

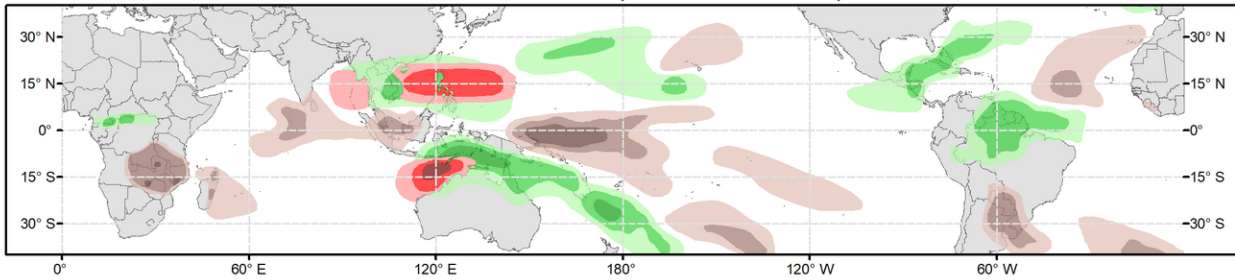


Global Tropics Hazards Outlook

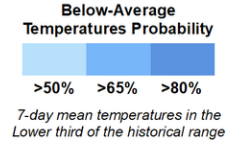
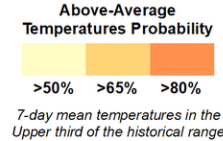
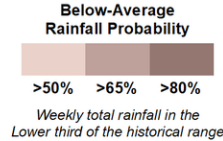
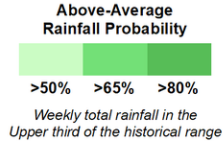
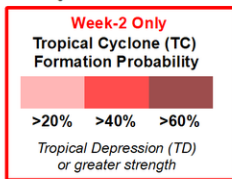
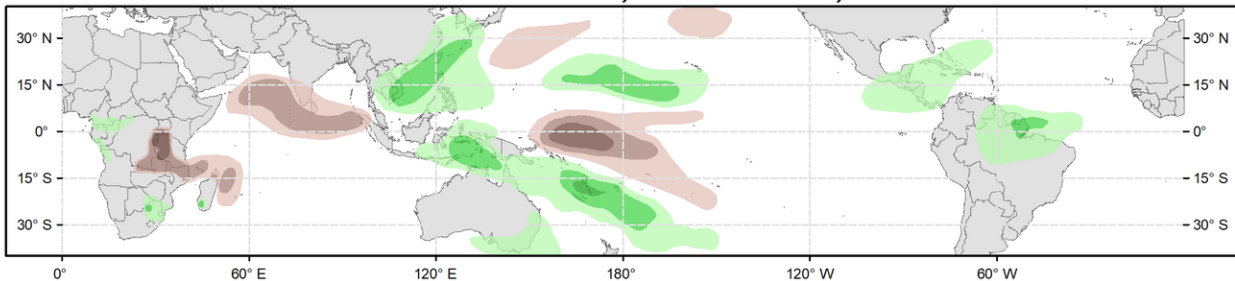
Climate Prediction Center



Week 2 - Valid: Nov 23, 2022 - Nov 29, 2022



Week 3 - Valid: Nov 30, 2022 - Dec 06, 2022



Issued: 11/15/2022
Forecaster: Novella

This product is updated once per week and targets broad scale conditions integrated over a 7-day period for US interests only. Consult your local responsible forecast agency.

During the past week, the RMM index shows a much weakened MJO signal that has continued to propagate eastward over Africa and the Indian Ocean. This evolution is well reflected in the observed upper-level velocity potential anomaly fields, however a more coherent upper-level pattern has emerged more recently across the global tropics. Consistent with previous guidance, dynamical models remain in good agreement favoring a continued uptick in intraseasonal activity, with a potentially strong MJO event emerging over the Maritime Continent during week-1, and propagating eastward into the western Pacific during week-2. Beyond this time, several extended range ensemble member solutions point to the MJO maintaining an organized structure following the destructive interference with the well established La Nina footprint over the equatorial Pacific. However, the last few runs of the bias-corrected ECMWF remain less supportive of this, instead favoring a weakening MJO signal by week-3 which contributes to some uncertainty in the MJO outlook by the beginning of December.

Regardless, a renewed MJO supports increased chances for tropical cyclone (TC) development mainly across the eastern Hemisphere during the next two weeks, with drier conditions becoming more prevalent over the Indian Ocean by the week-3 timeframe. Although the large-scale environment may become more favorable for TC development in the western Hemisphere later in the outlook period, formation chances are impeded by an increasingly inactive climatology in both the eastern Pacific and Atlantic basins heading into December. It should be noted that the extratropical response associated with West Pacific MJO events during late boreal autumn historically favors the development of anomalously warm conditions across much of the CONUS by week-2. If realized, this would lead to a welcomed moderation of the much below-normal temperatures that are favored for much of the country during week-1.

One TC formed in the global tropics during the past week. TC Yamaneko formed on 11/11 peaked at Tropical Storm intensity to the northeast of Wake Island. This system expired over open waters on 11/14 under the influence of high vertical wind shear and cooler sea surface temperatures with little fanfare.

For week-2, there has been good continuity in probabilistic TC genesis tools showing renewed signals over the eastern Bay of Bengal following the dissipation of a potential tropical disturbance favored in the basin during week-1. However, the GEFs and ECMWF ensembles are somewhat divided on this potential, thereby prompting a 20% chance of TC formation in the region. Over the western Pacific, dynamical models continue to favor the development of anomalous lower-level westerlies and Rossby wave activity extending from the South China Sea to the Mariana Islands. Therefore, a 40% chance of TC development is posted as this region also tends to be climatologically active during phase 6 and 7 MJO events during November. South of the equator, high chances (60%) are posted over the Timor Sea where there is agreement between the GEFs and ECMWF ensembles for an area of deepening low pressure with elevated signals in the probabilistic TC genesis tools. Additionally, models also favor the development of anomalous lower-level easterlies over the higher latitudes of western Australia, which coupled with strong westerlies over the Maritime Continent tied to the strengthening MJO, is likely to provide a cyclonic environment favorable for TC development.

In the western Hemisphere, there are increased signals in the probabilistic tools in regards to potential disturbance over the eastern Pacific during week-1. However, these signals rapidly weaken before the start of week-2, and no corresponding TC shapes are issued. Over the Atlantic, the last several runs of the GFS and GEFs advertise deepening surface low pressure over the southwestern Caribbean though ECMWF guidance and probabilistic tools are much less supportive of formation in the region, precluding any TC shapes in the outlook.

Probabilities for above and below normal precipitation are based on anticipated TC, ongoing La Nina conditions, MJO composites and a historical skill weighted blend of GEFs, ECMWF, CFS and Canadian ensemble forecasts. 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 Predictions Center (WPC), and the CPC Week-2 Hazards Outlook. Forecasts issued over Africa are made in coordination with the International Desk at CPC.