

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 westnorthwestward, 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 today'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.