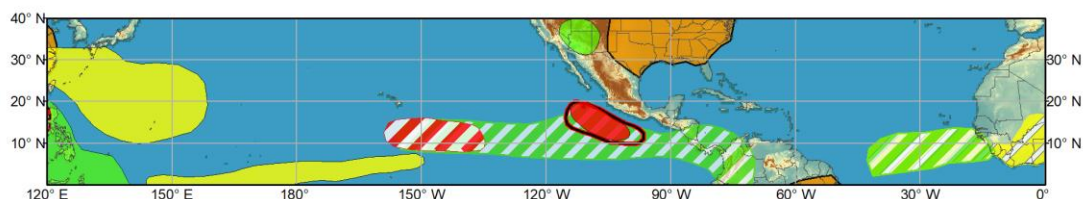




Global Tropics Hazards and Benefits Outlook - Climate Prediction Center



Week 1 - Valid: Aug 06 2022 - Aug 09 2022



Week 2 - Valid: Aug 10 2022 - Aug 16 2022



Confidence
High Moderate

Produced: 08/05/2022
Forecaster: Barandiaran

Tropical Cyclone Formation [Red box] [Red and white striped box] Development of a tropical cyclone (tropical depression - TD, or greater strength).

Prior TC Formation Outlook [Red box] [Red and white striped box] Tropical cyclone outlook from previous release.

Above-average rainfall [Green box] [Green and white striped box] Weekly total rainfall in the upper third of the historical range.

Below-average rainfall [Yellow box] [Yellow and white striped box] Weekly total rainfall in the lower third of the historical range.

Above-normal temperatures [Orange box] [Orange and white striped box] 7-day mean temperatures in the upper third of the historical range.

Below-normal temperatures [Blue box] [Blue and 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.



The main tropical convective envelope has shifted eastward somewhat over the last few days, with its western extent moving off of Africa. However, as it approaches the West Pacific its eastward propagation has been slower as it is beginning to interact with the area of suppressed convection associated with La Nina, which has had a dominating role in the evolution of the MJO for many months. This outcome is consistent with dynamical model RMM-based MJO forecasts, both earlier this week and today. Both the GEFS and ECMWF depict a rapid weakening of the RMM-based signal over the coming week and remaining near the center of the unit circle through week 2. The JMA is a notable exception, suggesting a Kelvin Wave-like rapid progression of the RMM-based index from phase 5 into phase 1 in week-1, followed by a slower MJO-like eastward propagation into phase 2 during week-2.

The outlook for tropical cyclone (TC) genesis over the forecast period remains largely unchanged. The National Hurricane Center (NHC) maintains high confidence (90% probability over the next 5 days) of TC formation off the southern coast of Mexico. Consistent with NHC forecasts, a moderate confidence (50%) area of TC genesis has been added to the Central Pacific during week-1. All other existing areas of potential TC development remain unchanged. There are some indications emerging that late in the week-2 period there is a slight possibility of TC formation in the main development region of the Atlantic

basin, but the level of confidence in this occurring remains too low to warrant including a potential genesis area on the updated map.

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 week-1 period the area of above-normal precipitation over the Maritime Continent has been expanded slightly eastward, and over the West Pacific, above-normal precipitation has been expanded westward to reflect the addition of the TC genesis area over the Central Pacific. For the week-2 period, the moderate confidence area of below-normal precipitation over the Western Pacific has been removed, while the area of below-normal precipitation over eastern China has been extended eastward across the East China Sea.

The Madden-Julian Oscillation (MJO) is weakening and becoming incoherent after a week of robust activity over the Indian Ocean and Maritime Continent. As the main convective envelope moved over the Maritime Continent over the last few days, eastward propagation stalled and the area of enhanced convection has become less organized. Despite the current phase of MJO and ongoing La Nina conditions resulting in constructive interference, the forecast for the MJO is rather muddled. The GEFS RMM-based MJO forecast depicts a continuing degradation of the MJO signal and a lot of uncertainty as to when and where organized convection will emerge. The ECMWF on the other hand favors a re-emergence of MJO-like convective activity over Africa in the week-2 time frame after a period of very weak signal in the RMM index. The JMA offers a similar solution to the ECMWF, but favors a quicker emergence of the RMM index into phase 1 late in week 1.

The last week has seen tropical cyclone (TC) activity in multiple basins. In the Eastern Pacific on July 27 the National Hurricane Center (NHC) issued the first advisory on Tropical Depression (TD) 8E (16.3N, 114.2W), which quickly strengthened to become Tropical Storm (TS) Georgette. By July 31 Georgette had diminished in strength back to TD status. The latest advisory fixes the center of circulation at 14.1N, 130.4W, and is anticipated to continue to weaken. TS Frank also continues to be active in the Eastern Pacific. Frank is tracking northwestward well away from land and is forecast to continue to weaken after briefly attaining hurricane status on July 31. In the West Pacific there were two TCs that formed east of the Philippines in the last week, TC Songda on July 26 and TC Trases on July 29. Both tracked northward into the East China Sea and made landfall on the western coast of the Korean Peninsula. In the South Indian Ocean, TC 01S formed on July 28 and is currently tracking westward over open waters and diminishing in strength.

In the coming two weeks there are several areas of interest for potential TC development. The East Pacific continues to be a favored area of TC activity, with both the ECMWF and GEFS favoring TC formation south of Mexico either late in week-1 or early in week-2. There is also the potential for TC genesis either late in week 1 or early in week 2 in the South China Sea and the Bay of Bengal. Finally, the ECMWF indicates that the Central Pacific south of Hawaii is another area with the moderate risk for TC formation in week 2.

The precipitation outlook for the next two weeks is based on anticipated TC tracks, ongoing La Nina conditions, and consensus of GEFS, CFS, and ECMWF ensemble mean solutions. Suppressed (enhanced) rainfall continues near and to the west of the Date Line (over the Maritime Continent) due to ongoing La Nina conditions and current MJO phase. Also of note is above-average precipitation over the Desert Southwest of the U.S. due to an ongoing active North American Monsoon. Above-average temperatures are forecast for eastern China, the eastern CONUS, the Amazon Basin, and the Arabian Peninsula, where daily high temperature anomalies of up to +10 deg C are indicated by the GEFS model over the next two weeks.

For hazardous weather conditions in your area during the coming two-week period, please refer to your local NWS office, the Medium Range Hazards Forecast produced by the Weather Prediction Center, and the CPC Week-2 Hazards Outlook. Forecasts made over Africa are made in coordination with the International Desk at CPC.