



Global Tropical Hazards/Benefits Outlook - Climate Prediction Center



Week 1 - Valid: Feb 13, 2013 - Feb 19, 2013



Week 2 - Valid: Feb 20, 2013 - Feb 26, 2013



Confidence
High Moderate

- Tropical Cyclone Formation**
- Above-average rainfall**
- Below-average rainfall**
- Above-normal temperatures**
- Below-normal temperatures**

- Development of a tropical cyclone that eventually reaches tropical storm/cyclone strength.
- Weekly total rainfall in the upper third of the historical range.
- Weekly total rainfall in the lower third of the historical range.
- 7-day mean temperatures in the upper third of the historical range.
- 7-day mean temperatures in the lower third of the historical range.

Produced: 02/12/2013

Forecaster: Gottschalck

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 remained active over the past week with the enhanced convective phase generally centered across Africa and nearing the Indian Ocean (IO). Multiple areas of enhanced convection across the global Tropics are generally typical when the MJO is in its current phases and enhanced convection was observed over parts of the south-central Pacific, northwest South America and the Gulf of Guinea region of Africa in part associated with the MJO. A combination of atmospheric Kelvin wave and equatorial Rossby wave activity likely enhanced convection across the eastern Indian Ocean during the past week including the development of tropical cyclone Gino in the south central Indian Ocean. Suppressed convection was strong across the southern Maritime continent (MC), northern Australia and into the southwest Pacific Ocean.

Agreement of dynamical model forecasts of the RMM index has improved as compared to the last couple of weeks and all models forecast fast eastward propagation of a MJO signal across the Indian Ocean to the MC over the next two weeks. The propagation speed of the forecasts are likely being influenced by atmospheric Kelvin wave activity which travel considerably more quickly than the MJO. The RMM forecasts, inspection of the other modes of subseasonal tropical variability and raw precipitation forecast anomalies, the MJO enhanced convection may effectively bypass much of the

Indian ocean and may become more robust on a broad scale across the eastern IO and MC during Week-2. We favor a continuation of the MJO with the enhanced convective phase shifting to the MC over the next 2 weeks.

The outlook is primarily based on impacts associated with the MJO and adjusted by model guidance where deemed helpful especially during Week-1. For Week-1, below-median rainfall is favored for a region spanning the southern MC, northern Australia into the southwest Pacific ocean associated with the MJO along with consistent signatures in model guidance. Chances for above median rainfall are elevated for a narrow region from the northern IO across the northern sections of the MC into the western Pacific primarily due to model guidance. Both model guidance and the MJO favor a threat for above-median rainfall and tropical cyclogenesis for parts of southeast Africa, the Mozambique Channel and Madagascar. The threat for tropical development is moderate and primarily focused at the end of Week-1 into early Week-2. The south central Pacific ocean supported by MJO composites and model precipitation forecasts. Model guidance is used for favored below-median rainfall for Hawaii and northeast Brazil and above-median rainfall for portions of interior South America. An area of disturbed weather in the eastern IO is forecast by some model guidance to move west-southwest into a favorable environment for development, so a high risk of tropical cyclogenesis is shown for the south-central IO.

During Week-2 enhanced convection is forecast to be centered across the MC with a remaining area for below-median rainfall highlighted for the southwest Pacific islands. Consistent with the MJO, the chances for tropical cyclogenesis are favored across the central and eastern IO.

Below-median rainfall is favored across interior Brazil throughout the period consistent with the MJO and further supported by model guidance.

For the U.S., the MJO favors, on average, a mean trough across the western U.S. near or just after mid-February suggesting elevated chances for below normal temperatures across parts of the western U.S.. As we approach the end of February into early March, the MJO would favor a retrogression of the ridge trough pattern across the mid-latitude Pacific - North America domain and would elevate odds for troughing near or along the west coast and a tendency toward a mean ridge across the eastern U.S., favoring elevated chances for above-normal temperatures for portions of the east central U.S. and a more active weather pattern for the western U.S. with enhanced chances for above-median precipitation in areas that have seen on average below-median rainfall the last several weeks. The latter is currently at odds with Week-3 extended range model guidance.