

Metadata Details

Title

Hydro meteorological Characteristics of Snow and Ice over Antarctica

Science Keywords

Category	Cryosphere
Topic	Snow/Ice
Expedition Year	1981-1982
ISO Topic	Atmosphere

Summary

Abstract

Hydrometeorological characteristics of snow and ice along with radiation balance and computation of melt rate over the Antarctic continent. Climatic features of the continent were also studied and are presented here. It is observed that a large quantity of solar radiation (0.5 - 0.7 1y/min) is received at the surface but more than 80% of it is reflected back in space. Daylight remains continuous round the clock during the peak summer months viz. December and January. The net radiative heat balance for the continent is positive in the months of December and January while negative for other months of the year. The net long wave radiation exchange, convective transfer and exchange of sensible heat contribute negatively to the mechanism of snow melt during the summer months. The net snow melt computed by various physical processes is found to be a few centimetres per day even in extreme summer period. The maximum wind speed observed during the expedition period was 80 km/hr.

Purpose

To study the climatic and hydrometeorological features of Antarctica.

Data Center