

The MJO remained coherent and continued to constructively interfere with the ongoing El Nino. Other modes of variability are introducing noise to the pattern, which is exhibiting more of a wave-2 structure than a pure wave-1 structure. CPC velocity potential and Wheeler-Hendon RMM based index values both indicate a strong MJO over the east-central Pacific, despite the wave-2 structure. OLR anomalies indicate Kelvin Wave activity near 40E and potentially the recent emergence of a Kelvin wave near 120W.

Dynamical model guidance has low spread for Week-1, but spread increases dramatically during Week-2. The main driver of that spread increase is the GEFS, which indicates a signal emerging over the Central Pacific, so the resultant trace of convection in the Wheeler-Hendon RMM phase space is a loop. Other models indicate the same eastward propagation during Week-1, then either a small loop, or a decayed signal. Statistical models are more consistent on a continued propagation of the MJO signal, with no distinct end. Hurricane Pali formed over the central Pacific and has meandered near 170W. Hurricane Pali is forecast to move westward through the next week. Tropical Cyclone Ula moved slowly southward over the Coral Sea, reaching category 4 intensity. During the next week, subtropical cyclone formation odds are enhanced over the central Atlantic, quite unusual for this time of year. Over the South Pacific and South Indian Ocean, tropical cyclone formation odds are enhanced, with the highest odds over the South Indian Ocean straddling the Week-1 to Week-2 boundary.

Enhanced odds of tropical cyclone formation extend into Week-2 across the Southern Indian Ocean, likely related to the continued MJO activity, seeded by prior Kelvin wave activity.

The ongoing El Nino favors above (below) average rains across the central Pacific (Maritime Continent/West Pacific, northeast South America), although a Kelvin wave is likely to disrupt the pattern over the Maritime Continent. Above average precipitation is likely over the central South Indian Ocean along with the passage of that Kelvin wave and potential tropical cyclone formation. Above average rains are also likely over the Southeast CONUS consistent with an eastward extension of the subtropical jet over North America. Frontal activity over southeast Brazil favors above average rains.

The major influence for precipitation patterns in Week-2 is likely to be the ongoing El Nino, and that is reflected in the forecast shapes. Above average rains are likely over the central Pacific, with below average rains over the West Pacific (straddling both north and south of the Equator) and over northern South America.

Forecast over Africa are made in direct consultation with CPCs international desk, and can represent local-scale conditions in addition to global-scale variability.