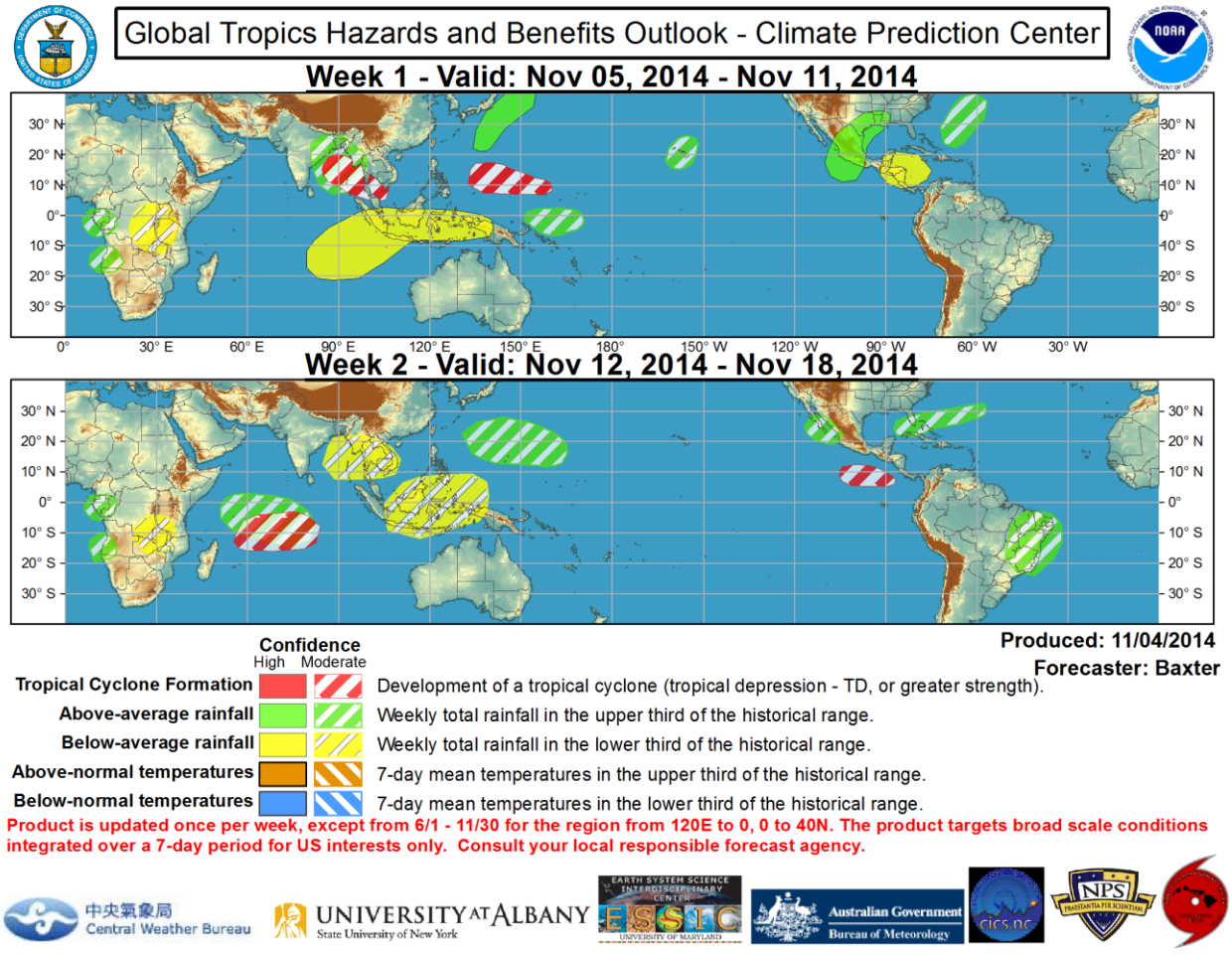

The MJO, as depicted the RMM and CPC velocity potential based indices, remains weak. The pattern of tropical convection is currently dominated by westward-moving modes of variability from the Indian Ocean to the western and central Pacific. An atmospheric Kelvin wave could be propagating eastward from the eastern Indian Ocean, but the diagnostics are still uncertain. This is all occurring against the backdrop of low-frequency variability, that weakly favors drying across parts of the Maritime Continent.

There is considerable spread among the dynamical model MJO index forecasts. The GFS has consistently indicated increasing amplitude over the Western Hemisphere and Africa during the next two weeks, while the ECMWF forecast depicts a weak signal that shifts toward the Indian Ocean by the end of Week-2. The UKMET and Canadian ensembles maintain a weak signal over the next two weeks. The GFS is heavily discounted due to its recent poor performance. This outlook, therefore, is not based on the anticipation of an emerging robust subseasonal signal, favoring instead any large-scale regions where the CFS and ECMWF forecast systems agreed. This is especially true where the model forecasts are in phase with the observed low-frequency state. That said, the model consensus does suggest the emergence of a weak convective signal over the Indian Ocean during Week-2.

Hurricane Vance developed last week over eastern Pacific, and is forecast to make landfall tomorrow over western Mexico. Moisture from this system is forecast to become entrained in the westerlies over northern Mexico and the southern CONUS later this week. Super Typhoon Nuri developed over the western Pacific and is currently recurving south of Japan. Its forecast track is east of Japan, though significant coastal impacts are possible. There are enhanced odds of tropical cyclogenesis over parts of the West Pacific during Week-1, based largely on model guidance. There is also an elevated risk of TC formation extending from the Gulf of Thailand westward into the Bay of Bengal, which is fairly well supported by model guidance.

During Week-1, enhanced convection is favored over the Bay of Bengal and adjacent parts of southern Asia associated with the area of disturbed weather that could give rise to a tropical cyclone. Suppressed convection is favored over parts of the Maritime Continent and the eastern Indian Ocean where the dynamical models are in good agreement and supported by the low-frequency state. Tropical cyclone activity and its attendant moisture are expected to bring above-average rainfall to parts of the eastern Pacific, Mexico, and the southern CONUS. Compensating subsidence is favored over parts of the western Caribbean and Central America. A tropical disturbance has a very low chance of developing into a TC over the western Atlantic, though enhanced rainfall is expected to impact parts of the basin including Bermuda as it moves northward. Model guidance indicates elevated probabilities of above-average rainfall over Hawaii during the upcoming week.

During Week-2, suppressed convection continues to be favored for parts of the Maritime Continent and Southeast Asia, the former consistent with the low-frequency variability and the latter in the wake of potential TC activity. Above-average rainfall is favored over parts of the south-central Indian Ocean where there is also an elevated risk of TC formation. Active weather is forecast near parts of western Mexico and Baja California, partially due to a remnant tropical disturbance. Farther east across parts of the Gulf of Mexico and western Atlantic, enhanced rainfall is favored due to tropical moisture interacting with a frontal zone forecast south of a deep upper-level trough over the eastern CONUS.

TC formation is again possible over the eastern Pacific basin, where there is marginal support from dynamical tools and the base state has been very favorable. Areas favoring above-average rainfall over eastern Brazil and parts of the northwestern Pacific are largely due to excellent agreement among dynamical models.

Forecasts for enhanced or suppressed convection over Africa during Week-1 and Week-2 are based on regional scale features and provided through coordination with CPC's Africa Desk.