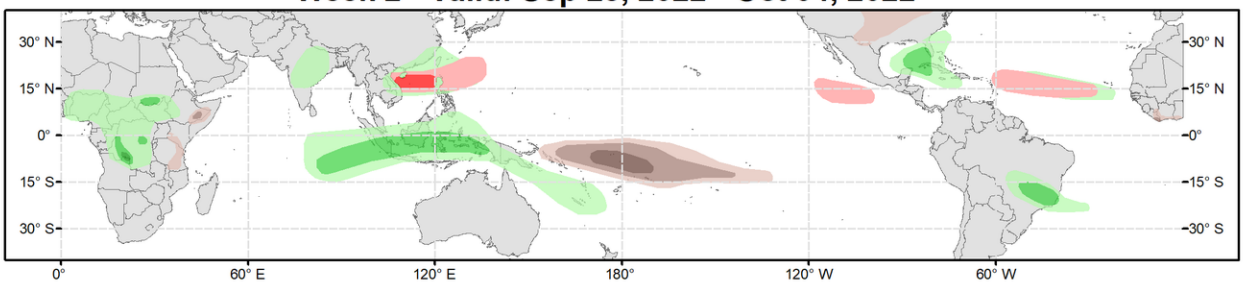
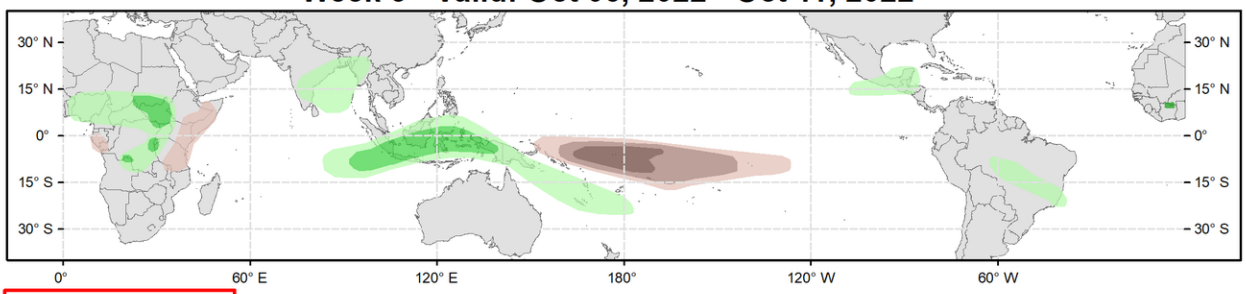
Global Tropics Hazards Outlook

Climate Prediction Center

Week 2 - Valid: Sep 28, 2022 - Oct 04, 2022



Week 3 - Valid: Oct 05, 2022 - Oct 11, 2022



Week-2 Only
Tropical Cyclone (TC) Formation Probability
>20% >40% >60%
Tropical Depression (TD) or greater strength

Above-Average Rainfall Probability
>50% >65% >80%
Weekly total rainfall in the Upper third of the historical range

Below-Average Rainfall Probability
>50% >65% >80%
Weekly total rainfall in the Lower third of the historical range

Above-Average Temperatures Probability
>50% >65% >80%
7-day mean temperatures in the Upper third of the historical range

Below-Average Temperatures Probability
>50% >65% >80%
7-day mean temperatures in the Lower third of the historical range

Issued: 09/20/2022
Forecaster: Pugh

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 Madden-Julian Oscillation (MJO) weakened during early to mid-September which is likely due to destructive interference with the ongoing La Nina. The 200-hPa Velocity Potential field depicts very small anomalies throughout much of the global tropics with the largest anomalies, associated with upper-level divergence, centered over the Maritime Continent. Although enhanced low-level trade winds remain anchored across the equatorial central Pacific, anomalous 200-hPa easterly winds shifted east to 150E for the first time since early June. This may indicate that a remnant MJO signal is propagating eastward across the Pacific to the Americas during mid-September. Objective wavenumber-frequency filtering of the CFS and ECMWF models depicts this remnant MJO, albeit in a weakened state, shifting east over the Western Hemisphere during the next two weeks and then crossing Africa to the Indian Ocean by week-3. The ECMWF and GFS models depict anomalous low-level westerlies and reduced wind shear over the East Pacific, Caribbean Sea, and parts of the tropical Atlantic during the next two weeks. These model projections along with the background state of La Nina is expected to support a fairly active period in the Atlantic basin through at least the beginning of October.

On September 14, Tropical Depression Seven developed over the tropical Atlantic and strengthened to a Category-1 Hurricane Fiona a few days later. Fiona tracked across Puerto Rico and then made a second landfall in the Dominican Republic. As of September 20, Fiona is forecast to strengthen to a Category-4 hurricane and track northward to near Bermuda later this week. Tropical Depression 8 formed on September 20 in the subtropical central Atlantic and is forecast to track northeastward. A couple of tropical cyclones, the 13th and 14th of the 2022 season, formed over the East Pacific during the past week. In the West Pacific, Typhoon Nanmadol recently made landfall in the Kyushu Islands of southern Japan.

The National Hurricane Center (NHC) is currently monitoring a tropical wave located several hundred miles east of the Windward Islands. Since this system is likely to become a tropical cyclone late in week-1, no tropical cyclone (TC) development area is posted for the Caribbean Sea during week-2. This disturbance should be monitored closely as it is expected to enter a favorable environment for strengthening heading into week-2 and could eventually impact areas of the Caribbean and southeastern United States. Multiple tropical waves are forecast to emerge from western Africa during the next two weeks and background state is expected to be conducive for one of these waves to develop across the Main Development Region of the Atlantic during week-2. Due to uncertainty on location at this time lead, a 20 percent chance over a broad spatial extent is posted. By week-3 (Oct 5-11), the main focus for TC development in the Atlantic basin climatologically shifts to the western Caribbean.

In the East Pacific, NHC is monitoring a couple of areas of low pressure for TC development during the next five days. Since any development is expected to be slow to occur and may not occur until early week-2, a 20 percent chance of genesis is designated for week-2. Dynamical models support a broad 20 percent chance of TC development across parts of the West Pacific during week-2, while a model consensus and continuity increases chances to 40 percent across the South China Sea.

The precipitation outlook during weeks 2 and 3 are largely based on La Nina precipitation composites and a historical skill-weighted blend of GEFS, ECMWF, CFS, and Canadian ensemble forecasts. Most likely TC tracks were also considered heading into the week-2 period. 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.