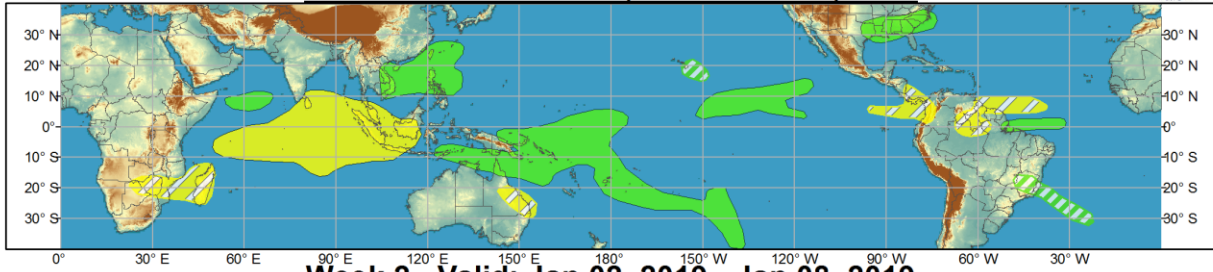




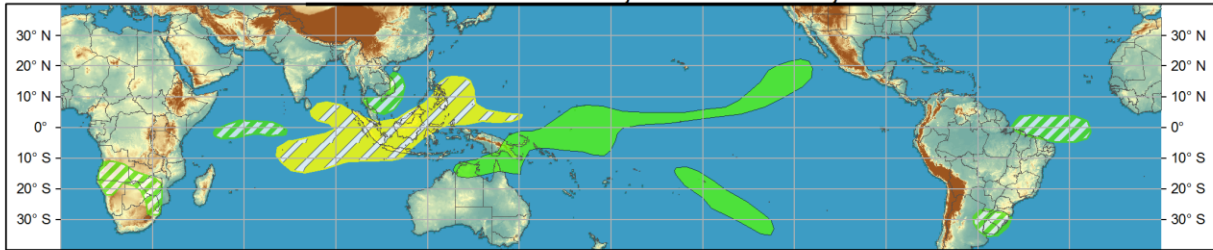
Global Tropics Hazards and Benefits Outlook - Climate Prediction Center



Week 1 - Valid: Dec 26, 2018 - Jan 01, 2019



Week 2 - Valid: Jan 02, 2019 - Jan 08, 2019



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.

Produced: 12/25/2018

Forecaster: Allgood

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.



The MJO remains active, with both the CPC velocity potential and RMM-based MJO indices depicting the enhanced convective phase over the Maritime Continent. While eastward propagation of this intraseasonal signal remains evident in the upper-level wind field, robust Rossby wave activity over the Indian Ocean and Maritime Continent has slowed the forward progression of the MJO on both indices and helped generate a period of enhanced Indian Ocean tropical cyclone activity. The interactions between the MJO and Rossby waves has been the dominant driver of anomalous tropical convection over the past week or two, destructively interfering with the SST-driven low frequency signal. During the next two weeks, dynamical model and statistical guidance favor a continued active MJO pattern, with the enhanced phase propagating to the Pacific. The GEFS develops an extremely high amplitude and slow moving MJO event over the Pacific, while the ECMWF depicts a faster moving and lower amplitude MJO signal. Therefore, anomalous tropical precipitation composites based on canonical MJO events were utilized in addition to dynamical model consensus in the production of this outlook. During the Boreal winter months, Pacific MJO events teleconnect well with the Northern Hemisphere midlatitude pattern, and tend to favor a transition to a negative AO pattern and an increased potential for cold air outbreaks over the eastern CONUS.

Tropical cyclone activity waned over the Indian Ocean, with the remnants of Hurricane Cilida dissipating well south of Madagascar and Le Reunion Island. Tropical Depression 35W formed south of Yap Island, and forecasts from the Joint Typhoon Warning Center show intensification to tropical storm intensity as the system crosses the central Philippines and enters the South China Sea. Impacts from widespread heavy precipitation, including mudslides, are the primary hazard from this system. There is only a low potential for additional tropical cyclogenesis over the next two weeks, with possible areas including a region between the Solomon Islands and Fiji along an enhanced SPCZ during late Week-1, and near the coast of northern Australia during late Week-1 and early Week-2.

Precipitation forecasts are based on a consensus between the GFS, ECMWF, and CFS, track forecasts for existing tropical cyclones (TD 35W), and MJO composites for RMM Phases 6 and 7. During Week-1, broad areas of enhanced (suppressed) convection are favored across the equatorial West Pacific and southeastward along the SPCZ (central Indian Ocean and the western Maritime Continent), consistent with the MJO. A second region of enhanced precipitation across the central and eastern North Pacific is also favored as the MJO begins constructively interfering with the low frequency state. Enhanced rainfall due to TD 35W is favored across the Philippines, South China Sea, and parts of Southeast Asia, while an active midlatitude storm track will provide a focus for heavy rainfall across the southeastern CONUS.

During Week-2, continued eastward propagation of the MJO favors enhanced (suppressed) precipitation across much of the tropical Pacific (equatorial Maritime Continent), with constructive interference between the MJO and the low frequency state favoring an enhanced ITCZ across the North Pacific. Enhanced precipitation, possibly from the remnants of TD 35W, is favored to persist over parts of Southeast Asia, while an area of disturbed weather is forecast to bring enhanced convection to northern Australia and the Gulf of Carpentaria, with only a low potential for tropical cyclone formation.

Forecasts over Africa and South America are made both in consultation with the CPC international desk and using dynamical model consensus, and therefore can represent local scale conditions in addition to global scale variability.