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Space Weather and Earth's Atmosphere-Ionosphere (C1.5)

AN OVERVIEW OF THE BRAZILIAN LOW-LATITUDE IONOSPHERIC RESPONSE TO SPACE WEATHER EVENTS DURING THE DECLINING PHASE OF SOLAR CYCLE 24

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This study shows an overview of the Brazilian low-latitude ionospheric response during the declining phase and solar minimum of solar cycle 24. It is well-known that during the descending phase, solar low-latitude coronal holes are responsible by solar wind high-speed streams, HSSs, and corotating interaction regions CIRs-driven geomagnetic storms. Although distinct in nature, intensity, and duration of their counterpart Coronal Mass Ejection, CMEs/ICMEs-storms, these solar events can significantly change the low-latitude ionosphere for several days. By using multiple ground-based and satellite instrumental techniques, we analyzed the variation of the Total Electron Content, TEC, its deviation from the quietest average days behavior, and other ionospheric parameters and indices. VTEC intensifications can be as high as 400