

Title : Influence of 2-day Planetary wave in the equatorial ionosphere

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

Preferred type of presentation: Oral

Abstract:

In the South American equatorial region over Brazil at Fortaleza (3.8°S, 38.6°W), we observed 2-day oscillation in the day to day variability of the ionospheric F layer maximum critical frequency (foF2) during the period of January to February. During the same period, the MLT winds observed at Cariri(7.4°S, 36.5°W) demonstrated the presence of Planetary 2-day wave. Therefore we studied possible coupling structure of the 2-day wave into the ionosphere.

Plasma transport by thermospheric meridional wind arising from modulation of tidal field by the 2-day wave might have important roles on the 2-day oscillation of foF2 in the ionosphere.

Influence of the planetary waves in generation of plasma bubbles are also discussed.

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