

Title : An investigation of the activity of the equatorial planetary scale waves by using wind observational measurements and model simulations

Session: S3: Wave propagation between low/middle atmosphere and ionosphere

Preferred type of presentation: Poster

Abstract:

Using wind measurements obtained by a meteor radar located in the equatorial region at São João do Cariri (7.4°S, 36.5°W) and simulations by the Kyushu University General Circulation Model (Kyushu GCM), we studied the activity and characteristics of equatorial planetary scale waves with periods ranging between 3 and 8 days in the MLT region. In this analysis a data set of the zonal and meridional wind components, obtained between July 2004 and December 2006, and model simulations corresponding to this time interval are used. Preliminary analysis shows that the wave activity is significant in the period range of 3-4 days and 5-7 days in both meteor winds and model simulations. Wave activity predicted by the model in the MLT shows a reasonable agreement with observational results. In this presentation we will show the main features of the wave activity in these two frequency bands and discuss the interpretation of these findings in terms of the theoretical predictions.

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