

SANAE-AGTERGROND

1. n Span bestaan normaalweg uit:

A: Leier

B: Navorsingspersoneel:

Senior weerkundige
Twee weerkundiges
Landmeter
Fisioloog
Drie Fisici (Geofisika)
Twee Geoloë

C. Ondersteuningspersoneel:

Dokter
Senior Werktuigkundige
Werktuigkundige
Radio Operateur
Radio Tegnikus

Die fisici word meesal benoem deur die inrigtings waarvoor hulle navorsing gaan doen, te wete Rhodes (Ionosfeer), Potchefstroom Universiteit (Kosmiese Strale) en Hermanus Magnetiese Observatorium (Geomagnetisme).

Die span kom in Pretoria byeen nadat die nodige program-opleiding by die spesifieke inrigting ondergaan is. In Pretoria word opleiding gegee in kook, noodhulp en brandbestryding. Ook word n fiksheidskursus deurgemaak.

Die skip, die "RSA" vertrek tussen Kersfees en Nuwejaar uit Kaapstad en die rit duur + 2 weke ahangende van die toestand van die pakys.

Die oornametydperk duur + 10 dae. Dit sluit in die aflaa van voorrade en die oorhandiging van die werksaamhede aan die nuwe span.

Die ou span keer dan terug.

2. Basis

Die basis bestaan uit n ry geboue wat losstaande van mekaar is, naamlik nooddieselhut, tegniese gebou, putgebou, slaapkwartiere, kombuis cum eetkamer cum ontspanningsgebou, dieselhut, ballonhut, hondekamer.

Die geboue is van houtpanele gebou en was oorspronklik op die oppervlak. Sneeu het egter mettertyd opgehoop (teen + 15 vt./jaar) sodat daar nou + 25 vt. sneeu op die dak is. Die geboue word verbind met n gang wat langs hulle loop, die sneeugang genoem. Slegs die slaap en tegniese gebou word kunsmatig verwarm. Die Kombuis kry hitte van die stoof, en die dieselhut, waar elektriese krag opgewek word, word deur die opwekkers verwarm.

In die slaapkwartiere het elke spanlid sy eie kamer (+ 8 vt. x 6 vt.). Daar is ook n toegeruste hospitaal en apteek.

In die tegniese gebou is die kantore van die leier, geoloë, radiopersoneel, weerkundiges en fisici.

Die ballon hut word gebruik vir die lansering van weerkundige ballonne.

Die hondekamer is ingerig vir siek en/of verwagte honde en kleintjies.

3. Basiswerk

Afgesien van programwerk, moet die span ook die nodige doen om die basis agtermekaar te hou. Elke lid neem 'n kookbeurt van vier dae waar en is verder skiewie vir een dag. (Sluit in take soos vars water voorsien, brandstof pomp vir verwarmers, vloere was, tafeldekkings.)

Verder werk die span ook as 'n geheel saam om groter take af te handel (byvoorbeeld basis verf, diesoline voorraad wat toegewaaie het onder die sneeu weer op die oppervlak te bring, ens.)

4. Navorsing

Die uitsluitlike doel van die ekspedisie is om navorsing te doen. Dit het dan voorrang bo alles behalwe die behoud van lewens en die basis. Party persone se werk word slegs onderdak gedoen, ander moet daagliks buite op die oppervlak werk. (Sien WEER).

Die geoloë doen werk in die berge gebied omtrent 80 - 200 myl vanaf die basis. (Sien JAAR PGM).

Die leier behartig gewoonlik nie self 'n program nie, maar is in beheerende en koördinerende kapasiteit goed besig.

5. Weer

Hierby ingesluit is alle omstandighede wat werk op die oppervlak beïnvloed.

- (1) In die somer skyn die son 24 uur per dag vir twee maande ($\frac{1}{2}$ November tot $\frac{1}{2}$ Januarie). Dan begin die son vir kort tydies sak wat al langer word tot die son van $\frac{1}{2}$ Mei tot $\frac{1}{2}$ Julie nooit bokant die horison kom nie.
- (2) Die somertemperatuur wissel van -15°C tot so $+4^{\circ}\text{C}$. Laasgenoemde temperatuur word as 'n hittegolf beskou. Die wintertemperatuur wissel tussen -40°C tot -55°C .
- (3) Sneeuval is $\pm 2\frac{1}{2}$ - 3 vt. per jaar. (Toename op basis is hoër weens obstruksies op oppervlak). Geen reën word waargeneem nie.
- (4) Wind word op omtrent $\frac{2}{3}$ van die totale dae waargeneem.

Tot 20 m.p.u. gaan normale werk voort.
20 - 50 m.p.u. slegs diegene wat buite gaan om na n ander punte (beskut) te gaan vir waarnemings.
50 - 90 m.p.u. Ditto, maar dan twee-twee en met n tou aanmekaar vasgemaak. Die sigbaarheid is dan \pm 15 vt. weens die jagsneeu. (Sneeu deur wind voortgedryf.)
Oor 90 m.p.u. Niemand is dan lus om uit te gaan nie.

6. Ontspanning

Daar word dikwels (eintlik gereeld) brug en skaak gespeel, asook enige ander speletjie wat vir n ruk die aandag trek.

Fliëk word Saterdaggaande vertoon.

Met verjaarsdae en nasionale vakansiedae asook Midwinter (21 Junie) word partytjies of gesellighede gehou.

Daar is ook n verskeidenheid boeke beskikbaar.

Die grootste probleem met ontspanning word tydens die winter ondervind, want dan is die buitewerk beperk. Verder is daar nie n oormaat vrye tyd nie.

7. Jaarprogram

Dit kan rofweg so gestel word.

Eerste paar weke na vertrek van RSA: Versorging van die voorrade.

$\frac{1}{2}$ e Februarie tot $\frac{1}{2}$ e April: 1e Berge ekspedisie. (Leier, werktuigkundiges, Radiotegnici en Geoloë).

$\frac{1}{2}$ e April tot $\frac{1}{2}$ e Mei: Voorbereiding vir winter (Brandstof byvoorbeeld).

Winter (Mei, Junie, Julie): Uitverf en skoonmaak van basis.

Augustus, September: Hervatting van buitewerk. Voorbereiding vir 2e Berge ekspedisie.

Oktober tot Desember: 2e Berge ekspedisie. Dieselfde lede as die eerste. By die basis word gedurende Desember voorberei vir die oornames tydperk.

SANAE-BACKGROUND

1. The team usually consists of:

A: Leader

B: Research Personnel:

Senior Meteorologist
Two Meteorologists
Land Surveyor
Physiologist
Three Physicists (Geophysics)
Two Geologists

C: Support Personnel:

Doctor
Senior Diesel Mechanic
Diesel Mechanic
Radio Operator
Radio Technician

The physicists are usually nominated by the institutions doing the coordination of their research work, Rhodes (Ionosphere), Potchefstroom University (Cosmic Rays) and Hermanus Magnetic Observatory (Geomagnetism).

The team is convened in Pretoria after the necessary training of the scientific personnel has been done. In Pretoria additional training is given in cooking, first aid and fire fighting. A course in physical fitness is also done.

The ship, the "/RSA", leaves Cape Town between Christmas and the New Year and the voyage usually lasts about two weeks, depending on the condition of the ice pack.

During the relief, which lasts about 10 days, all supplies are offloaded and programs are handed over to the new team.

The old team then returns to the Republic.

2. The Base

The base consists of separate buildings aligned in a North-South direction. They are: emergency diesel hut, technical building, pit hut, sleeping quarters, kitchen cum dining room cum recreation hut, diesel hut, balloon hut, dog hut.

The buildings are constructed from wooden panels and were originally on the surface. Snow accumulation (at about 5 ft./year) was such that there is now about 25 ft. of snow above roof level. The buildings are all interconnected by means of a passage called the ice passage running the length of the base. Only the technical building and the sleeping quarters are supplied with special internal heating. The kitchen is heated by the stove and the dieselhut, where electricity is generated, by the engines.

In the sleeping quarters each member of the team has his own room (+ 8 ft. x 6 ft.). In the building is also a hospital and dispensary.

In the technical building are the offices of the leader, geologists, radio personnel, meteorologists and physicists.

The balloon hut is used for the launching of meteorological balloons.

The dog hut is used for sick and/or pregnant dogs and pups.

3. Basework

Apart from their individual programmes, the members of the team have to keep the base in good order.

Each member of the team is cook for four days and also has to be "skivvy" for one day. This entails washing floors, supplying fresh water, laying and clearing the table, etc.

Other group work has to be done all the time e.g. painting the interior of the base, clearing the diesoline drums from under the accumulated snow.

4. Research

The exclusive purpose of the expedition is to do research. This has priority over everything bar the preservation of life and the existence of the base.

Some research is done from inside the base, while others have to go outside at regular intervals. (See WEATHER).

The geologists work in the mountains about 80 - 200 miles from the base. (See ANNUAL PROGRAM).

The leader usually does not have a separate program, but is occupied in coördinating and assisting in all base activities.

5. Weather

Under this heading is included all circumstances affecting work on the surface.

- (1) In summer the sun shines for 24 hours daily for a period of two months; from about 15th November to 15th January. The sun then sets for increasing periods of time until it never rises above the horizon from about 15th May until 15 July.
- (2) The summer temperature varies between -15°C and about $+4^{\circ}\text{C}$, which is considered to be a heat wave. The winter temperature varies between -40°C and -55°C .
- (3) Snowfall is about $2\frac{1}{2}$ - 3 ft. annually. (The accumulation at the base area is higher due to obstructions on the surface). No rain is experienced.

(4) Windy conditions exists on about 2/3 of the total days.

Until 20 m.p.h. normal outside work is done.

20 - 50 m.p.h. trips on the surface are done only for re-
search activities.

50 - 90 m.p.h. Persons venturing outside have to do so
two at a time and tied together with a length of rope.

The visibility is then about 15 ft. due to windblown snow.
Above 90 m.p.h. No-one feels much like going outside.

6. Recreation

Bridge and chess are played regularly in addition to any
other game that captures the fancy for a limited time.

Saturday nights a film show is held.

Parties are held on birthdays and some holidays as well as
on Midwinter Day, (21st June).

A library is also available.

The biggest recreational problem is during the winter months
when work on the surface is limited to a minimum. During
the other seasons time for leisure is limited.

7. Annual Program

To summarize, it would normally be the following:

Immediately on departure of the "RSA" the supplies
have to be sorted out and seen to.

2nd half of February until 1st half of April: First
trip to the mountains. (Leader, Geologists, Diesel
Mechanic, Radio Technician).

2nd half of April until 1st half of May: Preparation
for winter (e.g. laying in fuel supplies).

Winter (May, June, July) Cleaning and painting the
base buildings.

August, September: Resumption of general work on the
surface. Preparation for 2nd field trip.

October - December: Second trip to the mountains.
(Same field party)

During December the base is prepared for the relief.