

The MJO remained weak during the past few days, but most models are still predicting a strengthening signal during the next 10 days. El Nino and tropical cyclones will continue to play a significant role in the global distribution of convection. For the U.S., a cold front is likely to stall over the Florida Straits.

During the past 3 days, Tropical Storm 2 developed over the South Pacific, while Tropical Depression 25W strengthened to become Typhoon Champi near the Northern Mariana Islands. Over the East Pacific, Tropical Depression 19 developed, and is forecast become a category 2 hurricane. Additional tropical cyclone development is likely over the east Pacific, near the Pacific coast of Central America and Mexico. Some models are also indicating development of tropical cyclone in the southern Gulf of Mexico, during the middle of next week along the western end of the stalled front. Later next week, models are also indicating the potential for tropical cyclone formation in the vicinity of 25N/65W, which develops as a wave along that remnant front.

Above average rains are likely along the stalled front, and along the paths of tropical cyclones. Even if the system in the Gulf of Mexico does not become a tropical depression, it will likely result in heavy rains

for the eastern coast of Mexico and the Gulf Coast of the U.S. The above average rainfall shapes were modified to reflect that scenario.

----- Previous Discussion Follows ------

The ongoing, strong El Nino continues to remain the major contributor to large scale tropical convective anomalies. The Wheeler-Hendon RMM MJO index indicates a weak signal with westward movement, while the CPC MJO index based on 200-hpa Velocity Potential features a stationary pattern of upper-level divergence/convergence consistent with El Nino. Dynamical models and statistical tools favor a continued weak MJO signal during Week-1, with an emerging signal over Africa during Week-2.

Tropical Storm Nora formed southeast of Hawii, and is forecast to move toward the Islands, then turn westward, with only minimal impacts likely for Hawaii. Tropical Storm Koppu developed early on Oct 13, and is forecast to move toward the northern Philippines. Tropical Depression 25W also developed over the West Pacific, and is forecast to move across the Northern Marianas Islands. Elsewhere, tropical cyclone formation is likely over the East Pacific from about 140W to 110W. During Week-2, the potential for tropical cyclogenesis returns to the West Pacific, although slightly further east, centered near 160E. Tropical cyclone formation is also indicated by some dynamical models in an area close to the Pacific Coast of Central America.

During Week-1, Anomalous rainfall during the next 2 weeks is based mainly on impacts due to El Nino, along with dynamical model guidance. Above- (below-) average rainfall is likely along forecast tropical cyclone tracks, near the Date Line, and over the eastern Pacific (Bay of Bengal to the Maritime Continent). A cold front is likely to settle across the Gulf of Mexico, enhancing precipitation there, while the Caribbean is likely to experience below-average rains, driven by the El Nino.

During Week-2, above-average rainfall is likely over the Central Pacific while below average rainfall is likely over Southeast Asia and the Maritime Continent. Both of those forecast regions are linked to the ongoing El Nino. Some models are indicating a strengthening MJO anywhere from Africa to the eastern Indian Ocean. Recent observation based analyses indicate a Kelvin wave over the Central Pacific now, and typical propagation speeds would have the Kelvin wave located over the Indian Ocean, so at this time, uncertainty is too high to depict any large-scale, MJO-related impacts to that region.

Forecasts for Africa are done in collaboration with CPC's Africa Desk and based on model forecast guidance and regional scale anomaly features.