



ANTARKTIESE BULLETIN

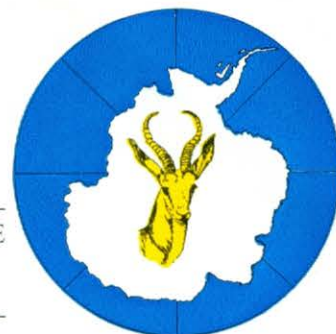
Sponsored by—Onder beskerming van

BP South Africa (Pty.) Ltd.

JANUARY
to
JUNE

1968 — No. 25 —

JANUARIE
tot
JUNIE



Published by the South African Antarctic Association
32 Park Avenue, Bordeaux, Randburg

Patrons/Beskermhere: Prof. S. P. Jackson, M.A., D.I.C., Ph.D.
Dr. S. Meiring Naude, M.Sc., Ph.D., D.Sc.h.c., L.L.D.h.c.

Uitgegeev deur die Suid-Afrikaanse Antarktiese Vereniging
Parklaan 32, Bordeaux, Randburg

Editor/Redakteur: D. G. Torr

REDAKSIONEEL — EDITORIAL

It was with much regret that the Association received the resignation of Dr. André van der Merwe as editor of the *Bulletin*. He took over from Dr. J. J. Taljaard in March, 1966 and the effort that was put into the task is evident in the last eleven issues. The standard of the *Bulletin* has steadily improved and today it provides a wealth of information on past South African Antarctic activity. His pen has been responsible for an enormous amount of the information published in the *Bulletin*.

Dr. van der Merwe was a member of SANAE 1 in 1960 and of the 1967/1968 South African—Belgian summer expedition. He is also co-ordinator of the physiological programme and has main-

tained a steady interest in Antarctic organizations. Recently he completed writing a book on Antarctica entitled *Die Wit Horison*. It covers his trips down south, the ice conditions encountered, animal life on land and at sea and the life of people in Antarctica. He also discusses the impression that Antarctica makes on people who have wintered there. A review of the book will appear in the next issue of the *Bulletin*. As this is the first book on Antarctica written by a South African, it should find its way onto many a bookshelf in South African homes.

Thank you very much, Dr. van der Merwe for your services to the *Bulletin* and to South African Antarctic organizations.

Summer Expedition 1968 and SANAE IX

mv. R.S.A.

K. T. McNISH, Master

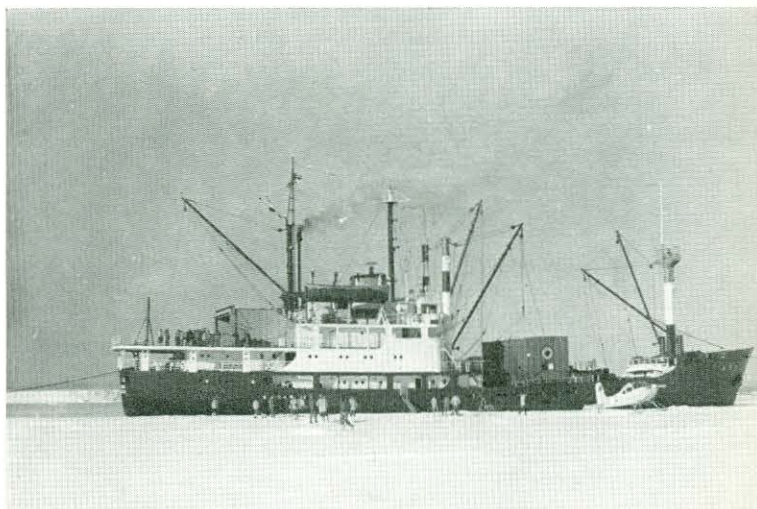
1. Special problems for this season as a departure from the normal run as in previous years were:

- (A) Loading of two aircraft in mv. R.S.A. (1) A Cessna was removed from its shipping crate and stowed in the hangar on the Helideck. Great care had to be exercised in slinging the fuselage due to its fragile nature. The wings were stowed separately in their special frame also in the hangar. (2) An Otter had to be carried in its crate on the foredeck across number two hatch. This crate had a total weight of eleven tons and was forty-two feet in length by fifteen high and twelve wide. A special platform had to be constructed over the fore part of number two hatch and over the deck on each side of the hatch from ship to ship side. Note: The R.S.A. is forty-two feet in the beam! After construction of the platform the case was landed aboard by the floating crane. The case was then very carefully lashed down as rolling is always encountered on voyages down south.

- (B) Separate stowage for all Summer Expedition cargo was arranged in number two tween deck and for aviation fuel in number one tween deck.

R.S.A. next to the bay-ice at Muskegbukta 1968.

Photo: D. Neethling.



(C) The voyage south presented no special difficulties, but bearing in mind the prevailing south-westerly wind and swell normally encountered in the fifties, full advantage was taken of good weather after leaving Cape Town to steam due south so as to make as much distance southwards before encountering the winds. This proved to be well worthwhile because once the ship was well into the fifties we were able to keep the wind "on the bow" and minimise the rolling to a large extent.

(D) Pack ice was encountered fairly far north this year resulting in an ice passage of two hundred and ten miles. Also, unlike other years the pack ice was almost up to the ice-shelf with a very narrow shore lead. Passage through the pack presented no special difficulties, but on several occasions the ship had to stop for some hours to await easing of pressure. In general the pack was not very much thicker than normal. It was mostly broken up and consisted of small floes which were rather closely packed. This required "full power" to push aside and only a limited amount of "breaking". A few small "bridges" did however, hold the ship up for some hours by having to be broken up to permit further progress. Bad visibility on several days did not help matters at all. Proceeding through pack under these conditions was chancy, as we could not see if we were proceeding in a direction of "good ice" or up a blind alley. Nevertheless it only took five and a half days to make the ice passage at an average speed of one point six knots which, taken all round for the conditions prevailing, was a good passage.

(E) Finding a suitable area of "bay-ice" on which to land the aircraft proved to be fairly easy. It was hoped to be able to use the "bay-ice" in Admiral Byrd Bay for this purpose, as in the past it had been found to be of suitable thickness. However, this "bay-ice" had disappeared due to a large portion of the Troll tunga breaking off. This then made it necessary to use the relatively thinner "bay-ice" in Muskeg and Otterbukta. Unlike other years, the bukten, except for Tottenbukta, were found to be full of good solid ice. It was finally decided to land on Muskegbukta as the surface there was fairly smooth.

(F) The actual landing operation for the aircraft went very smoothly after the ship had been suitably moored. The Cessna was landed and dragged away from the edge by the SANAE and Belgian teams as were the wings. Assembly proceeded well and within four hours the plane was air-worthy. Landing the Otter was more tedious as the job had to be done in six stages. (1) The derrick had to be plumbed for the centre of balance for the lid. The lid was then unclipped and landed on the ice. (2) The derrick had to be re-plumbed for centre of balance of the plane. The plane was then lifted a few feet so that the skis could be fitted. (3) The ship was then moved ahead to clear the box lid on the ice and the plane swung overboard and landed to be hauled away by the teams assisted by a muskeg. (4) The wings and heater units were then landed. (5) The ship was then moved astern again and the derrick rigged in its first hoisting position. (6) The lid was then hoisted aboard and placed back on the box. (This procedure was reversed when it came to re-shipping the aircraft for the homeward voyage.)

On the Belgian ship the *Magga Dan* this procedure could not be followed as her hatches were of the mechanical folding type which required the box to be removed entirely. The whole eleven ton box and aircraft had to be landed on the ice and the lid lifted off there. They also had

to shift ship more times as the aircraft had to be lifted clear of the box and landed after the lid had been removed. Our method proved to be easier as we could leave the base of the box on board.

(G) Landing the summer expedition stores and aviation fuel went more or less according to plan with only a few short hold-ups due to "white out" conditions and mechanical breakdowns.

2. Surveys, etc.

(A) The ship was expected to re-survey the coastline which was previously done *by the ship* in 1964 and also carry out as many lines of soundings as possible. As the pack ice this season was, on most days, within a mile of the shelf and in most places right up against the shelf, it was only possible to re-survey the bukten areas, a distance of only about twenty-five miles. A few changes in this area were noted: mainly the sides of Tottenbukta and the shelf immediately to the north of Totten. (The bukten all had "bay-ice" in them with the exception of Totten which was free of ice. The shelf in Tottenbukta was estimated to be about twenty feet in height with a fair overhang. It would have been unsuitable for aircraft landing and seeing that Muskegs could proceed on the bay-ice at Otterbukta it was decided to land all cargo thereover the bay-ice.)

(B) Soundings were also limited to the area which could be surveyed. No startling changes were found.

(C) It was found by observation (visual) that the large projections on the southern end of the Troll tunga as plotted on the 1964 survey had broken away during 1967 (They were there in January 1967!). These broken off "bergs" were now mostly grounded on the ninety to one hundred fathom bank to the north-north-east of Otterbukta. Also a large number of "bergs" were grounded to the north of the Ice Rise. I suspect that these grounded bergs had a great deal to do with the ice being trapped against the coast because it was eventually found that the pack ice belt did not extend much beyond the northern limits of these grounded bergs.

(D) Aerial observation confirmed the above statements about the breaking off of the Troll tunga tongues and also the extent of the pack ice two days prior to our sailing.

(E) Soundings taken on the voyage south and northward passage are being handed to Department of Geology (Professor Simpson) for processing. After being dealt with, they will be handed to the Hydrographer of the S.A. Navy as in previous years. No startling results were detected, but lines were to a large extent NOT over the same routes as followed in previous years due to the original southerly course from Cape Point and a deviation to the east soon after leaving Bouvet on the northward run.

(F) The visit to Bouvet provided another line of soundings on the south east side and observation of the snow shelf failed to reveal any sign of the wooden hut placed there on the last expedition. The higher slopes were once again obscured by low cloud. Several grounded icebergs were found on the south west side.

3. Discharge of aircraft after arrival in Cape Town was done by a five ton crane using the same method used in Antarctica, viz. the lid removed, aircraft removed and then the base. The heavy floating crane was therefore not required. The aircraft were then transported to Ysterplaat airfield by the S.A.A.F.