

# IMPACTS OF THE EVENING PREREVERSAL ELECTRIC FIELD ENHANCEMENT IN ASCENDING MOVEMENT OF THE INTERMEDIATE LAYERS OVER BRAZIL

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## Abstract:

Using Digisonde data from the equatorial site of São Luís - Brazil (SL, 2° S; 44° W, I = -3.8°) during the solar activity maximum (2003) and minimum (2009) periods, respectively, the relationship between the ascending movement of the intermediate layers (ILs) at sunset and the prereversal enhancement of the zonal electric field (PRE) is investigated. The presence of the ILs during the PRE occurrence frequency was very low during both years. The results show that depending on the height at which the ILs occur, their upward movement at sunset can be in some way related to the normal evening F layer rise due to the PRE. It was observed, further, that the eastward prompt penetration electric fields (PPEFs) during weak magnetic storms can also contribute to the IL's rise.

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