**Week 1 - Valid: Feb 03, 2016 - Feb 09, 2016**
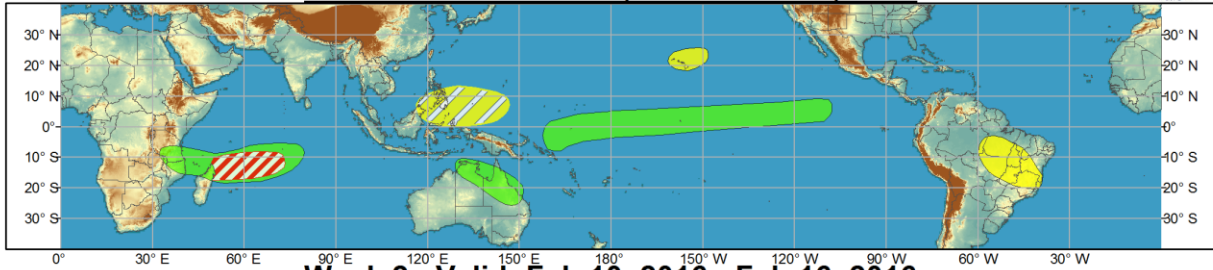
**Week 2 - Valid: Feb 10, 2016 - Feb 16, 2016**
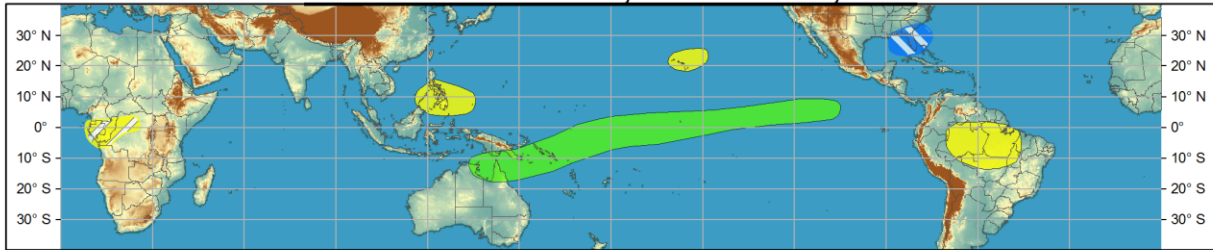
Produced: 02/02/2016
Forecaster: Pugh

| | 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.**

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The MJO weakened during mid to late January due in part to destructive interference with the ongoing El Nino. Upper-level diagnostic tools indicate that the MJO became more organized at the end of January as a Wave-1 structure developed in the 200-hpa Velocity Potential anomaly field. However, upper-level divergence remains relatively weak across the Maritime Continent due to the background state of El Nino. OLR anomalies indicate a pair of Kelvin Waves recently enhancing convection across the eastern Indian Ocean and near the Date Line.

Dynamical model forecasts of the MJO index support an increase in amplitude of the MJO but differ on its eastward propagation. The favored ECMWF model solution, which had better forecast skill with the previous MJO event during December 2015 through early January 2016, indicates that a strengthening MJO propagates east across the Maritime Continent during the next two weeks. Beyond Week-2, the monthly ECMWF model solution on January 29 predicts a robust MJO signal with eastward propagation across the Pacific Ocean.

On January 30, Tropical Cyclone Stan (maximum sustained winds of 65 knots) made landfall along the Pilbara coast of Western Australia.  The most likely area for tropical cyclone development during the next two weeks exists across the southwest Indian Ocean during Week-1. The GFS model indicates the potential for two tropical cyclones, near the northeast coast of Madagascar and from 10-15S/65-70E. During Week-2, the expected evolution of the MJO poses an increased risk of tropical cyclone development near northern Australia. However, low forecast confidence on a particular area precludes designation of a favored tropical cyclone development shape on the map.

Above-median precipitation forecast from northern Mozambique east to the southwest Indian Ocean along with parts of Australia during Week-1 is based on current satellite imagery and model guidance. MJO precipitation composites for Phases 4 and 5 support a drying trend across the Indian Ocean and below-average rainfall across parts of Africa during Week-2. Good model agreement favors below-median precipitation across the southern Philippines and surrounding waters during the next two weeks. El Nino favors the persistent areas of above (below)-median precipitation across the equatorial central Pacific (Hawaii and parts of northern South America). Constructive interference between a strengthening MJO signal and El Nino may begin near the Date Line by the end of the Week-2 period.

An amplifying upper-level trough across eastern North America favors below-normal temperatures across the Southeastern U.S. during Week-2. The deterministic GFS model run continues to indicate the risk of a damaging freeze across Florida from February 10 to 12.

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