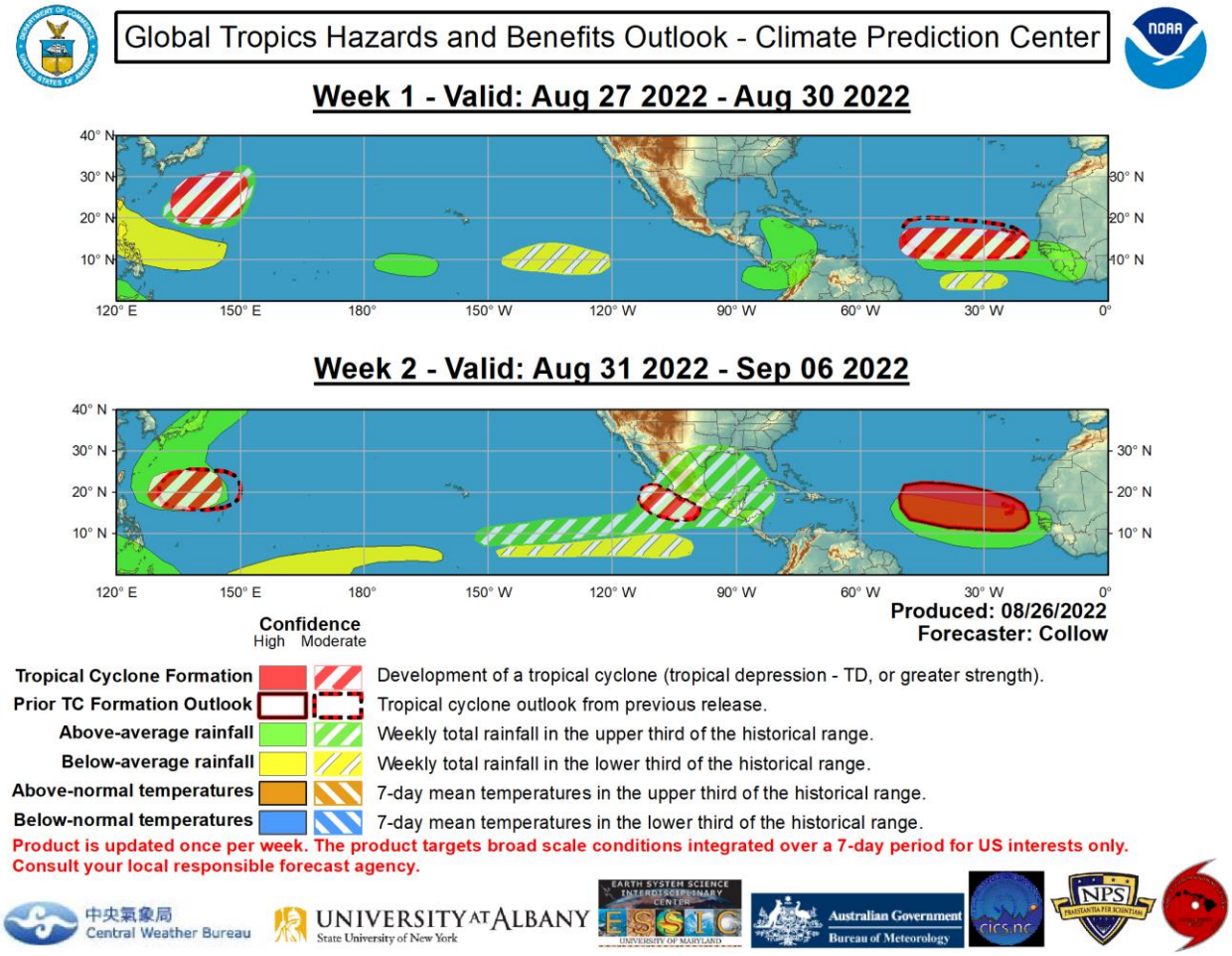

Enhanced convection continues across Africa and the Indian Ocean, with a coherent Madden Julian Oscillation (MJO) signal emerging through the upper-level velocity potential anomaly filtering. However, there is better model agreement compared to earlier in the week that this MJO event will be short lived, with the GEFS, ECMWF, and JMA ensemble means retreating the intraseasonal signal back into the RMM-based unit circle within a week, although some individual ensemble members, particularly in the GEFS, indicate stronger eastward propagation into the Maritime Continent. The La Nina base state is favored to remain the dominant signal in the tropics, with suppressed convection predicted across much of the Pacific during the next 2 weeks, and possibly expanding back into the Atlantic beyond week-2.

No new tropical cyclones (TCs) formed since the previous update. TC activity is forecast to increase across the Atlantic Basin in the next week. The National Hurricane Hurricane Center (NHC) continues to monitor two areas over distubed weather across the Atlantic Basin. The first is over the eastern Caribbean and is given a 20 percent chance of TC formation in the next 5-days as it tracks west-northwestward across the Caribbean. Development chances may increase further beyond day-5 once the system reaches the southern Gulf of Mexico. However, there is still considerable uncertainty in the models with the GFS/GEFS being more robust compared to the ECMWF, and therefore no TC shape is

designated at this time related to this disturbance. Interests along the Gulf Coast in the U.S. and Mexico are advised to consult the latest updates from NHC regarding this system.

The second disturbance over the eastern tropical Atlantic has a 30 percent chance of TC development per NHC as it tracks westward across the Main Development Region of the Atlantic. There is the possibility that any development will not occur until after day-5, but to keep continuity with the previous outlook, the moderate confidence shape is maintained over the region, and is also extended eastward as dynamical guidance is quick to develop the next easterly wave forecast to emerge off of Africa in the next few days. The overall convective pattern over the Atlantic is forecast to remain favorable for TC development into the day 5-11 period, supporting the continuation of the high confidence area. There are signals that this predicted burst in TC activity over the Atlantic may be short-lived as the enhanced convection may weaken over the region by week-3, dampening the chances of continued TC formation over the Main Development Region.

The Joint Typhoon Warning Center is currently monitoring Invest 90W over the West Pacific, and indicates a 40 percent chance for TC development, corresponding with a moderate confidence area for TC formation during the Aug 27-30 period. Moderate TC development chances are forecast to persist into week-2 as the enhanced convective envelope is forecast to shift slightly eastward from the Indian Ocean. Although the convective environment is not forecast to be favorable for TC formation over the East Pacific in the near-term, the weakening of the suppressed convection may lead to increased chances for TC development (moderate confidence) during the later period, and is supported by the GEFS and ECMWF ensembles.

Forecasts for above and below average rainfall were updated to reflect the latest dynamical model guidance and analyses of various modes of tropical variability. A moderate confidence area of above average rainfall is depicted over much of the northwest Caribbean and Gulf of Mexico to account for the potential tropical disturbance forecast to move through that region, leading to enhanced rainfall. High confidence for increased rainfall is also predicted across the eastern Atlantic tied to several easterly waves predicted to emerge off of Africa through early September.

---------- Previous discussion from Aug 23, 2022 is below ----------

The Madden Julian Oscillation (MJO) has remained weak for much of August, with the low frequency La Nina base state being the dominant signal across the tropics. Increased Convectively-Coupled Kelvin Wave (KW) activity has led to an increase in convection across Africa, with easterly waves beginning to

emerge into the Atlantic. This area of enhanced convection is forecast to consolidate across Africa and the Indian Ocean, along with a slowing of the phase speed, becoming more consistent with a renewed MJO event. Both the ECMWF and GEFS ensembles indicate an enhanced MJO signal shifting from the Indian Ocean toward the Maritime Continent during the next 2 weeks. The eastward extent of the propagation as well as the amplitude are uncertain given the background La Nina state, with the GEFS more robust compared to the ECMWF and JMA ensembles.

A tropical cyclone (TC) developed over the Bay of Bengal (04B) on 8/19 and impacted eastern India. Two TCs also formed over the West Pacific this past week. Tropical Storm Ma-on developed on 8/20 over the Philippine Sea, made landfall over the northern Philippines, and is forecast to track west-northwestward, impacting southeastern China at typhoon strength later this week. Typhoon Tokage developed on 8/21 to the east of Japan. It is forecast to recurve northeastward over the northwest Pacific, remaining offshore of Japan. The suppressed convective envelope across the Pacific tied to La Nina favors a reduction in TC activity across the entire Pacific during the next week. By week-2 TC activity may begin to increase across the Pacific as the MJO becomes more active across the Maritime Continent and the suppressed convection weakens across the Pacific. Therefore, moderate confidence (40 percent chance) areas for TC development are indicated over both the western and eastern Pacific basins during week-2.

The Atlantic Basin is forecast to become more active as the peak of the Atlantic Hurricane Season approaches. The National Hurricane Center (NHC) is currently monitoring two tropical disturbances over the east-central Atlantic. Development probabilities for the lead wave have decreased over the past few days, and a second wave behind the first is currently given a 20 percent chance of TC development in the next 5 days, with easterly waves forecast to continue to emerge off of Africa later in week-1 and into week-2. For this reason, a moderate confidence (40 percent chance) area of TC formation is depicted across the central and eastern portions of the Main Development Region of the Atlantic for week-1, and a high confidence area (70 percent chance) is depicted for week-2 when easterly wave activity is forecast to peak. There is also some potential for TC development beginning to emerge in the GEFS and ECMWF ensembles across the Caribbean or southern Gulf of Mexico, with NHC indicating a 20 percent chance of TC development over the eastern Caribbean in the next 5 days. This is too low to include a related moderate confidence shape in todayâ€™s outlook, but interests in these areas are encouraged to consult NHC for the latest updates on this potential.

The temperature and precipitation outlook during the next two weeks is based on a consensus of GEFS, CFS, and ECMWF model solutions, La Nina precipitation composites, and also considerations of an enhanced MJO propagating east from the Indian Ocean to the Maritime Continent. Later in week-2, the MJO may begin to constructively interfere with the ongoing La Nina, resulting in more widespread enhanced rainfall throughout the Maritime Continent. Anomalously warm temperatures are likely across

eastern China during week-1, with maximum temperatures 35-40 deg C forecast before a relatively cooler pattern takes shape in week-2.

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.