

Metadata Details

Title

Meteorological Observations Made during Eighteenth Wintering (2001-2002) at the Indian Antarctic Base Maitri, Central Dronning Maud Land, East Antarctica.

Science Keywords

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|-----------------|-------------------------|
| Category | Atmosphere |
| Topic | Atmospheric Temperature |
| Expedition Year | 2000-2001 |
| ISO Topic | Atmosphere |

Summary

Abstract

Meteorology remains at the core of all scientific expeditions to Antarctica. India Meteorological Department is involved with this all important task. During the year 2001 vital data on Meteorology was collected at the Indian Base Maitri. An average annual temperature of -9.50 oC was recorded at the base. Besides the weather data important data on behaviour of ozone over Maitri was collected using ozonesonde ascents and Brewer Spectrophotometer. It was observed that Ozone reached its minimum during September-October 2001 period and showed remarkable recovery in the proceeding month of November 2001 and reaching almost the normal value in December 2001.

Purpose

a). Daily, seasonal and annual variation of atmospheric pressure, surface temperature surface wind, surface ozone, snow fall and cloud cover. b). The atmospheric changes with reference to specific synoptic weather systems. c). Radiation budget including total global solar radiation and diffused solar radiation. d). Monitoring and archival of information through weather satellite and HF radio sets regarding weather system affecting Maitri and Antarctic continent. e). Atmospheric turbidity in Antarctica. f). Balloon born measurement of Ozone for its vertical profile over Maitri to study the ozone depletion phenomenon. g). Daily, seasonal and diurnal variation of total ozone, D-UV, SO₂ and NO₂ using Brewer Spectrophotometer.

Data Center