Equatorial Travelling Ionospheric Disturbances (TIDs) compared with midlatitude TIDs.

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A spaced radio experiment for measuring the motions of F-region TIDs has been operated in Brazil since March 2010. The location is near the easternmost tip of Brazil at 7 deg. south latitude or about -11 deg. geomagnetic lat. These are the first systematic measurements of TIDs near the equator. The results are notably different from similar measurements at midlatitudes. It was originally expected that the TIDs in Brazil might be associated with weather disturbances in the Amazon region. However, the measurements do not seem to point to this or to any other obvious source during the period of these measurements.

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TID propagation in Brazil:-

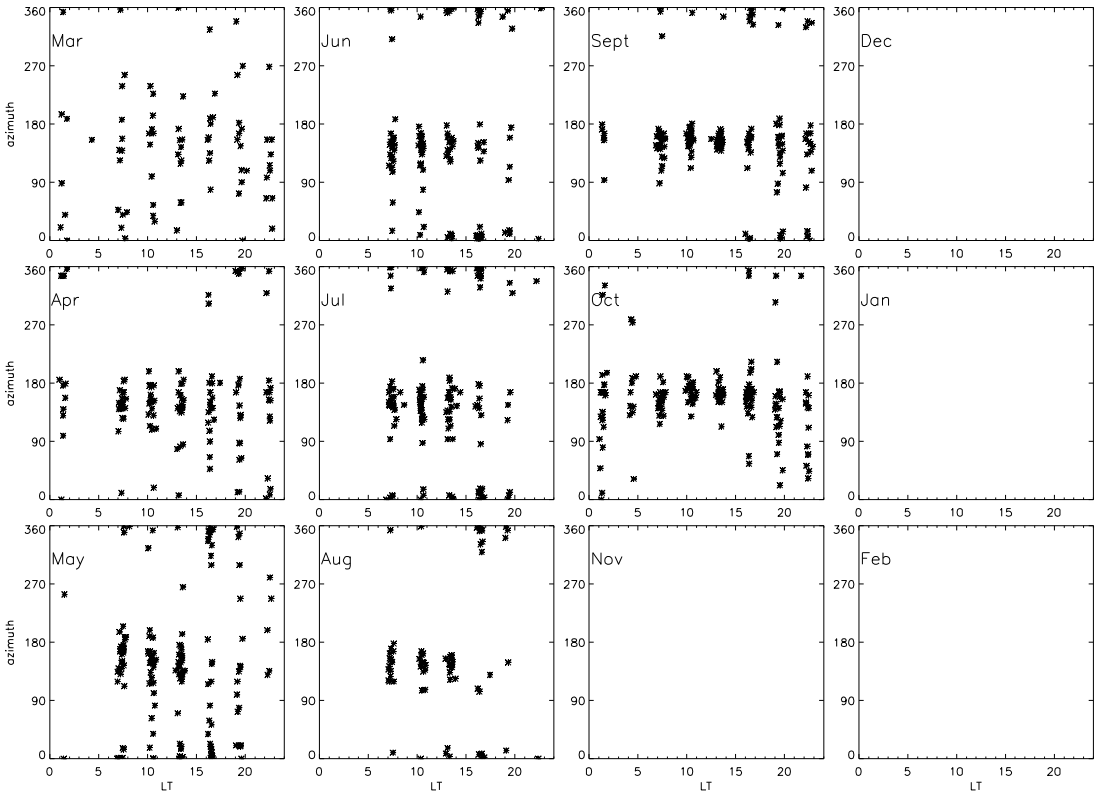


Figure showing direction of TID propagation in Brazil for months March-October, 2010

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