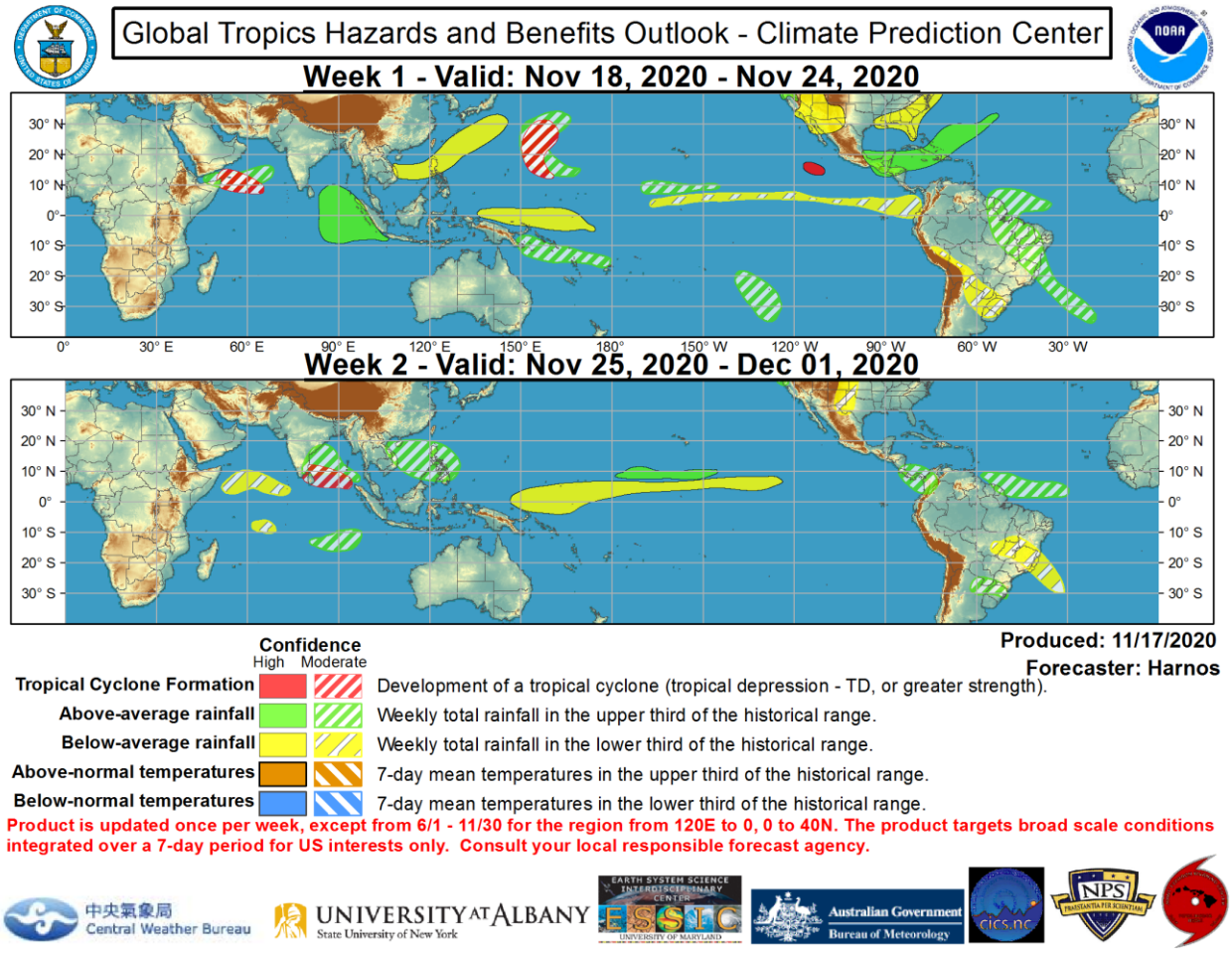

A complex perspective emerges when attempting to disaggregate contributions to the global tropical convective pattern. A robust La Nina event persists, helping to suppress (enhance) convection west of the antimeridian (over the Maritime Continent). The enhanced envelope of the Madden-Julian Oscillation (MJO) is presently over the western Indian Ocean, co-located with Tropical Storm Alicia over the Southern Hemisphere. Alicia's presence is tied to equatorial Rossby wave activity that is constructively interfering with the MJO. Objective decomposition of tropical modes of variability further reveals an atmospheric Kelvin wave presently near 90E. While the Eastern Hemisphere is influenced by these various modes, the Western Hemisphere is not to be ignored with Hurricane Iota being a Category 5 hurricane as recently as yesterday, which further complicates the decomposition of tropical variability. The MJO is forecast to push eastward the next two weeks, while interference among the aforementioned modes of variability over the Western Hemisphere are likely to cause the RMM index to decay. Despite this, the MJO is likely to be over the Indian Ocean during Week-1 (generally RMM Phase 2, trending to Phase 3 late) and approach the Maritime Continent during Week-2 (a mix of Phases 3 and 4).

Major Hurricane Iota was the biggest focus in terms of tropical cyclone (TC) activity the past week. Iota formed on the 13th, and rapidly intensified from 75 to 140 knots over 24 hours beginning at 12Z on the 15th, becoming the storm with the latest calendar year Category 5 status on record in the Atlantic. Iota made landfall over northern Nicaragua earlier today as a Category 4 hurricane, roughly 20 km north of where Category 4 Hurricane Eta made landfall only two weeks earlier. Impacts out of the region are slow to emerge, but likely to be catastrophic given the back to back powerful systems and pre-saturated soils from Eta's rains. Iota is likely to dissipate over the next 48 hours over Central America. Tropical Cyclone Alicia was the first system of the season across the Southern Hemisphere, forming on the 14th of November and peaking with winds of 65 knots. The Joint Typhoon Warning Center (JTWC) forecasts Alicia to weaken while tracking southwest over the coming days.

JTWC is also monitoring a small circulation just north of TC Alicia, giving it a low chance of forming during the next 24 hours. Development appears unlikely, resulting in its formation being omitted from the forecast. Elsewhere over the Indian Ocean, model guidance supports the development of a circulation over the northwestern portion of the basin in the coming days that then tracks toward the Horn of Africa and Gulf of Aden, resulting in moderate confidence for TC formation during Week-1. In addition, moderate confidence exists for tropical cyclogenesis over the West Pacific during Week-1 between roughly 150-160E with the system quickly recurving should it form. The only Week-2 area targeted for TC development is over the southern Bay of Bengal as an equatorial Rossby wave is forecast to track toward Sri Lanka and southern India (moderate confidence for TC formation).

The National Hurricane Center (NHC) is monitoring for TC formation over parts of the East Pacific and western Caribbean through the weekend. For the former, a disturbance presently near 15N/110W is given a 70% chance of forming by NHC during the next 5 days, resulting in high confidence of TC genesis in Week-1. Another disturbance is likely to track through the southwestern Caribbean over the next 5 days, with NHC giving this area a 30% chance of developing into a TC (not featured here). Lastly, model guidance hints at the possibility of a brief tropical or subtropical cyclone developing north of the Bahamas around the weekend before being absorbed by a cold front. Given the lack of model consensus, and uncertain nature of this system if it were to form, no tropical cyclone formation area is associated with this disturbance.

Precipitation forecasts the next two weeks closely align with forecast TC tracks, in addition to the anticipated evolution of the MJO. Below-normal sea surface temperatures across the Central Pacific tied to La Nina are likely to continue suppressing rainfall, although some concern lingers about the western periphery of this region as shortwave effects continue to heat the sea surface closer to convective thresholds. Also of note is that Southeast Asia appears likely to experience below-normal rains during Week-1, giving Vietnam a break from flooding concerns by the numerous TCs in recent weeks impacting

the region. Despite this, the approach of the MJO from the West by Week-2 is likely to see a return to wetter conditions across Southeast Asia.

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 the Climate Prediction Center's Week-2 U.S. Hazards Outlook. Forecasts over Africa are made in consultation with the Climate Prediction Center's International Desk, and can represent local-scale conditions in addition to global-scale variability.