



Global Tropical Hazards/Benefits Outlook - Climate Prediction Center



Week 1 - Valid: Dec 05, 2012 - Dec 11, 2012



Week 2 - Valid: Dec 12, 2012 - Dec 18, 2012



Produced: 12/04/2012

Forecaster: Baxter

Confidence		
High	Moderate	
		Tropical Cyclone Formation Development of a tropical cyclone that eventually reaches tropical storm/cyclone 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. 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 weak with other tropical coherent subseasonal modes of variability playing stronger roles in anomalous tropical convection during the past few weeks. An atmospheric Kelvin wave and an equatorial Rossby wave have contributed to enhanced convection around 80-90E during the past week. The MJO forecast is very uncertain going forward, with a split between the GFS and ECMWF solutions. The former, along with the Canadian ensemble, suggest a weak MJO signal propagating through phases 3 and 4 (as represented by the RMM index) during Week-1 before losing amplitude. The ECMWF suggests the RMM index rapidly decreases in amplitude. At the current time, the latter seems more likely given recent observations, although there is some possibility that a more robust MJO signal may develop across the western hemisphere to the Indian Ocean (enhanced phase) during later Week-2 into Week-3.

The Week-1 forecast is based on a very weak MJO signal, the equatorial Rossby wave, dynamical model rainfall forecasts, and statistical forecasts of the evolution of subseasonal tropical modes. The area highlighted for above average precipitation near the Philippines is associated with Typhoon Bopha. Drying over parts of the eastern Indian Ocean and the Maritime continent is supported by compensating subsidence from the typhoon and dynamical model precipitation forecasts. Convection over the Bay of

Bengal associated with a tropical disturbance that did not become a tropical cyclone is forecast to move westward in step with the equatorial Rossby wave. It may produce enhanced convection over a relatively small area of the north-central Indian Ocean. The north-south dipole of enhanced/suppressed anomalous precipitation over South America is supported by good model agreement between the GFS and CFS. Superposition of weak subseasonal modes (equatorial Rossby wave and possibly remnant MJO), as well as dynamical model precipitation forecasts support below-median precipitation in the West Pacific centered just south of the Equator and west of the Date Line. Moderate confidence is issued here due to high SSTs that could amplify any disturbance that enters this region.

Tropical cyclone formation is likely in the southern Indian Ocean during Week-1. This area was identified last week and is poised to develop in the western portion of our highlighted area from the previous forecast last week. It is currently forecast to move generally southwestward.

Given the high uncertainty of the MJO in Week-2 and little current signal from other subseasonal modes, there is little forecast coverage. Only a moderate area for above-median precipitation remains over northern South America, supported by very weak signals from the statistical tropical mode forecasts and the CFS/GFS. While confidence is too low to include on the map, it is possible that renewed MJO convection emerges in the western Indian Ocean during this time, coupled with anomalous subsidence over the western Pacific and eastern Maritime Continent.

Given the continued weakness of the MJO, it is difficult to make any reliable statement regarding the extratropical impact of intraseasonal tropical variability at this time. Anomalous upper-level divergence over the eastern Indian Ocean, though not strictly MJO, could influence the mid-latitudes via a retraction of the east Asian jet stream. However, the Northern Hemispheric circulation appears to be dominated by regional teleconnection patterns superimposed on a negative annular mode.