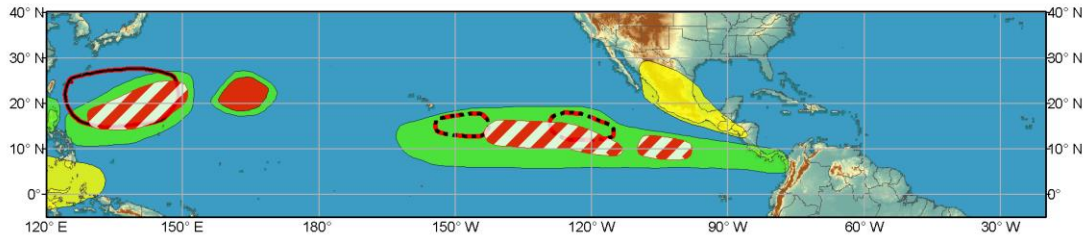




# Global Tropics Hazards and Benefits Outlook - Climate Prediction Center



**Week 1 - Valid: Jul 21 2018 - Jul 24 2018**



**Week 2 - Valid: Jul 25 2018 - Jul 31 2018**



**Confidence**  
High Moderate

**Produced: 07/20/2018**  
**Forecaster: MacRitchie**

- 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.**



The MJO is now in Phase 6 and its convectively active region is emerging over the Western Pacific. The dynamical guidance is split the same way it was on Tuesday: some ensemble members forecast the MJO to continue over the Western Pacific and re-emerge over the Indian Ocean in early August, while others predict that the MJO will weaken over the next couple of weeks. Either way, active convection associated with the MJO is present over the Western Pacific and is expected to remain that way through the end of Week-1.

The forecast region of above-average rainfall over the Western Pacific was tweaked and divided into two areas to better match updated model guidance. TS 12W, "Ampil" formed at the beginning of the forecast period. Although further formation is possible in the same area by the end of the Week-1 period, model guidance is uncertain, so confidence has been reduced to moderate. There is higher confidence of tropical cyclone formation a bit further east, especially towards the end of this weekend.

An atmospheric Kelvin Wave is currently over the East Pacific. Combined with warm SSTs, low shear, and adequate vorticity, there is moderate confidence of tropical cyclone development over a wide area of

the East Pacific in both Week-1 and Week-2. The tropical cyclone forecast regions have been tweaked slightly to better align with the National Hurricane Center's forecast during the rest of Week-1. The region of potential tropical cyclone development during Week-2 was widened further in accordance with the latest GFS and ECMWF runs.

----- Previous discussion from July 17, 2018 is below: -----

The RMM index suggests that the MJO has been in Phase 5 since the beginning of last week and dynamical models forecast it to continue into Phase 6. Some ensemble members weaken the MJO quickly during Week-2, while others keep the MJO active and propagate it westward. This forecast assumes that the MJO will propagate into Phase 6 and remain at least active enough to influence the precipitation patterns in the western and central Pacific through Week-2.

The Week-1 forecast features above-average rainfall in the western/central equatorial Indian Ocean, below-average rainfall over much of the Maritime Continent, and above-average rainfall stretching from Myanmar to the northern Philippines. This is supported by dynamical models and MJO composites of average rainfall patterns when the MJO is in Phases 5 and 6. Further east, there is high confidence of above-average rainfall over the Philippine Sea. Most of the dynamical models support formation of a tropical cyclone over this region during the first half of the period.

East of the Dateline, above-average rainfall is expected to extend from about 160W to the Eastern Pacific south of 20N, and below-average rainfall is expected over Central America during Week-1. These regions are supported by historical MJO composites and the ECMWF model which further suggests a moderate risk of tropical cyclone formation around 150W and 120W. The Central Pacific Hurricane Center is monitoring the western region and currently has 30% confidence that it will develop into a tropical cyclone over the next five days. Similarly, the National Hurricane Center currently predicts a 20% chance that tropical cyclone development will occur in the eastern region during the next five days. Dynamical models suggest that development in these areas could occur during the late part of the Week-1 forecast period, and we will continue to monitor these areas closely. Updates will be provided on Friday.

Rainfall patterns consistent with the MJO in phase 6 are expected during Week-2 and supported by CFS and ECMWF model guidance. There are moderate risks that below-average rainfall will continue over

much of the Maritime Continent and above-average rainfall will continue over southeastern Asia and the Philippine Sea. A moderate risk of tropical cyclone development continues into early Week-2 and is shifted further east than during Week-1, over the northwest Pacific. There are also indications that tropical cyclone development is possible over the eastern Pacific between 10-15N.

Forecasts over Africa are made in consultation with the CPC international desk, and can represent local-scale conditions in addition to global-scale variability.