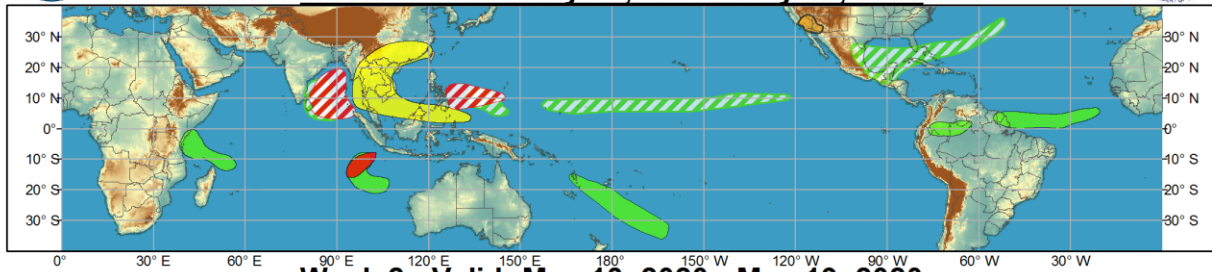




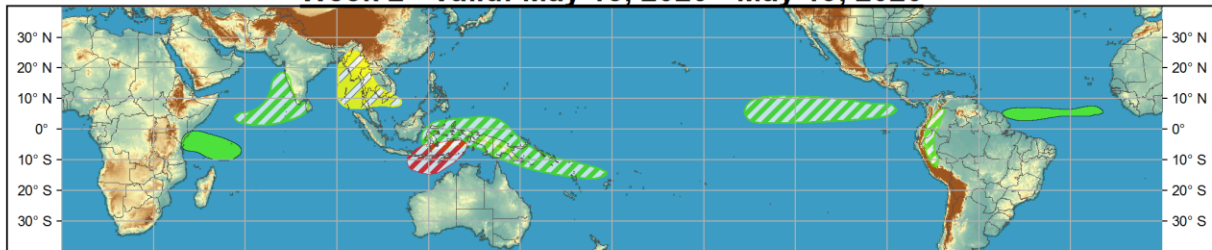
Global Tropics Hazards and Benefits Outlook - Climate Prediction Center













Week 1 - Valid: May 06, 2020 - May 12, 2020



Week 2 - Valid: May 13, 2020 - May 19, 2020



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: 05/05/2020

Forecaster: Harnos



The RMM index shows an active Madden-Julian Oscillation (MJO) event currently over the Maritime Continent. Decomposing the circulation and cloud-cover fields into the various canonical tropical modes reveals a far more complicated perspective, with multiple Kelvin waves over the Eastern Hemisphere. The westernmost wave is presently near 90E, while the easternmost is near the Date Line, with some evidence of a third lying between this pair. When these features are averaged together, they approximately lie over the Maritime Continent. It is also worth mentioning that there is also a lower frequency footprint propagating eastward over the Indian Ocean during late April. RMM forecasts track this envelope of Kelvin waves and the MJO moving eastward over the next several days, but by the weekend, begin to decay the RMM index into the unit circle. Over the course of the next two weeks, the RMM signal drifts slowly toward the Indian Ocean, with this evolution generally representing the easternmost Kelvin wave coming to potentially dominate the circulation. Alternatively, this could be evidence of the slower-moving enhanced convective envelope presently over the Indian Ocean becoming dominant. Needless to say, confidence in the subsequent forecast is very low beyond Week-1.

No tropical cyclones (TCs) have developed over the past seven days. Currently the Joint Typhoon Warning Center is monitoring an area near 8S/102E for possible development, with a high chance of this

forming during Week-1 (if not developing prior to the forecast period itself). This disturbance is forecast to drift southward and remain somewhat stationary over the southeast Indian Ocean while intensifying minimally. Model guidance supports the possibility of a TC developing east of Sri Lanka and tracking through the Bay of Bengal during Week-1 (moderate confidence). Uncertainty on where this system forms, if at all, is high with the GEFS and CFS spinning up this system closer to Sri Lanka, while the ECMWF is displaced 10 degrees eastward. An out of season TC is possible during Week-2 in the vicinity of Indonesia. With the active intraseasonal envelope shifting east of the area, a TC may develop within the unseasonable monsoon activity. If this system were to develop it would be the latest storm on record for the region. The previously described Kelvin wave activity is forecast to cross the Western Hemisphere during Week-1 and Week-2, potentially leading to an increasingly favorable environment for TC formation over the East Pacific during late in Week-2 or early in Week-3. At present no TC genesis is indicated, and instead only an above-normal rainfall shape forecast, due to uncertainty on the timing of any possible formation. If developing, this system is forecast to track to the west-northwest and not be a threat to land.

The Week-1 outlook somewhat resembles expectations for a Phase 6/7 MJO event. Above-normal rains are forecast for the Central Pacific (moderate confidence) and within the South Pacific Convergence Zone (high confidence), while suppressed rains are likely over parts of Southeast Asia and the Maritime Continent (high confidence). Persistently warm sea surface temperatures are likely to lead to enhanced rainfall off the east coast of Africa and South America (high confidence for each, continuing into Week-2). Increased rainfall chances also exist along the possible TC tracks during Week-1, with each's confidence for precipitation matching that for tropical cyclogenesis. An intense surge of southerly winds is forecast across parts of Ecuador, Colombia, and Peru leading to high confidence for locally heavy rainfall. Lastly, a frontal boundary is forecast to descend into the subtropics across the Gulf of Mexico and Caribbean, bringing with it moderate confidence for above-normal rains. Upstream of this feature, anomalous 500-hPa ridging over the Desert Southwest is likely to result in much above-normal temperatures (high confidence).

Due to uncertainty regarding the forecast evolution during Week-2, the outlook leans heavily on dynamical model guidance. Possible Kelvin wave or MJO activity over the East Pacific leads to moderate confidence for above-normal rains there, with the potential for a TC very late in the period or early in Week-3. In addition, monsoonal activity may pick up across the Maritime Continent, resulting in moderate confidence for above-normal rains. Remaining precipitation forecasts during Week-2 across the Indian Ocean and Asia are purely a result of dynamical model consensus, lacking any explicit connection to large-scale tropical variability.

Forecasts over Africa are made in consultation with CPC's international desk as well as dynamical model consensus, and can represent local-scale conditions in addition to global-scale variability.