

South Africa's Involvement in the Antarctic and sub-Antarctic



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APECSSA Polar Week 2018

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SANAP



JOBS CONTACT



South African National Antarctic Programme SANAP



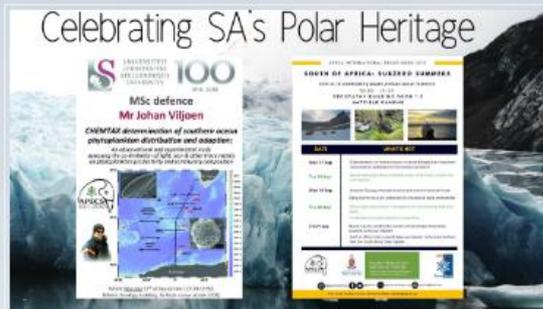
HOME ABOUT STATIONS VESSELS EXPEDITIONS RESEARCH OUTREACH LEGACY GALLERY NEWS EVENTS



Understand

Develop

Conserve



Celebrating SA's Polar Heritage

Friday September 14th, 2018

As South Africans we celebrate our Heritage during the month of September. Also, during the second last week of September all over the globe researchers celebrate 'International Polar Week'. In 2017 Antarctic Legacy of South Africa came up with a slogan to combine the two celebrations: "Celebrating South Africa's Polar ...

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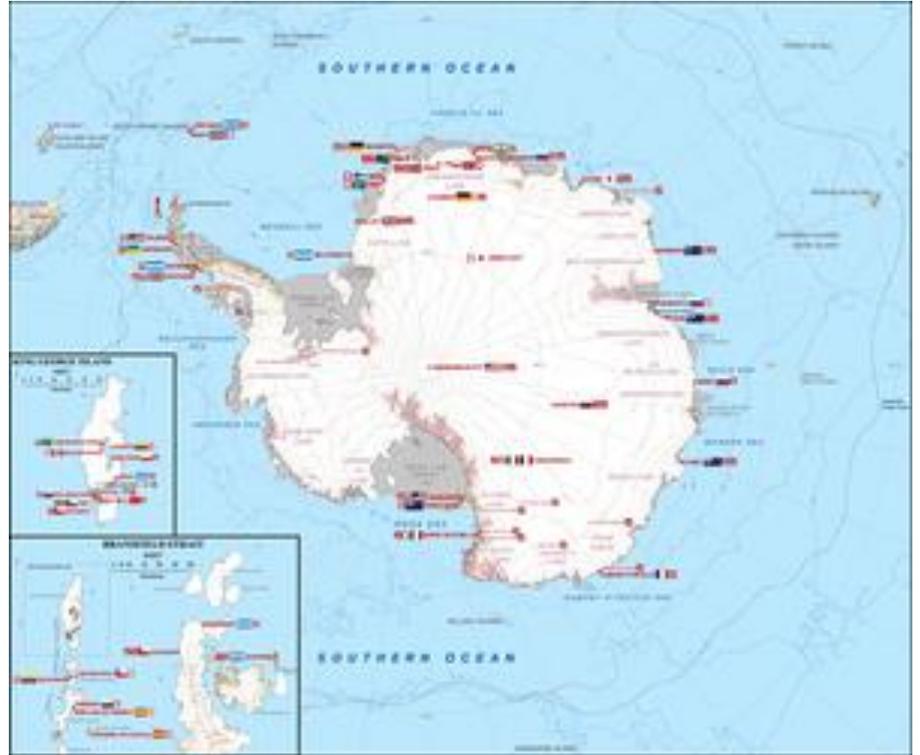
TUE
18

**Heritage
Month/International
Polar Week**

September 17 - September
21

A Little Bit of History

- A founding member of the Antarctic Treaty of 1959 (12 signatories in total).
 - Now: 45 member nations.
- Legal framework for the management of the region.
 - Peaceful purposes only.
 - Scientific investigation and cooperation is promoted.
 - Territorial claims are placed on hold.



A Little Bit of History

- 1959: Norway's that its base (Norway Station) in Queen Maud Land would be evacuated.
- The 1st South African National Antarctic Expedition (SANAE) departs on the Polarbjorn
- Reaches the Antarctic coast on 8 January 1960.



Structure

- In 2003:
 - Scientific research the [Department of Science and Technology](#) (DST).
 - [Department of Environmental Affairs](#) retains logistics and infrastructure functions.
- The [National Research Foundation](#) (NRF) awards grants to scientific projects.
- We have 3 bases
 - SANAE IV (Antarctica)
 - Marion Island (sub-Antarctic)
 - Gough Island (Atlantic)





Image U.S. Geological Survey
Data SIO, NOAA, U.S. Navy, NGA, GEBCO
US Dept of State Geographer
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Google Earth

Imagery Date: 12/14/2015 58°23'29.05" S 14°16'48.83" E elev -5311 m eye alt 7108.24 km



ANTARCTICA AND THE SOUTHERN OCEAN

YEAR-ROUND STATIONS OPERATED BY THE NATIONAL ANTAICTIC PROGRAMS IN THE ANTAICTIC TREATY AREA, SOUTH OF 60°

SCALE

0 200 400 600 800 1000 1200 1400 1600 1800 2000

Kilometers

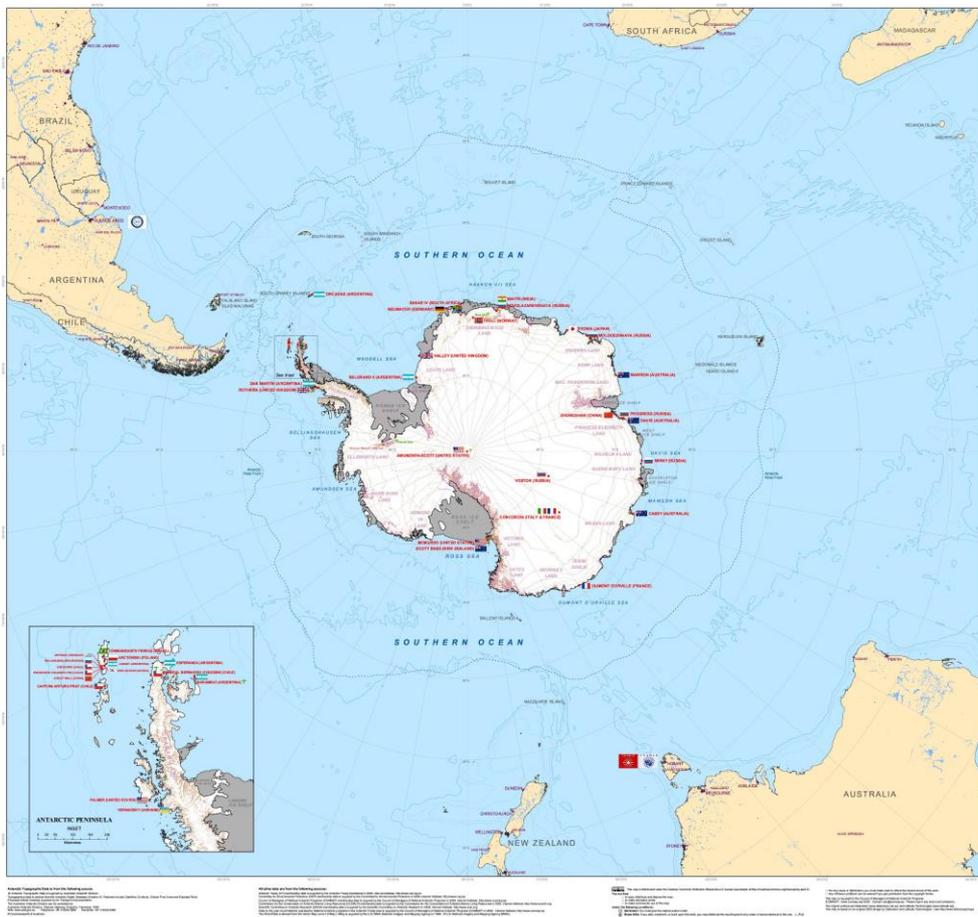
Polar Stereographic Projection

Compiled in May 2010

Coordinates: GCS Antarctic South Pole, UTM Zone 32S

Source: US Navy and US Antarctic Program

Map Data: US Navy and US Antarctic Program



SANAE IV

- 72.0°S, 2.5°W in western Dronning Maud Land
- 4280 km from Cape Town

Background Information

- At Vesleskarvet, 220 km due South of SANAE III.
- A few rocky outcrops (nunataks).
- The 4th station – all others now under the snow or dismantled.
- Nearest other stations:
 - Neumayer
 - Novolazarevskaya
 - Troll
 - Maitri
- SANAE's research is divided into four programmes:
 - Physical sciences
 - Earth sciences
 - Life sciences
 - Oceanographic sciences

PRINCE EDWARD ISLANDS (SOUTH AFRICA)



Prince Edward
Island



37°55'

46°35'

46°45'

Marion Island



46°55'

Marion Island

- 46°S, 37°E in the Southern Indian Ocean
- 2160 km from Cape Town

Background Information

- 19 km long by 12 km wide
- Two islands (316 km² in total)
- Mascarin Peak, it's highest point at 1,230m
- Little vegetation (mosses, ferns), except for lichen, in the island's centre.
- Terrain is very boggy.
- Lots of snow and rain and very windy. Research.....

- The research on Marion Island focuses mainly on the following themes:
 - Weather and Climate studies;
 - the interactions between marine and terrestrial systems;
 - the life histories of seals, seabirds and killer whales;
 - the structure and functioning of terrestrial ecosystems and
 - the structure and functioning of near shore ecosystems.



Gough Island

- 40°S, 9°W in the Atlantic
- 2600 km from Cape Town

Background Information

- A weather station since 1956.
 - This weather office operates the same as stations in South Africa with hourly climate observations and upper-air ascents.
- Gough Island is a volcanic island.
- Rising from the South Atlantic Ocean to heights of over 900 metres.
- Has an area of 91 km².
- A dependency of Tristan da Cunha (British overseas territory of Saint Helena).
- The land the station is built on is leased by South Africa under contract and is magisterated as a district of Cape Town.

How We Get There

Type:	Steel Hulled Ice strengthened Antarctic Supply Oceanographic Research Vessel
Class:	LRS Ice Class 1
Keel Laid:	1977
Builders:	Mitsubishi Heavy Industries, Shimonoseki, Japan
Gross tonnage:	6122.96 T
Displacement:	1836.88 T
Nett tonnage:	7107 at moulded summer draft
Length overall:	111.95 m
Breadth:	18.05 m
Moulded draft:	6.045 m
Power:	4476 kW
Cruising speed:	12.5 knots
Maximum speed:	14.0 knots
Range:	15 000 nautical miles
Endurance:	90 days
Call sign:	ZSAF
Complement:	138 comprising 40 crew and 98 scientific/other staff
Affiliation:	SAMSA
Previous affiliation:	Department of Environmental Affairs. Directorate: Southern Ocean & Antarctic Support



How We Get There

Type:	Polar supply and research vessel
Ice Class:	PC-5
Keel Laid:	40574
Builders:	STX Finland, Rauma, Finland
Gross tonnage:	12,897 GT 3,840 NT 4,780 DWT
Displacement:	13,687 tons
Length overall:	134.2 m (440 ft)
Beam:	21.7 m (71 ft)
Draught:	7.65 m (25.1 ft)
Depth:	10.55 m (34.6 ft)
Installed Power:	4 × Wärtsilä 6L32 (4 × 3,000 kW)
Propulsion:	Diesel-electric; two shafts (2 × 4,500 kW) Two controllable pitch propellers
Speed:	16 knots (30 km/h; 18 mph) (max) 5 knots (9.3 km/h; 5.8 mph) in 1 m (3.3 ft) ice
Range:	15,000 nautical miles (28,000 km; 17,000 mi) at 14 knots (26 km/h; 16 mph)
Call sign:	ZSNO
Capacity	100 passengers in 46 cabins 4,000 m ³ (140,000 cu ft) cargo hold 500 m ³ (18,000 cu ft) of polar diesel.
Crew:	45
Aircraft carried:	2 × Atlas Oryx
Aviation facilities:	Helideck and hangar

