

of Geomagnetic Storms with Infrasound Observation Data from International Monitoring System Stations Located in South America

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The Earth is continuously under the influence of solar radiation, which interacts with the Earth's magnetic field, causing various effects. One of them is the warming of the planet, keeping it in a suitable situation for the development and maintenance of life on Earth. Another is the bombardment of the Earth by plasma from solar storms, where the magnetic field acts as a protective shield that deflects this radiation. However, in the polar regions the penetration of the storms products is responsible for the generation of aurora borealis, formed in the northern hemisphere, and aurora australis, formed in the southern hemisphere, which can be recorded by infrasound stations of the International Monitoring System (IMS) of nuclear tests. From this perspective, the South American region stands out due to the presence of the South Atlantic Magnetic Anomaly, where the magnetic field is less intense, making this region more susceptible to the effects of geomagnetic storms. In this research, we study the relationship between geomagnetic storm observation data and infrasound signals detected by the IMS stations located in South America.

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Promotional text

Correlation of geomagnetic storms with infrasound observation data from IMS stations located in South America, developed by Universidade de Brasília and Observatório Sismológico de Brasília.

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