

Interplanetary Transient Plasma Structures and Associated Geoeffectiveness

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Previous studies have indicated the association of geomagnetic storms with various solar and interplanetary features. In the present study two types of solar wind plasma structures namely, Magnetic cloud events and Bidirectional electron heat flux events have been taken to study the short-term changes and analyzed taking in to consideration their association with coronal holes, selecting these events occurred during solar maximum period. Analysis reveals distinctly different effects of these two signatures on geomagnetic field. Magnetic cloud events are found more effective comparing to bidirectional events on short-term basis.