

## **The importance of the Atlantic basin and the extratropics to MJO initiation and eastward propagation**

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There is a significant relationship between tropical intraseasonal convective cycles in the Eastern and Western Hemispheres (i.e. warm pools of the Indian and Western Pacific Oceans and South America). Even though this relationship is robust, strong intraseasonal events over one region do not necessarily translate into strong events over the other. Two main factors are identified as fundamental constraints to this relationship: the state of the Atlantic basin and the ability of teleconnection organization by tropical intraseasonal convective cycles. The Atlantic basin, delimited by the Andes and the African Highlands, act as a filter for intraseasonal circulation anomalies and, sometimes, as a trigger to Indian Ocean convection. This triggering mechanism is, to a large degree, independent of eastward circumnavigating signals. The ability to organize teleconnections depends on the basic state of the extratropical atmosphere during the MJO development. Furthermore, the degree of MJO teleconnectivity offers evidences that the state of the extratropics influences MJO initiation and consequent eastward propagation. These features are deeply affected by ENSO phases and help to clarify some aspects of interannual MJO variability. This framework is used to describe active convective phases sampled by DYNAMO.