Metadata Details

Title
Glaciological Observations during 26th Indian Antarctic Expedition.

Science Keywords

Category	Cryosphere
Topic	Glaciers/Ice Sheets
Expedition Year	2006-2007
ISO Topic	Atmosphere

Summary

Abstract
Dakshin Gangotri Glacier was identified in Schirmacher Range in 1983 by the Second Indian Antarctic Expedition. Since then, its snout is being monitored every year. It was observed that the snout is persistently receding at an average rate of 65 to 70 cm per annum. In 2007 again the snout showed the similar trend of retreat. Observations spanning over two decades on the Ice shelf close to Indian research base ?Maitri? in central Dronning Maud Land reveal that the snow accumulation has a strong temporal as well as spatial variability. Strong wind events can greatly decrease the mass through snowdrift and/or sublimation. The spatial variability of snow accumulation at the km scale is one order of magnitude higher than temporal variability at the decadal/secular scale. The sum total effect of temporal variability over two decades has revealed a rhythmic pattern in the intensity of snow accumulation which to a limited extent can be used for making short-term weather predictions.

Purpose

A continuous glaciological programme, which was initiated by GSI from the very first Indian Antarctic Expedition, resulted in collecting valuable data and publications of scientific papers. During the 26th Indian Antarctic Expedition, the glaciological works completed by GSI, mainly include monitoring the snout of Dakshin Gangotri (DG) glacier along with its western extension, snow accumulation and ablation on the shelf area near India Bay region and ice core drilling (along with NCAOR) on ice-shelf in India Bay region.

Data Center