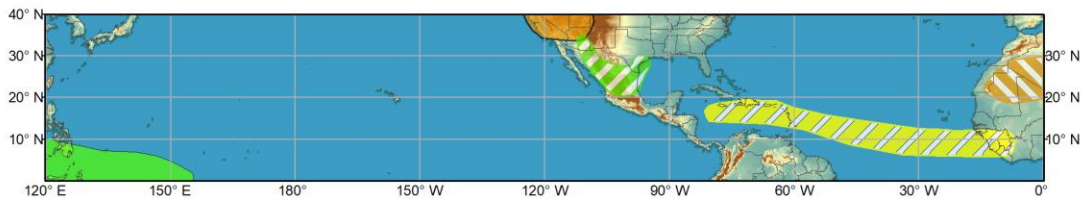




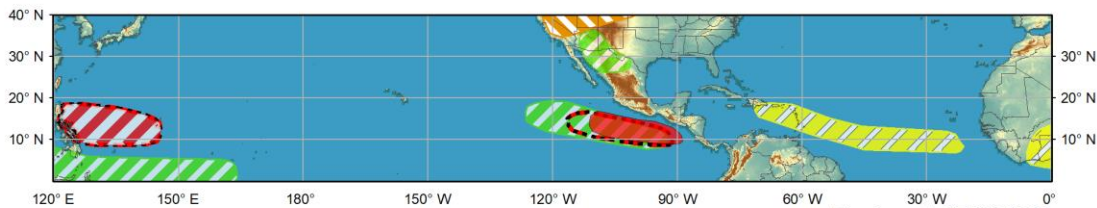
Global Tropics Hazards and Benefits Outlook - Climate Prediction Center



Week 1 - Valid: Jul 10 2021 - Jul 13 2021



Week 2 - Valid: Jul 14 2021 - Jul 20 2021



Confidence
High Moderate

Produced: 07/09/2021
Forecaster: Pugh

- Tropical Cyclone Formation** Development of a tropical cyclone (tropical depression - TD, or greater strength).
- Prior TC Formation Outlook** Tropical cyclone outlook from previous release.
- Above-average rainfall** Weekly total rainfall in the upper third of the historical range.
- Below-average rainfall** Weekly total rainfall in the lower third of the historical range.
- Above-normal temperatures** 7-day mean temperatures in the upper third of the historical range.
- Below-normal temperatures** 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.



An atmospheric Kelvin wave is forecast to propagate east of the Date Line next week and provide a more favorable large-scale environment for tropical cyclone (TC) development across the East Pacific. Therefore, the updated outlook calls for high confidence of TC development along 10N and 90-110W from July 14-20. The GFS and ECMWF models are in good agreement and maintain continuity with an area of low pressure forming south of the Gulf of Tehuantepec with subsequent TC formation early in this 7-day period as wind shear diminishes. The moderate confidence for TC development to the east of the Philippines is maintained for the July 14-20 period since the GFS ensemble mean favors the MJO propagating east to the West Pacific during the latter half of July.

Tropical Storm Elsa tracked just west of the Florida Keys earlier this week and made landfall along the Nature Coast of Florida on July 7. As it accelerated northeastward along the East Coast of the United States, heavy rainfall overspread eastern parts of the Mid-Atlantic. No additional tropical cyclone development is anticipated over the Atlantic basin through July 20. In addition, below-average rainfall is favored for much of the Caribbean region.

Model guidance continues to depict enhanced monsoon flow into the southwestern United States during mid-July, as a 500-hPa ridge becomes centered over the Four Corners Region. If the predicted tropical cyclone in the East Pacific tracks northwest, this could lead to a surge of moisture northward from the Gulf of California. A major heat wave with record-setting high temperatures is likely this weekend across the western U.S.

-----The original discussion released on July 6 is below-----

The Madden-Julian Oscillation (MJO) became more coherent at the beginning of July, with 200-hPa Velocity Potential anomalies depicting anomalous upper-level divergence (convergence) over the Eastern (Western) Hemisphere. Since late June, the RMM index emerged from the unit circle across Africa with an eastward propagation to the Indian Ocean. Convection has recently increased throughout the equatorial Indian Ocean due to this strengthening MJO. Although the GFS ensemble mean has trended towards a weakening MJO and there remains large spread among both its ensemble members and those of the ECMWF, the well-established spatial pattern of 200-hPa Velocity Potential anomalies are expected to influence global tropical rainfall and modulate tropical cyclone development through at least the early part of week-2. Based on this expectation along with using a GFS, ECMWF, and CFS model consensus, the Asian Monsoon is likely to be enhanced during the next two weeks with below normal precipitation favored for parts of the East Pacific, Caribbean, and tropical Atlantic.

On June 30, a Tropical Depression formed about 1000 miles east of the Windward Islands and quickly strengthened to Hurricane Elsa. The center of Elsa passed near or over Barbados, St Vincent, and St Lucia on July 2. Elsa weakened to a Tropical Storm as it tracked close to the southern coast of Hispaniola and then crossed western Cuba. As of 11am EDT on July 6, Tropical Storm Elsa is located just west of Key West, Florida and is forecast to track northward to the Nature Coast of Florida by July 7. Elsa is likely to accelerate northeast along the East Coast of the United States early in week-1. Broad anomalous upper-level convergence along with predicted strong vertical wind shear are likely to limit chances of new tropical cyclone (TC) development over the Atlantic basin through mid-July. After Hurricane Enrique during late June, no additional tropical cyclones formed in the East Pacific and conditions are expected to remain unfavorable for TC formation during week-1. The ECMWF model remains the most bullish with TC development across the East Pacific by week-2, and wind shear is expected to diminish later in this period; therefore there is moderate confidence for tropical cyclone formation over the East Pacific during week-2. Tropical Depression 07W is currently located southwest of Taiwan and is forecast to dissipate as it tracks inland into southeast China. A TC may briefly develop near Hainan Island during the next 24 hours before it moves westward into northern Vietnam. Large-scale conditions for TC development are forecast to improve across the West Pacific by week-2.

Easterly waves and periods of enhanced Monsoon flow are expected to favor above normal precipitation for parts of northern Mexico and the southwestern United States. For hazardous weather concerns during the upcoming two weeks across the U.S. please refer to your local NWS Forecast Office, the Weather Prediction Center's Medium Range Hazards Forecast, and CPC's Week-2 U.S. Hazards Outlook. Forecasts over Africa are made in consultation with the International Desk at CPC and can represent local-scale conditions in addition to global-scale variability.