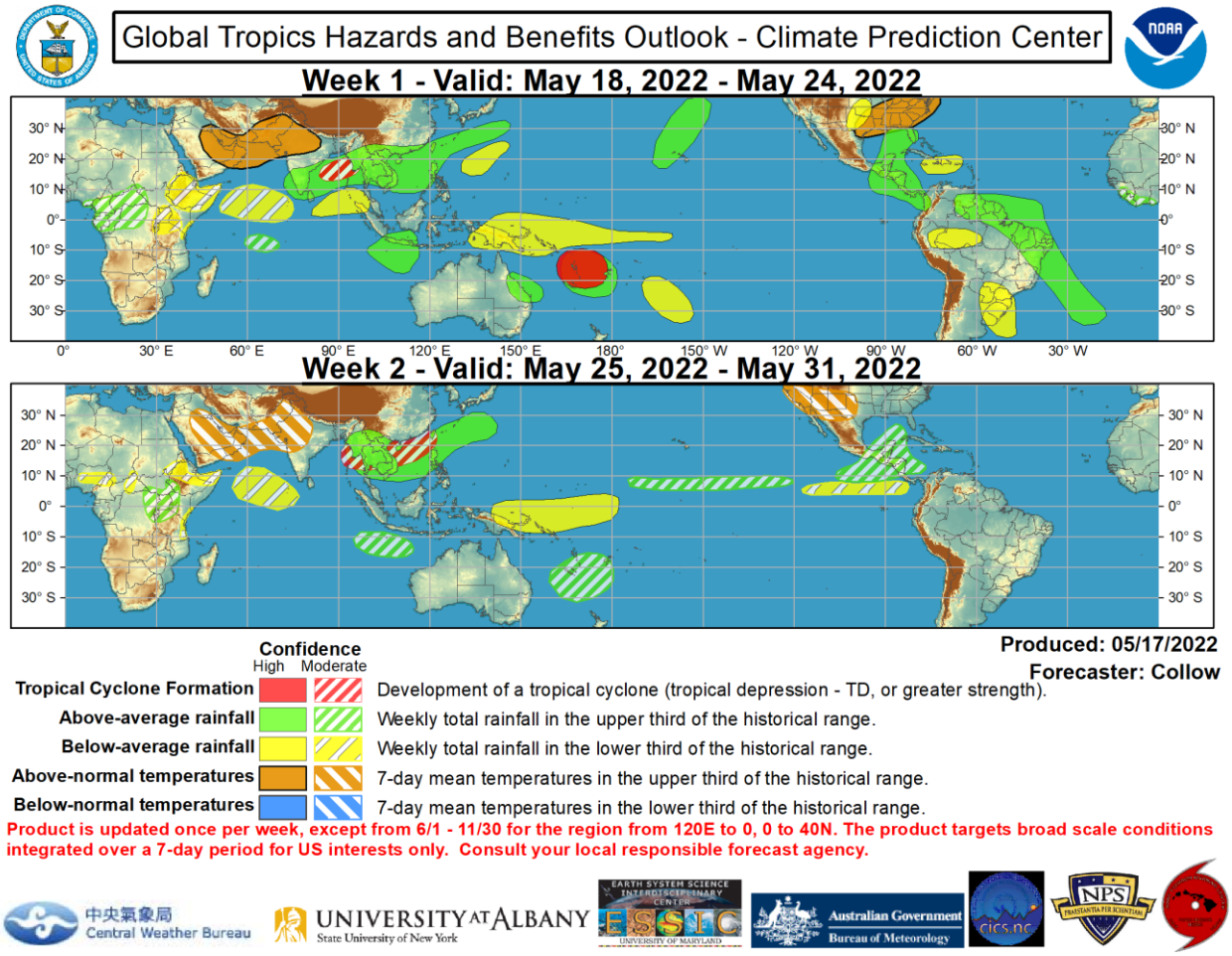

During the past week, the amplitude of the RMM-based Madden Julian Oscillation (MJO) index has increased across the Maritime Continent and Western Pacific. This is more likely attributed to constructive interference between a convectively coupled Kelvin Wave and enhanced Rossby Wave activity in the region, rather than a canonical MJO. Additionally, the quick phase speed of the wave is suggestive of a Kelvin Wave, with the enhanced convective envelope forecast to quickly move across the Pacific and into the western Atlantic toward the end of week-1, and complete a full circumnavigation of the globe. The GEFS maintains a higher amplitude of the signal as it propagates eastward compared to the ECMWF ensemble, although both model ensemble means depict the Kelvin Wave returning to the Western Pacific by the end of week-2.

No tropical cyclones (TCs) formed during the previous week. An area of disturbed weather in the Southwest Pacific (Invest 91P), in the vicinity of Vanuatu, has a high chance of developing into a TC in the next few days. Models generally favor a westward or southwestward track, with the ECMWF ensembles being more west-based compared to the GEFS. Impacts from this system are possible across Vanuatu and New Caledonia during week-1. Additional TC development is possible across the Bay of Bengal later in week-1 or in week-2 as the Kelvin Wave completes its circumnavigation. This increased

TC development potential may spread into the South China Sea during week-2. Therefore, moderate risks for TC development are highlighted across the Bay of Bengal (weeks 1 and 2) and the South China Sea (week-2 only).

As the aforementioned Kelvin Wave quickly propagates eastward through the Pacific and western Atlantic, attention will turn to potential pre-season TC development in the Caribbean or southern Gulf of Mexico. The deterministic GFS and its ensembles have been very consistent with depicting a TC developing near the Yucatan and tracking it northward toward the U.S. Gulf Coast or the Florida Peninsula in the next week. However, the ECMWF has not been on board with this scenario, until recently. Starting with yesterdayâ€™s 12z run, and again in todayâ€™s 0z run, some ECMWF ensemble members are depicting TC genesis, indicating that there may be a trend toward better model agreement regarding a potential TC. Models still differ in their evolution, with the GEFS and Canadian indicating faster development to the east of the Yucatan, and the ECMWF depicting slower development over the Bay of Campeche, or even over the East Pacific Basin based on some members. Because uncertainty is still fairly high, no related TC risk area is designated in todayâ€™s outlook. However, interests along the Gulf of Mexico Coast and the Florida Peninsula are advised to consult with the National Hurricane Center for the latest updates on this potential system.

The precipitation outlook during the next two weeks is based on a consensus of GEFS, CFS, and ECMWF model solutions, La Nina precipitation composites, and consistent with where TCs are most likely to develop and track. Regardless of TC formation in the Gulf of Mexico, a stationary frontal boundary is forecast to enhance rainfall along the Gulf Coast later in week-1 into week-2, and heavy rain is forecast across Central America in week-1 as the Kelvin Wave interacts with an ongoing Central American Gyre event. During the next 2 weeks, below normal rainfall is forecast across the equatorial west-central Pacific due to the ongoing La Nina. Above normal rainfall is predicted across parts of southeastern Asia and over the South China Sea as the Kevin Wave makes a quick propagation across the globe leading to more enhanced convection over the region.

For hazardous weather concerns during the next 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 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.