

The MJO remained active with a very high amplitude. The amplitude, on July 6th, was the highest July value on record at CPC, based on data going back to 1981. The enhanced convective phase is currently located over the Central Pacific, with both the CPC velocity potential index and the Wheeler-Hendon RMM based index indicating the same general geographic region for enhanced activity and eastward propagation. Propagation has slowed and the amplitude decreased slightly from 5 July to 7 July. Upper-level anomalies of velocity potential and zonal winds indicate a wave-1 structure. The MJO is forecast to constructively interfere with the ongoing El Nino, and Kelvin waves are likely to radiate eastward from the main centers of convection over the Central and East Pacific.

Most dynamical model forecasts of the MJO indicate significant weakening during the next two weeks, although some of that signal might remain stronger than indicated, for two reasons. The current, extreme amplitude is influenced by the three tropical cyclones over the western North Pacific, and because the MJO is moving into a region where the seasonal bias corrections are strongest in their removal of seasonal anomalies. The colocation of the MJO and El Nino signal could result in a slight over correction, removing part of the MJO signal in addition to the seasonal cycle. Statistical models are slightly more bullish on a continued high amplitude event, with eastward propagation to the Americas

and Africa. The overall assessment from the team is that the MJO is likely to weaken, with the El Nino base state emerging as more dominant, and some weak eastward propagation of Kelvin wave activity is likey across the Americas and Africa.

Two tropical cyclones developed during the past week. Tropical storm Linfa developed just east of the the Philippines, while Typhoon (Cat 4) Nangka developed near 172E. During the next two weeks, tropical cyclone activity over the West Pacific is likely to subside, while activity east of the Date Line is likely to increase dramatically. There is a 90% chance of formation about 1300 miles southeast of Hilo during the next 48 hours. Late in Week-1, tropical cyclone formation odds are slightly increased, relative to climatology, to the southwest of Hawaii and near 100W, from 10-15N. Some models are also favoring tropical cyclone formation near 15N/125W. During Week-2, the east Pacific is likely to remain active from about 140W to the coast of Mexico, with some residual formation odds southwest of Hawaii. Should Week-1 be more active, Week-2 will likely be less active than the current outlook depicts.

During Week-1, tropical cyclone forecasts support enhanced rains over the South China Sea and much of the western North Pacific, north of 10N. Dynamical models, the MJO, and the ENSO background state favor below average rains over the Maritime Continent, Northern South America, and much of India. Above average rains are favored from about 170W to Central America.

A monsoon break is likely to extend into Week-2 for much of South Asia, while some area from Southeast China to the Philippines are likely to experience above average rainfall. The seasonal cycle and MJO favor above average rains from 150W to Central America, and below average rains from the central Maritime Continent to near the Date Line.

Forecasts for enhanced or suppressed rainfall across Africa are provided in collaboration with CPC's Africa Desk and are based on regional scale anomaly features.