

Metadata Details

Title

Remote Sensed Data Analysis for Geology and Glacial Geology of Wohlthat Muhlig-Hofmann Mountain Chain in Queen Maud Land, East Antarctica.

Science Keywords

Category	Land Surface
Topic	Geomorphology
Expedition Year	1985-1986
ISO Topic	Geodesy

Summary

Abstract

During the Fifth Indian Scientific Expedition to Antarctica, aerial surveys were conducted over Schirmacher hills; Gruber and Petermann massives in eastern part of Wohlthat mountain range in Queen Maud Land. Spectral signatures of sea-ice, fast-ice, shelf-ice, continental-ice and lithological units were collected. Maps on 1:2,50,000 scale for the region covering the area from 3°E to 21°E, encompassing the shelf-ice coast in the north and Muhlig-Hofmann mountains, Conrad mountains and the Wohlthat mountains towards the south have been prepared. The main drainage glaciers, the local glaciers and their associated morainic deposits have been shown. Sastrugi fields, nunataks, solid crystalline blue ice fields, their distribution, melt water channels, and grounded ice have been demarcated. Thermal mapping of Schirmacher hills has also been conducted.

Purpose

The objectives were to analyse remote sensed data to demarcate various morphological units, decipher ice types and boundaries, locate zones of crevasses, fractures, classify the rock types, collect ground/aerial remote sensing data in clear atmospheric conditions and to extract all the retrievable information from the satellite data and prepare maps depicting glacial morphology and geological classification.

Data Center