



Global Tropics Hazards and Benefits Outlook - Climate Prediction Center



Week 1 - Valid: Apr 13, 2016 - Apr 19, 2016



Week 2 - Valid: Apr 20, 2016 - Apr 26, 2016



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Forecaster: Artusa

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.

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.



A fast-moving intraseasonal signal, evident in the RMM MJO Index and the upper-level velocity potential field, has propagated from Africa to the eastern Indian Ocean and weakened this past week. MJO activity overall has become less coherent in the past 1-2 weeks, associated with various intraseasonal modes becoming increasingly out of phase. As a result, lower confidence is assigned to the GTH outlook. Incidentally, even though the El Nino is weakening, which is typically the case during boreal springtime, SSTs in the South Pacific (from just south of the Equator to about 20S, and from about 170E to 140W) are still very warm (30 C). These warm ocean temperatures continue to support convection in this area.

Dynamical model RMM MJO Index forecasts depict a weak MJO signal during the next two weeks. Most models forecast the enhanced phase to be located over the Indian Ocean, though a few models expand the envelope of solutions to include the Maritime Continent and West Pacific. Statistical guidance such as the Constructed Analog model depicts a more robust Indian Ocean/Maritime Continent MJO event. Based on these various tools, the MJO is anticipated to remain fairly weak and incoherent during the next two weeks, and is not expected to play a substantial role in the global tropical convective pattern.

Tropical Cyclone Zena developed near northern Vanuatu on April 5, 2016, and tracked southeastward, passing just south of Fiji about 24 hours later. The Joint Typhoon Warning Center (JTWC) based in Honolulu reported top sustained winds of 90 mph near its closest approach to Fiji. By April 7, Zena had weakened to a tropical storm as it continued to move away from Fiji to the southeast. On April 11, tropical storm Fantala (TC 19S) formed over the southern Indian Ocean, several hundred miles south of Diego Garcia. The JTWC expects Fantala to head west during the next 5 days, reaching a maximum intensity of about 120 knots. No other tropical cyclones are expected to form during the Week-1 or Week-2 periods.

Due to uncertainty regarding the evolution of the global tropical convective pattern, the precipitation outlook relies heavily on dynamical model consensus, in particular the ECMWF and CFS models. During Week-1, enhanced convection is forecast in the South Pacific from the Solomon Islands eastward and southeastward across American Samoa, Tahiti in French Polynesia, the Pitcairn Islands, and continuing southeastward to about 40S/110W. Confidence in this area is considered High, as it approximates the position of the SPCZ. Other areas of anticipated upper-tercile precipitation and enhanced convection (moderate confidence) are indicated over Bangladesh/northern Burma, southern China, and Uruguay, which are thought to be related to mid-latitude frontal activity. High confidence for upper-tercile precipitation is indicated over the central and southern U.S. Plains, and the Lower Mississippi Valley, related to frontal and cyclonic activity. Suppressed convection and lower-tercile precipitation is predicted across four discrete areas, which include the north coast of Australia/Timor Sea region, Vanuatu/New Caledonia, an area south of French Polynesia, and across a band just north of Papua New Guinea and the Solomon Islands. Confidence is considered high in these areas.

During Week-2, dynamical model solutions diverge considerably. Only two areas of upper-tercile rainfall are indicated on the map. The first includes the near-equatorial region of the central and eastern Indian Ocean, and portions of western Indonesia. The second area is in the South Pacific, and runs from about 5S/175E to 20S/145W, which passes north and east of Fiji, and includes American Samoa and Tahiti. Confidence is considered moderate in both cases.

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