MJO Index Information

NOAA/NWS/NCEP/Climate Prediction Center
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The Realtime Multivariate MJO (RMM) index is a convenient tool to view the state of the MJO. The original paper describing this index can be found here:

> Wheeler, M. and H. Hendon, 2004: An All-Season Real-Time Multivariate MJO Index: Development of an Index for Monitoring and Prediction. *Mon. Wea. Rev.*, **132**, 1917-1932.

In short, the RMM index divides the location of the MJO into eight phases using equatorially-averaged outgoing longwave radiation and the zonal wind fields at 200- and 850-hPa. Each of these phases represents an approximate geographic location around the globe, as specified in the figure below. The strength of the MJO is approximated by its distance from the center of the diagram; MJO events with a distance less than 1 are usually considered to be weak, not coherent, or inactive.

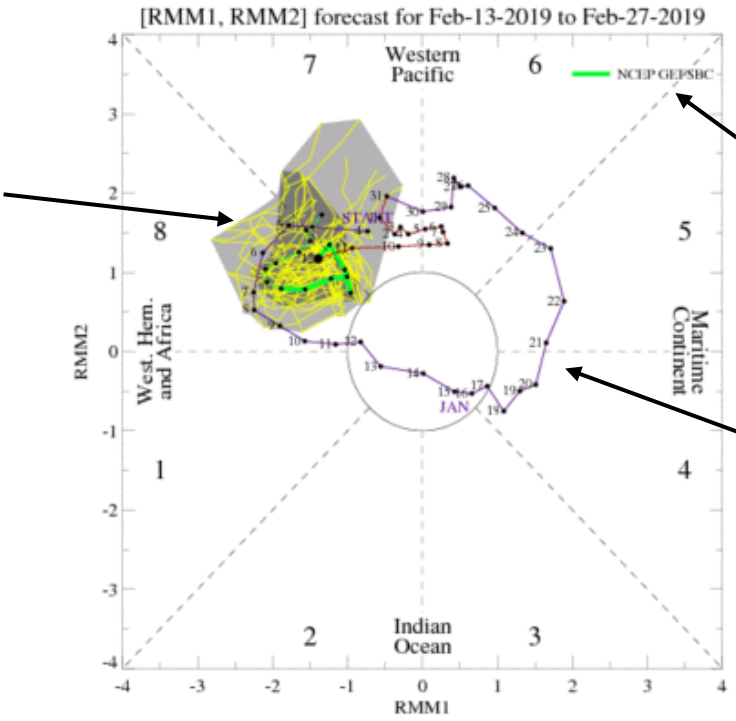
The figures on our website update each day for which a model run is available. Some models are not run every day, so it's important to take note of the forecast date in each figure's title.

Ensemble Information

Each yellow line represents an ensemble member.

The bold green line represents the ensemble mean.

The light (dark) gray shading represents the area in which 50% (90%) of the ensemble members reside.



The forecast model is specified in the upper-right corner of the figure.

The MJO always propagates eastward which is indicated by a counter-clockwise line on these figures.