



PHYSICS



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Rep. of South Africa

Visit to Neumayer Station

Atka Bay 6-1-84



ms S.A. AGULHAS IN	Vaart	34
KAAPSTAD 150810	Voyage	
CAPE TOWN		
RODEP - GALL ZERT	(Bruto - Gross)	
TONNEMAT - TONNAGE	5 352,13t	
HOOFDRELS		
MACH ENGINES	2 x 2 238kW	
LENGTE - LENGTH	103,88m	
BREEDTE - BEAM	18,05m	

M.V. "S.A. AGULHAS"
SANAE



SUID-AFRIKAANSE NATIONALE ANTARKTIESE EKSPEDISIEN
1984-85
SOUTH AFRICAN NATIONAL ANTARCTIC EXPEDITION



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SOUTH AFRICA / SÜD AFRIKA



SOUTH AFRICAN
NATIONAL ANTARCTIC
EXPEDITION

SAAE 70° 17' S 2° 22' W



M.V."S.A. AGULHAS"



S.A. AGULHAS m.v.	V. 17
CAAPSTAD	350810
CAPE TOWN	T. 17
ROEP - CALL ZRRT	(Bruto - Gross)
TONNEMAAAT - TONNAGE	5 353,13t
HOOFENJINS	
MAIN ENGINES	2 x 2 238kW
LENGTE - LENGTH	103,88m
BREEDTE - BEAM	18,05m

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6140.



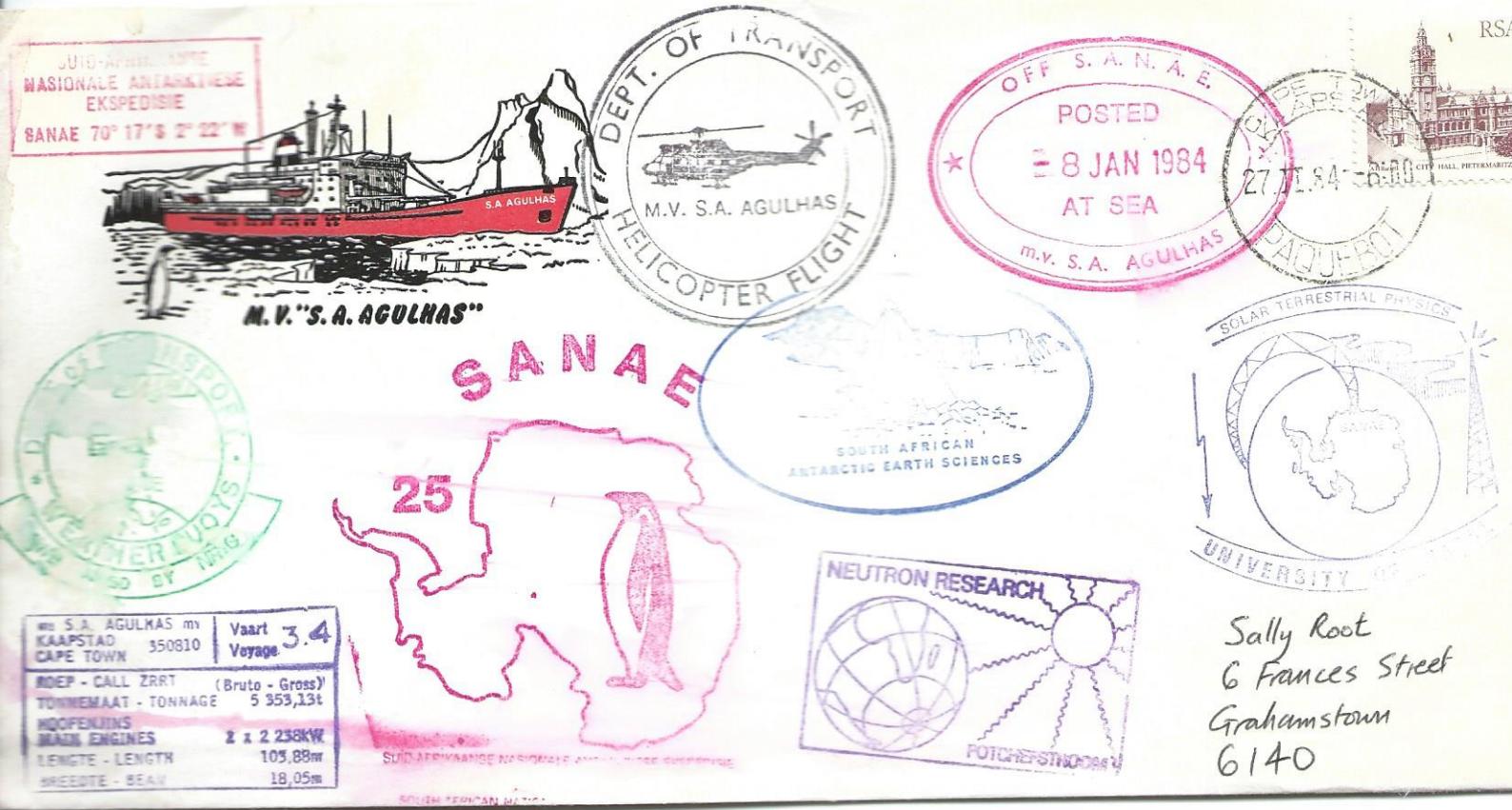
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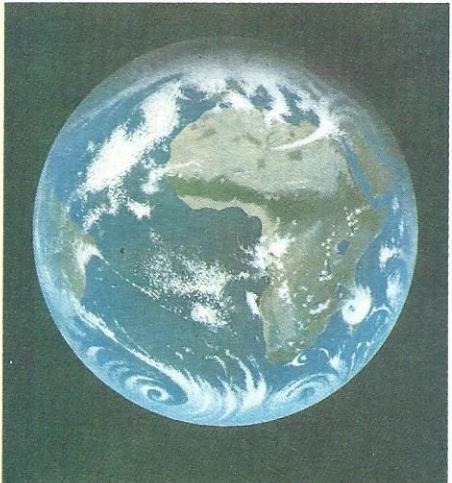
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water



water



WEERSTASIES WEATHER STATIONS



SOUTH AFRICAN WEATHER STATIONS

The weather of a country is influenced by weather conditions within and outside its borders. The regular careful observation of these conditions, both on the surface and in the upper air, forms the basis of meteorology. At the Headquarters of the Weather Bureau in Pretoria, where weather-charts are analysed by hand and by computer, thousands of weather reports in numerical code are received daily from all over the southern hemisphere. These reports are processed before weather forecasts are released to the media, the public, aviation, shipping and other concerns.

More than a hundred weather stations are situated right through South Africa with the specific object of supplying the Weather Bureau with timely observations throughout the day. However, it is mainly weather systems that develop over the southern Atlantic and Indian Oceans and move eastwards past the country that cause significant changes in the weather. Weather observations in these extensive surrounding oceans, however, are limited, because ships rarely move in those areas in which meteorologists are chiefly interested.

Therefore permanent weather stations were established on Marion and Gough Islands and at Antarctica. Reliable observations from these stations are used to verify observations from ships and floating weather stations (weather buoys), and to calibrate those from weather satellites.

Marion Island, which forms part of the Prince Edward Islands and was annexed by South Africa in 1947, is situated on 47° South and 38° East. The island is approximately 22 km long and 14 km wide. The climate is cold, wet and windy, with an average annual temperature of 5 °C. Due to the marshy conditions, wooden pathways had to be erected throughout the island. The small beaches teem with sea-elephants, penguins, albatross and other birds.

Gough Island, situated 40° South and 10° West, is British domain and the weather base area is leased to South Africa. This island is much smaller than Marion, but also rises from the sea abruptly and steeply, with the same rough and rocky shore-line. The annual temperature averages about 11,5 °C, causing slopes to be abundantly covered with moss, grasses, bushes and ferns. Gough is rich in bird-life, and albatross, sea-gulls, storm petrels and penguins abound. Seal and sea-elephant also occur.

Since the beginning of 1960 South Africa has maintained a base at 70° South and 23° West on the ice-shelf surrounding Antarctica. In a year's time such a base is completely buried in snow. Air is sucked in via ventilation shafts and heated, therefore it is quite comfortable inside the huts, even during snowstorms. The climate is extremely cold. The temperature during the summer months averages only -5 °C, while there is no sun at all in winter. The base is known as SNAE, abbreviation for South African National Antarctic Expedition.

The Department of Transport is responsible for the logistics and administration of the base in Antarctica and those on the two islands. Relief personnel are transported annually on the departmental research and supply vessel, the *SA Agulhas*, which has been specially strengthened for navigation in pack-ice.

Weather observations by weather satellites also monitoring the southern ocean areas are received by the Satellite Remote Sensing Centre of the Council for Scientific and Industrial Research and relayed to the Weather Bureau.

SUID-AFRIKAANSE WEERSTASIES

Die weer van 'n land word beïnvloed deur weerstoestande binne en buite sy grense. Die gereelde noukeurige waarneming van hierdie toestande, beide aan die oppervlak en in die bolug, vorm die basis van weerkunde. By die Hoofkantoor van die Weerburo in Pretoria, waar weerkaarte per hand en deur 'n rekenaar ontleed word, word daagliks duisende weerberigte in syferkode van oor die hele suidelike halfrond ontvang. Hierdie berigte word verwerk voordat weervoorspellings aan die media, die publiek, lugvaart, skeepvaart en ander instansies uitgerek word.

Meer as 'n honderd weerstasies is versprei oor Suid-Afrika met die spesifieke doel om deur die dag tydige waarnemings aan die Weerburo te voorsien. Dit is egter veral weerstelsels wat oor die suidelike Atlantiese en die Indiese Oseaan ontwikkel en ooswaarts verby die land beweeg wat betekenisvolle weersveranderings veroorsaak. Weerwaarnemings in hierdie uitgestrekte omliggende oseane is egter skaars omdat skepe selde in dié gebiede vaar waarin weerkundiges eintlik belang stel.

Permanente weerstasies is gevvolglik op Marion- en Gougheiland en in Antarktika gestig. Betroubare waarnemings van hierdie stasies word gebruik om die waarnemings van skepe en drywende outomatiese weerstasies (weerboeiie) te kontroleer en om dié van weersatelliete te kalibreer.

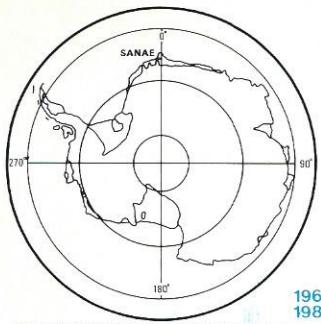
Marioneiland, wat deel uitmaak van die Prins Edward-eilandgroep wat in 1947 deur Suid-Afrika geannekeer is, is op 47° Suid en 38° Oos geleë. Die eiland is ongeveer 22 km lank en 14 km breed. Die klimaat is koud, nat en winderig, met 'n gemiddelde jaarlike temperatuur van 5 °C. Weens die moerastoestande moes plankbedekte voetpaadjies oral op die eiland aangebring word. Die strandjies wemel van seolifante, pikke-wyne, albatrosse en ander voëls.

Gougheiland, geleë op 40° Suid en 10° Wes, is Britse eiendom en die weerbasisgebied word aan Suid-Afrika verhuur. Dié eiland is heelwat kleiner as Marion, maar verry net so plotseling en steil uit die see en het net so 'n ruwe, rotsagtige kuslyn. Die gemiddelde jaarlike temperatuur is ongeveer 11,5 °C, wat meebring dat die hange welig met mos, grasse, bosse en varings bedek is. Gough is ryk aan voëlwee en albatrosse, see-meeue, stormvoëls en pikkewyne is volop. Robbe en seeolifante kom ook voor.

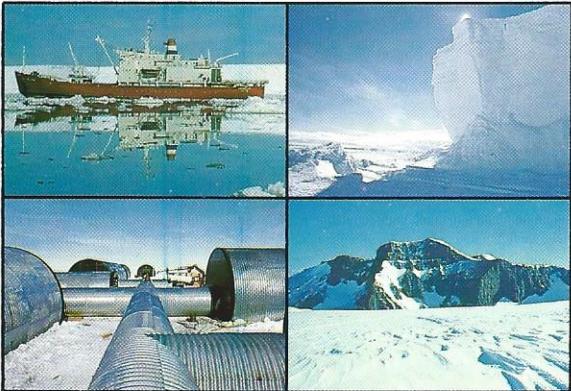
Sedert begin 1960 handhaaf Suid-Afrika 'n basis op 70° Suid en 23° Wes op die ysbank om Antarktika. Só 'n basis is na slegs 'n jaar heeltemal onder sneeu begrawe. Lug word deur ventilasiekagte ingesuig en verwarm, sodat dit in die hutte heeltemal gerieflik is, selfs terwyl sneeustorms buite woed. Die klimaat is uiterst koud. Die gemiddelde temperatuur gedurende die somermaande is slegs -5 °C, terwyl die son gedurende die winter glad nie skyn nie. Die basis staan bekend as SANAE, die afkorting van Suid-Afrikaanse Nasionale Antarktiese Ekspedisie.

Die Departement van Vervoer is verantwoordelik vir die logistiek en administrasie van die basisse in Antarktika en op die twee eilande. Afloss personeel word jaarliks met die departementeale navorsing- en voorraadskip, die SA Agulhas, vervoer. Dié skip is spesial versterk vir navigasie in pakys.

Weerwaarnemings van weersatelliete wat ook die suidelike oseaan gebiede dek, word deur die Satelliet-afstandswaarnemingsentrum van die Wetenskaplike en Nywerheidnavorsingsraad ontvang en aan die Weerburo voorsien.



Twintigste Herdenking
van die Antarktiese Verdrag
Twenty-fifth Anniversary
of the Antarctic Treaty



VOORTREKKERBEWEGING 1931-1981
JOHANNESBURG 1981

DIE ANTARKTIESE VERDRAG 1961-1981

Suid-Afrika was een van die twaalf lande wat op 1 Desember 1959 die Antarktiese Verdrag in Washington DC onderteken het. Die Verdrag het op 23 Junie 1961 vir 'n tydperk van dertig jaar in werking getree.

Die doel van die Verdrag is om die voortsetting van internationale wetenskaplike navorsing in Antarktika te verseker. Verder bepaal dit onder meer dat dié vasteland in sy natuurlike staat en slegs vir vredesame doeleinades bewaar moet word. So word hierdie Verdrag 'n simbool van die wetenskaplike wêreld wat geen nasionale of politieke grense het nie. Lidlande van die Antarktiese Verdrag vergader tweejaarliks om probleme van gemeenskaplike belang te bespreek.

Die eerste Suid-Afrikaanse Nasionale Antarktiese Ekspedisie (SANAE) het op 3 Desember 1959 onder leiding van Hannes la Grange na Antarktika vertrek om op die sewende vasteland te oorwinter.

Tans word die SANAE-basis, wat op die Fimbulisen-ysbank $70^{\circ} 18'$ Suid en $2^{\circ} 24'$ Wes geleë is, deur Suid-Afrikaners beman.

THE ANTARCTIC TREATY 1961-1981

South Africa was one of the twelve countries who signed the Antarctic Treaty on 1 December 1959 in Washington DC. The Treaty came into force on 23 June 1961 for a period of thirty years.

The aim of the Treaty is to ensure the continuation of international scientific research in Antarctica. It furthermore provides that Antarctica will only be reserved for peaceful purposes and that this continent must be preserved in its natural state. Thus the Treaty becomes a symbol of the world of science, which knows no national or political boundaries. Signatory countries meet every two years to discuss problems of mutual interest.

The first South African National Antarctic Expedition (SANAE) under the leadership of Hannes la Grange departed for Antarctica on 3 December 1959 to spend the winter on the seventh continent.

At present the SANAE base, which is situated on the Fimbulisen ice shelf $70^{\circ} 18'$ South and $2^{\circ} 24'$ West, is manned by South Africans.



Paul HAG
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West Germany

Dear Mark,

As I promised in several radio contacts between SANE and Georg von Neumann station I now will send you some informations and also some PR-stuff from the petrus base. I hope that everything is interesting to you. Excuse my very late letter, but I have just finished the vacation together with my family. We spent some weeks at the Mediterranean sea on an spanish island called "Ibiza". It was not very good because the weather was always rainy and overcast. Now the weather here is quite good and I can enjoy my garden and the Barbecues we can celebrate.

All the best to you

Yours
Paul