across the Indian Ocean, Australia, and Southwest Pacific during week-2. Parts of South America are likely to see a wetter pattern during the next two weeks, with an increased risk of heavy rainfall and flooding, especially for Ecuador, Peru, and southern Colombia. Following near to below normal temperatures during late February, above normal temperatures are likely for Western Australia and the Northern Territory of Australia during early March with an expansion of these above normal temperatures forecast across much of Australia by week-2.

During week-1, a suppressed mid-latitude low pressure system interacting with an enhanced moisture feed from the subtropics favors above median precipitation from the Florida Peninsula northeast to Bermuda. Consistent with ongoing La Nina conditions, below median precipitation is favored for parts of the southwestern United States and northern Mexico during weeks 1 and 2. For hazardous weather concerns during the upcoming two weeks across the U.S. please refer to your local NWS Forecast Office, the Weather Prediction Center's Medium Range Hazards Forecast, and CPC's Week-2 U.S. Hazards Outlook. Forecasts over Africa are made in consultation with the International Desk at CPC and can represent local-scale conditions in addition to global-scale variability.