

Metadata Details

Title

Geomagnetic Field Variations Near Dakshin Gangotri, Antarctica.

Science Keywords

Category	Solid Earth
Topic	Geomagnetism
Expedition Year	1982-1983
ISO Topic	Geodesy

Summary

Abstract

The geomagnetic field station was located at geographic latitude $69^{\circ}59' S$ longitude $11^{\circ}55' E$ (Dipole latitude $65^{\circ}5' S$ longitude $54^{\circ}5' E$) The corrected geomagnetic coordinates were $62^{\circ}0' S$ $52^{\circ}3' E$ Two intense magnetic disturbances were recorded on 10 January and 4 February with smaller scale disturbances in between Two substorms were recorded 12 February substorm is characterised by a simple rise to peak value marked with a sharp sudden impulse followed by a steady fall and 13 February substorm is in effect a sequence of substorms with periodic waxing and waning By selected samples of magnetic records near Dakshin Gangotri and the corresponding magnetograms from the Indian equatorial region the interaction of solar wind and magnetosphere and the consequent geomagnetic field changes at auroral and equatorial latitudes have been studied.

Purpose

The geomagnetic field station was located at Geographic lat $69^{\circ}59' S$ long $11^{\circ}55' E$ (Dipole lat $65^{\circ}5' S$, long $54^{\circ}5' E$) The corrected geomagnetic coordinates, as derived from geomagnetic mainfield model using MAGSAT data turns out to be $62^{\circ}0' S$, $52^{\circ}3' E$ The conjugate location in northern hemisphere is in the vicinity of permanent geomagnetic observatories at Eskdalemuir and RudeSkov but there is no magnetic observatory in the precise conjugate location.

Data Center