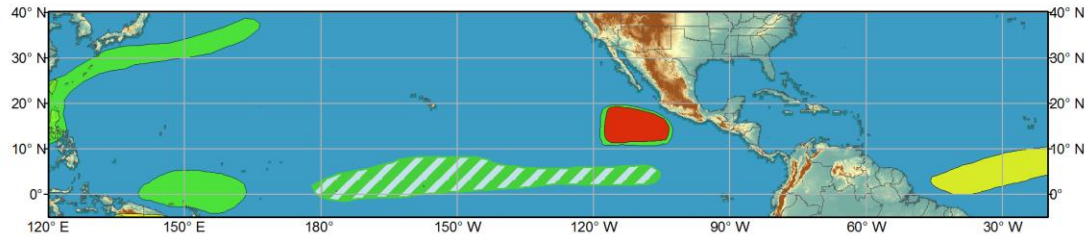




Global Tropics Hazards and Benefits Outlook - Climate Prediction Center

Week 1 - Valid: Jun 23 2018 - Jun 26 2018















Week 2 - Valid: Jun 27 2018 - Jul 03 2018



Confidence
High Moderate

Produced: 06/22/2018
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.



中央氣象局
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The most substantial changes in today's update are found in the Eastern Pacific. Model guidance has picked up on the potential for tropical cyclone formation during Week-1 and there is now high confidence that at least one, but perhaps two, tropical cyclones will develop in the East Pacific within the next five days. This decision is supported by a series of vorticity maxima forecast to move over an area of warm SSTs and low wind shear. These same factors are expected to continue into Week-2 and model guidance is still supportive of tropical cyclone formation. The forecast tropical cyclone and above-normal rainfall regions have been expanded eastward and upgraded to high confidence to account for updated model developments.

Models also indicate that a surface trough will lead to above-average rainfall over an area that encompasses southern Florida eastward to the Bahamas during Week-2. Elsewhere, dynamical guidance has not changed much from Tuesday, which is still uncertain about the strength and duration of the MJO, so there are no additional changes to the forecast.

The original forecast discussion follows:

The suppressed phase of the MJO extends from the Indian Ocean to the Maritime Continent this week, although the MJO projection on the RMM index is weak because the strongest convective signal is well north of the Equator. Most dynamical models suggest that the suppressed convection will move eastward and be replaced by active convection over the Indian Ocean during the next few days. This will likely result in a stronger projection onto the RMM index in Phases 1 and 2 and we expect a typical progression eastward over the next few weeks, although there is considerable model disagreement about how strong the MJO will be and how far east it will propagate before breaking down.

The active phase of a convectively coupled atmospheric Kelvin wave is over the Date Line now and expected to propagate eastward during Week-1. Its convective signal should dissipate once it reaches the Americas, but most model guidance indicates that the circulation component of the Kelvin wave will race over the Americas and Atlantic and re-couple to convection over the Indian Ocean during Week-2. This wave may act as a potential trigger for tropical cyclogenesis in the East Pacific during the last few days of the Week-2 period. The GFS has consistently created a tropical cyclone in the East Pacific during the last few days. An area with moderate confidence of TC formation and above-average rainfall has been forecast for Week-2 to reflect this potential due both to the dynamical guidance and the passage of the aforementioned Kelvin wave.

There is moderate confidence that low pressure over India will bring above-average rainfall to the Northeastern part of the country, as well as over the Bay of Bengal. This forecast is supported by ECMWF guidance and the possible development of active MJO convection during Week-1.

There is high confidence that a stalled frontal zone will bring moisture to a region north of the Philippines stretching up to southern Japan during Week-1 and moderate confidence that the front will remain stalled during the first part of Week-2. There is also high confidence of an area of above-average rainfall north of Papua New Guinea and an area of below-average rainfall to its southwest during Week-1. These regions align with anomalously warm SSTs to the north and anomalously cold SSTs to the south.

There are several regions in the Central Pacific north of the Equator that are forecast, with moderate confidence, to receive above-average rainfall during both forecast weeks. Kelvin wave and MJO activity will probably be the driving force behind the anomalous rainfall, but anomalously warm SSTs in the same regions will be an important contributing factor. We also have high confidence that low pressure north of New Zealand will contribute to above-average rainfall during Week-1 and moderate confidence that it will remain during Week-2.

A southern shift in the ITCZ is expected over the south-central Atlantic causing high confidence in a region of below average rainfall over this area and moderate confidence in the same during Week-2.

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