

Results of the horizontal and meridional thermospheric winds in the cachoeira paulista (22.5s; 45w), a low latitude station in Brazilian region

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At this point, 74 nights have been observed during the period of May 2002 to March 2003, high to low solar activity period, by Fabry-Perot Interferometer operating at Cachoeira Paulista - CP (22.5S; 45W). This study focuses the monthly and seasonal analysis of the horizontal and meridional components of the thermospheric winds at CP. For the studied region, the zonal component of the thermospheric winds is predominantly eastward during the nocturnal hours and the meridional component is southward in the initial nocturnal hours and northward in the end of the night. Undisturbed F-region e-folds at low latitudes are primarily generated by the thermospheric winds. Ionosphere plasma drifts and thermospheric winds are important transport mechanisms that affect the electron density distribution. The results observed are compared with HWM93 model. KEY WORDS: Fabry Perot Interferometer, Thermospheric Winds, OI 630nm.

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