

Metadata Details

Title

Blizzard Storms: Coastal Regions of Indian Antarctic Station, Dakshin Gangotri (1985-86 Summer).

Science Keywords

Category	Atmosphere
Topic	Atmospheric Temperature
Expedition Year	1985-1986
ISO Topic	Atmosphere

Summary

Abstract

The Fifth Indian Antarctic Expedition experienced one of the worst summer seasons in Antarctica. Out of a total stay of 69 days on the Continent, on forty-five days either blizzards or strong winds were blowing. Weather forecasts based on the available aids helped to a great extent in accomplishing the various assigned tasks. In this paper, a systematic synoptic study of weather condition, highlighting the blizzard storm situations at Dakshin Gangotri has been presented.

Purpose

Synoptic weather interpretation especially over the coastal regions of Antarctica poses a major challenge to the weather forecastings, because of the following:- (a) the unending stream of low pressure areas in the region of semi-polar vortex. (b) paucity of weather observing stations and obstruction in the smooth facsimile HF transmission/reception due to severe magnetic storms. (c) the local meteorological parameters, especially pressure and temperature, suffer from the inherent flaws of topography and inversion effects, so that change in them do not reflect a true picture for the synoptic interpretation of the systems. (d) the consistency in wind direction is a major obstacle. Being of great help in one way for the aviation forecasts, it prohibits a true comprehension of changes that are generally associated with the approach and passage of weather system.

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