

programme kan verrig, byvoorbeeld, akkurate bepaling van die beweging van die ysbank (dus ook van die stasie) bepaling van posities vir geologiese kartering, bepaling van die absolute posisie van die stasie van tyd tot tyd deur middel van waarnemings van die sterre, uitlé van die lugdrade van die radioteodoliet of radiosenders, ens. Gevolglik sal 'n landmeter weer elke jaar in die toekoms by die ekspedisies ingesluit word.

Fisikus: Daniel Johannes Joubert, 24 jaar oud. Hy het B.Sc. in 1961 aan die Potchefstroomse Universiteit behaal. Sy vernameste program sal wees die waarneming van kosmiese strale. Hy het reeds die vaarte van die RSA verlede jaar na Marion, Bouvet, Gough en Tristan da Cunha meegemaak vir die meting van kosmiese strale.

Fisikus: Derek William Sharwood, 22 jaar oud. Hy het B.Sc. in 1962 aan Rhodes Universiteit, Grahamstad behaal. Hy sal die ionosferiese en luggloedprogramme behartig. Ook hy het verlede jaar aan die aflosvaarte van die RSA deelgeneem en luggloedwaarnemings gedoen.

Geomagnetikus: Maurice Bernard Ezekowitz, 23 jaar oud. Hy het B.Sc. (Honnours) in Fisika in 1962 behaal aan die Universiteit van Grahamstad. Hy het die afgelope jaar die ionosferiese program by SANAE behartig en hy gaan gevolglik nou sy tweede jaar in Antarktika tegemoet.

Weerkundige: Hendrik Johannes Joubert, 23 jaar oud. Hy het die Seniorsertifikaat in 1959 aan die Noord-Kaaplandse Tegniese Kollege behaal en in 1960 by die Weerburo aangesluit waar hy die diploma vir Tegnikus (Weerkunde) in 1964 verwerf het. Hy sal as leier van die weerkundige groep optree.

Weerkundige: Gerhardus Petrus Potgieter, 24 jaar oud. Behaal sy Seniorsertifikaat te Lindley in 1961. Sluit aan by die Weerburo as Leerlingtegnikus (Weerkunde) in 1961.

Weerkundige: Andreas Jacobus Steyn, 21 jaar oud. Behaal die Seniorsertifikaat te Philippolis in 1960 en sluit die volgende jaar by die Weerburo as Leerlingtegnikus (Weerkunde) aan.

Senior Werktuigkundige: Johannes Lodewicus Joubert, 32 jaar oud. Behaal sy N.T.S. I aan die Tegniese Hoërskool, Uitenhage, in 1952. Dit sal sy tweede jaar te SANAE wees, aangesien by reeds een jaar (1962) daar deurgebring het.

Werktuigkundige: Wilfred Hodson, 37 jaar oud. Hy het die Seniorsertifikaat in 1945 behaal aan die Kearsney College.

Radiotegnikus: Nicolaas Stephanus Smit, 27 jaar oud. Hy het die N.T.S. II (Elektronika en Elektrotegniek) aan die Pretoriase Tegniese Kollege in 1956 behaal en in 1963 het hy die Radioelektrisiën Diploma ontvang.

Radio-bediener: Eric Raymond Statt, 27 jaar oud. Junior Sertifikaat aan die Hoërskool Malvern, 1952. Hy het in 1962 as Lugvaart-radiobediener by die Departement Vervoer aangesluit.

Investigations into the "Cape Anomaly" with the co-operation of the South African Air Force

A concerted effort is being made by South African scientists to obtain information on cosmic radiation and airglow in the region of the "Cape Magnetic Anomaly" in the South Atlantic Ocean. Apart from the geomagnetic, cosmic ray, aurora, airglow and

ionospheric observations which are being taken at SANAE, efforts were made to observe airglow and cosmic-ray neutron density in the South Atlantic and western Indian Oceans during voyages of the RSA in 1964 to Marion, Bouvet and Gough Islands. The scientists behind these investigations are Professor P. H. Stoker of Potchefstroom University, Professor P. B. Zeeman of Stellenbosch University and Professor J. A. Gledhill of Rhodes University. These special efforts at present form part of the South African programme in connection with the International Years of the Quiet Sun.

Through the support of the Council for Scientific and Industrial Research, the co-operation of the South African Air Force was obtained to enable the scientists to take observations from Hercules C-130 aircraft which flew special long distance traverses in various directions from Cape Town on 2nd, 3rd, 5th and 6th October. The flight level was about 30,000 feet above sea-level and flying was done during the night for the taking of the airglow measurements. The flights went in the directions of Gough, Bouvet, Marion and Ascension Islands.

It is hoped to obtain more information on the results and success of the flights for publication in a later issue of the *Bulletin*.

Exchange of Publications

The Association has received the following publications from overseas institutions in exchange for the *Antarktiese Bulletin*:

Polar Post—Journal of the Polar Postal History Society of Great Britain.

Arctic—Journal of the Arctic Institute of North America.

Antarctic Report—United States Antarctic Research Programme: National Science Foundation.

Polarforschung—Deutschen Gesellschaft für Polarforschung (Polar Research Institute of Germany).

Il Polo—Rivista Trimestrale dell' Istituto Geografico Polare (Italy).

Suid-Afrikaanse verteenwoordiger met "U.S. Deep Freeze 1964/65".

Mnr. D. C. Neethling, die koördinerende geoloog vir Antarktiese geologiese en gletserkundige navorsing by die Geologiese Opname te Pretoria, het op 3e Oktober vertrek om as die Suid-Afrikaanse wetenskaplike waarnemer met die "U.S. Deep Freeze" Ekspedisie van 1964-65, saam te gaan. Sy reisplan sluit onder andere in amptelike besoeke aan die Sekretaris van die Gletserkundige Werkgroep van SCAR, Dr. Claude Lorius in Parys; Sir Vivian Fuchs en Dr. Ray Adie van die "British Antarctic Survey"; Dr. G. de Q. Robin van die "Scott Polar Institute" te Cambridge, die Poolnavorsingsinstitute van die Universiteite Wisconsin en Minnesota; die "U.S. Geological Survey" en "National Science Foundation" in Washington en die voorsitter van die Werkgroep Geologie van SCAR, Mnr. R. Willett, in Nu-Seeland. In Antarktika sal Mnr. Neethling aktief deelneem aan geologiese en gletserkundige navorsingsprogramme in die omgewing van McMurdo Sound, Byrdstasie en in die drôe valleie van Suid-Victorialand.

NUUS VAN DIE EILANDE

SANAE—25e September, 1964:

Hier op die ysvlaktes gaan alles nog goed. Die son skyn nou al 12 uur per dag en op helder dae kan 'n mens al sy warmte voel. Die eerste Skua het nou-die-dag hier rondgevlieg.

Ons het verlede week twee interessante Antarktiese verskynsels waargeneem. Onder 'n helder blou hemel was 'n stralekrans om die son duidelik sigbaar en kon ons dit beleef dat sneeukristalle op ons neersif. Boere in die Republiek sou wat wou gee as dit kon reën sonder dat daar 'n enkele wolkie in sig is.

Soos voorspel, is vanjaar sover blykbaar 'n sonstillejaar want ons het sover nog slegs enkele magnetiese storms gehad, met gevolglike goeie radio-ontvangs. Suiderligte is ook minder waargeneem as in die verlede.

Ons simpatiseer met die manne op Marion, met hulle temperatuurprobleem. Hier is dit 'n gerieflike 15°C binnenshuis.

Tollie Traut, wat ons kok was met die midwintersfees, was nou ook weer kok met Koos Pretorius se verjaarsdag op die 24e. Dit lyk vir ons sy kookbeurt val altyd saam met een of ander spesiale geleentheid en dit sal nie verbaas as Kersfees ook in sy beurt val nie, want hy is altyd vol nuwe idees.

Sover het ons nog steeds die S.A.U.K. se programme helder en steuringsvry ontvang. Die inhoud van die programme vind groot byval by ons almal. Die instelling van die FM-diens maak dit nou vir ons moontlik om na 2200 G.G.T. die Suid-Afrikaanse programme te geniet.

SANAE, 5th October, 1964:

With summer just around the corner there is increased activity at SANAE. The men are still in excellent physical and mental condition. Much interest is focussed on the names of those who will

relieve us when our sojourn on the beautiful yet forboding Antarctic continent is over.

A recent trip to Polarsirkelbukta revealed that the Bukta is still frozen, but many kilometres out some stretches of open sea could be seen. Some new icebergs have joined the familiar older ones and on a clear day they make a breathtaking sight.

Despite the fact that the station is situated 22 kilometres from the ice front mirages often reveal the whole coastline north of us with amazing clarity.

Without hesitation it can be stated that our leader, Skroef van Zyl, and our radio technician, Pieter de Waal, have done a fine job keeping the seismological programme running efficiently. Drift of the level, caused by uneven settling of the new buildings situated about 300 yards south of the base, has made their task a difficult one. During January the American seismologist, Brian Hill, and Howard April had installed the three short period and the three long period seismometers, the system being identical with that in Pretoria.

The short period seismometers are operating satisfactorily but the long period system is disappointing and of little use, apart from earthquake recording. Interesting observations have been obtained from time to time, probably caused by ice shelf movements.

At present Pieter de Waal is erecting a rhombic antenna beamed on Washington, to improve time signal reception.

Apart from the seismological programme Pieter and Skroef have many duties to carry out. Being the radio technician, Pieter is always busy repairing some or other bit of electronic apparatus, but in addition he is at present in the throes of erecting various new aeriels. On social occasions, Pieter is the barman, a task which he enjoys—being a partial abstainer! He is also editor of the local newspaper, the *Sankrant*.

Skroef, as leader of the expedition, always has his hands full with administrative work and organization of matters at the Base. He has been very active with star fixing and azimuth determinations.

Zac Ezekowitz has been appointed geomagneticist for 1965 and we congratulate him and hope that he will enjoy good health and happy days during his second year at SANAE.

SANAE, 28th October, 1964:

Within a matter of weeks SANAE will be enjoying the midnight sun. Already the brightest stars can be seen only with great difficulty and final astro-fixes are being carried out. Large numbers of Antarctic petrels have been circling the base. About ten days ago the temperature rose to -2°C during a heavy snowfall.

The annual Kruger Day bisley was held in spite of bad weather and a cold breeze. Bernie Booyens won the competition with an 84 per cent mark performance.

A severe setback forced the geomagnetic survey party to return to base without completion of proposed work. Approximately one kilometre from Polarsirkelbukta on the normal route the snow bridge of a probably newly formed crevasse collapsed disastrously and swallowed up the caboose and one sledge with two of the field party, viz. Bernie Booyens and Andre du Plessis. Fortunately the muskeg had been detached after the first crack was noticed. Using the muskeg Noel Jay and Trevor Robertson were able to rescue the others from 30 feet down in the 20-foot wide crevasse. There were no serious injuries. Ezekowitz and Traut travelled with huskies, taking spares for the defected muskeg. Two days later Skroef van Zyl salvaged all the important equipment from the caboose.

It now appears that Polarsirkelbukta is unsafe for offloading purposes and another bukta will have to be sought. With this in view, as well as for pursuing further glaciological work, Andre du Plessis and Zac Ezekowitz will soon depart with the dog team on a short trip.

The cosmic ray programme, under geophysicist Deon Kuhn, is a threefold one in which a neutron monitor, a riometer and high altitude balloons are used. The neutron monitor is used to determine both the erratic and cyclic variation of solar and cosmic rays. The riometer measures the signal strength of radio noise originating in the sun and stars. The signal strength is a measure of the density of the ionosphere and atmosphere. During a balloon flight two neutron counter tubes are sent up. The pulses recorded by the tubes, as well as the air pressure, are signalled back by the apparatus

and in this way a profile of the intensity of the neutrons versus pressure can be determined. The first flight was launched successfully, but unfortunately the signals faded before a really useful height was reached. We hope that Deon will have better luck with forthcoming flights.

MARION, 23e September:

Afgesien daarvan dat die weer ons baie goed behandel het die afgelope tydjie, gaan hier nie veel aan nie. Nou moet almal darem ook goed verstaan dat 'n mens van mooiweer op Marion praat as die wind die dag nie waai nie en die son skyn so af-en-toe. Ander soorte mooiweer het ons nie. Een ding waarmee ons darem kan spog is mooi reënboë en volmaande. In die winter sit die son laag op die horison en dan hang daar altyd 'n pragtige reënboog oor die stasie. Op Marion reën dit mos al is daar net een wolkie in die verte.

Noudat die ergste van die winter verby is wemel die wêreld weer van die voëls. Klein pikkewyntjies stap oral rond en die seeolifante is ook fluks aan die kalf. Ons hoenders bly ook nie agter nie—die goed lê deesdae amper twee dosyn eiers per dag en vir 31 henne is dit nie sleg nie. Intussen het ons 'n knortjor gebou.

MARION, 1e Oktober, 1964:

Hier op Marion word die dae nou mooi lank. Mens kan al die termometers soggens 5 v.m. reeds lees sonder om met flitsligte te sukkel.

Die wêreld wemel van die klein pikkewyntjies en seeolifant-kalfies. Die klein albatrossies begin reeds hulle babadonsies verloor en die vlerkvere begin al uitkom. Op pad na Tripodbaai is daar een albatroskuiken wat besonder mak is, seker van al die mense wat gedurig by hom verbyloop om skape te gaan haal.

Die weerkundige hoogtepunt van die maand was die groot wind van die 24e en die aansienlike drukneigings op die 23e en 24e. Tussen 1700 en 2000 S.A.S.T. op die 23e het die druk 11.2 mb gedaal en volgende oggend, ook oor drie uur, 11.1 mb gestyg, gepaard met 'n gemiddelde wind van oor die 60 myl per uur en stote van meer as 90 myl per uur. Onder sulke omstandighede is dit onmoontlik om 'n ballon op te stuur, soos die manne na 'n groot gesukkel en twee stukkende balonne agtergekom het.

Dan sit ons hier ook met 'n eierprobleem. Ons hoenders (31 henne) lê deesdae drie dosyn eiers per dag. Ons weet nie meer wat om met die goed te maak nie. Loutjie, ons kranige broodbakker, sit toe nou die dag twaalf eiers in die deeg vir ses brode. Ons kan hierdie gebruik by almal aanbeveel want die resultate het vorentoe gesmaak.

MARION, 3rd November, 1964:

Although Spring on Marion Island started off with wind and snow and cold weather, we had the uncommon experience of three consecutive days of sunshine and little wind at the end of October. Sunburnt faces are quite common on Marion Island after numerous expeditions to far-off places. Meanwhile the rockhopper penguins have returned to the base and this more than anything else indicates that time is flying and that our pleasant sojourn on the Island will soon come to an end.

GOUGH, 6e Oktober 1964:

Hoewel die berge om die stasie op die oomblik nog wit lê onder die sneeu en dit die afgelope twee dae nog byna onafgebroke reën, is daar, snaaks genoeg, wel sprake van die aankoms van die lente op Gough. Al is dit nie deur trompetgeskal voorafgegaan nie, is die karige 61.2 mm reënval van die afgelope maand, gesien in die lig van 'n gemiddelde sonskynduur van 4 uur per dag, 'n aanduiding van hoe die lente hier ingesluit het. In teenstelling hiermee is daar ook in September 'n drukval van 19 mb in 24 uur waargeneem met al die bykomstighede wat gewoonlik met so 'n verskynsel gepaard gaan. Hieronder reorteer die platwaai van radiosonde- en radioteogolietlugdrade. Laasgenoemde het meegebring dat ons nie met vroeë radiosonde en radiowind waarnemings kon bydra tot die sukses van die Hercules C130 vlug oor Gough op die 2e Oktober nie. Hierdie vlug het deel gevorm van die Suid-Afrikaanse bydrae tot die internasionale sonstiltejaar. Die vliegtuig het die eerste keer op 'n hoogte van 30,000 voet om 0001 G.G.T. oor Gough gevlieg, natuurlik ongesien en ongehoord. Nou gaan ons almal in spanning op die verskyning van die Tristania wat die gesogte pakkies en tydskrifte sal bring.