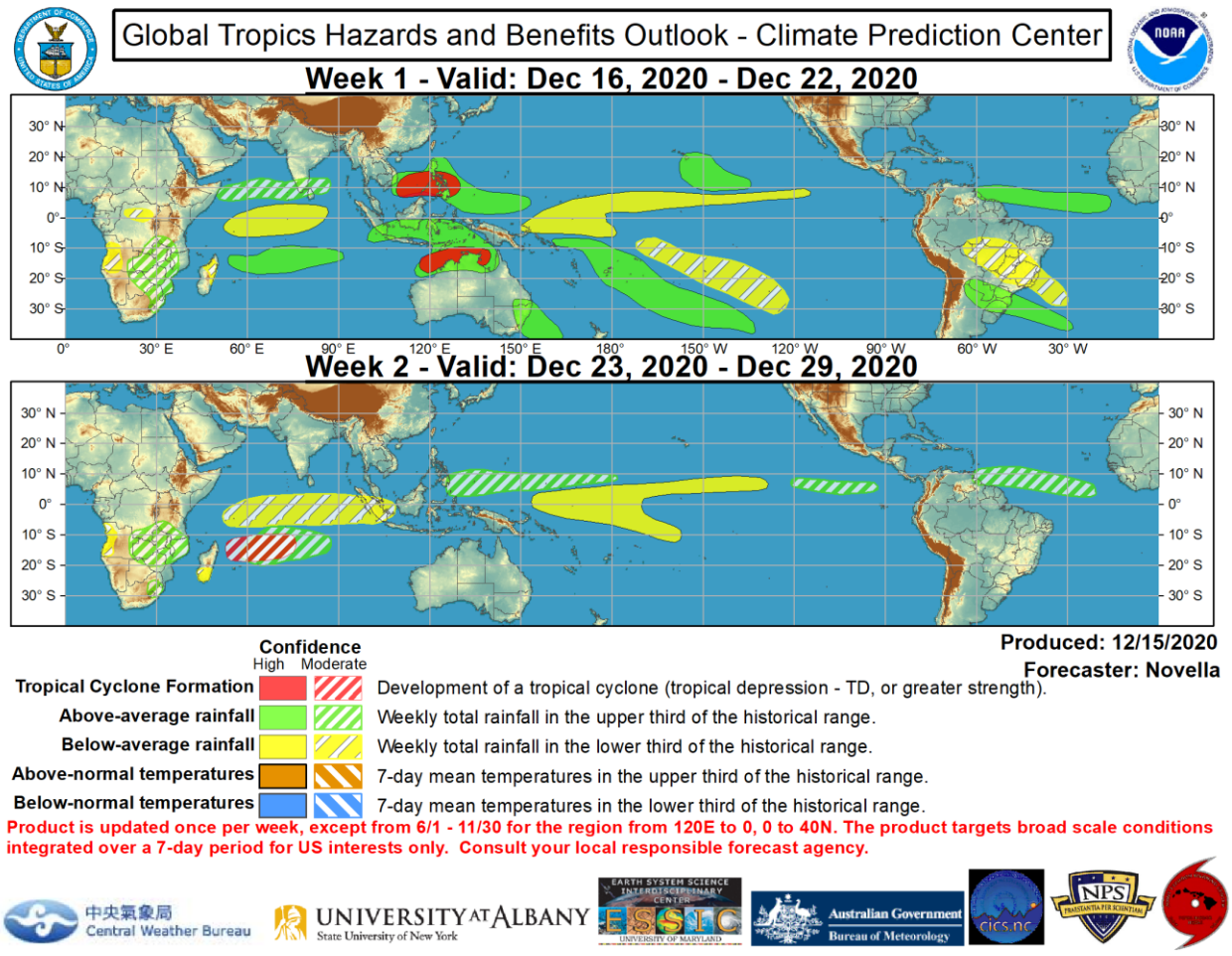

The RMM index indicates the MJO had become better organized since early December, with the intraseasonal signal propagating eastward over the eastern Maritime Continent. However, the amplitude of the RMM index declined during the last few days which is likely associated with ongoing destructive interference with the low frequency footprint favoring continued suppressed convection over equatorial Central Pacific. Upper-level velocity potential anomalies depict a less coherent pattern with much of the enhanced envelope focused in the southern hemisphere from the Indian Ocean to the Central Pacific. Dynamical models favor the continued weakening of the intraseasonal signal as the ensemble means fall within the RMM unit circle during the next several days. Notably, several ensemble members in the GEFS continue to maintain that the MJO may reorganize and strengthen over the Maritime Continent during the week-2 period. Despite this, ensemble spread among models remains high due to the aforementioned interference with La Nina and other competing modes of tropical variability, and there is low confidence in the predicted evolution and strength of the MJO into late December.

During the last week, the enhanced phase of the MJO aided in the formation of three tropical cyclones (TCs) over the South Pacific. Following the development of a short-lived TC (01F), a pair of TCs, Yasa and

Zazu, formed in the basin during the last weekend. Yasa is currently located several hundred miles northeast of Port Vila, Vanuatu, and is expected to track northeast before turning south towards Fiji. With favorable environmental conditions, the Joint Typhoon Warning Center (JTWC) forecasts Yasa to strengthen into a major cyclone (category 4) and pass between the main Fijian Islands of Viti Levu and Vanua Levu during the next several days. Interested parties should refer to JTWC and local agencies for further updates on this system. To the east, TC Zazu is currently located a few hundred miles to the west of Niue and is forecast to continue tracking southeastward under the influence of a subtropical ridge. Model guidance suggests Zazu will remain in an unfavorable high shear environment and will gradually dissipate while shifting southward over open waters during the next few days.

Ensemble and deterministic guidance continues to feature an area of deepening low pressure that shifts westward over the Philippines and into the South China Sea by the upcoming weekend. Given good agreement and continuity in the models, a high confidence area for TC formation is added for week-1 over the region. In the southern hemisphere, there is also good model support for TC development along the Kimberley Coast of Western Australia during the late portion of week-1. While the ECMWF favors development to occur in the Timor Sea, ensemble members in the GEFS favor more of an easterly solution for TC formation towards the Gulf of Carpentaria tied to Rossby wave activity in the region. As a result, a broadened high risk region is posted in the outlook for week-1 where enhanced precipitation is expected to further saturate grounds across parts of coastal northwestern Australia. In the southern Indian Ocean, both the GEFS and ECMWF ensembles continue to favor an area of low pressure developing early in the week-2 period. Despite both models showing development, a moderate confidence area for TC formation is added in the outlook, as probabilistic TC tools have begun to show decreasing chances for formation in the region.

The precipitation outlook during the next two weeks is based on the consensus among the CFS, GEFS, and ECMWF ensemble means, the low frequency state, MJO composites, and anticipated TC tracks. Below average rainfall is likely to persist across the central equatorial Pacific, with enhanced rainfall favored across much of the South Pacific associated with the ongoing TC activity. In the north-central Pacific, the development of mid-level troughing is likely to bring enhanced precipitation to parts of the Hawaiian Islands. Across the U.S., increased rainfall brought some moisture relief to parts of the Desert Southwest last week, however, little to no rainfall is forecast over the southwestern CONUS which is expected to exacerbate exceptional drought conditions being felt from the Four Corners region to western Texas. Farther east, Rossby wave activity is likely to promote a broad area of enhanced precipitation over the tropical Atlantic, while a low pressure system is anticipated to develop over central South America and is likely to bring heavy precipitation over parts of Paraguay, northern Argentina and southern Brazil early in week-1.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.