

Metadata Details

Title

Magnetic Characteristics in Antarctica over Geological Contacts in Schirmacher Hill Region and the Ice Shelf near, Dakshin Gangotri (70 05)

Science Keywords

Category	Land Surface
Topic	Geomorphology
Expedition Year	1984-1985
ISO Topic	Geodesy

Summary

Abstract

Total intensity measurements of earth's magnetic field were carried out at Schirmacher Hill region and on the ice shelf in the vicinity of the Indian Permanent Station, Dakshin Gangotri using a couple of proton precession magnetometers. During the magnetic surveys strong diurnal fluctuations were often observed. Several sets of data were rejected when diurnal corrections could not be effectively made. Finally three magnetic traverses totalling about 3 line km with average station interval of 7 m and 6 short criss crossing magnetic profiles totalling over 2 line km in the Schirmacher Hill region were found suitable for further processing.

Purpose

Geomagnetic measurements in Antarctica have been an integral part of geophysical investigations undertaken from the very beginning. During the first International Polar Year (1882-83) simultaneous studies of meteorology, geomagnetism and aurorae were undertaken at twelve stations in Arctic and two stations in Antarctica. Later magnetic measurements in Antarctica got much impetus during the International Geophysical Year (1957-58) and subsequent International Years of Quiet Sun.

Data Center