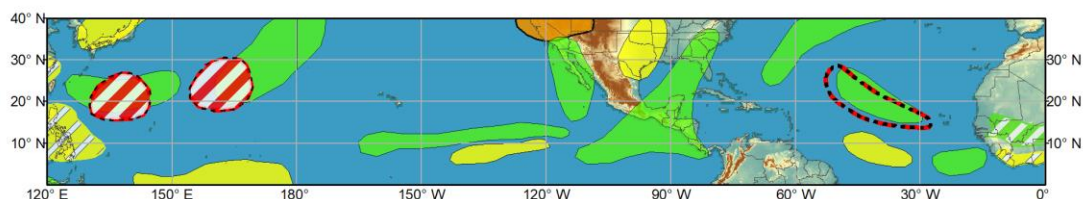




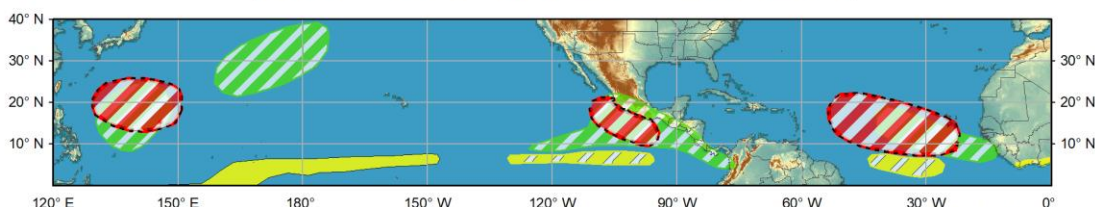
Global Tropics Hazards and Benefits Outlook - Climate Prediction Center



Week 1 - Valid: Sep 10 2022 - Sep 13 2022



Week 2 - Valid: Sep 14 2022 - Sep 20 2022



Confidence
High Moderate

Produced: 09/09/2022
Forecaster: Barandiaran

Tropical Cyclone Formation [Red/White Striped Box] Development of a tropical cyclone (tropical depression - TD, or greater strength).

Prior TC Formation Outlook [Red/White Striped Box] Tropical cyclone outlook from previous release.

Above-average rainfall [Green/White Striped Box] Weekly total rainfall in the upper third of the historical range.

Below-average rainfall [Yellow/White Striped Box] Weekly total rainfall in the lower third of the historical range.

Above-normal temperatures [Orange/White Striped Box] 7-day mean temperatures in the upper third of the historical range.

Below-normal temperatures [Blue/White Striped Box] 7-day mean temperatures in the lower third of the historical range.

Product is updated once per week. The product targets broad scale conditions integrated over a 7-day period for US interests only.

Consult your local responsible forecast agency.



中央氣象局
Central Weather Bureau



UNIVERSITY AT ALBANY
State University of New York



Convection in the tropics has become slightly disorganized in the past few days. The main convective envelope remains over the Maritime Continent but the wave-1 pattern seen on Sept. 5 is breaking down with incoherent structure in the Western Hemisphere. Looking ahead there is a lot of uncertainty as to the state of the Madden Julian Oscillation (MJO) in the coming weeks. Most dynamical forecast model depictions in RMM space suggest weak MJO activity for the next two weeks, with the index staying within the unit circle for most model solutions, as well as little agreement on future propagation of the convective envelope during the forecast period.

There has been no tropical cyclone (TC) genesis since Sep 6. Looking ahead, for the day 1-4 period an area of moderate confidence in TC genesis over the Main Development Region (MDR) in the Atlantic Ocean has been removed consistent with the latest update from the National Hurricane Center (NHC), which has several areas of interest in the MDR but all with less than 40% confidence in TC formation in the next 5 days. Two areas of moderate risk for TC formation in the West Pacific remain in place, consistent with ECMWF model solutions and Joint Typhoon Warning Center (JTWC) outlooks. For the day 5-14 period, areas of moderate risk for TC genesis remain in place for the East and West Pacific basins, as well as the Atlantic MDR, consistent with guidance from ECMWF and GEFS ensembles.

Areas of forecast above and below normal precipitation have been tweaked slightly from the Tuesday map as well, consistent with model guidance, but are broadly the same as before. In the day 1-4 period the area of below-normal precipitation over the Philippines has been expanded slightly eastward. For the day 5-14 period, areas of above- and below-average precipitation along the Equatorial Pacific Ocean have been expanded to reflect the latest model solutions.

Following an amplification of the Madden Julian Oscillation (MJO) over the Indian Ocean in late-August, the intraseasonal signal has since retreated back into the RMM-based unit circle. The low frequency La Nina base state remains the dominant mode of variability in the tropics, with a wave-1 asymmetry evident in the spatial upper-level velocity potential field. Enhanced convection is located across the Indian Ocean, Maritime Continent, and far Western Pacific, with suppressed convection over much of the Western Hemisphere. The GEFS and ECMWF ensembles depict little eastward propagation of the convective envelope, consistent with a weakened MJO. Kelvin Wave activity may promote tropical cyclone (TC) development across the Eastern Pacific and Atlantic Basins during the next 2 weeks, coinciding with the climatological peak of hurricane season.

TC activity increased across the Atlantic Basin during the first week of September following the first August since 1997 without a named storm in the Atlantic. Hurricane Danielle formed on 9/1 across the higher latitudes of the Central Atlantic. The system poses no threat to land and is forecast to track northeastward and lose tropical characteristics later this week. Tropical Storm Earl formed on 9/3 to the east of the northern Leeward Islands. It is expected to recurve northeastward over the western Atlantic, perhaps skirting Bermuda. Conditions are favorable for intensification and NHC forecasts the system will become the season's first major hurricane. The Eastern Pacific Basin has been active as well. Tropical Storm Javier developed on 9/1 and tracked to the west of Baja California, with outer rain bands impacting parts of the peninsula. Hurricane Kay formed on 9/4 and is forecast to take a similar track to Javier, close to Baja California, and strengthen into a major hurricane. The system is also forecast to contribute to an increase in moisture and subsequent heavy rainfall over parts of the western U.S. later this week. TC activity is forecast to continue over the Atlantic Basin, with the NHC forecasting a 60 percent chance of TC development over the east-central Atlantic in the next 5 days, corresponding with a moderate confidence area for week-1. Additional easterly waves emerging off of Africa favor increased chances of TC development continuing into week-2, with an additional moderate confidence area posted for that period. Dynamical models are also indicating TC development over the East Pacific

during week-2 following a short break in activity, and a moderate confidence shape is highlighted off the western coast of Mexico.

During the past week, Super Typhoon Hinnamnor tracked across the western North Pacific. The system weakened before recurving north into the Sea of Japan, skirting South Korea before undergoing extratropical transition. A short-lived Tropical Depression (13W) developed behind Hinnamnor on 8/30, but was ultimately absorbed by the former system. Tropical Depression 14W developed on 9/6 over the Western North Pacific with the Joint Typhoon Warning monitoring Invest 92W for potential development in the coming days in the same general area as 14W. Therefore, a corresponding moderate confidence for TC development is included in today's outlook. An additional moderate risk for TC formation is indicated to the east (~160degE) supported by the ECMWF ensembles which depict a northeastward tracking TC late in week-1. Although outside of climatology, several tropical depressions have developed over the Bay of Bengal during the month of August, and favorable conditions suggest that this enhanced activity may continue, supporting a moderate confidence for TC development over the Bay of Bengal for week-1. TC activity is forecast to continue over the West Pacific through week-2, with a moderate confidence region highlighted in the climatologically favored area east of Taiwan and the northern Philippines.

The precipitation and temperature outlooks during the next two weeks are based on a consensus of GEFS, CFS, and ECMWF model solutions, potential TC tracks, and La Nina precipitation composites. A deep tropical moisture plume is forecast to bring several inches of rain to parts of the Southeast U.S. and northern Florida during week-1, with the nearly stationary convective envelope over the Indian Ocean and Maritime Continent favoring heavy rainfall across parts of India and southeastern Asia. Anomalously warm temperatures are likely over the western U.S. during week-1, with moderation forecast later in the period as the increased moisture from the remnants of Kay pushes northward. 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.