

As previously forecast, the Madden Julian Oscillation (MJO) has shown better signs of organization which is supported in both CPCs velocity potential anomaly based MJO index as well as RMM observations indicating the intraseasonal signal having steadily increased in amplitude over the Indian Ocean (phase 2) during the past week. However, the renewed MJO activity is likely to be short-lived, as the latest RMM observations show a sharp downtick in amplitude and there is good agreement in the dynamical models favoring the MJO signal to continually weaken and fall within the RMM unit circle, while propagating eastward across the Indian Ocean and Maritime Continent during the next two weeks. Although these forecasts advertise a less coherent MJO during the outlook period, the large-scale environment is still anticipated to be conducive for tropical cyclone (TC) formation across the Pacific and Atlantic heading into September.

During the last week, one TC formed in the western Pacific (Hinnamnor) on 8/28 and has since strengthened to Super Typhoon intensity to the south of Honshu, Japan. While a remarkably small system, the Joint Typhoon Warning Center (JTWC) forecasts Hinnamnor to maintain category 4 strength while tracking westward during the next day or so. Beyond this time, there is much uncertainty in the forecast due to binary interaction with another neighboring tropical disturbance (98W), which has

rapidly consolidated during the 24 hours resulting in a high confidence TC area for week-1. Additionally, a competing steering synoptic pattern favored over the western Pacific is likely to cause Hinnamnor to slow and meander to the east of Taiwan later this week. Because of this latter factor, upwelling is likely to weaken the system, though deterministic GFS and ECMWF solutions favor Hinnamnor to track northward into the East China Sea by this weekend, and eventually become absorbed in the westerlies. Regardless of this uncertainty in terms of strength and track, locally heavy precipitation and high winds are possible for parts of Taiwan, Japan and over the Korean Peninsula during week-1. For week-2, a moderate confidence TC area is posted over the northern Philippine Sea where there is fair agreement in the ensembles favoring a broad area of deepening low pressure in the region next week. Across the Indian Ocean, tropical cyclone development is possible south of the equator tied to a equatorial westerly wind burst event favored in the dynamical models during the next few days. While model solutions are unanimous with a closed low near 85E/10S by the outset of the week-1 period, no corresponding TC shape is issued due to a lack of confidence of the low consolidating to meet TC wind speed criteria and the absence of TC activity in the basin, climatologically.

In the eastern Pacific, the National Hurricane Center (NHC) is currently monitoring two areas for TC formation to the south of Mexico. The first area is associated with a tropical wave located a few hundred miles to the south of Alcapulco, Mexico with a 70% chance of formation during the next 5 days and a high confidence area is posted for week-1. Despite lower odds for genesis tied to the second area (30%) by later this week, there is good agreement between the GEFS and ECMWF ensembles favoring the formation of a closed low that tracks northwestward towards Baja California late in week-1. Therefore, a moderate confidence area is issued and partially overlaps the aforementioned high confidence area for week-1. For week-2, there are increased signals in the probabilistic tools for TC activity in the eastern Pacific, however these appear to be residual TC activity from week-1, and ensembles are unsupportive of additional development resulting in no TC shapes being issued for the later period.

The NHC is also monitoring a pair of easterly waves across the Main Development Region (MDR) of the tropical Atlantic. High confidence for TC formation exists for week-1 associated with the first wave located near 48W/15N where the NHC designates a 80% chance of formation during the next 5 days. Regardless of formation, this disturbance is favored to track northwestward over the adjacent waters of the Caribbean and likely bring enhanced precipitation amounts during the next week. While the NHC designates a 40% chance of formation supportive of a moderate confidence area associated with the second easterly wave located just off the coast of West Africa, it is worth noting the GEFS and ECMWF are divided in regards to another easterly wave strengthening near the Cape Verde islands this weekend. To address this uncertainty, the moderate confidence area is broadened to account for these two potential tropical systems over the eastern Atlantic for week-1. For week-2, there is some support in the probabilistic TC tools and ECMWF guidance for additional development across the MDR. While the GEFS remains less onboard with this realization, objective filtering of forecast velocity potential

anomaly fields from the CFS, GEFS and ECMWF indicate Kelvin wave activity traversing the basin, and a broad moderate confidence area is issued over the MDR for week-2, also coinciding with the climatological peak of TC activity for the Atlantic.

The precipitation and temperature outlooks during the next two weeks is based on a consensus of GEFS, CFS, and ECMWF model solutions, La Nina precipitation composites, and also considerations from the MJO over the Indian Ocean. For hazardous weather concerns in your area during the next two weeks, please refer to your local NWS office, the Medium Range Hazards Forecast from the Weather Prediction Center (WPC) and the CPC Week-2 Hazards Outlook. Forecasts issued over Africa are made in coordination with the International Desk at CPC.