

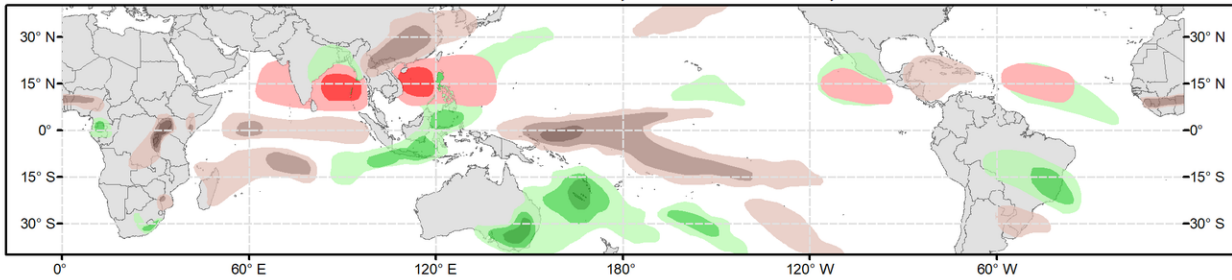


Global Tropics Hazards Outlook

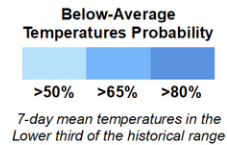
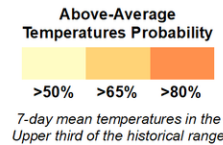
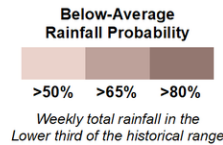
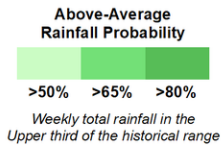
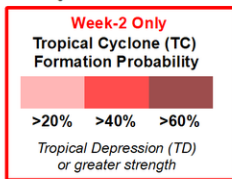
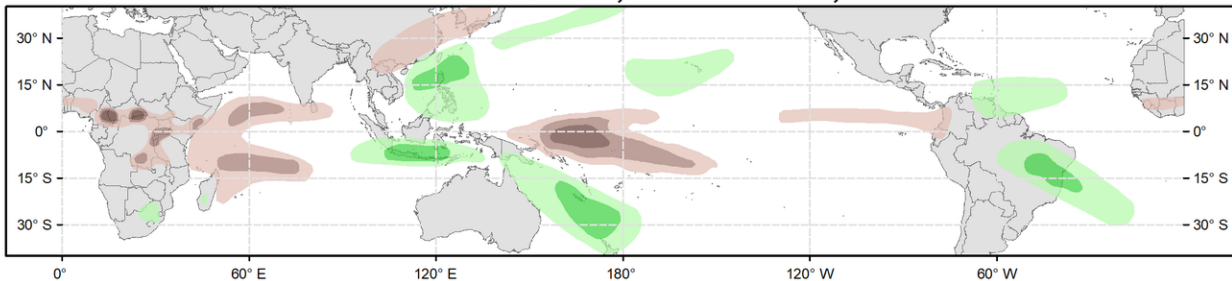
Climate Prediction Center



Week 2 - Valid: Oct 19, 2022 - Oct 25, 2022



Week 3 - Valid: Oct 26, 2022 - Nov 01, 2022



Issued: 10/11/2022
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.

The RMM index shows the MJO signal continuing to propagate eastward across the Maritime Continent, but it has struggled to gain amplitude while straddling the unit circle across phases 4 and 5 during the past week. Upper-level velocity potential anomalies show more of a disintegration of the wave-1 spatial pattern, however the leading edge of the main convective envelope has shifted slightly eastward in recent days suggestive of renewed MJO activity. Looking ahead, dynamical models remain bullish in developing a stronger MJO signal over the western Pacific during the next two weeks, with several members in the GEFS, CFS and ECMWF ensembles indicating a potential high amplitude event. However, there is continued uncertainty as to how well the MJO will remain organized due to the destructive interference with the well established low frequency La Nina footprint in the equatorial Pacific, with extended range RMM mean solutions failing to fully propagate a healthy MJO signal into the western Hemisphere later in October. Despite this uncertainty, the large-scale environment, combined with Rossby wave activity predicted in the western Pacific is expected to be conducive for tropical cyclone (TC) development in the eastern Hemisphere. Conversely, there are decreased chances for TC formation over the eastern Pacific and Atlantic, coinciding with a climatological downtick in TC activity in the basins towards the end of the month.

Since last week, two TCs formed in the global tropics. TC Julia formed on 10/7 in the Caribbean just north of South America and intensified to a Category 1 Hurricane before making landfall over Nicaragua this past weekend. Julia reemerged over the East Pacific before making a second landfall and dissipating over Guatemala yesterday, but brought heavy amounts of precipitation triggering flooding and landslides over many parts of Central America. Some of the residual moisture and vorticity associated with the remnants of Julia could

become absorbed within a broader cyclonic circulation to the west, where the National Hurricane Center (NHC) favors a 20% chance of possible TC development to the south of Mexico during the next 5 days. In the Eastern Hemisphere, a lower-level westerly wind burst in the equatorial Indian Ocean likely contributed to the development of TC Balita on 10/6. Before dissipating on 10/10, this system meandered over open waters over the southern Indian Ocean near 85E/10S with little fanfare.

Tied to the enhanced phase of the MJO and a climatological decrease in monsoonal shearing, 40% chances of TC formation are posted in the Bay of Bengal where there is also good agreement in the GEFS and ECMWF ensembles favoring the development of anomalous low-level westerlies and an area of deepening low pressure by the start of week-2. A broader 20% area covering the Arabian Sea is issued given increased, albeit lower, chances in the probabilistic TC tools west of India during the period. Following a pair of tropical disturbances (98W and 97W) favored to organize in the western Pacific during week-1, there is an increased potential for additional TC formation during week-2 tied to Rossby wave activity forecast. A 40% chance is posted over the South China Sea where anomalous low-level westerlies (shearing) are favored to be strongest (weakest), with a broader 20% formation area surrounding this region extending eastward into the Philippine Sea. In the western Hemisphere, a 20% chance of TC formation is posted to the south of Mexico where there is continued agreement in the GEFS and ECMWF ensembles favoring the development of a broad area of low pressure. Despite the Caribbean becoming more climatologically active during October, extended range guidance favors decreased chances for TC formation with predominantly suppressed precipitation during the next few weeks. However, a 20% chance of TC development is posted in the Main Development Region during week-2 where there is fair agreement in models depicting an area of enhanced convection associated with a westward moving tropical wave.

Probabilities for above and below normal precipitation is based on anticipated TC tracks, 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 Prediction Center (WPC), and the CPC Week-2 Hazards Outlook. Forecasts issued over Africa are made in coordination with the International Desk at CPC.