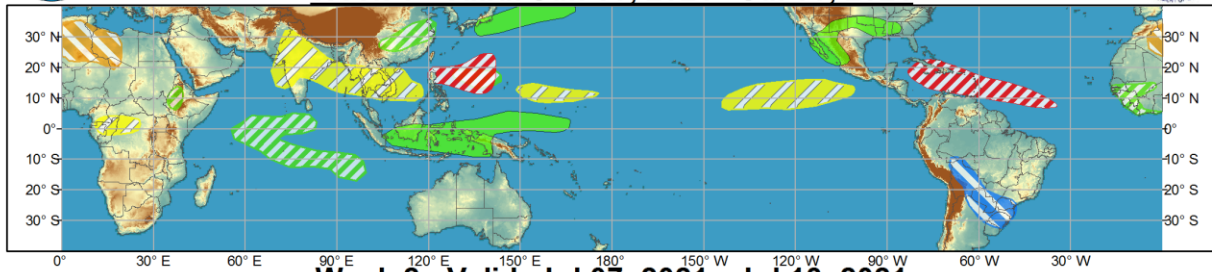




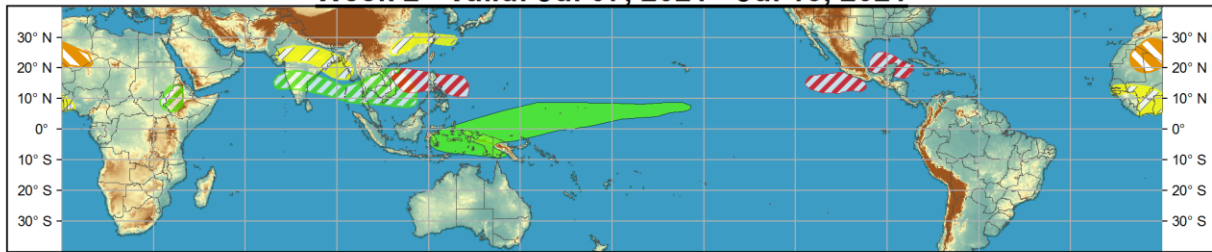
Global Tropics Hazards and Benefits Outlook - Climate Prediction Center













Week 1 - Valid: Jun 30, 2021 - Jul 06, 2021



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



Confidence
High Moderate

- | | | | |
|-----------------------------------|---|---|--|
| Tropical Cyclone Formation |  |  | Development of a tropical cyclone (tropical depression - TD, or greater strength). |
| 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, except from 6/1 - 11/30 for the region from 120E to 0, 0 to 40N. The product targets broad scale conditions integrated over a 7-day period for US interests only. Consult your local responsible forecast agency.

Produced: 06/29/2021

Forecaster: Rosencrans



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 Niño-Southern Oscillation is of 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.