

Metadata Details

Title

Clothing for Antarctica.

Science Keywords

Category	Solid Earth
Topic	Platform Characteristics
Expedition Year	1985-1986
ISO Topic	Meteorology

Summary

Abstract

The experience of the members of the Fifth Indian Scientific Expedition to Antarctica with the Clothing for Antarctica, developed and supplied by Defence Research and Development Organisation (Defence Materials and Stores Research and Development Establishment, Kanpur), have been described. The optimum requirements of clothing in Antarctica (at locations of the Indian activity) have been discussed. The clothing supplied has been found to meet the thermal protection during the Antarctic winter adequately.

Purpose

Protection against the elements is the primary function of clothing. In a cold environment, the thermal insulation, or the thermal resistance of clothing limits heat loss from the body, enabling it to maintain homeothermic regulation of a constant body temperature (ca 37°C for man). However, bulk, weight and, perhaps, reduced insulation beyond an optimum thickness (Winslow and Herrington, 1949) preclude the use of conventional clothing in extreme cold, as in the polar climates; survival and work outdoors in such climates require the use of functional or protective clothing (Newburgh, 1949, Kitchling and Page, 1945) with special attributes.

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