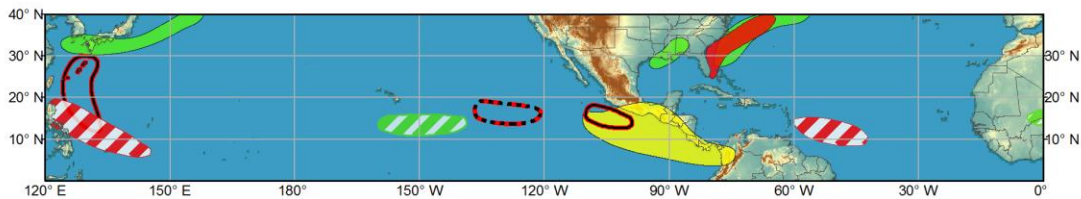




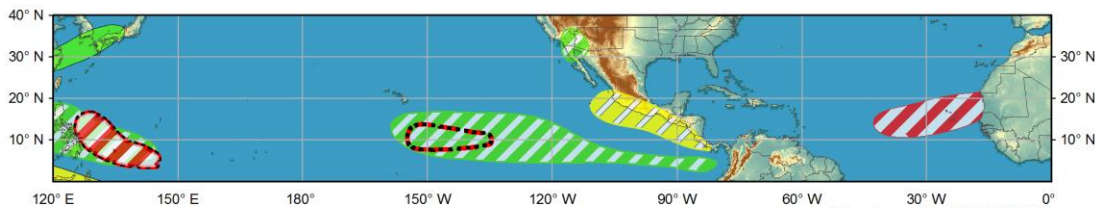
Global Tropics Hazards and Benefits Outlook - Climate Prediction Center



Week 1 - Valid: Aug 24 2019 - Aug 27 2019



Week 2 - Valid: Aug 28 2019 - Sep 03 2019



Confidence
High Moderate

Produced: 08/23/2019
Forecaster: D.Harnos

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|-----------------------------------|--|--|
| 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.



中央氣象局
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The original outlook remains largely on track, with dynamical model forecasts converging around the earlier GEFS/CFS perspective regarding a Kelvin wave tracking rapidly across the Indian Ocean to the Maritime Continent over the next 10-15 days. There is some projection of this feature onto the RMM Index, although the phase speed of the eastward propagating intraseasonal envelope is near the boundary of characteristic MJO and Kelvin wave events (period of approximately 20-25 days).

NHC is currently monitoring a disturbance over the Bahamas, giving it a 70% (90%) chance of becoming a TC over the next 48 hours (5 days) off the Southeast coast, resulting in a high risk for TC formation being introduced here. NHC is also monitoring a tropical wave near 10N/43W, with 40% (50%) chances of development over the next 48 hours (5 days), which corresponds to moderate confidence of TC formation in this outlook. In the East Pacific, Tropical Storm Ivo formed on the 21st, verifying the high risk from the original outlook that is subsequently dropped from this update. The moderate risk of TC formation area from the original outlook may have missed its chance to develop, as the Central Pacific Hurricane Center now gives it a near 0 (30%) chance of forming over the next 48 hrs (5 days), resulting in it being left off the update. Tropical Storm Bailu formed over the West Pacific on the 21st and is forecast to track across Taiwan over the weekend. JTWC is monitoring another system (99W) near 7N/145E that

has a low chance of developing in the next 24 hours, but dynamical model guidance is more supportive of development over the weekend or early next week, resulting in a moderate confidence of TC formation area being included east of the Philippines.

As anticipated, wind shear over the Atlantic main development region (MDR) has relaxed in the wake of the Kelvin wave passage. Broad subsidence continues to be forecast over the MDR consistent with the low-frequency state. Model guidance is more bullish than Tuesday on possible TC formation in the vicinity of Cape Verde during Week-2, resulting in moderate confidence of cyclogenesis for a region roughly between 10-20N and 50W and the African coastline. The west-southwest to east-northeast orientation of the TC formation focus suggests a relatively southern track for the system around the base of the subtropical high, supporting a potential track toward the Lesser Antilles during the first third of September. U.S. interests should also pay close attention to subsequent updates of this outlook for more information as the system possibly comes closer to becoming a reality. The Week-2 West Pacific TC formation area is maintained, while any activity southeast of Hawaii appears less likely resulting in that area being downgraded from the graphic.

Above- and below-normal precipitation regions from Tuesday are updated to reflect the latest guidance regarding TC tracks in addition to dynamical model precipitation forecasts.

----- The original discussion from Tuesday, August 20th follows below. -----

The Madden-Julian Oscillation (MJO) remained incoherent over the past week, while higher frequency modes of variability such as Kelvin and equatorial Rossby waves dominated the tropics. The most prominent of these features appears to be a Kelvin wave that is most recently analyzed near South America, with origins from extratropical wavebreaking over the Southern Hemisphere. Model guidance varies in whether this feature is able to grow and slow down into a full-fledged MJO (ECMWF) or remains transient (CFS and GEFS). This Kelvin wave feature is likely to help relax environmental wind shear across the main development region in the Atlantic for tropical cyclones (TCs), although model guidance continues to project broad subsidence across the basin. While this combination is slightly more supportive for any easterly waves exiting Africa to become TCs, the large-scale subsidence remains a significant limiter for any Cape Verde type systems to develop. The final forecast relies minimally on empirical MJO-based guidance, and instead is heavily influenced by the dynamical models and anticipated TC activity regions.

Tropical Depressions briefly formed in the East Pacific (14N/126W on August 17th) and Central Pacific (10N/170W on August 15th) during the past week. At present the National Hurricane Center (NHC) is monitoring a pair of disturbances in the East Pacific. The first system is presently near 14N/100W and has an 80% (90%) chance of becoming a TC over the next 48 hours (5 days), which translates to high confidence in this outlook. The second system is presently near 14N/121W and has a 40% (60%) chance of undergoing tropical cyclogenesis over the next 48 hours (5 days), which is moderate confidence in this product. The NHC is also monitoring an extratropical low near 40N/64W with slight odds of becoming a TC over the next 48 hours and 5 days (10%), resulting in it being left off this outlook. Elsewhere, the Joint Typhoon Warning Center gives a high chance of a system currently near 14N/133E to become a TC in the next 24 hours, resulting in high confidence for this outlook. During Week-2 TC activity chances are anticipated to be elevated in the Philippine Sea (moderate confidence) and along a band near 10N between approximately 135-155W in the Central Pacific (moderate confidence). The relaxing shear over the Atlantic would support possible introduction of a TC formation region over the Main Development Region during Week-2, but the broad subsidence that continues to be forecast was the deciding factor in omitting such a hazard. The Friday update will likely reconsider things in light of the latest shear and circulation forecasts.

Forecast regions of above- and below-normal rainfall during the next two weeks are heavily influenced by TC tracks in the Pacific. Below-normal rains are also forecast with high confidence during Week-1 across the equatorial Indian Ocean (low frequency state), the East Pacific (increasing vertical wind shear in the wake of the Kelvin wave passage), and tropical Atlantic (persistence subsidence). Above-normal rainfall in Week-1 is also forecast with high confidence tied to the southwest monsoon across India and Southeast Asia and tropical moisture feeding into a stalled cold front along the Gulf of Mexico. Moderate confidence for above-normal rains exists east of New Guinea during Week-1 tied to equatorial Rossby wave activity. During Week-2 high confidence for above-normal (below-normal) rainfall continues across Southeast Asia and the equatorial Indian Ocean through Maritime Continent. Remaining areas with moderate confidence for above- and below-normal rainfall during Week-2 are made based on consensus between the ECMWF, GFS, and CFS models. High confidence also exists for above-normal temperatures across the Desert Southwest through Central Valley of California during the next two weeks tied to anomalous 500-hPa ridging with no clear tropical linkage. For more information on the heat please view the Days 3-7 U.S. Hazards product from the Weather Prediction Center or CPC's Week-2 U.S. Hazards product.

Forecasts made for Africa are made in consultation with the CPC International Desk, and can represent local-scale conditions in addition to global-scale variability.