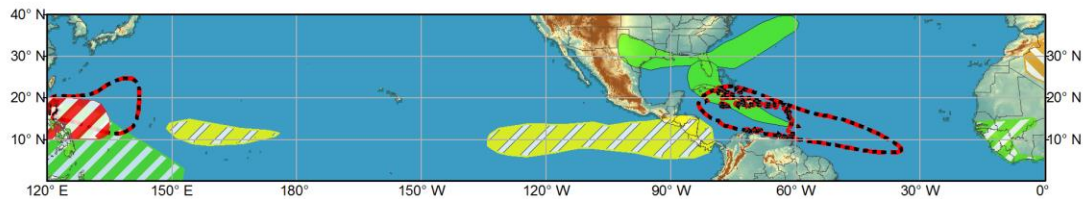




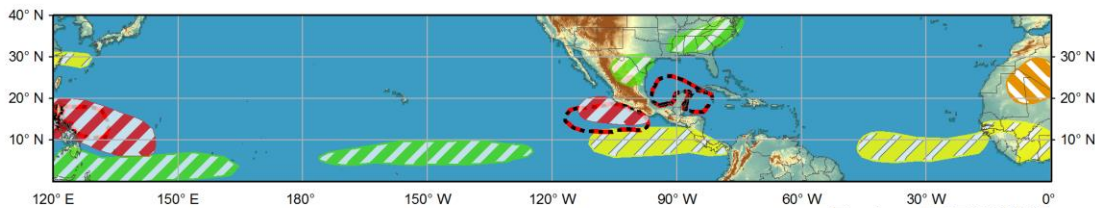
## Global Tropics Hazards and Benefits Outlook - Climate Prediction Center



**Week 1 - Valid: Jul 03 2021 - Jul 06 2021**



**Week 2 - Valid: Jul 07 2021 - Jul 13 2021**



Confidence  
High Moderate

Produced: 07/02/2021  
Forecaster: Rosencrans

- 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.



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The MJO is still on track to propagate eastward, though its projection is largely influenced by Kelvin wave and MJO signal interaction, along with Asian monsoonal influences. So there is likely to be a weak signal in the Wheeler-Hendon (WH) and CPC index framework. ECMWF is a bit slower than the GEFS with the MJO signal in the WH framework, with the most likely outcome being a Phase 3 MJO by the end of the next 10 days.

Hurricane Elsa formed over the Main Development Region of the tropical Atlantic and is forecast to move across the Caribbean, toward the Southeast. Additional formations over the Caribbean and deep tropical Atlantic are not anticipated, although some members of the GEFS and ECMWF ensemble systems show the potential for a tropical system over the Bay of Campeche later in days 1-4. Signals for tropical cyclone formation over the East Pacific are depicted later in days 1-4, and are shifted northward to near the coast of Mexico, with a second period of potential development later in days 5-11. With the enhanced phase of the MJO likely to be over the Maritime Continent, it could enhance tropical cyclone formation from the South China Sea to the Western Pacific for much of the entire period, though confidence is low as any signal will likely suffer interference from a Kelvin wave that is currently near 60E.

Over the next few days, a cold front is forecast to push down toward the southern CONUS, supporting some heavy rains, especially along the western end over TX/MX. The moisture from Hurricane Elsa is likely to move into the Southeast, but during the latter period. The location of highest precipitation amounts is very uncertain as interaction with an upstream trough is indicated in many of the model runs. So the above normal precipitation shape from the Gulf Coast extends well to the northeast to indicate the potential for impacts from a recurving Hurricane Elsa.

----- Previous discussion follows -----

Competing signals are creating noise around the Madden-Julian Oscillation (MJO) signal, which in the RMM index framework is keying on the outgoing longwave radiation and low-level wind anomalies associated with the West African Monsoon. Other areas of upper-level divergence along the equator are over the Indian Ocean (potentially hinting at eastward propagation of the signal) and over the West Pacific which is in response to mid-latitude wave breaking from both hemispheres. Additionally, some analyses are indicating Kelvin waves moving across the central Pacific and Atlantic, so those signals are competing with the MJO as well. RMM forecasts from many models indicate eastward propagation of the intraseasonal signal over the Indian Ocean (Phase 2) during week-1, and into the Maritime Continent (Phase 3-4) by week-2, though today's outlooks are slower with the signal than yesterday (more Phase 3 than Phase 4).

During the past week, Tropical Storm Danny formed off the Southeast Coast and moved quickly inland. Hurricane Enrique formed near 15N/101W on the 25th of June, and moved northward along the west coast of Mexico. NHC is monitoring two disturbances (one with 40% chance of formation and the second with a 20% chance of formation during the next 5 days) over an area from the western MDR to the Bahamas and Caribbean. The potential for the Kelvin wave over the Central Pacific to enhance tropical cyclone (TC) formation over the Atlantic during the middle of week-1 supports the addition of a broad moderate confidence area in the outlook. During week-2, there are some limited model signals for potential tropical cyclone formation over the western Caribbean and Bay of Campeche, though those are apparent in the GEFS and ECMWF, but not the CFS or ECCC models. Additionally, there are some weak signals for another TC to develop over the East Pacific later in week-2, which is consistent with the approaching peak of the season there, but is counteracted by the suppressed phase of the MJO. Over the West Pacific, formation odds are enhanced from the northern Philippines to near Guam during week-1. In week-2, the highest odds shift westward, more aligned with a phase-3 MJO event, stretching from the South China Sea across Luzon and potentially northward near Taiwan.

The areas highlighted for above or below average precipitation largely reflect the predicted state of the MJO, as the El Nino-Southern Oscillation is low amplitude. Some moisture is likely to surge into the Desert Southwest due to Hurricane Enrique. In addition, the Asian monsoon is likely to interact with the MJO and have alternating periods of dry then wet over South and Southeast Asia. By week-2, rainfall is likely to return to South and Southeast Asia, though that could take a little longer to return if the MJO is slower or of lower amplitude than indicated by the ECMWF and GEFS outlooks.

Some temperature-related threats are also identified. Week-1 looks like a bit of monsoon break over South Asia, which could lead to anomalously warm temperatures. Early in Week-1, localized freezing conditions are still likely over sensitive regions from Western Brazil to Uruguay. Temperatures are expected to moderate quickly in that region. Much above normal temperatures (8-16 degrees above normal) are forecast for parts of northern Africa, during week-1, with a reduction in the expected areas of much above normal temperatures into early week-2.

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.