



ANTARKTIESE BULLETIN

JANUARY, 1965 — No. 7 — JANUARIE 1965



Published by the South African Antarctic Association
16, Anderson Street, Brooklyn, PRETORIA.

Uitgegeef deur die Suid-Afrikaanse Antarktiese Vereniging
Andersonstraat 16, Brooklyn, PRETORIA

Patron/Beskermheer: Prof. S. P. Jackson, M.A., D.I.C., Ph.D.

Editor/Redakteur: J. J. Taljaard

REDAKSIONELE VERSUGTING

Eintlik moes daar in hierdie ruimte op die eerste bladsy van die tweede jaargang van die *Antarktiese Bulletin* 'n indrukwekkende artikel of oorsig verskyn het deur een of ander outoriteit oor Antarktiese navorsing, of oor die prestasies van ons Vereniging, of oor wat Suid-Afrika reeds in Antarktika gedoen het, ens. So 'n artikel is egter nie voorhande nie en dit is juis in verband met die probleem van onvoldoende ondersteuning van die lede van ons Vereniging vir die *Bulletin* dat ek aan hierdie aantekening nou die ereplek toeken in plaas van dit heel onderaan op die laaste bladsy weg te steek soos in die geval van Bulletin No. 1.

In die afgelope jaar is daar wel 'n aantal welkome bydraes deur ons lede gedoen, maar die redakteur moes tog die spit afbyt. Die Vereniging het meer as honderd lede, daar het reeds ongeveer sestig Suid-Afrikaners in Antarktika oorwinter, om nie te praat

van tientalle kere wat op die eilande 'n jaar of meer deurgebring het nie. Het daar dan nie by hulle so 'n belangstelling of geesdrif ontwikkel nie dat die redakteur positiewe hulp en bydraes van baie van hulle kan verwag nie? Daar gebeur tog sekerlik nuuswaardige voorvalle wat op skrif gestel kan word nadat die ekspedisies terugkeer. Daar moet interessante fotos wees wat geplaas kan word. Populêr-wetenskaplike artikels sal vir die meeste van ons lede aanneemlik wees en ook aan buitestaanders, selfs buite ons landsgrense, 'n beeld gee van wat ons verrig. In hierdie verband kan die koördineerders van die programme 'n nuttige taak verrig. Die *Bulletin* gaan aan 'n hele aantal inrigtings en individue oorsee.

Ek hoop u sal nie wegkoes as ek vanjaar persoonlike versoeke aan u gaan rig nie, want ek is seker daar is baie lig wat onder 'n koringmaat verberg word!

Notes on Biometeorology as Observed at Norway Station by the First South African National Antarctic Expedition (1960)

By J. J. la Grange

Abstract: Temperatures at different places inside the living quarters of the First South African National Antarctic Expedition (1960) indicate that they are effected by outside temperatures, especially when a strong surface wind is blowing. The additional clothing items worn during winter are fewer than one would expect if the large drop in outside temperature is considered. Personnel spending more hours per day outside, seem to feel the cold less than those who spend relatively more time inside the hut.

A few remarks about lichens on rocks, the migration of birds and corresponding climatological conditions, are included.

Introduction: Probably in few other places in the world is man subjected to such a complete change of climate as when he goes to spend a winter in Antarctica. However, today with comfortable housing, sufficient good food and effective clothing, he is able to alter his immediate climatic surroundings to such an extent as to survive an Antarctic winter.

The results presented in this paper relate to Norway Station (Latitude 70° 30'S, Longitude 2° 32'W), where the First South African National Antarctic Expedition was kindly granted the free use of the existing buildings by the Norwegian Government in January 1960. A plan of the buildings is shown in Figure 1.

Temperature: Heating was effected by a paraffin heater in the sleeping hut with ducts to each cubicle, and by paraffin cooking stoves in the kitchen/diningroom. A paraffin heater in the latter building was used on a few days only.

For the purpose of studying the effects of the heating, thermometers and, in a few cases, thermographs were installed at certain levels in most apartments and in the ice corridor. Hourly averages of the temperatures obtained within the main buildings are contained in Table 1 for March to December 1960.

From the values for July to October, during which time observations were made at three levels in the kitchen/dining room, it is clear to what extent the floor temperatures were lower than those at 1 metre above the floor and at the ceiling (2½ metres). On the average the vertical temperature gradient was greatest in August and September, when the difference between ceiling and floor was more than 8°C over all hours. Further, the greatest difference occurred between 1700 and 1800 GMT (which incidentally is the same as the local zone time at the station). This temperature difference is due to a substantial rise at ceiling level as against a fairly constant condition at floor level throughout the day.

Temperature variations in the course of the day were mainly connected with specific duties performed, e.g. lighting the kitchen stoves at about 0400 and preparing breakfast shortly after 0500.

The subsequent gathering of men caused temperatures to continue to rise till about 0700. After that, during the course of the daily activities, doors were opened and closed and inside temperatures consequently dropped. Probably adding to this drop was the introduction about this time of the day of a supply of snow from outside for domestic use. Later the temperatures rose again, especially when meals were prepared and served, e.g. between