GEOMAGNETISM SCIENCE AT SOUTH OF BRAZIL

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The main objective of this work is to present an overview of Geomagnetism projects with results from the central region of the South Atlantic Magnetic Anomaly – (SAMA), in the south of Brazil.
The secular variation in the total geomagnetic field F and the westward drift of South Atlantic Anomaly - SAA has been observed in the Brazilian INPE's Southern Space Observatory – SSO, in South of Brazil, since 1985, in cooperation with the Space Environment Research Center – Kyushu University, Japan. The main objective of the Magnetic Observatory at SSO is to monitor the westward drift of the SAA and to provide valuable observations for the Space Weather. According to IGRF2000 the present value of F at the Southern Space Observatory - SSO/CRS/INPE–MCT, (29.4ºS, 53.8ºW), is 22883 nT a value close to the measured one. The secular variation in F at this station is -28 nT per year. It is difficult to forecast the drift movement of the Anomaly (SAA) in the coming years however it is a matter of concern should the field continue to decrease at the present rate or even faster. Both continuous and impulsive pulsations observed in the H component of the geomagnetic field by the Geomagnetic Monitoring Program at SSO are enhanced due to the particle precipitations in the SAA region.

Geomagnetism, Observatory practice, instrumentation, SAMA

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