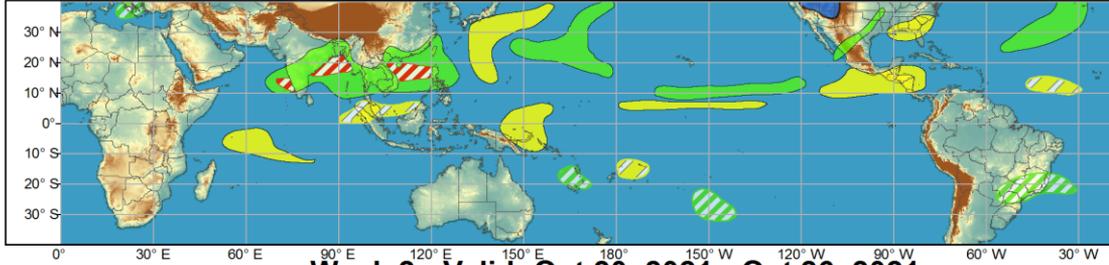




# Global Tropics Hazards and Benefits Outlook - Climate Prediction Center

## Week 1 - Valid: Oct 13, 2021 - Oct 19, 2021



## Week 2 - Valid: Oct 20, 2021 - Oct 26, 2021



	Confidence		
	High	Moderate	
<b>Tropical Cyclone Formation</b>			Development of a tropical cyclone (tropical depression - TD, or greater strength).
<b>Above-average rainfall</b>			Weekly total rainfall in the upper third of the historical range.
<b>Below-average rainfall</b>			Weekly total rainfall in the lower third of the historical range.
<b>Above-normal temperatures</b>			7-day mean temperatures in the upper third of the historical range.
<b>Below-normal temperatures</b>			7-day mean temperatures in the lower third of the historical range.

**Product is updated once per week, except from 6/1 - 11/30 for the region from 120E to 0, 0 to 40N. The product targets broad scale integrated over a 7-day period for US interests only. Consult your local responsible forecast agency.**



The transition toward La Nina conditions continues for the equatorial Pacific, with a possible transition from a La Nina Watch to La Nina Advisory during the upcoming release of the El Nino/Southern Oscillation Diagnostic Discussion on Thursday the 14th of October. Anomalous near-surface ocean water and enhanced trades are in place across much of the Pacific, while surface convection has been building westward from near the Date Line during late boreal summer to the Gulf of Guinea at present. Amidst the backdrop of the low frequency state, the Madden-Julian Oscillation has been analyzed to have stalled over the Eastern Maritime Continent during early October, presumably due to the background state. Dynamical model forecasts of the MJO in RMM space generally support the MJO progressing across the Pacific during the next two weeks and reaching the Western Hemisphere. The main outlier is a handful of GEFs members, which instead emphasize the low frequency signal and revert the RMM index to Phases 3/4 by late October. The forecasts projecting the MJO eastward lack substantial projection in Phases 6/7, presumably due to the building La Nina

the Sinaloa coast. Pamela is forecast to bring heavy rainfall stretching from Sinaloa and Durango northeastward through the Southern Great Plains and Lower Mississippi Valley in the coming week. A number of storms formed over the West Pacific during the past week. Tropical Storm Lionrock developed near 17N/111E on the 7th and remained a weak system while drifting northward over the South China Sea before dissipating on the 10th. Tropical Storm Namtheun formed near 17N/160E on the 10th. The Joint Typhoon Warning Center (JTWC) forecasts Namtheun's intensity to peak today at 40 kts with rapid dissipation likely over the next few days as the storm recurves to the north and east. Tropical Storm Kompasu formed near 18N/128E on the 10th and thereafter tracked westward to its current position over the South China Sea. The JTWC forecasts a 60 knot peak intensity for Kompasu to occur later in the week with gradual weakening to follow as the system approaches Hainan and Northern Vietnam through the conclusion of the week.

The National Hurricane Center (NHC) is monitoring a disturbance presently near Cuba in the Atlantic Basin. The NHC gives this disturbance a 10% chance of undergoing tropical cyclogenesis over the next 24 hours (and/or 5 days) before merging with a mid-latitude cold front. The JTWC is monitoring a disturbance near 96W near 11N/147E as of 6 UTC on the 12th, giving the system a low chance of becoming a TC over the next 24 hours, and marginal environmental conditions for development thereafter. The MJO pattern over the Maritime Continent does favor possible TC formation over many of the Eastern Hemisphere basins, with dynamical models supporting moderate confidence for TC formation over the southern Indian Ocean, Arabian Sea, northern Bay of Bengal, and South China Sea during the next week. The former systems would be likely to form over the next two to three days, while the South China Sea system appears unlikely to develop until the weekend. With the MJO possibly reaching the Western Hemisphere by Week-2, tropical cyclogenesis chances are likely to increase across the East Pacific, with a moderate confidence for TC formation posted between roughly 90-115W along 10N. Beyond Week-2, the large-scale environment would favor increased chances for tropical cyclogenesis to persist over the East Pacific (although cooling sea surface temperatures typically hinder genesis by November) and over the Gulf of Mexico and Caribbean Sea during late October and early November.

The precipitation outlook accounts primarily for the currently active and forecast tropical cyclogenesis activity, the convective footprint of La Nina, and the MJOs transition from the Maritime Continent to the Western Hemisphere. Also of note across the U.S. is the potential for below-normal temperatures during Week-1 across the Western interior tied to mid-level troughing, with this pattern retrograding over the Pacific by Week-2 and yielding atmospheric river potential for Northern California.