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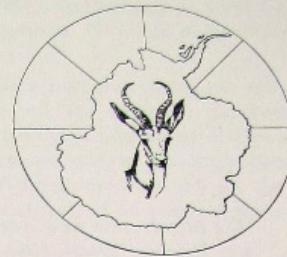
JANUARIE
tot
MAART

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EDITORIAL—REDAKSIONEEL

It is with deep regret that we advise our readers of the death of an expedition member in Antarctica—the first such incident in the ten year history of our active involvement on the continent. The Department of Transport has supplied the *Bulletin* with the following report:

"Mr. Gordon Ian Mackie—Motor Mechanic with the S.A.N.E. 10 Expedition, died on the 3rd December, 1969, from multiple head and neck injuries when he fell down a windscoop at Slettfjellnutane. He was on his way to repair a tractor when the accident occurred. According to reports submitted, Mr. Sutcliffe accompanied the deceased on this particular trip and while Sutcliffe was busy with Geomagnetic observations Mackie decided to explore the surroundings. He climbed to a height of approximately 300 feet on the face of the mountain peak, when he

lost his footing and fell down a windscoop, which caused his death.

"His parents were flown out from Scotland by South African Airways and on the day of the funeral, his mother died of a stroke in the Frere Hospital, East London. Thus, the family suffered a double tragedy. Mother and son were cremated and the caskets bearing their ashes were buried in the Garden of Remembrance at East London Crematorium. It is at a time like this that one feels at a total loss to express one's feelings of sympathy to the family and friends."

The *Bulletin* and its readers join the Department of Transport in expressing their sympathy and condolences to the friends and relatives of the late Mr. Mackie and fervently hope that this tragedy will not be repeated in future expeditions.

Suid-Afrikaanse Nasionale Antarktiese Somerekspedisie 10 Januarie - 5 Maart 1970

D. E. BOSMAN (Landmeter S.A.N.E. 9)

Op 10 Januarie 1970 vertrek die Suid-Afrikaanse poolskip, die *R.S.A.* met die elfde Suid-Afrikaanse Antarktiese Navorsingspan, twee Suid-Afrikaanse somerekspedisie lede, die Belgiese somerekspedisie span asook 'n werkgroep van die P.W.D. na S.A.N.E., die Suid-Afrikaanse navorsingstasie op Antarktika.

Ryk was die beloning weereens om na die „roaring forties“ en die „furious fifties“ van die stormagtige suidersee, die wonderskone poolgebied binne te gaan. Ongelooflike spieël-gladde water het ons binne die Antarktiese sirkel ontvang nog voordat die pakys bereik is.

Die pakysgordel was die keer maar sowat 50 km. breed en binne 10 uur het die *R.S.A.* sy weg daardeur gevind —die veertiende dag van die seereis kan ons in Otterbukta invaar!

Henry Fulton en nege van sy manne maak nie lank daarna hul verskyning as 'n swart kolletjie op die wit koue horison. Soos sekere met elke span wat 'n jaar op die wit kontinent deurgebring het, was die manne van S.A.N.E. 10 se eerste belangstelling ook hul pos van die Republiek.

Kaptein McNish besluit toe om die twee Belgiese vliegtuie op die baaiis van die baai net Oos van Otterbukta af te laai vanwaar hulle toe ook kon opstryg.

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Die uitgebrande wrak van die Belgiese Otter vliegtuig.
(Foto—D. E. Bosman.)



Later besluit die Kaptein met oorleg van Willem van Zyl, die leier van SANAЕ 11 om Otterbukta te gebruik om die skip verder af te laai. Op die stadium het die bukta nog 'n bietjie baaais in gehad. Die skuinste van die baaais tot op die ysbank was egter baie steil. Ten spyte van laasgenoemde slaag die Muskeg trekker en die D4 Caterpillar daarin om daarteen uit te kom.

Hierna is die Muskeg gebruik om die gelaaide slees van die skip tot by die skuinste te sleep terwyl die D4 gebruik is om die slees met 'n lang kabel teen die skuinste tot bo-op die ysbank te sleep.

Die Belge het dit goed gedink om hul vliegbasis naby Otterbukta te maak.

Die Suid-Afrikaanse span sou 'n hoeveelheid vliegure van die Otter vragvliegtuig kon gebruik. Hierdie vliegure sou gebruik word om die Borga-basis, 'n geologiese personeel basis sowat 300 km. Suid van SANAЕ, te voorsien. Ook van die nuwe span se geoloë sou ingevlieg word sodat daar vir 'n tydperk saam met die vorige span se geoloë gewerk kon word.

Die Belgiese Somerekspedisie span was van plan om 'n ysdikteopname van die drywende ysbank in die omgewing van SANAЕ-basis te doen waarvoor hulle soos ook die vorige jaar radar eggopeiling uit die lug sou gebruik.

Terwyl die Suid-Afrikaanse geoloë nog voorberei het vir die vlug na die berge het die Belge die Otter vliegtuig solank vir 'n toetsvlug geneem om hul radar apparaat te toets—dit was op die 29e Januarie. Nadat gevind is dat alles perfek werk is ingekom om te land. Dit is toe dat die onvoorsiene gebeur—met die landing word een van die landingski's afgeruk, dit steek deur die brandstofenk en die vliegtuig slaan aan die brand. Toe die ski's afbreek sak die vliegtuig se neus so laag dat die skroef teen die sneeuoppervlakte slaan en die hele skroef afruk. Gelukkig het die vliegtuig nie omgeslaan nie en die ses insittendes kon ongedeerd uitkom. Die feitlik

onblusbare vuur wat uitgebreek het, het so te sê die hele vliegtuig met alle radapparaat verteer. Daar kon met dankbaarheid gespreek word dat geen mense lewens geneem is nie.

Hiermee is die hele Somer-ekspedisie omvergewerp en kon geen van die beplande werk gedoen word nie.

Die ongeluk het ook tot gevolg gehad dat twee Muskeg trekkers onmiddelik daarna moes vertrek om die Borga-basis personeel inderhaas te gaan haal sodat verseker kon word dat hulle betyds sou wees vir die R.S.A. wanneer dié vertrek.

'n Noodbasis is deur vyf P.W.D.—personeel in sowat twintig dae volledig opgerig. Die noodbasis bestaan uit een hout hut met twee ingange aan teenoorgestelde ente vanwaar twee kort sneeuengange na twee skagte loop. Die hut bestaan uit 'n masjienvamer, radiokamer, 'n kombuis met 'n groot dieselstoof, 'n eetvertrek, slaapplek vir 16 man, 'n sneeuwmelter en toilet. Die gebou is Noord-Suid georiënteer en sowat 1.5 km. Suid-Oos van die ou SANAЕ-basis geleë.

Die posisie van die nuwe SANAЕ-basis wat beoog om begin 1971 gebou te word, is ook afgemerk. Dit is sowat twee km. Suid-Oos van ou SANAЕ-basis, en is sowat 25° Wes van Noord georiënteer.

Waar die ou basis se sneeuengang aan die Ooste kant van die gebou verbyloop sal die gang van die nuwe basis aan die Weste kant van die gebou wees om so beweging van voertuie net aan die Weste kant van die basis te beperk.

Hier kon interessante resultate i.v.m. absolute beweging van die drywende ysbank by SANAЕ-basis, verkry van metings wat gedurende 1968 en 1970 gedoen is, genoem word. Omdat daar geen vastepunt in die nabye omgewing van SANAЕ-basis is nie, was dit nog altyd moeilik om akkurate absolute beweging op die drywende ysbank m.b.v. astronomiese posisie-bepaling, vas te stel.



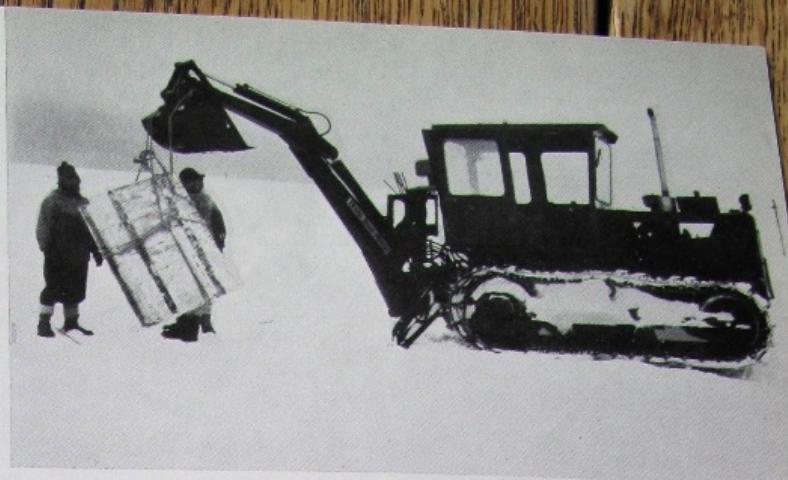
Borga Base in the depth of the polar night. (Photo—Geological Survey.)

SANAE 11 AT BORGA

11th Expedition geologists and support personnel have already taken over the Base for the 1970 season during which it is hoped to complete the detailed mapping of the Basement rocks exposed along the Escarpment and in the Juletoppane ($72^{\circ} 30'S$, $06^{\circ}W$). The 11th Expedition will also establish a safe route across the Pencksokka from BORGA BASE onto the Polar Plateau. This will

be used as the first stage of a 600-km. oversnow traverse from SANAE via BORGA up to the northernmost turning point of the U.S. South Pole—Queen Maud Land Traverse. It is anticipated that this geophysical-glaciological traverse would take place after the winter of 1971. (The establishment of Borga Base was described in *Bulletin* No. 29, October to December, 1969.)

*Dié D4 kruiptrekker is 'n waardevolle byvoeging tot die vervoer te SANAЕ.
(Foto—Departement van Vervoer.)*



NEW TRANSPORT AT SANAЕ

"With the expansion of the scientific programmes as well as the increase in members of the expedition, from the original 11 in 1962 to the present 18-man team, extensive improvements in logistic support were necessary.

"This Department considered it necessary to purchase a suitable heavy duty tractor to meet the ever-increasing logistic needs of the team. A D4 Caterpillar was purchased and fitted with special 36 in. wide tracks to give a low ground pressure of approximately 3½ lbs. per sq. in. A special heated cab was also designed and built by a firm of body builders in Johannesburg and this is proving a great success. The necessary modifications on the tractor were done by Caterpillar at their branch in Bellville, Cape, where a Hoptoe crane and power take-off

were fitted. The gross weight of the vehicle is 7½ tons and it is capable of pulling 9 fully-loaded sledges.

"Reports received from SANAЕ recently claims that the tractor is a great success.

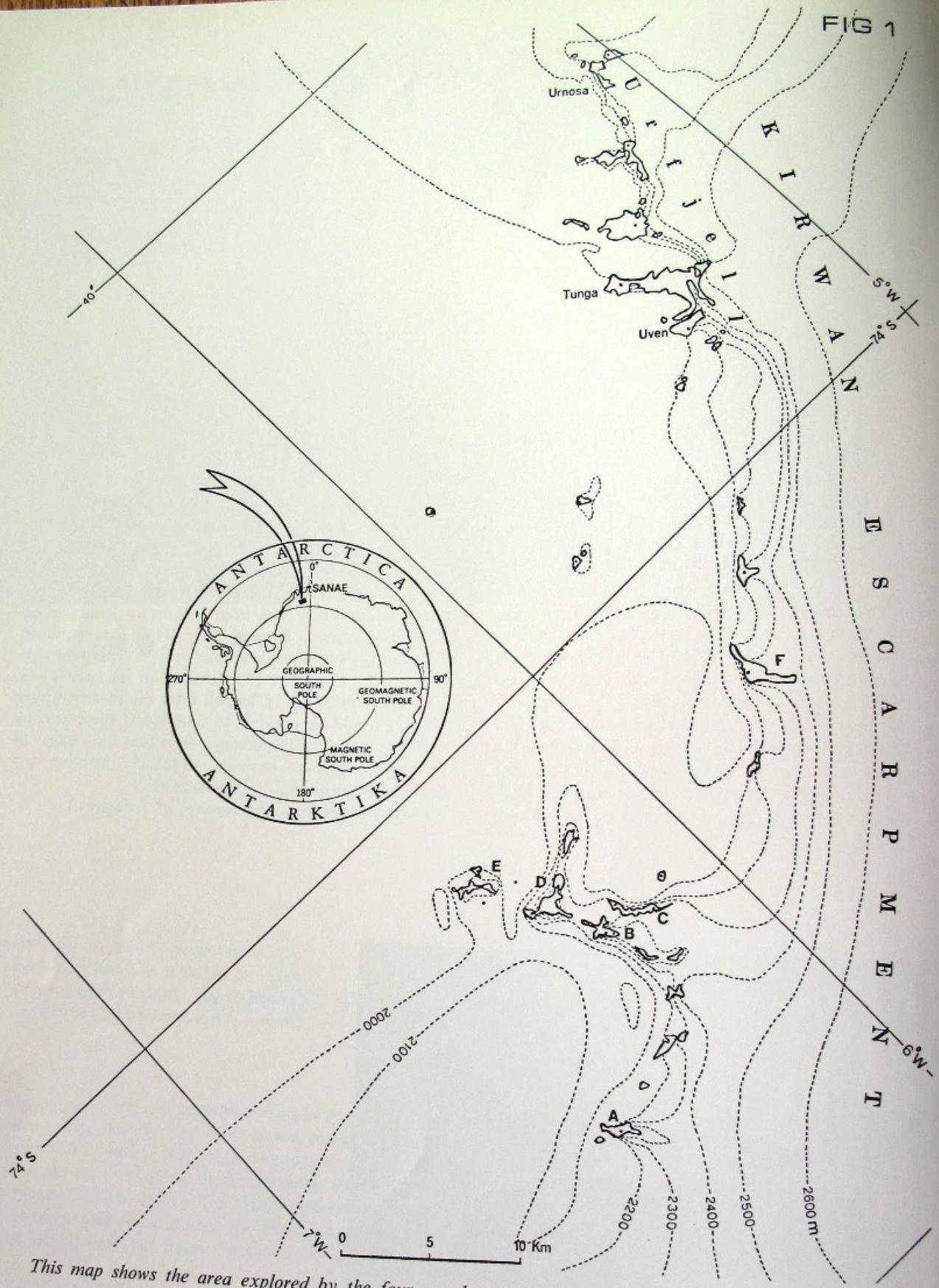
"A further experiment was carried out when a Volkswagen sedan which had been withdrawn from service at the Government Garage, Cape Town was modified to become a special snowmobile vehicle. This vehicle is being used as a general runabout and its success—or otherwise—will only be known after the present winter when it would be possible to establish if there are any shortcomings. The Department feels that the success of the vehicle depends entirely on the co-operation and constructive criticism of all concerned."

(Article—Courtesy, Department of Transport.)

*The modifications made to the Volkswagen to enable it to travel on snow and ice are clearly visible in this photograph.
(Photo—Department of Transport.)*



FIG 1



This map shows the area explored by the four members of SANAE 10 who wintered at Borga Base during 1969 (Map—By courtesy of Geological Survey.)

Chris Muir contacting U.S. Base, Palmer Station, Antarctic Peninsula. Borga Base I, Winter 1969. Radio Equipment RF301 (100W SSB).

(Photo—L. Wolmarans.)



Surveying the last group of unmapped mountains on the Antarctic Continent. The impressive polar escarpment, a wall of ice up to 2,000 feet high rises beyond the mountains of the Urfjell Range $74^{\circ} 15'S$, $6^{\circ} 30' W$. (Photo—W. Hodsdon.)

Arrival at the furthest group of Mountains of the Kirwan Escarpment. For the first time ever the tranquility of these mountains is disturbed by human presence. (Photo—W. Hodsdon.)

