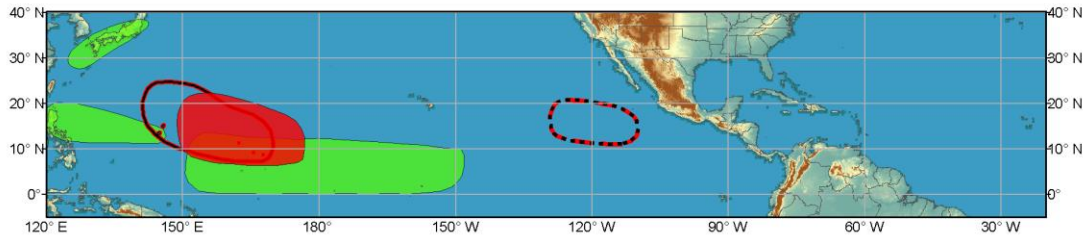




Global Tropics Hazards and Benefits Outlook - Climate Prediction Center



Week 1 - Valid: Jul 12 2014 - Jul 15 2014



Week 2 - Valid: Jul 16 2014 - Jul 22 2014



Confidence
High Moderate

Produced: 07/11/2014
Forecaster: Allgood

- 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 amplitude of the Wheeler-Hendon RMM MJO Index increased during the past several days, with the enhanced convective phase propagating rapidly over the Maritime Continent, suggestive of Kelvin Wave activity. Dynamical models are in better agreement favoring the potential for this activity to evolve into a lower frequency subseasonal mode more consistent with MJO activity over the West Pacific.

Tropical Storm Nine developed on 11 July, and is currently forecast to move westward towards Guam before strengthening to typhoon intensity east of the Philippines. Continued enhanced convection west of the Date Line and dynamical model guidance indicate a continued potential for additional tropical cyclogenesis over the western Pacific basin during the remainder of the Week-1 period. Also, the MJO may contribute to an enhanced potential for additional tropical cyclone activity into the Week-2 period. Strong vertical shear over the eastern Pacific lowers the potential for tropical cyclone development during the remainder of the Week-1 period, however, a moderate potential for tropical cyclogenesis continues during Week-2, based on dynamical model guidance.

The original forecast discussion released on 8 July follows.

An incoherent subseasonal pattern of tropical convective and zonal wind anomalies contributed to weak signals on both the Wheeler-Hendon (RMM) and CPC MJO indices during the past week. The spatial pattern of upper-level velocity potential anomalies exhibited influences from higher frequency modes, such as tropical cyclone activity over the eastern Pacific and anomalous divergence over Africa. During the past several days, however, these conflicting signals have weakened. Additionally, constructive interference of a strong equatorial Rossby Wave (ERW) and a Kelvin Wave over the eastern Indian Ocean and Maritime Continent contributed to an ongoing large area of enhanced convection. The RMM Index has responded to this evolution and is currently projecting a signal in Phase-4.

Dynamical model MJO index forecasts are consistent with a rapid propagation of this signal eastward over the Maritime Continent during the upcoming week, likely due to influence from the Kelvin Wave. Beyond this period, however, the GFS weakens the MJO signal while the CFS, UKMET, and ECMWF models continue a slower eastward propagation over the western Pacific. There is uncertainty whether the enhanced convection over the Maritime Continent associated with the interactions between a more transient Kelvin Wave and the ERW will evolve into a more robust subseasonal signal on the MJO time scale. Due to the consensus among numerous dynamical models, however, impacts of MJO propagation from the Maritime Continent to the West Pacific were considered for this outlook.

Tropical cyclones developed over both the eastern and western Pacific basins during the past week. Super Typhoon Neoguri, the third typhoon of 2014 and the first major cyclone, developed east of the Philippines on 3 July. The storm rapidly intensified as it moved northwestward into the South China Sea. Dynamical models forecast a landfall over southern Japan early in the period as the tropical cyclone recurves to the northeast. Tropical Storm Fausto developed on 7 July at a low latitude well southwest of the Mexican coast. Little intensification of this system is forecast during the upcoming week as it moves to the west northwest, although the unusually far westward forecast track may bring impacts such as high seas to the Hawaiian Islands if the tropical cyclone maintains intensity. During the upcoming week, tropical cyclogenesis is favored over the northwestern Pacific north of New Guinea, with two distinct dynamical model track forecast clusters on a west northwest or north northwestern track. Additional tropical cyclogenesis is also possible over the eastern Pacific basin during both the Week-1 and Week-2 periods, with enhanced trades suppressing any development further southwest than normal.

Enhanced convection associated with monsoon flow and the Kelvin Wave is anticipated over eastern India, the northeastern Indian Ocean, the South China Sea, and the northwestern Maritime Continent

during Week-1. Interference between the subseasonal signal and suppression in the wake of Super Typhoon Neoguri increases uncertainty over the Philippines and the northwestern Pacific. Further east, enhanced convection is forecast along the ITCZ from approximately 150E to 150W. Enhanced convection is also forecast across southern Japan in association with Neoguri.

During Week-2, enhanced convection is forecast across parts of Southeast Asia, the South China Sea, the Philippines, and much of the western Pacific based on the consensus among the CFS, ECMWF, and MJO Phase-5 and 6 composite diagrams. Suppressed convection is anticipated over the equatorial eastern Indian Ocean as well. There is less support among the dynamical models for enhanced convection across the central Pacific, although the GFS and CFS both indicate enhanced convection along the ITCZ east of 150W.

Forecasts of enhanced or suppressed convection across Africa are based on regional scale anomaly features and were produced based on collaboration with the CPC Africa Desk.