



**COMNAP**

Council of Managers of  
National Antarctic Programs

# ANTARCTIC STATION CATALOGUE

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ANTARCTIC  
STATION  
CATALOGUE

# THE COUNCIL OF MANAGERS OF NATIONAL ANTARCTIC PROGRAMS

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Cover photo: The image on the cover is a portion of the photograph entitled "Prud'homme Traverse", by photographer F. LEPAGE. The photograph, in its entirety, can be found in this Antarctic Station Catalogue on page 1.



**COMNAP**

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National Antarctic Programs

# ANTARCTIC STATION CATALOGUE



# FOREWORD

Providing information in relation to the capabilities of national Antarctic programmes is a significant responsibility, and one that all programmes take very seriously. It is also an obligation that places a burden on already busy national Antarctic programme staff, who must provide the information into multiple databases and systems and must ensure that the provision of data into each is done in a timely manner that addresses the need for currency in the data.

The task is often complicated and time-consuming, since many of the databases ask for the same data to be input across multiple organisations, and some of the databases require specific expertise in order to contribute to them. For example, the air operations database in support of the COMNAP Antarctic Flight Information Manual (AFIM) requires that someone with in-depth knowledge of aviation infrastructures and operations be responsible for understanding AFIM data requirements and for providing the relevant data.

COMNAP as the international association of the national Antarctic programmes from 30 Antarctic Treaty nations is in a good position to assist its members to share information on their programmes. In the past, COMNAP has tried to develop a one-off system that would respond to stakeholders' needs, but this approach proved impossible to achieve and to keep current. Now, with advances in technologies, and with the availability of off-the-shelf and open-source software packages, COMNAP has developed a database that supports a range of products and tools to exchange information amongst COMNAP members, with other Antarctic institutions, and with the general public. This catalogue of national Antarctic programmes' stations is one such tool.

I am very grateful to COMNAP Vice-Chair Dr Yves Frenot for bringing to COMNAP the opportunity to develop the catalogue and for working in his role as COMNAP Vice-Chair to provide oversight and ensure the project was delivered in a timely manner.

As the head of a national Antarctic programme, I personally understand the need for up-to-date information that is freely exchanged amongst our programmes. It assists us in our daily science support operations and in times of incidents and emergencies. I hope that COMNAP Member national Antarctic programmes will continue to keep the information in the COMNAP database relevant and up-to-date to ensure that the products we are producing for the use of our stakeholders remain useful and accurate.

It is my pleasure to present to you the COMNAP station catalogue.



Professor Kazuyuki Shiraiishi  
NIPR Director-General  
COMNAP Chairman

# PREFACE

The COMNAP Antarctic Station Catalogue project began as a collaboration with the EU-PolarNet (<http://www.eu-polarnet.eu/>) on their European Polar Infrastructures Project.

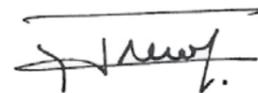
As part of that project, and given my dual roles as co-task leader on the Eu-PolarNet Infrastructures Project and as COMNAP Vice-Chair I was in a unique position to be able to see the benefit of EU-PolarNet and COMNAP working together on gathering infrastructures data. COMNAP contributed to the set-up of the database form fields, and committed to collecting the data on infrastructure in the Antarctic, not only from its Europe-based COMNAP Member national Antarctic programmes, but from all 30 COMNAP Members. The data collected on the Antarctic facilities operated by European countries were then delivered on time to EU-PolarNet for inclusion in its own catalogue of European Polar infrastructures.

In addition, collecting all the infrastructure data presented an opportunity for COMNAP, on its own, to develop its own database system, to update any out-dated data in the old products and tools, and to use the new system and data to produce a range of products that will support the Antarctic community in many of their tasks, especially those tasks related to international co-operation in science and science support.

So, this catalogue represents but one of the many things that undertaking the project will allow us to achieve. The pages of the catalogue themselves can now be regularly updated as national Antarctic programmes update the information in the database. All the information held in the database will be available to COMNAP Members and much of the non-sensitive data will be made available to Antarctic Treaty System organisations and also to the public. We are also excited that this project allowed us to additionally develop a Geographic Information System (GIS) interface accessible from the COMNAP website. Such an interface is easy to use and very visual and interactive manner.

The catalogue could not have been completed without the work of Andrea Colombo and Michelle Rogan-Finnemore from the COMNAP Secretariat, or without Brad Herried from the US Polar Geospatial Center, who developed the COMNAP database. Also, on the EU side of the project, it was a pleasure to work with my co-task leader Gonçalo Vieira from the Instituto de Geografia e Ordenamento do Território (IGOT) at the University of Lisbon, as well as his two collaborators, Luis Encalada and Carla Mora. Also collaborating was the European INTERACT project (<http://www.eu-interact.org/>), which first developed a station catalogue for the Arctic and gave us the idea to extend the work at the global level in order to have a clear and updated overview of the research infrastructures in the polar regions. We are grateful to all COMNAP Member national Antarctic programmes who have agreed to provide the necessary information for the infrastructures database for all Antarctic facilities and we continue to rely of those programmes for updates to this important database so that it remains a robust source of information for the community.

I hope you enjoy the visually pleasing look of the catalogue and also that you find the information contained therein useful.



Dr Yves Frenot  
IPEV Director  
COMNAP Vice Chairman

# INTRODUCTION

## About the Council of Managers of National Antarctic Programs (COMNAP)

COMNAP is the international association, formed in 1988, which brings together its Members, who are the National Antarctic Programs. National Antarctic Programs are those organizations that have responsibility for delivering and supporting scientific research in the Antarctic Treaty Area on behalf of their respective governments and in the spirit of the Antarctic Treaty.

COMNAP's purpose which can be found in its Constitution is to "develop and promote best practice in managing the support of scientific research in Antarctica". It does this by:

Serving as a forum to develop practices that improve effectiveness of activities in an environmentally responsible manner;

Facilitating and promoting international partnerships;

Providing opportunities and systems for information exchange; and

Providing the Antarctic Treaty System with objective and practical, technical and non-political advice drawn from the National Antarctic Programs' pool of expertise.

## About our Members

COMNAP consists of 30 National Antarctic Program Members. Each Member program is represented by the Manager of that National Antarctic Program and/or the Deputy Manager of that program. National Antarctic Programs collectively have the greatest first-hand experience of living and working in the Antarctic. Many of the National Antarctic Programs have operated in the Antarctic since the International Geophysical Year (IGY) of 1957/58.

COMNAP representatives do a range of projects and participate in COMNAP Expert Group activities, including symposiums and workshops throughout the year. They also meet annually to discuss cooperative logistics, operations and science support, develop standard operational procedures based on best practice, and formulate technical, practical and non-political advice to the Antarctic Treaty Consultative Meetings (ATCMs) and the Committee for Environmental Protection (CEP).

## What we do

COMNAP has developed comprehensive guidelines on a range of topics in support of science in Antarctica. These include air safety, managing waste, preventing of spills, contingency planning, search & rescue coordination, use of remotely piloted aircraft, and reducing human impact on the Antarctic environment. Over the years, we have addressed topical issues by way of networks and Expert Groups which have focused on air and ship operations, energy management, technology applications and advancements, training, education & outreach, and environmental management issues. We publish and maintain a number of products such as the AFIM, the Antarctic Telecommunications Operators Manual (ATOM) and the Ship Position reporting System (SPRS) which is undergoing a review to include positions of aircraft as when as ships. The COMNAP Station Catalogue is a new product that we are pleased to add to our range of informative publications.

COMNAP is an active player in the international Antarctic community. As the recent COMNAP Antarctic Roadmap Challenges (ARC) project has demonstrated, Antarctic science support is expensive and some major Antarctic scientific programmes will continue to require international collaboration to succeed. COMNAP's work to improve international cooperation has helped make Antarctic operations substantially more economic and efficient, and delivered scientific results not obtainable by any one national Antarctic program alone.

## The Structure of the COMNAP Station Catalogue

This catalogue is produced in order to provide COMNAP Members with a useful tool that allows for the sharing of information on Antarctic station infrastructure and its science support capabilities. It is hoped that other organisations within the Antarctic Treaty System will also find the catalogue contains valuable information and it is also a way to inform the general public of the level of activity their country supports in the Antarctic Treaty region.

The catalogue contains information on Antarctic stations run or operated by COMNAP Member national Antarctic programs, it does not include every facility in the Antarctic. The data was populated in the database by the national Antarctic programs themselves. In some cases the fields were required/compulsory and in some cases an answer was optional. The database fields, an indication of compulsory or optional nature, and any dropdown choices that were automatically available for any field are listed on the next two pages; you can use this as a guide as you browse the catalogue.

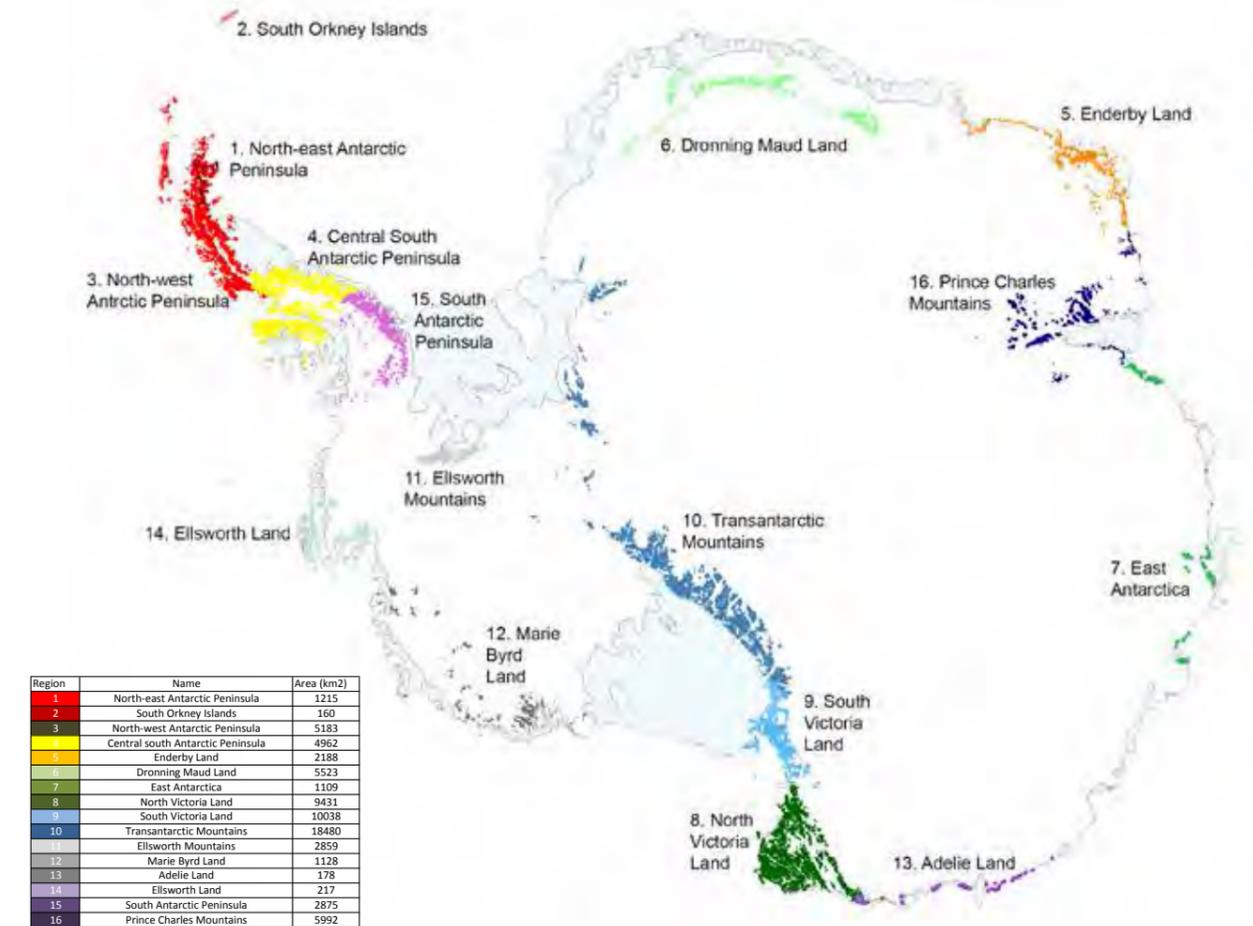
The stations are listed in the catalogue in alphabetical order of country.

The map of Antarctica shown with the table of contents, indicates the distribution of the stations listed in this catalogue and is also a reflection of the COMNAP Antarctic Facilities GIS interface that you can find on the COMNAP website ([www.comnap.aq](http://www.comnap.aq)). By way of the GIS interface on the website, you can select particular stations and get further information about each one. Many of the stations have on-line web cameras which are linked through the GIS. The GIS interface also includes refuges, camps and other facilities that are not included in this catalogue. In the GIS, each has a link to national Antarctic program information including the organisational structure and a link to their home websites.

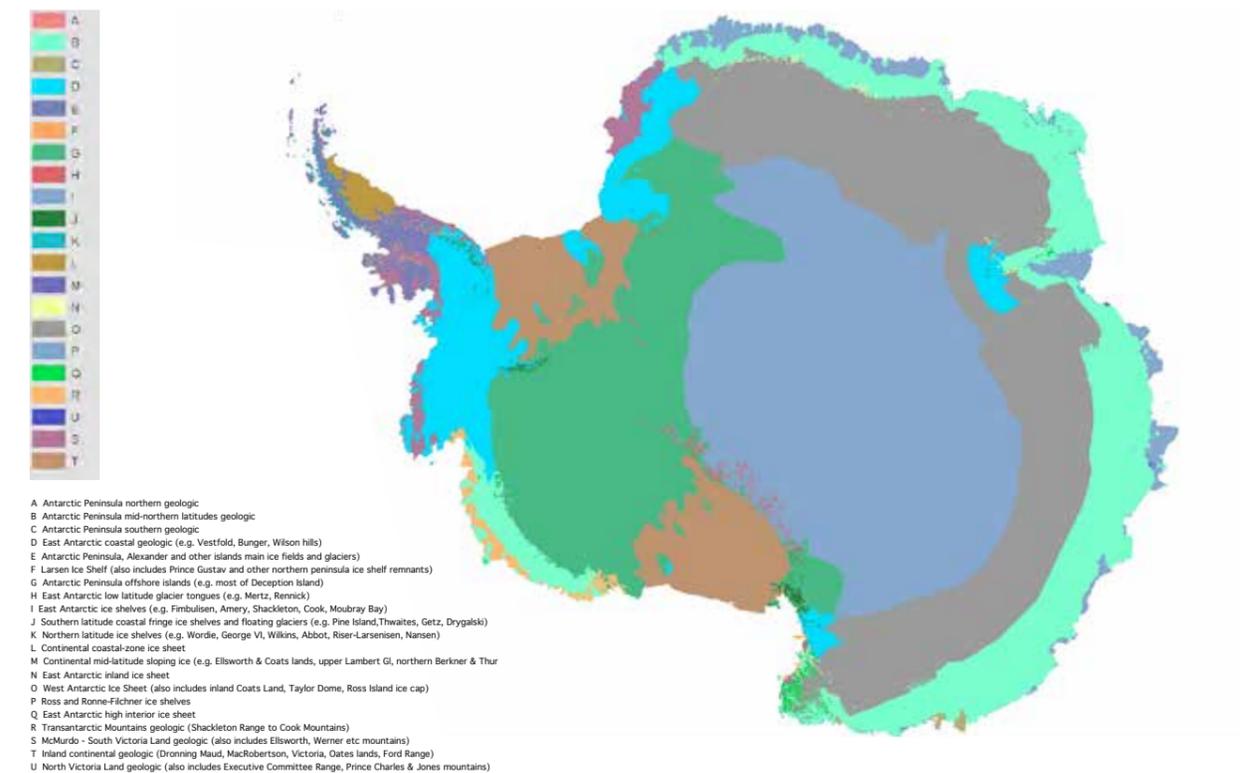
## Acknowledgements

Information and photos in the catalogue were provided by the COMNAP Member national Antarctic programs. Photos are credited to the programs or to the individual photographer if known. The information and photos remain the property of the national Antarctic program which provided it and they should not be reproduced without permission. COMNAP also acknowledges the roles of Eu-Polarnet and INTERACT in the collaborative development of the initial survey which provided the interface to collect the data and for the idea of and general lay-out for the catalogue. For further information on INTERACT see <http://www.eu-interact.org/>.

## Antarctic Conservation Biogeographic Regions<sup>1</sup>



## Environmental Domains of Antarctica<sup>2</sup>



<sup>1</sup> Terauds, A., and Lee, J. R. (2016) Antarctic biogeography revisited: updating the Antarctic conservation biogeographic regions. Diversity and Distributions 22:836-840.

<sup>2</sup> Morgan F, Barker G, Briggs C, Price R and Keys H. 2007. Environmental Domains of Antarctica Version 2.0 Final Report, Manaaki Whenua Landcare Research New Zealand Ltd, 89 pages.

# CATALOGUE DATA FIELDS

Compulsory Data

Optional Data

Data category as presented into the Catalogue	Options to choose from or free text field
<b>Facility name and National Antarctic Program</b>	
<b>Coordinates (Latitude/Longitude)</b>	
<b>Type:</b>	Airfield camp; Camp; Depot; Laboratory; Refuge; Station.
<b>Operational period:</b>	Opening-Closing months; Year-round.
<b>Location</b>	
<b>Biodiversity and natural environment</b>	
<b>History and facilities</b>	
<b>General research and databases</b>	
<b>Features in the facility area</b> Atmospheric: Clear air zone; High elevation; Low artificial light pollution; Low humidity; Other Atmospheric. Biological: Bird colonies; Seal colonies; Other Biological. Geomorphological: Bluff; Coast; Fjord; Hill; Lake; Melt streams; Moraine; Mountain; Permanent snowpatches; Plateau; Rock; Sea; Shoreline; Terrestrial geothermal; Valley; Other Geomorphological. Glacial: Blue ice; Crevasse; Ice cap or glacier; Ice shelf; Ice tongue; Nunatak; Sea ice; Snow; Sustrugi; Other Glacial.	
<b>Main science disciplines</b> <sup>3</sup> Analytical chemistry, Animal tracking, Anthropology, Archaeology, Astronomy, Astrophysics, Atmospheric chemistry and physics*, Atmospheric sciences, Atomic/molecular physics, Bacteriology, Biochemistry, Biogeography, Bioinformatics, Biological sciences – other, Biology, Biophysics, Botany, Cell and molecular biology, Climate studies, Climatology *, Climate change*, Computer sciences, Data processing, Developmental biology, Earth and atmospheric sciences – other, Ecology, Ecosystem modelling, Entomology and parasitology, Environmental policy, Environmental sciences, Evolutionary biology, Fisheries management, Fisheries modelling, Fishery*, Genetics, Geochemistry, Geocryology*, Geodesy*, Geoheritage, Geology, Geomorphology, Geophysics and seismology, GIS*, Glaciology, Hydrology*, Humanities, Human biology *, Human impacts, Information sciences, Inorganic chemistry, Isotopic chemistry*, Limnology, Mapping, Marine biology, Medicine*, Meteorology, Microbiology, Microcomputer applications, Natural resource management, Nuclear physics, Oceanography, Optics, Organic chemistry, Paleobiology, Paleoclimatology*, Paleoecology*, Paleolimnology*, Paleontology, Psychology, Physical chemistry, Physics, Physics and astronomy – other, Planetary science, Pollution*, Population monitoring, Quantum physics, Remediation, Sedimentology *,Sociology, Social science, Soil biology, Soil science *, Solid state physics, Systems analysis, Systems biology, Terrestrial biology *, Toxicology, Volcanology, Zoology.	
<b>CLIMATE</b>	
Climate Zone	Inland Antarctica; Coastal Antarctica; Maritime Antarctica.
Permafrost	Continuous; Discontinuous; Sporadic; None.
Mean annual wind speed (km/h)	
Max wind speed (km/h)	
Dominant wind direction	N; NE; NW; S; SE; SW; E; W.
Sea ice break up	Jan; Feb; Mar; Apr; May; Jun; Jul; Aug; Sep; Oct; Nov; Dec; None.
Snow free period	Jan; Feb; Mar; Apr; May; Jun; Jul; Aug; Sep; Oct; Nov; Dec; None.
Total annual precipitation	
Precipitation type	Rain; Snow; Snow and rain; Other. If Other, specify.
Mean annual temperature (°C)	
Mean temperature in February (°C)	
Mean temperature in July (°C)	
<b>ENVIRONMENT</b>	
Region	Antarctic Peninsula; Continental Antarctica.
Antarctic Environmental Domain	Dropdown list A – U of Environmental Domains of Antarctica
Antarctic Conservation Biogeographic Region	Dropdown list 1 – 16 Antarctic Conservation Biogeographic Regions
Altitude of facility (m)	
Type of surface built on	Glacier; Ice-free ground; Ice-sheet; Ice-shelf; Other. If Other, specify.
Long term monitoring	Yes; No.
Waste management	Yes; No.
Hazard(ous) management	Yes; No.
<b>FACILITIES INFRASTRUCTURE</b>	
Area under roof (m <sup>2</sup> )	
Area scientific laboratories (m <sup>2</sup> )	
Type of scientific laboratories	Biology; Chemistry; Geology; Geophysics; GIS; Scientific diving; None; Other. If Other, specify.
Conference room (capacity)	Total number of seats.
Logistic area (m <sup>2</sup> )	
Number of beds	

Showers	Yes; No.
Laundry facilities	Yes; No.
Power supply type	Fossil fuel; Renewable.
Power supply (V)	
Power supply (hours per day)	
Hydroponics facilities	Yes; No.
Number of staff on station (peak/summer season)	
Number of scientist on station (peak/summer season)	
Number of staff on station (off peak/winter season)	
Number of scientist on station (off peak/winter season)	
Max number of personnel at a time (staff, scientists and others)	
Specific device/Scientific equipment	
Scientific service possible	
Long-term monitoring/observations	
<b>MEDICAL FACILITIES</b>	Yes; No.
Area of medical facilities (m <sup>2</sup> )	
Staff with basic medical training or doctor (Summer)	
Staff with basic medical training or doctor (Winter)	
Capability	Basic; Dental; Surgery; None.
Equipment	Aeromedical equipment; Altitude medicine; Anaesthesia; Biochemistry; Blood transfusion medicine; Diagnostic X-ray; Diagnostic ultrasound; Endoscopy; Haematology; Hyperbaric recompression chamber; Laboratory diagnostics; Microbiology; Ophthalmology; Telemedicine; Other. If Other, specify.
Distance to hospital (km)	
Closest emergency facility in Antarctica (km)	
Closest emergency facility external (km)	
Medical research capabilities	Yes; No.
Medical research requirements	Yes; No.
<b>VEHICLES AT FACILITY</b>	
Sea transportation	
Land transportation	
<b>WORKSHOP FACILITIES</b>	ICTS (Staff available to assist with constructions); Mechanical; Metal workshop; Plexiglas workshop; Wood workshop; Other. If Other, specify.
<b>COMMUNICATIONS</b>	Computer; E-mail; Fax; Internet; Printer; Satellite telephone; Scanner; Telephone; VHF.
<b>TRANSPORT AND FREIGHT</b>	
Access	Air; Land; Sea.
Transport to facility	4WD; Airplane; Helicopter; Quad; Ship; Skidoo; Walking.
Number of airstrips	
Length (m) of longest runway	
Width (m) of longest runway	
Number of flight visit per year	
Period of flight visit per year	Jan; Feb; Mar; Apr; May; Jun; Jul; Aug; Sep; Oct; Nov; Dec; None.
Helipad	Yes; No.
Number of ship visits per year	
Period of ship visits per year	Jan; Feb; Mar; Apr; May; Jun; Jul; Aug; Sep; Oct; Nov; Dec; None.
Ship landing facilities	Breakwater/Bulkhead; Drydock; Floating dock/Pontoon; Ice pier; None; Port; Pier/Jetty; Wetdock.
<b>NATIONAL ANTARCTIC PROGRAM WEBSITE</b>	

<sup>3</sup> The options in this data field are the SCAR scientific discipline list. Additional items are indicated with a \* and are those suggested by National Antarctic Programs for inclusion.

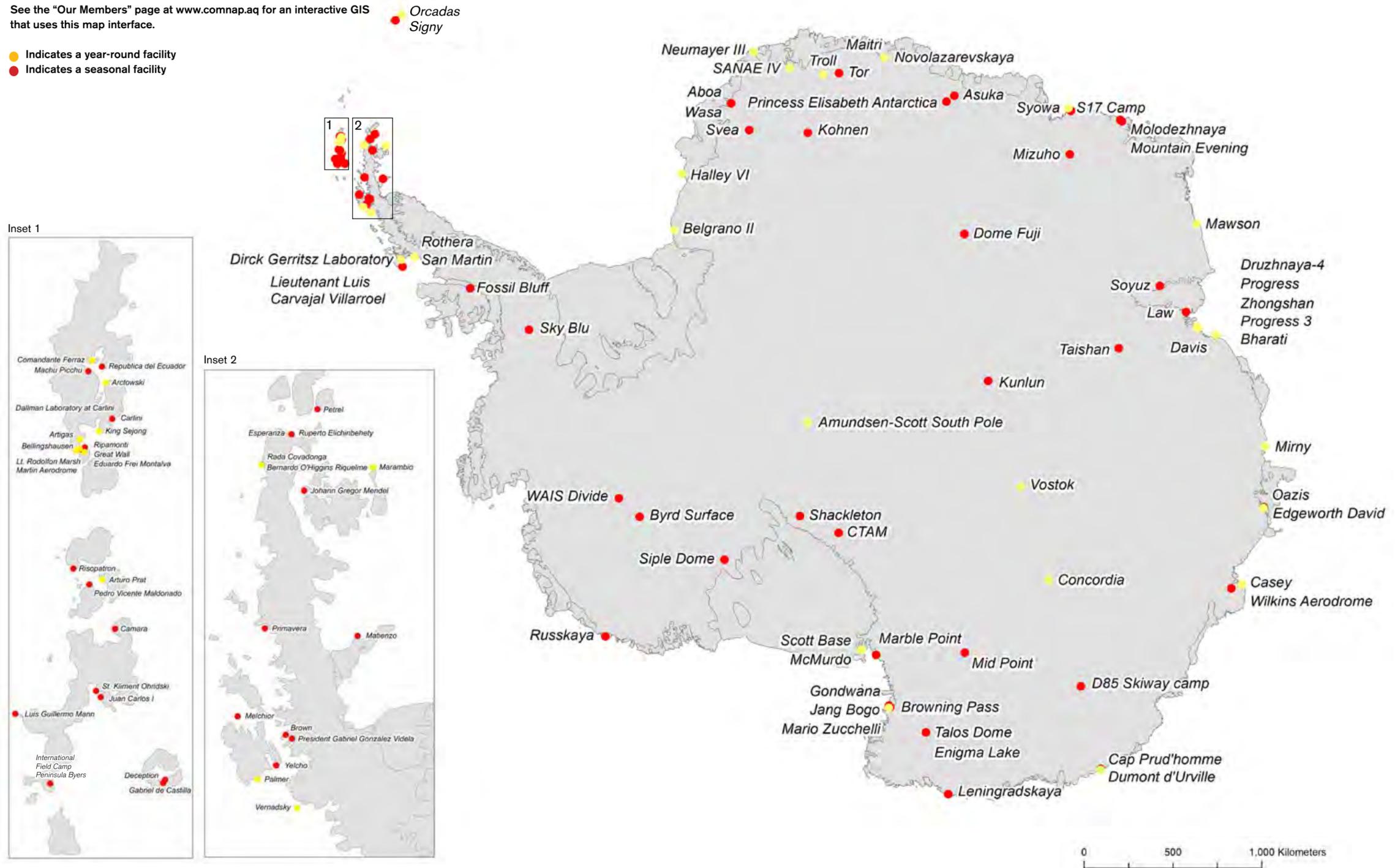
# ANTARCTIC STATION CATALOGUE CONTENTS

Country	Name	Latitude	Longitude	Page
Argentina	Belgrano II	77°52'26"S	34°37'40"W	2
Argentina	Brown	64°53'43"S	62°52'13"W	4
Argentina	Camara	62°35'38"S	59°55'09"W	6
Argentina	Carlini	62°14'27"S	58°40'01"W	8
Argentina	Decepcion	62°58'36"S	60°42'02"W	10
Argentina	Esperanza	63°23'50"S	56°59'54"W	12
Argentina	Marambio	64°14'50"S	56°37'39"W	14
Argentina	Matienco	64°58'55"S	60°04'25"W	16
Argentina	Melchior	64°19'54"S	62°58'58"W	18
Argentina	Orcadas	60°44'25"S	44°44'24"W	20
Argentina	Petrel	63°28'42"S	56°13'57"W	22
Argentina	Primavera	64°09'35"S	60°57'25"W	24
Argentina	San Martin	68°07'47"S	67°06'10"W	26
Australia	Casey	66°16'54"S	110°31'39"E	28
Australia	Davis	68°34'36"S	77°58'02"E	30
Australia	Mawson	67°36'10"S	62°52'28"E	32
Belgium	Princess Elisabeth	71°56'59"S	23°20'49"E	34
Brazil	Ferraz	62°05'08"S	58°23'55"W	36
Bulgaria	St. Kliment Ohridski	62°38'26"S	60°21'55"W	38
Chile	Carvajal	67°45'38"S	68°54'53"W	40
Chile	Dr. Guillermo Mann	62°27'00"S	60°47'00"W	42
Chile	Frei	62°12'00"S	58°57'48"W	44
Chile	Gabriel Gonzalez Videla	64°49'25"S	62°51'26"W	46
Chile	O'Higgins	63°19'15"S	57°53'59"W	48
Chile	Prat	62°28'43"S	59°39'48"W	50
Chile	Professor Julio Escudero	62°12'57"S	58°57'35"W	52
Chile	Risopatron	62°22'17"S	59°42'53"W	54
Chile	Yelcho	64°52'55"S	63°35'03"W	56
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China	Kunlun	80°25'02"S	77°06'58"E	60
China	Taishan	73°51'50"S	76°58'27"E	62
China	Zhongshan	69°22'24"S	76°22'40"E	64
Czech Republic	Johann Gregor Mendel	63°48'02"S	57°52'57"W	66
Ecuador	Pedro Vicente Maldonado	62°26'57"S	59°44'27"W	68
Finland	Aboa	73°03'00"S	13°25'00"W	70
France / Italy	Concordia	75°05'59"S	123°19'57"E	72
France	Dumont d'Urville	66°39'77"S	140°00'08"E	74
Germany	Dallmann Laboratory	62°14'26"S	58°40'00"W	76
Germany	Kohnen	75°00'06"S	00°04'04"E	78
Germany	Neumayer III	70°41'00"S	08°16'00"W	80
India	Bharati	69°24'24"S	76°11'43"E	82
India	Maitri	70°46'00"S	11°43'51"E	84
Italy	Mario Zucchelli	74°41'42"S	164°07'23"E	86
Japan	Syowa	69°00'25"S	39°35'01"E	88
Netherlands	Dirck Gerritsz Laboratory	67°34'07"S	68°07'28"W	90
New Zealand	Scott Base	77°50'58"S	166°46'02"E	92
Norway	Troll	72°00'43"S	02°31'59"E	94
Peru	Machu Picchu	62°05'49"S	58°28'23"W	96
Poland	Henryk Arctowski	69°09'35"S	58°28'24"W	98
Republic of Belarus	Mountain Evening/Vechernyaya	67°39'35"S	46°09'18"E	100
Republic of Korea	Jang Bogo	74°37'38"S	164°14'16"E	102
Republic of Korea	King Sejong	62°13'39"S	58°47'19"W	104
Russia	Bellingshausen	62°12'00"S	58°58'00"W	106
Russia	Druzhnaya IV	69°44'00"S	73°43'00"E	108
Russia	Leningradskaya	69°30'00"S	159°23'00"E	110
Russia	Mirny	66°31'00"S	93°01'00"E	112
Russia	Molodezhnaya	67°40'00"S	45°51'00"E	114
Russia	Novolazarevskaya	70°46'00"S	11°50'00"E	116
Russia	Oasis	66°16'00"S	100°44'00"E	118
Russia	Progress	69°23'00"S	76°23'00"E	120
Russia	Russkaya	74°45'00"S	136°40'00"W	122
Russia	Vostok	78°28'00"S	106°48'00"E	124
South Africa	SANAE IV	71°40'37"S	02°50'42"W	126
Spain	Gabriel de Castilla	62°58'40"S	60°00'30"W	128
Spain	International Field Camp Peninsula Byers	62°39'49"S	61°05'59"W	130
Spain	Juan Carlos I	62°39'48"S	60°23'17"W	132
Sweden	Wasa	73°03'00"S	13°25'00"W	134
Ukraine	Vernadsky	65°14'44"S	64°15'27"W	136
United Kingdom	Halley VI	75°34'25"S	25°28'01"W	138
United Kingdom	Rothera	67°34'00"S	68°07'59"W	140
United Kingdom	Signy	60°42'30"S	45°35'43"W	142
United States	Amundsen-Scott South Pole	90°S	0°E	144
United States	McMurdo	77°50'53"S	166°40'06"E	146
United States	Palmer	64°46'45"S	64°03'20"W	148
Uruguay	Artigas	62°11'07"S	58°54'14"W	150
Uruguay	Ruperto Elichiribehety	63°24'14"S	59°59'45"W	152

# ANTARCTIC FACILITIES MAP

See the "Our Members" page at [www.comnap.aq](http://www.comnap.aq) for an interactive GIS that uses this map interface.

- Indicates a year-round facility
- Indicates a seasonal facility



# THE STATIONS



Foto: Dirección Nacional Del Antártico



# Belgrano II Programa Antártico Argentino

77°52'26"S 34°37'40"W

Type: Station

Operational period:  
Year-round

## Location

Belgrano II station is located on the Bertrab nunatak in Coats Land, East Antarctic Shield, along Vahsel bay, Confin Coast, Weddell Sea. It is approximately 1,300 km from the South Pole.

## Biodiversity and natural environment

Lichens and mosses on the rocks. Fauna is present only during the summer, with some skuas, gulls and Wilson petrels. Flocks of petrels can be seen migrating to the south.

## History and facilities

Belgrano I was established in 1955 and in 1979 was evacuated and relieved by Belgrano II, due to the deterioration of the ice on which it was sitting; Belgrano II was inaugurated on 5 February 1979. There is a cross near the station, which has been declared Historic Sites and Monuments (HSM) 43.

## General research and databases

Various research are conducted at Belgrano II station such as: Ionospheric soundings and recording of ionospheric absorption; Continuous measurements of geomagnetic variations; Absolute magnetic field; Geodesy (in cooperation with France, Germany and Italy); GPS / GNSS continuous survey, or radio propagation signal contributing to the International DORIS Service; Antarctic seismological network, also in cooperation with Italy: Antarctic Seismograph Argentinean Italian Network (ASAIN), project started in 1992; Ozone monitoring; Chronobiology of Antarctic isolation (in cooperation with Germany, Belgium, USA, Austria and France); Astronomy: LAGO project (Large Aperture Gamma ray Observatory); Meteorological monitoring.

## Features in the facility area

Blue ice, Clear air zone, High elevation, Ice shelf, Nunatak, Permanent snowpatches, Rock, Sustrugui.

## Main science disciplines

Atmospheric sciences, Geodesy, Geophysics, Meteorology.



CLIMATE	
Climate zone	Coastal Antarctica
Permafrost	None
Mean annual wind speed (km/h)	21.1
Max wind speed (km/h)	241
Dominant wind direction	SE
Sea Ice Break Up	January
Snow free period	None
Total annual precipitation (mm)	299.4
Precipitation type	Snow
Mean annual temperature (°C)	-12.9
Mean temperature in February (°C)	-6.7
Mean temperature in July (°C)	-20.9
ENVIRONMENT	
Region	Continental Antarctica
Antarctic Environmental Domain: M - Continental mid-latitude sloping ice	
Antarctic Conservation Biogeographic Region: 10 - Transantarctic Mountains	
Altitude of facility (m)	256
Type of surface facility built on	Ice-shelf
Long term monitoring	
Waste management	Yes
Hazard(ous) management	Yes
Fuel spill response capability	Yes



FACILITIES INFRASTRUCTURE	
Area under roof (m <sup>2</sup> )	578
Area scientific laboratories (m <sup>2</sup> )	76
Type of scientific laboratories: Geodetic GPS, Seismography station, Earth's magnetic field, Ionospheric and aurorae sounding research, Atmospheric ozone	
Conference room (capacity)	6
Logistic area (m <sup>2</sup> )	402
Number of beds	21
Showers	Yes
Laundry facilities	Yes
Power supply type	Fossil fuel
Power supply (V)	220
Power supply (hours per day)	24
Hydroponics facilities	No
Number of staff on station (peak/summer season)	20
Number of scientists on station (peak/summer season)	4
Number of staff on station (off peak/winter season)	16
Number of scientists on station (off peak/winter season)	3
Max number of personnel at a time (staff, scientists and others)	20
Specific device/Scientific equipment: Meteorology: Instruments for synoptic and climatological station surface, Ionospheric Sounder; Geophysics: Instruments for geomagnetic station, Fluxgate Magnetometer, Balance of zero magnetic B.M.Z. La Cour, Declinometer La Cour, Seismograph	
Scientific services possible: Seismograph data transmitted in real time. The main scientific programs carried out at the station are on astronomy, geodesy, meteorology, ozone monitoring, geophysics, seismography, studies of solar system, studies of the atmosphere	
Long-term monitoring/observations: Atmospheric ozone, Seismological monitoring	
<b>MEDICAL FACILITIES</b>	Yes
Area of medical facility (m <sup>2</sup> )	
Staff with basic medical training or doctor (Summer)	2
Staff with basic medical training or doctor (Winter)	2
Capability: Basic, Surgery	
Equipment: Diagnostic x-ray, Laboratory diagnostics, Diagnostic ultrasound, Anaesthesia, telemedicine, defibrillator, electrocardiograph, oxygen therapy equipment	
Distance to hospital (km)	2886.5
Closest emergency facility in Antarctica (km)	
Closest emergency facility external (km)	2886.5
Medical research capabilities	No
Medical screening requirements	No
<b>VEHICLES AT FACILITY</b>	
Sea transportation: None	
Land transportation: Three snow cats, Seven snowmobiles	
<b>WORKSHOP FACILITIES</b>	
ICTS, Mechanical, Metal workshop, Wood workshop	
<b>COMMUNICATIONS</b>	
Computer, E-mail, Internet, Printer, Satellite phone, Scanner, Telephone, VHF	
<b>TRANSPORT AND FREIGHT</b>	
Access	Air, Sea
Transport to facility: Airplane, Helicopter, Ship	
Number of airstrips	1
Length (m) of longest runway	2000
Width (m) of longest runway	600
Number of flight visits per year	3
Period of flight visits per year: January, February, December	
Helipad	Yes
Number of ship visits per year	1
Period of ship visits per year: January, February, December	
Ship landing facilities: Ice pier	

# Brown

## Programa Antártico Argentino

64°53'43.3"S 62°52'13.6"W

Type: Station

Operational period:  
October–March

### Location

Brown station is located at Proa Head, Sanavirón/Coughtrey Peninsula, along Paradise Harbour, Gerlache Strait, on Danco Coast, Bellingshausen sea.

### Biodiversity and natural environment

Facilities are given by the Ortiz Hut and the old main facilities, linked by a narrow beach. Gentoo penguins nest around the station buildings. Nesting sites of Antarctic pigeons and skuas can also be found within the station. Other birds (shags, terns and small petrels) also nest in the vicinity, but outside the station area. Seals are occasionally found resting in coastal areas of Brown station, and whales can often be seen in the adjacent waters.

### History and facilities

Brown station was Inaugurated on 6 of April of 1951 originally as a meteorological observatory and logistical support station; it has been temporarily closed in 1960. In 1964, it was expanded with a larger house-room, three laboratories, an emergency radio station and a library. On February 1965, it was reopened as a permanent station containing a modern biology lab and named Scientific Station Almirante Brown. On April 12, 1984, a fire partially destroyed the main building. Currently, renovation of installations is being carried out in order to strengthen its logistic and scientific capabilities.

### General research and databases

Multidisciplinary research program to study the coastal environment of Paradise Bay are carried out at and near Brown station. A variety of oceanographic, chemical, physical and biological data collected at the bay are used to study currents circulation and the thermohaline structure of the water column in the bay.

### Features in the facility area

Bay Islands, Rock.

### Main science disciplines

Meteorology, Oceanography.



CLIMATE	
Climate zone	Maritime Antarctica
Permafrost	Discontinuous
Mean annual wind speed (km/h)	22,3
Max wind speed (km/h)	
Dominant wind direction	W
Sea Ice Break Up	October
Snow free period	January, February
Total annual precipitation (mm)	
Precipitation type	Snow
Mean annual temperature (°C)	-2.4
Mean temperature in February (°C)	
Mean temperature in July (°C)	-6.9
ENVIRONMENT	
Region	
Antarctic Environmental Domain: B - Antarctic Peninsula mid-northern latitudes geologic	
Antarctic Conservation Biogeographic Region: 3 North-west Antarctic Peninsula	
Altitude of facility (m)	22
Type of surface facility built on	Ice-free ground
Long term monitoring	No
Waste management	Yes
Hazard(ous) management	Yes
Fuel spill response capability	Yes



FACILITIES INFRASTRUCTURE	
Area under roof (m <sup>2</sup> )	178
Area scientific laboratories (m <sup>2</sup> )	41
Type of scientific laboratories: Biology, Oceanography	
Conference room (capacity)	
Logistic area (m <sup>2</sup> )	53
Number of beds	0
Showers	Yes
Laundry facilities	Yes
Power supply type	Fossil fuel
Power supply (V)	220
Power supply (hours per day)	24
Hydroponics facilities	No
Number of staff on station (peak/summer season)	8
Number of scientists on station (peak/summer season)	4
Number of staff on station (off peak/winter season)	
Number of scientists on station (off peak/winter season)	
Max number of personnel at a time (staff, scientists and others)	12
Specific device/Scientific equipment: There is no permanent equipment at the station	
Scientific services possible:	
Long-term monitoring/observations:	
MEDICAL FACILITIES	
Area of medical facility (m <sup>2</sup> )	0
Staff with basic medical training or doctor (Summer)	1
Staff with basic medical training or doctor (Winter)	
Capability:	
Equipment:	
Distance to hospital (km)	1162
Closest emergency facility in Antarctica (km)	306.7
Closest emergency facility external (km)	1162
Medical research capabilities	
Medical screening requirements	Yes
VEHICLES AT FACILITY	
Sea transportation: Two Zodiac boats with outboard motors	
Land transportation:	
WORKSHOP FACILITIES	
General repairs	
COMMUNICATIONS	
Satellite phone, VHF	
TRANSPORT AND FREIGHT	
Access	Sea
Transport to facility: Ship	
Number of airstrips	0
Length (m) of longest runway	
Width (m) of longest runway	
Number of flight visits per year	
Period of flight visits per year:	
Helipad	No
Number of ship visits per year	100
Period of ship visits per year: January, February, March, April, October, November, December	
Ship landing facilities: Jetty	

# Camara

Programa Antártico Argentino

62°35'37.9"S 59°55'9.6"W

Type: Station

Operational period:  
October–March

## Location

Camara station is located on Media Luna Island, Luna Bay, Livingston Island, South Shetland Islands.

## Biodiversity and natural environment

A colony of Chinstrap penguins is found in Media Luna Island.

## History and facilities

Camara station was inaugurated on 1 April 1953 as Bahía Luna Station. In 1955, it was renamed Camara, in honor of the aviator Lieutenant Camara, deceased in a plane crash in Caleta Potter. It has been temporarily closed from 1960 to 1988, then reopened as a summer station. Currently, various scientific projects with other Antarctic programs are conducted at and in the area near the station.

## General research and databases

No current scientific projects.

## Features in the facility area

Beaches suitable for landing small boats, Bird colonies, Coast, Rock.

## Main science disciplines

### CLIMATE

Climate zone	Maritime Antarctica
Permafrost	Discontinuous
Mean annual wind speed (km/h)	22,3
Max wind speed (km/h)	
Dominant wind direction	W
Sea Ice Break Up	October
Snow free period	January, February
Total annual precipitation (mm)	
Precipitation type	Snow
Mean annual temperature (°C)	-2.4
Mean temperature in February (°C)	
Mean temperature in July (°C)	-6.9

### ENVIRONMENT

Region	
Antarctic Environmental Domain: B - Antarctic Peninsula mid-northern latitudes geologic	
Antarctic Conservation Biogeographic Region: 3 North-west Antarctic Peninsula	
Altitude of facility (m)	22
Type of surface facility built on	Ice-free ground
Long term monitoring	No
Waste management	Yes
Hazard(ous) management	Yes
Fuel spill response capability	Yes

### FACILITIES INFRASTRUCTURE

Area under roof (m <sup>2</sup> )	483
Area scientific laboratories (m <sup>2</sup> )	16
Type of scientific laboratories: Geology	
Conference room (capacity)	
Logistic area (m <sup>2</sup> )	337
Number of beds	20
Showers	Yes
Laundry facilities	Yes
Power supply type	Fossil fuel
Power supply (V)	220
Power supply (hours per day)	24
Hydroponics facilities	No
Number of staff on station (peak/summer season)	15
Number of scientists on station (peak/summer season)	5
Number of staff on station (off peak/winter season)	
Number of scientists on station (off peak/winter season)	
Max number of personnel at a time (staff, scientists and others)	22
Specific device/Scientific equipment: There is no permanent equipment at the station	
Scientific services possible:	
Long-term monitoring/observations:	
<b>MEDICAL FACILITIES</b>	Yes
Area of medical facility (m <sup>2</sup> )	6
Staff with basic medical training or doctor (Summer)	1
Staff with basic medical training or doctor (Winter)	
Capability: Basic	
Equipment:	
Distance to hospital (km)	993
Closest emergency facility in Antarctica (km)	
Closest emergency facility external (km)	993
Medical research capabilities	No
Medical screening requirements	Yes
<b>VEHICLES AT FACILITY</b>	
Sea transportation: Two Zodiac boats with outboard motors	
Land transportation:	
<b>WORKSHOP FACILITIES</b>	
Wood Workshop, General repairs	
<b>COMMUNICATIONS</b>	
Satellite phone, VHF	
<b>TRANSPORT AND FREIGHT</b>	
Access	Sea
Transport to facility: Ship	
Number of airstrips	0
Length (m) of longest runway	
Width (m) of longest runway	
Number of flight visits per year	
Period of flight visits per year:	
Helipad	No
Number of ship visits per year	25
Period of ship visits per year: January, February, March, November, December	
Ship landing facilities: None	





# Carlini Programa Antártico Argentino

62°14'27.4"S 58°40'01.1"W

Type: Station

Operational period: Year-round

## Location

Carlini station is located at South Coast Potter Cove, on King George Island, South Shetland Islands.

## Biodiversity and natural environment

Carlini station lies at the foot of the Tres Hermanos Hill (210 m). Fourcade Glacier covers the northern and eastern coasts of the cove, with the Yamana Nunatak as the only prominent feature, rising to the east. Scattered pads of lichens and mosses, as well as vascular plants, are present in the flatter areas near the station. Freshwater algae can be found on the streams and small ponds around the station. Fauna is given by nesting skuas and Antarctic terns associated to gentle slopes with lichens. Wilson's storm petrels nest in the Tres Hermanos Hill. Isolated juvenile birds and mammals can usually be found in the coastal areas of Carlini station. Near the station, to the SW, lies the Antarctic Specially Protected Area (ASPA) 132 - Potter Peninsula, with a rich and diverse flora and fauna.

## History and facilities

Inaugurated on 21 November 1953 as Caleta Potter refuge, and renamed Jubany Station in December 1954. In March 2012, it was again renamed after Dr. Alejandro Carlini, a scientist of the Instituto Antártico Argentino (IAA) who passed away in 2010. Since 1994, the German-Argentine Laboratory Dallmann operates in this station, under an agreement between the Alfred Wegener Institute (AWI) and the IAA. Two refuges (Elefante and Albatros) are located in the vicinity of the station, providing logistical support to scientific research, mainly in the area of ASPA 132. Along with the laboratories there is a hyperbaric diving chamber. Within the station area is located the Historic Sites and Monuments (HSM) 36 - a replica of a metal plate placed by Eduard Dallmann on the occasion of the German expedition of the Grönland on March 1, 1874.

CLIMATE	
Climate zone	Maritime Antarctica
Permafrost	Discontinuous
Mean annual wind speed (km/h)	34
Max wind speed (km/h)	183
Dominant wind direction	W
Sea Ice Break Up	September
Snow free period	January, February
Total annual precipitation (mm)	519.5
Precipitation type	Snow and Rain
Mean annual temperature (°C)	-1.6
Mean temperature in February (°C)	2
Mean temperature in July (°C)	-6
ENVIRONMENT	
Region	Antarctic Peninsula
Antarctic Environmental Domain: E - Antarctic Peninsula and Alexander Island main ice fields	
Antarctic Conservation Biogeographic Region: 3 North-west Antarctic Peninsula	
Altitude of facility (m)	10
Type of surface facility built on	Ice-free ground
Long term monitoring	Yes
Waste management	Yes
Hazard(ous) management	Yes
Fuel spill response capability	Yes



FACILITIES INFRASTRUCTURE	
Area under roof (m <sup>2</sup> )	2371
Area scientific laboratories (m <sup>2</sup> )	327
Type of scientific laboratories: Biology, Chemistry, Scientific diving, Oceanography, Geology, Geodetic GPS, Seismography station	
Conference room (capacity)	30
Logistic area (m <sup>2</sup> )	366
Number of beds	80
Showers	Yes
Laundry facilities	Yes
Power supply type	Fossil fuel
Power supply (V)	220
Power supply (hours per day)	24
Hydroponics facilities	No
Number of staff on station (peak/summer season)	21
Number of scientists on station (peak/summer season)	59
Number of staff on station (off peak/winter season)	26
Number of scientists on station (off peak/winter season)	3
Max number of personnel at a time (staff, scientists and others)	80
Specific device/Scientific equipment: Geophysics: Seismograph; Biology: Four laboratories for sample handling and analysis related to various scientific disciplines; Meteorology: Instrumental for synoptic and climatological station	
Scientific services possible: Seismograph data transmitted in real time; Ecological aspects of benthic, planktonic and coastal populations; Physical chemistry and biology of lakes, ponds and other water bodies; Tracing of eco-toxicological elements in the Antarctic ecosystem	
Long-term monitoring/observations: Censuses within pinniped colonies; Geology and geophysics operations; Coastal ecology and microbiology; Effect of UV radiation on marine phytoplankton and bacteria; Seismological monitoring	
<b>MEDICAL FACILITIES</b>	Yes
Area of medical facility (m <sup>2</sup> )	79
Staff with basic medical training or doctor (Summer)	2
Staff with basic medical training or doctor (Winter)	2
Capability: Basic, Dental	
Equipment: Hyperbaric Recompression Chamber, Diagnostic x-ray, Anaesthesia, Defibrillator, Electrocardiograph, Oxygen therapy equipment	
Distance to hospital (km)	998.5
Closest emergency facility in Antarctica (km)	
Closest emergency facility external (km)	998.5
Medical research capabilities	No
Medical screening requirements	Yes
<b>VEHICLES AT FACILITY</b>	
Sea transportation: Five Zodiac boats with outboard motors, Two Zodiac semi-rigid boats	
Land transportation: Truck, Tractor, Three 4WD all-terrain quad bikes, One 6WD all-terrain bike, Four snowmobiles	
<b>WORKSHOP FACILITIES</b>	
Metal workshop, General repairs, Wood workshop, Mechanical, ICTS	
<b>COMMUNICATIONS</b>	
Computer, E-mail, Internet, Satellite phone, VHF	
<b>TRANSPORT AND FREIGHT</b>	
Access	Air, Sea
Transport to facility: Airplane, Helicopter, Ship	
Number of airstrips	1
Length (m) of longest runway	400
Width (m) of longest runway	40
Number of flight visits per year	10
Period of flight visits per year: January, February, March, April, May, June, July, August, September, October, November, December	
Helipad	Yes
Number of ship visits per year	14
Period of ship visits per year: January, February, March, April, May, June, July, August, September, October, November, December	
Ship landing facilities: None	



## General research and databases

Several types of research are conducted at and in the area nearby Carlini station: Monitoring activities and related databases on hydrographical characteristics and phytoplankton dynamics at Potter Cove (since 1991); Notothenioid fish (since 1983); Depth distribution of Antarctic macroalgae under a global change scenario (1991); Glacier Mass Balance and Dynamics (1999); Breeding, feeding ecology and winter dispersal of Pygoscelids penguins (1995); Population dynamics of marine mammals on land (1994); Biodiversity and ecology of planktonic components in lakes and of terrestrial and freshwater algae (2004); Persistent organic pollutants (2010) and Microbial ecology and ecophysiology and ecotoxicology of Antarctic organisms (2008). Likewise, scientific research includes studies on paleontology, geodesy, geophysics and seismology, and the effects of global warming on birds and other key species of Antarctic food chains. Several of these projects are conducted in international cooperation.

## Features in the facility area

Bird colonies, Hills, Ice cap or glacier, Other Biological, Seal colonies.

## Main science disciplines

Atmospheric chemistry and physics; Isotopic chemistry; Climatology, Climate change; Environmental sciences Geodesy; Geology Geophysics; Glaciology; Soil science; Human biology; Medicine; Mapping, GIS; Marine biology; Oceanography; Fishery; Microbiology; Hydrology; Terrestrial biology; Ecology; Paleoecology; Paleontology.



# Decepcion Programa Antártico Argentino

62°58'36.3"S 60°42'02.5"W

Type: Station

Operational period:  
October–March

## Location

Decepcion station is located at Primero de Mayo Bay, Port Foster, Deception Island, South Shetland Islands.

## Biodiversity and natural environment

Deception Island is a unique Antarctic island with important natural, scientific, historic, educational and aesthetic values. The island has an exceptionally important floral assemblage, including at least eighteen species which have not been recorded elsewhere in the Antarctic. Of particular importance are the very small, unique biological communities associated with the island's geothermal areas. Nine species of seabird breed on the island, including one of the world's largest colonies of Chinstrap penguins. The island offers the rare opportunity to study the effects of environmental change on an ecosystem, and the dynamics of the ecosystem as it recovers from natural disturbance (in particular for studies in geoscience and biological science).

## History and facilities

After several early Argentine naval expeditions, Decepcion was inaugurated on 25 January 1948 as a permanent facility but, since December 1967, due to volcanic eruptions in the area, it functions only as a summer station. Since its establishment, it has undertaken meteorological observations. Later, a seismograph and an ionospheric station were added. Since then, scientific activity is devoted mainly to volcanology and geology.

CLIMATE	
Climate zone	Maritime Antarctica
Permafrost	Discontinuous
Mean annual wind speed (km/h)	22.3
Max wind speed (km/h)	
Dominant wind direction	SW
Sea Ice Break Up	October
Snow free period	January, February
Total annual precipitation (mm)	407
Precipitation type	Snow and Rain
Mean annual temperature (°C)	-3
Mean temperature in February (°C)	
Mean temperature in July (°C)	-8.2
ENVIRONMENT	
Region	Antarctic Peninsula
Antarctic Environmental Domain: G - Antarctic Peninsula offshore island geologic	
Antarctic Conservation Biogeographic Region: 3 North-west Antarctic Peninsula	
Altitude of facility (m)	7
Type of surface facility built on	Ice-free ground
Long term monitoring	
Waste management	Yes
Hazard(ous) management	Yes
Fuel spill response capability	Yes



### FACILITIES INFRASTRUCTURE

Area under roof (m <sup>2</sup> )	1030
Area scientific laboratories (m <sup>2</sup> )	16
Type of scientific laboratories: Volcanology	
Conference room (capacity)	
Logistic area (m <sup>2</sup> )	337
Number of beds	30
Showers	Yes
Laundry facilities	Yes
Power supply type	Fossil fuel
Power supply (V)	220
Power supply (hours per day)	24
Hydroponics facilities	No
Number of staff on station (peak/summer season)	18
Number of scientists on station (peak/summer season)	0
Number of staff on station (off peak/winter season)	
Number of scientists on station (off peak/winter season)	3
Max number of personnel at a time (staff, scientists and others)	36
Specific device/Scientific equipment: There is no permanent equipment at the station	
Scientific services possible:	
Long-term monitoring/observations: Discontinuous monitoring	
<b>MEDICAL FACILITIES</b>	Yes
Area of medical facility (m <sup>2</sup> )	6
Staff with basic medical training or doctor (Summer)	1
Staff with basic medical training or doctor (Winter)	

Capability: Basic	
Equipment:	
Distance to hospital (km)	1010
Closest emergency facility in Antarctica (km)	
Closest emergency facility external (km)	1010
Medical research capabilities	No
Medical screening requirements	Yes
<b>VEHICLES AT FACILITY</b>	
Sea transportation: Two Zodiac boats with outboard motors	
Land transportation:	
<b>WORKSHOP FACILITIES</b>	
General repairs, Mechanical, Wood workshop	
<b>COMMUNICATIONS</b>	
Satellite phone, VHF	
<b>TRANSPORT AND FREIGHT</b>	
Access	Air, Sea
Transport to facility: Ship	
Number of airstrips	0
Length (m) of longest runway	
Width (m) of longest runway	
Number of flight visits per year	0
Period of flight visits per year:	
Helipad	No
Number of ship visits per year	6
Period of ship visits per year: January, February, March, November, December	
Ship landing facilities: None	

## General research and databases

Since its establishment, meteorological observations have been conducted at Decepcion station. In 1951, a seismograph and an ionospheric station were added. Since then, scientific activity is devoted mainly to studies on volcanology and geology.

## Features in the facility area

Mountain, Rock, Terrestrial geothermal, Volcanic caldera.

## Main science disciplines

Geology, Geomorphology, Volcanology.



Fotos: Dirección Nacional Del Antártico

# Esperanza Programa Antártico Argentino

63°23'50"S 56°59'54"W

Type: Station

Operational period:  
Year-round

## Location

Esperanza station is located at Foca Point, along Foca Cove, on Hope Bay, Trinity Peninsula, Graham Land on the north of the Antarctic Peninsula. The station occupies land of about 5 km long by 2 km wide.

## Biodiversity and natural environment

Hope Bay opens to the Antarctic Sound, forming a deep-water port (182 m). It is relatively harbored and winds and currents are accumulated and quickly move large masses of ice. The back of the bay is closed by an alpine glacier and frequent winds blow on the glacier plateau with speeds exceeding 220 km/h dragging heavy snow and impeding visibility.

## History and facilities

Esperanza station was inaugurated in December 1952. Among the several buildings in the station and in the surrounding area, there are a multidisciplinary laboratory, a shortwave radio station (broadcasting since 1979), and a Catholic chapel (inaugurated in 1976). The Historic Sites and Monuments (HSM) 39 and 40 are located at and in the immediate vicinity of the station. In 1976, a group of seven families over-wintered and a school opened in March of that same year.

## General research and databases

Geodetic network (in cooperation with France, Germany and USA); Antarctic seismological network, in cooperation with Italy; Geology and paleontology project, in cooperation with Germany and Czech Republic; Ecosystem monitoring of penguins colonies; Nutritional status of Skuas.

CLIMATE	
Climate zone	Coastal Antarctica
Permafrost	Sporadic
Mean annual wind speed (km/h)	26.3
Max wind speed (km/h)	222
Dominant wind direction	SW
Sea Ice Break Up	November
Snow free period	January, February
Total annual precipitation (mm)	516.8
Precipitation type	Snow and Rain
Mean annual temperature (°C)	-4.5
Mean temperature in February (°C)	0.9
Mean temperature in July (°C)	-11.1
ENVIRONMENT	
Region	Antarctic Peninsula
Antarctic Environmental Domain: A - Antarctic Peninsula northern geologic	
Antarctic Conservation Biogeographic Region: 1 North-east Antarctic Peninsula	
Altitude of facility (m)	25
Type of surface facility built on	Ice-free ground
Long term monitoring	
Waste management	Yes
Hazard(ous) management	Yes
Fuel spill response capability	Yes



## FACILITIES INFRASTRUCTURE

Area under roof (m <sup>2</sup> )	3877
Area scientific laboratories (m <sup>2</sup> )	135
Type of scientific laboratories: Biology, Geology, Seismography	
Conference room (capacity)	
Logistic area (m <sup>2</sup> )	252
Number of beds	90
Showers	Yes
Laundry facilities	Yes
Power supply type	Fossil fuel
Power supply (V)	220
Power supply (hours per day)	24
Hydroponics facilities	No
Number of staff on station (peak/summer season)	90
Number of scientists on station (peak/summer season)	26
Number of staff on station (off peak/winter season)	53
Number of scientists on station (off peak/winter season)	3
Max number of personnel at a time (staff, scientists and others)	90
Specific device/Scientific equipment: Geophysics: Seismograph; Biology: Tide Gauge; Alternative Energy: Wind Generator, Hydrogen fuel cell; Meteorology: Instrumental for synoptic and climatological station	
Scientific services possible: Seismograph data transmitted in real time; Meteorology; Biology, geology and paleontology during summer season only	
Long-term monitoring/observations: Censuses within penguin colonies; Seismological monitoring	
<b>MEDICAL FACILITIES</b>	Yes
Area of medical facility (m <sup>2</sup> )	
Staff with basic medical training or doctor (Summer)	2

Staff with basic medical training or doctor (Winter)	2
Capability: Basic, Dental	
Equipment: Diagnostic x-ray; Electrocardiograph and defibrillator; Oxygen therapy equipment	
Distance to hospital (km)	1160
Closest emergency facility in Antarctica (km)	96.2
Closest emergency facility external (km)	1160
Medical research capabilities	No
Medical screening requirements	Yes

## VEHICLES AT FACILITY

Sea transportation: Two Zodiac boats with outboard motors  
Land transportation: Two 4WD 1.5-Ton trucks, One pick up, One quad bike, Five snowmobiles, One snow-cat, One tracked vehicle, One truck, One road roller, One Mobile elevator

## WORKSHOP FACILITIES

ICTS, Mechanical, Wood workshop, Metal workshop

## COMMUNICATIONS

Computer, E-mail, Fax, Internet, Printer, Satellite phone, Scanner, Telephone, VHF

## TRANSPORT AND FREIGHT

Access	Air, Sea
Transport to facility: Airplane, Helicopter, Ship	
Number of airstrips	1
Length (m) of longest runway	500
Width (m) of longest runway	40
Number of flight visits per year	15
Period of flight visits per year: April, May, June, July, August, September, October	
Helipad	Yes
Number of ship visits per year	15
Period of ship visits per year: January, February, March, November, December	
Ship landing facilities: Pier/Jetty	



## Features in the facility area

Bird colonies, Coast, Sea, Seal colonies.

## Main science disciplines

Geodesy, Geology, Geophysics and seismology, Marine biology, Meteorology, Paleontology.



Photos: Dirección Nacional Del Antártico

# Marambio Programa Antártico Argentino

64°14'50.6"S 56°37'39.3"W

Type: Station

Operational period:  
Year-round

## Location

Marambio station and Vicecomodoro Marambio aerodrome are located in the northeastern sector of Marambio Island (also known as Seymour Island), James Ross Islands, located 100 km southeast of the northern tip of the Antarctic Peninsula, on the Weddell Sea.

## Biodiversity and natural environment

The station is placed on a 3 km long, 1 km wide-plateau (highest point at 210 amsl). Station facilities cover an area of approximately 0.6 km<sup>2</sup>. The area of the station is mostly devoid of vegetation and fauna. A small group of gulls (up to 10) occasionally get close to the station. Lack of glaciers and permanent snow accumulation during summer are some of the more outstanding features of Seymour island. Life forms on the Island include some open moss, lichen and algae communities, usually not extensive, and presence of just a few nesting bird species, given by scattered seagulls and Antarctic terns. An Adélie penguin rookery is situated 8 km south from Marambio Station.

## History and facilities

Named after the Argentine pilot Gustavo Argentino Marambio, the station was inaugurated in October 1969. Along with a Multidisciplinary Antarctic Laboratory (LAMBI), the station has an airstrip, a hangar, a control tower and other associated facilities. Marambio is the Argentine logistics hub from where scientific camps covering geology, glaciology, anthropology and biology are deployed (with helicopters). In the nearby Bahía Pinguino, is located the Historic Sites and Monuments (HSM) 60.

CLIMATE	
Climate zone	Coastal Antarctica
Permafrost	Continuous
Mean annual wind speed (km/h)	30.1
Max wind speed (km/h)	267
Dominant wind direction	SW
Sea Ice Break Up	December
Snow free period	January, February
Total annual precipitation (mm)	326.7
Precipitation type	Snow and Rain
Mean annual temperature (°C)	-7.9
Mean temperature in February (°C)	-1.4
Mean temperature in July (°C)	-15.3
ENVIRONMENT	
Region	Antarctic Peninsula
Antarctic Environmental Domain: A - Antarctic Peninsula northern geologic	
Antarctic Conservation Biogeographic Region: 1 North-east Antarctic Peninsula	
Altitude of facility (m)	210
Type of surface facility built on	Ice-free ground
Long term monitoring	Yes
Waste management	Yes
Hazard(ous) management	Yes
Fuel spill response capability	Yes



FACILITIES INFRASTRUCTURE	
Area under roof (m <sup>2</sup> )	5208
Area scientific laboratories (m <sup>2</sup> )	102
Type of scientific laboratories: Atmospheric ozone, Chemistry, Geodetic GPS, Geology, Geophysics, Seismography station	
Conference room (capacity)	63
Logistic area (m <sup>2</sup> )	5012
Number of beds	170
Showers	Yes
Laundry facilities	Yes
Power supply type	Fossil fuel
Power supply (V)	220
Power supply (hours per day)	24
Hydroponics facilities	No
Number of staff on station (peak/summer season)	95
Number of scientists on station (peak/summer season)	70
Number of staff on station (off peak/winter season)	60
Number of scientists on station (off peak/winter season)	10
Max number of personnel at a time (staff, scientists and others)	165
Specific device/Scientific equipment: Weather: Instrumental synoptic meteorological station for surface and height, Photographic equipment APT Satellite reception (ALDEN) to make weather forecasts for air and sea navigation, Facsimile receiver for forecaster cards	
Scientific services possible: Laboratory observation and recording of atmosphere (O <sub>3</sub> , NO <sub>2</sub> , bromine, UV, precipitation); Geo positioning; Glaciological images; Earth crust; Weather Center: Climatology short, medium and long term (monthly, yearly and decades); Climatic data; Seismograph data transmitted in real time	
Long-term monitoring/observations: Atmosphere statistics (O <sub>3</sub> , NO <sub>2</sub> , bromine, UV, precipitation); Measurement of: Meteorological parameters, O <sub>3</sub> , UV radiation, aerosol sprays, CO <sub>2</sub> , CH <sub>4</sub> , H <sub>2</sub> O and O <sub>3</sub> gases sup; Weather forecast short, medium and long term; Aeronautic and maritime prognosis ; Glaciological monitoring and tracking; Climatological report; Seismological monitoring; Censuses within penguin colonies	

## General research and databases

An extensive research program on Earth Sciences is undertaken in the area of Marambio Station. The geological importance of these areas is given by their great fossil abundance and diversity, including marine and continental invertebrates and vertebrates, as well as fossil plants. Other research programs include: Physical and chemical science/atmosphere: measurements of different gases and radiation that deliver data on a daily basis, mainly from the ionosphere; Earth Sciences/Seismology: reading, storing and sending data continuously and in real time, Measuring levels of ozone and UV radiation, Statistics on the incidence of cosmic rays, Study of cosmic particles in project implementation; Geosciences/Geodesy: GPS positioning system linked to twelve satellites, data transmitted every five seconds and daily file summary; Glaciology: remote monitoring of glaciers

MEDICAL FACILITIES	
Area of medical facility (m <sup>2</sup> )	94
Staff with basic medical training or doctor (Summer)	2
Staff with basic medical training or doctor (Winter)	2
Capability: Basic, Dental	
Equipment: Diagnostic ultrasound, Diagnostic x-ray, Respirator, Electrocardiograph, Cardioverter, Multi-parameter monitor, Ambulance	
Distance to hospital (km)	1237
Closest emergency facility in Antarctica (km)	
Closest emergency facility external (km)	1237
Medical research capabilities	Yes
Medical screening requirements	Yes
VEHICLES AT FACILITY	
Sea transportation:	
Land transportation: Fire pumper truck, Ambulance, Pickup, Autoloader, Truck, 4WD truck, 6WD quad bike, Bulldozer, Three loaders, Tractor	
WORKSHOP FACILITIES	
Electricity, Hangar aircraft, ICTS, Mechanical, Metal workshop, Wood workshop, Power Plant, Plumbing, Spare parts storeroom	
COMMUNICATIONS	
Computer, E-mail, Fax, Internet, Printer, Satellite phone, Scanner, Telephone, VHF	
TRANSPORT AND FREIGHT	
Access	Air
Transport to facility: Airplane, Helicopter	
Number of airstrips	2
Length (m) of longest runway	1590
Width (m) of longest runway	40
Number of flight visits per year	60
Period of flight visits per year: January, February, March, April, May, June, July, August, September, October, November, December	
Helipad	Yes
Number of ship visits per year	3
Period of ship visits per year: January, February, November, December	
Ship landing facilities:	

in Vega Island and on the runway of the Marambio airfield.

## Features in the facility area

Clear air zone, High elevation, Plateau.

## Main science disciplines

Atmospheric chemistry and physics, Climate change, Climatology, Ecology, Environmental sciences, Geodesy, Geology, Geophysics and seismology, Glaciology, Mapping, Marine biology, Pollution, Sedimentology, Soil science, Terrestrial biology.



Photos: Dirección Nacional Del Antártico

# Matienzo Programa Antártico Argentino

64°58'55.2"S 60°04'25.7"W

Type: Station

Operational period:  
October–March

## Location

Matienzo station is located on the Larsen nunatak, southern part of the Coast Nordenskjöld and 183 km from the Marambio station and aerodrome.

## Biodiversity and natural environment

The Larsen nunatak is part of a group called Foca, on the Larsen ice barrier, measuring about 1800 meters long and 300 meters high. The station area is devoid of vegetation. The area is almost devoid of fauna, with the only type of interaction given by a small group of gulls that nest in the summer 100 m away from the facility. With regards to the natural environment, one of the outstanding features is the presence of glaciers around the nunatak and snowdrifts.

## History and facilities

Matienzo station was inaugurated on 15 March 1961; the station is composed of accommodation, storage, a power plant building, fuel platform and heliport. Supply and deployment of scientist and staff are made by MI-17 1E and Bell 212 helicopters and Twin Otter aircraft. In terms of preservation and restoration of the environment, a program for the removal of historical waste is being implemented.

CLIMATE	
Climate zone	Coastal Antarctica
Permafrost	Discontinuous
Mean annual wind speed (km/h)	18
Max wind speed (km/h)	
Dominant wind direction	NW
Sea Ice Break Up	December
Snow free period	January, February
Total annual precipitation (mm)	
Precipitation type	Snow and Rain
Mean annual temperature (°C)	-5
Mean temperature in February (°C)	
Mean temperature in July (°C)	
ENVIRONMENT	
Region	Antarctic Peninsula
Antarctic Environmental Domain: A - Antarctic Peninsula northern geologic	
Antarctic Conservation Biogeographic Region: 1 North-east Antarctic Peninsula	
Altitude of facility (m)	32
Type of surface facility built on	Ice-free ground
Long term monitoring	Yes
Waste management	Yes
Hazard(ous) management	Yes
Fuel spill response capability	Yes



## FACILITIES INFRASTRUCTURE

Area under roof (m <sup>2</sup> )	1000
Area scientific laboratories (m <sup>2</sup> )	700
Type of scientific laboratories: Glaciology	
Conference room (capacity)	0
Logistic area (m <sup>2</sup> )	300
Number of beds	12
Showers	Yes
Laundry facilities	Yes
Power supply type	Fossil fuel
Power supply (V)	380
Power supply (hours per day)	24
Hydroponics facilities	No
Number of staff on station (peak/summer season)	10
Number of scientists on station (peak/summer season)	2
Number of staff on station (off peak/winter season)	
Number of scientists on station (off peak/winter season)	10
Max number of personnel at a time (staff, scientists and others)	12
Specific device/Scientific equipment: Automated Meteorology Ice/ Indigenous Species Geophysics Observation System (AMIGOS); Pluviometer	
Scientific services possible: Observation and record of meteorological variables (wind, temperature, humidity, pressure, snow sensor, precipitation), glaciological images, weather	
Long-term monitoring/observations: Statistics of meteorological variables (wind, temperature, humidity, pressure, snow sensor, precipitation), glaciological images, weather	
<b>MEDICAL FACILITIES</b>	Yes

## General research and databases

Various studies are conducted at Matienzo station such as: Meteorological and aurora observations, aerial photographic surveys, studies on geology, geophysics (gravity and magnetism measurement), satellite geodesy, oceanography. In physical glaciology, the Larsen project studies the retreat and disintegration of the Larsen ice barrier by analyzing satellite images, GPS positioning and terrain data to investigate the ice-climate interactions in areas of climate change.

Area of medical facility (m <sup>2</sup> )	6
Staff with basic medical training or doctor (Summer)	1
Staff with basic medical training or doctor (Winter)	
Capability: Basic	
Equipment:	
Distance to hospital (km)	1433
Closest emergency facility in Antarctica (km)	184.9
Closest emergency facility external (km)	1433
Medical research capabilities	No
Medical screening requirements	Yes
<b>VEHICLES AT FACILITY</b>	
Sea transportation:	
Land transportation: Two snow-cats	
<b>WORKSHOP FACILITIES</b>	
ICTS, General repairs, Mechanical	
<b>COMMUNICATIONS</b>	
Satellite phone, VHF	
<b>TRANSPORT AND FREIGHT</b>	
Access	Air, Sea
Transport to facility: Airplane, Helicopter, Ship	
Number of airstrips	1
Length (m) of longest runway	1500
Width (m) of longest runway	40
Number of flight visits per year	4
Period of flight visits per year: January, February, March, October, November, December	
Helipad	Yes
Number of ship visits per year	
Period of ship visits per year:	
Ship landing facilities: None	

## Features in the facility area

Bluff, Clear air zone, Crevasse, Ice cap or glacier, Ice shelf, Nunatak.

## Main science disciplines

Atmospheric chemistry and physics, Atmospheric sciences, Climate change, Climatology, Environmental sciences, Geodesy, Geology, Geophysics, Glaciology, Mapping, Marine biology, Oceanography, Planetary science, Soil science.



Photos: Dirección Nacional Del Antártico

# Melchior Programa Antártico Argentino

64°19'54.2"S 62°58'58.0"W

Type: Station

Operational period:  
October–March

## Location

Melchior station is located on Gamma Island, Melchior harbour, in the Palmer Archipelago.

## Biodiversity and natural environment

Sighting of penguins, petrels and seals. Temperatures range between -25°C and 5°C.

## History and facilities

Melchior station was inaugurated on 31 March 1947; with its two antennas 25 meters high it communicated directly with Buenos Aires transmitting three daily meteorological reports, a major source of Antarctic meteorological information at the time. In 1955, an astronomical measurements station was added. Until 1961, it operated as a permanent station, but since then it functions only in summer, mainly for hydrographic surveys. During summer of 1968, four female biologists conducted scientific studies there. Nearby, on Lambda Island, is located the Historic Sites and Monuments (HSM) 29 -the first Argentine Antarctic lighthouse, "1<sup>st</sup> May", which was installed in 1942 and is still in operation.

CLIMATE	
Climate zone	Maritime Antarctica
Permafrost	Continuous
Mean annual wind speed (km/h)	24
Max wind speed (km/h)	222
Dominant wind direction	NW
Sea Ice Break Up	October
Snow free period	January
Total annual precipitation (mm)	1308.7
Precipitation type	Snow and Rain
Mean annual temperature (°C)	-2.9
Mean temperature in February (°C)	1.5
Mean temperature in July (°C)	-9.5
ENVIRONMENT	
Region	
Antarctic Environmental Domain: E - Antarctic Peninsula and Alexander Island main ice fields	
Antarctic Conservation Biogeographic Region: 2 - South Orkney Islands	
Altitude of facility (m)	4
Type of surface facility built on	Ice-sheet, Moraine
Long term monitoring	
Waste management	Yes
Hazard(ous) management	Yes
Fuel spill response capability	Yes



## FACILITIES INFRASTRUCTURE

Area under roof (m <sup>2</sup> )	336
Area scientific laboratories (m <sup>2</sup> )	
Type of scientific laboratories:	
Conference room (capacity)	
Logistic area (m <sup>2</sup> )	48
Number of beds	15
Showers	Yes
Laundry facilities	Yes
Power supply type	Fossil fuel
Power supply (V)	220
Power supply (hours per day)	24
Hydroponics facilities	No
Number of staff on station (peak/summer season)	12
Number of scientists on station (peak/summer season)	0
Number of staff on station (off peak/winter season)	
Number of scientists on station (off peak/winter season)	
Max number of personnel at a time (staff, scientists and others)	15
Specific device/Scientific equipment: There is no permanent equipment at the station	
Scientific services possible:	
Long-term monitoring/observations:	Yes
MEDICAL FACILITIES	
Area of medical facility (m <sup>2</sup> )	6
Staff with basic medical training or doctor (Summer)	1
Staff with basic medical training or doctor (Winter)	

## General research and databases

The scientific research mainly focuses on botany.

Capability: Basic	
Equipment:	
Distance to hospital (km)	1103
Closest emergency facility in Antarctica (km)	
Closest emergency facility external (km)	1103
Medical research capabilities	No
Medical screening requirements	Yes

## VEHICLES AT FACILITY

Sea transportation: Two Zodiac boats with outboard motors

Land transportation:

## WORKSHOP FACILITIES

General repairs

## COMMUNICATIONS

Satellite phone, VHF

## TRANSPORT AND FREIGHT

Access	Sea
Transport to facility: Ship	
Number of airstrips	0
Length (m) of longest runway	
Width (m) of longest runway	
Number of flight visits per year	
Period of flight visits per year:	
Helipad	No
Number of ship visits per year	5
Period of ship visits per year: January, February, December	
Ship landing facilities: Pier/Jetty	

## Features in the facility area

Bird colonies, Coast, Rock.

## Main science disciplines

Terrestrial biology.



Fotos: Dirección Nacional Del Antártico

# Orcadas Programa Antártico Argentino

60°44'25.6"S 44°44'24.3"W

Type: Station

Operational period:  
Year-round

## Location

Orcadas station is located on Laurie Island, South Orkney Islands.

## Biodiversity and natural environment

Lichens and mosses; great diversity of fauna characterizes the area: Chinstrap and Adélie penguins colonies, petrels, skuas, Antarctic pigeon and Weddell seals and sea lions reproductive colonies. The weather is typical of the tundra region, close to the polar climate.

## History and facilities

Orcadas was the first Argentine Antarctic station inaugurated on 1 April 1903 by the Scottish Antarctic Expedition of William Speirs Bruce. It was handed to Argentina on 22 February 1904, and scientific measurements have been carried out uninterruptedly for more than a century since then. To the original stone observatory built in 1903 by the Scottish expedition, known as the Casa Omond, a modern main house was added in 1905, which today functions as a museum under the name of Casa Moneta. Nowadays Casa Moneta and Casa Omond, plus a cemetery next to them, constitute the Historic Sites and Monuments (HSM) 42.

## General research and databases

The main scientific projects focus on biology, particularly birds: cormorants and penguins in their reproductive, food evolution and the effects of global warming on them. With regard to marine biology, research on plankton, Euphausiacea and sea mammals is developed. In addition, the Antarctic seismological network, in cooperation with Italy, is located in this station.

CLIMATE	
Climate zone	Coastal Antarctica
Permafrost	Continuous
Mean annual wind speed (km/h)	24
Max wind speed (km/h)	
Dominant wind direction	S
Sea Ice Break Up	October
Snow free period	January, February
Total annual precipitation (mm)	1180
Precipitation type	Snow and Rain
Mean annual temperature (°C)	-3.6
Mean temperature in February (°C)	
Mean temperature in July (°C)	
ENVIRONMENT	
Region	
Antarctic Environmental Domain:	
Antarctic Conservation Biogeographic Region:	2 South Orkney Islands
Altitude of facility (m)	8
Type of surface facility built on	Ice-free ground
Long term monitoring	
Waste management	Yes
Hazard(ous) management	Yes
Fuel spill response capability	Yes



## FACILITIES INFRASTRUCTURE

Area under roof (m²)	2101
Area scientific laboratories (m²)	76
Type of scientific laboratories: Biology, Geodetic GPS, Seismography station	
Conference room (capacity)	
Logistic area (m²)	266
Number of beds	52
Showers	Yes
Laundry facilities	Yes
Power supply type	Fossil fuel
Power supply (V)	220
Power supply (hours per day)	24
Hydroponics facilities	No
Number of staff on station (peak/summer season)	35
Number of scientists on station (peak/summer season)	
Number of staff on station (off peak/winter season)	15
Number of scientists on station (off peak/winter season)	2
Max number of personnel at a time (staff, scientists and others)	65
Specific device/Scientific equipment: Seismograph, geodetic GPS	
Scientific services possible: Seismograph data transmitted in real time	
Long-term monitoring/observations: Censuses within pinniped colonies; Seismological monitoring	
MEDICAL FACILITIES	
Area of medical facility (m²)	26
Staff with basic medical training or doctor (Summer)	2
Staff with basic medical training or doctor (Winter)	2

Capability: Basic, Dental	
Equipment: Telemedicine; Diagnostic x-ray; Anaesthesia, defibrillator, electrocardiograph, oxygen therapy equipment	
Distance to hospital (km)	1539
Closest emergency facility in Antarctica (km)	
Closest emergency facility external (km)	1539
Medical research capabilities	Yes
Medical screening requirements	Yes

## VEHICLES AT FACILITY

Sea transportation: Two Zodiac boats with outboard motors  
Land transportation: One Tractor, One 6WD all-terrain bike, Two snowmobiles

## WORKSHOP FACILITIES

Metal workshop, General repairs, Wood workshop, Mechanical, ICTS

## COMMUNICATIONS

E-mail; Fax; Internet; Printer; Satellite Phone; Telephone; VHF

## TRANSPORT AND FREIGHT

Access	Air, Sea
Transport to facility: Helicopter, Ship	
Number of airstrips	
Length (m) of longest runway	
Width (m) of longest runway	
Number of flight visits per year	
Period of flight visits per year:	
Helipad	Yes
Number of ship visits per year	25
Period of ship visits per year: January, February, March, November, December	
Ship landing facilities: None	

## Features in the facility area

Beaches suitable for landing small boats, Coast, Moraine.

## Main science disciplines

Geodesy, Geophysics, Terrestrial biology.



Fotos: Dirección Nacional Del Antártico

# Petrel Programa Antártico Argentino

63°28'41.9"S 56°13'51.6"W

Type: Station

Operational period:  
October–March

## Location

Petrel station is located on Petrel Cove, Welchness Cape, Antarctic Strait.

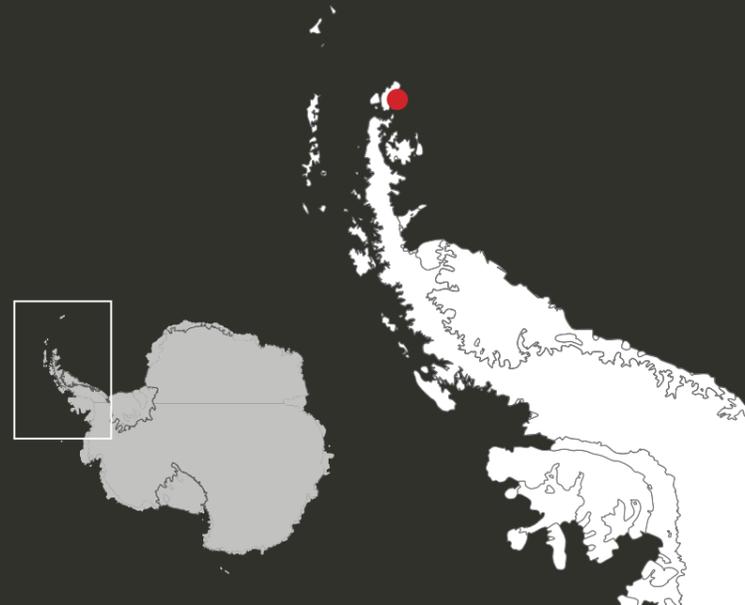
## Biodiversity and natural environment

Petrel station is located on Dundee Island, on the northeast of the Tierra de San Martín, in an area covered by an ice dome that reaches heights of 350m and coasts are formed by glaciers. Petrel Station is located in Welchness Cape, on the island's only ice-free surface with access to the sea. The station area features a major diversity of birds such as Southern giant petrel and Wilson's petrel, Antarctic tern, skuas, kelp gull, cormorants, and Adelie penguins. Gentoo and chinstrap penguins are rarely seen. Sighting of Weddell seals near to Rosamaria glacier and leopard seals are occasionally seen near the coast.

## History and facilities

It was originally established on December 1952 as Petrel Refuge with a small airstrip. During the 1966/67 summer, the track was extended to 850 meters long by 40 meters wide and beacons were installed, together with a large metal hangar as well as other buildings. On 22 February 1967, it was inaugurated as Petrel Station. During the 1974 winter, the station had to be evacuated due to a fire, resuming operation during the following summer. In February 1978, it became a temporary summer station.

CLIMATE	
Climate zone	Coastal Antarctica
Permafrost	Sporadic
Mean annual wind speed (km/h)	8
Max wind speed (km/h)	70
Dominant wind direction	SW
Sea Ice Break Up	December
Snow free period	January, February
Total annual precipitation (mm)	200
Precipitation type	Snow and Rain
Mean annual temperature (°C)	-7.1
Mean temperature in February (°C)	0.2
Mean temperature in July (°C)	-8.9
ENVIRONMENT	
Region	Antarctic Peninsula
Antarctic Environmental Domain: A - Antarctic Peninsula northern geologic	
Antarctic Conservation Biogeographic Region: 1 - North-east Antarctic Peninsula	
Altitude of facility (m)	18
Type of surface facility built on	Ice-free ground
Long term monitoring	
Waste management	Yes
Hazard(ous) management	Yes
Fuel spill response capability	Yes



### FACILITIES INFRASTRUCTURE

Area under roof (m²)	3600
Area scientific laboratories (m²)	
Type of scientific laboratories: Geology	
Conference room (capacity)	
Logistic area (m²)	1200
Number of beds	25
Showers	Yes
Laundry facilities	Yes
Power supply type	Fossil fuel
Power supply (V)	220
Power supply (hours per day)	24
Hydroponics facilities	No
Number of staff on station (peak/summer season)	23
Number of scientists on station (peak/summer season)	3
Number of staff on station (off peak/winter season)	
Number of scientists on station (off peak/winter season)	
Max number of personnel at a time (staff, scientists and others)	45
Specific device/Scientific equipment: There is no permanent equipment at the station	
Scientific services possible:	
Long-term monitoring/observations:	
<b>MEDICAL FACILITIES</b>	Yes
Area of medical facility (m²)	8
Staff with basic medical training or doctor (Summer)	1

Staff with basic medical training or doctor (Winter)	
Capability: Basic	
Equipment:	
Distance to hospital (km)	1184
Closest emergency facility in Antarctica (km)	
Closest emergency facility external (km)	1184
Medical research capabilities	No
Medical screening requirements	Yes
<b>VEHICLES AT FACILITY</b>	
Sea transportation: Two Zodiac boats with outboard motors	
Land transportation: One 4WD 1.5-ton truck	
<b>WORKSHOP FACILITIES</b>	
General repairs	
<b>COMMUNICATIONS</b>	
Satellite phone, VHF	
<b>TRANSPORT AND FREIGHT</b>	
Access	Air, Sea
Transport to facility: Airplane, Helicopter, Ship	
Number of airstrips	3
Length (m) of longest runway	1900
Width (m) of longest runway	40
Number of flight visits per year	5
Period of flight visits per year: January, February, March, December	
Helipad	Yes
Number of ship visits per year	
Period of ship visits per year: January, February, December	
Ship landing facilities: None	

## General research and databases

### Features in the facility area

Beaches suitable for landing small boats, Moraine.

### Main science disciplines

Geology



Photos: Dirección Nacional Del Antártico

# Primavera Programa Antártico Argentino

64°9'35.1"S 60°57'25.5"W

Type: Station

Operational period:  
November–March

## Location

Primavera station is located on Cierva Cove, Dundee Coast.

## Biodiversity and natural environment

The area nearby Primavera station is steep, formed by a large granite massif and, in ice free places, layers of lichens, mosses and some small grasses are found. It has 90% of Antarctic animal species: penguins, mammals; as well as Antarctic fur, crabeater, Weddell, leopards and elephants seals; blue, fin, southern right and sperm whales and orcas. The flying birds found in the area are petrels, skuas, gulls, terns, cormorants and Antarctic pigeon.

## History and facilities

It was inaugurated on 3 March 1977, in the same location as Cobbett Refuge (1954). Each Antarctic summer the station is reactivated for maintenance tasks and the accomplishment of scientific research conducted by the Argentine Antarctic Institute, and in cooperation with other international Antarctic programs.

## General research and databases

Near Primavera station the following projects are conducted: biology (research on the effects of climate change on the pinnipeds and bird monitoring), botany (mainly the study of the phytogeography of Antarctic Deschampsia) and the study of wetlands at Cierva Point.

## Features in the facility area

Bluff, Other Biological, Rock.

## Main science disciplines

Climate change, Ecology, Environmental sciences, Marine biology.



CLIMATE	
Climate zone	Coastal Antarctica
Permafrost	None
Mean annual wind speed (km/h)	35
Max wind speed (km/h)	45
Dominant wind direction	NW
Sea Ice Break Up	October
Snow free period	January, February
Total annual precipitation (mm)	
Precipitation type	Snow and Rain
Mean annual temperature (°C)	-3
Mean temperature in February (°C)	
Mean temperature in July (°C)	
ENVIRONMENT	
Region	Antarctic Peninsula
Antarctic Environmental Domain: B - Antarctic Peninsula mid-northern latitudes geologic	
Antarctic Conservation Biogeographic Region: 3 North-west Antarctic Peninsula	
Altitude of facility (m)	50
Type of surface facility built on	Ice-free ground
Long term monitoring	Yes
Waste management	Yes
Hazard(ous) management	Yes
Fuel spill response capability	Yes



FACILITIES INFRASTRUCTURE	
Area under roof (m <sup>2</sup> )	
Area scientific laboratories (m <sup>2</sup> )	
Type of scientific laboratories: Biology, Geology	
Conference room (capacity)	18
Logistic area (m <sup>2</sup> )	
Number of beds	18
Showers	Yes
Laundry facilities	Yes
Power supply type	Fossil fuel
Power supply (V)	220
Power supply (hours per day)	24
Hydroponics facilities	No
Number of staff on station (peak/summer season)	12
Number of scientists on station (peak/summer season)	6
Number of staff on station (off peak/winter season)	
Number of scientists on station (off peak/winter season)	
Max number of personnel at a time (staff, scientists and others)	18
Specific device/Scientific equipment: There is no permanent equipment at the station	
Scientific services possible:	
Long-term monitoring/observations:	Yes
MEDICAL FACILITIES	
Area of medical facility (m <sup>2</sup> )	
Staff with basic medical training or doctor (Summer)	2
Staff with basic medical training or doctor (Winter)	
Capability: Basic	
Equipment:	
Distance to hospital (km)	1120
Closest emergency facility in Antarctica (km)	
Closest emergency facility external (km)	1120
Medical research capabilities	
Medical screening requirements	Yes
VEHICLES AT FACILITY	
Sea transportation: Two Zodiac boats with outboard motors	
Land transportation:	
WORKSHOP FACILITIES	
General repairs, Wood workshop	
COMMUNICATIONS	
Satellite phone, VHF	
TRANSPORT AND FREIGHT	
Access	Sea
Transport to facility: Ship	
Number of airstrips	0
Length (m) of longest runway	
Width (m) of longest runway	
Number of flight visits per year	
Period of flight visits per year:	
Helipad	Yes
Number of ship visits per year	5
Period of ship visits per year: January, February, March, December	
Ship landing facilities:	



Photos: Dirección Nacional Del Antártico

# San Martín

Programa Antártico Argentino

68°07'47"S 67°06'10"W

Type: Station

Operational period:  
Year-round

## Location

San Martín station is located on Barry Island, Debenham Islands, along Marguerite Bay, on the West of the Antarctic Peninsula.

## Biodiversity and natural environment

Sighting of seals, sea lions, Adélie penguins, Antarctic pigeons, cormorants and skuas are common during springtime and summer.

## History and facilities

Inaugurated on 21 March 1951, San Martín served as logistic base to numerous expeditions installing shelters, and to the expedition that crossed the Antarctic Peninsula. It was closed from 1960 to 1976 for the refurbishment of its facilities. Since 1976, it functions as a permanent station. Some of the original facilities were designated in 1972 as the Historic Sites and Monuments (HSM) 26. It also has a Mausoleum on the Barbara Islet, where the ashes of General Pujato (founder and first director of the Instituto Antártico Argentino) are deposited.

## General research and databases

Scientific research in the area is undertaken in international cooperation with eight countries in the fields of glaciology, geodesy, seismology, magnetosphere and ozone sounding.

## Features in the facility area

Other Biological Features, Other Geomorphological

## Main science disciplines

Geodesy, Geology, Geomorphology, Geophysics and Seismology, Glaciology.

CLIMATE	
Climate zone	Coastal Antarctica
Permafrost	None
Mean annual wind speed (km/h)	18.7
Max wind speed (km/h)	213
Dominant wind direction	NE
Sea Ice Break Up	November
Snow free period	January
Total annual precipitation (mm)	410.1
Precipitation type	Snow and Rain
Mean annual temperature (°C)	-4
Mean temperature in February (°C)	1.5
Mean temperature in July (°C)	-11.4
ENVIRONMENT	
Region	Antarctic Peninsula
Antarctic Environmental Domain: B - Antarctic Peninsula mid-northern latitudes geologic	
Antarctic Conservation Biogeographic Region: 4 - Central South Antarctic Peninsula	
Altitude of facility (m)	5
Type of surface facility built on	Ice-free ground
Long term monitoring	Yes
Waste management	Yes
Hazard(ous) management	Yes
Fuel spill response capability	Yes



FACILITIES INFRASTRUCTURE	
Area under roof (m <sup>2</sup> )	1429
Area scientific laboratories (m <sup>2</sup> )	6
Type of scientific laboratories: Geology, Geophysics, Geodetic GPS, Ionospheric sounding research, Seismography station	
Conference room (capacity)	
Logistic area (m <sup>2</sup> )	334
Number of beds	21
Showers	Yes
Laundry facilities	Yes
Power supply type	Fossil fuel
Power supply (V)	220
Power supply (hours per day)	24
Hydroponics facilities	No
Number of staff on station (peak/summer season)	15
Number of scientists on station (peak/summer season)	4
Number of staff on station (off peak/winter season)	19
Number of scientists on station (off peak/winter season)	2
Max number of personnel at a time (staff, scientists and others)	21
Specific device/Scientific equipment: Geophysics: Seismograph; Geodesy: GPS; Meteorology: Instruments for surface synoptic weather station; Atmosphere: Rheometer, Spectrophotometer, One fluxgate magnetometer EDA model 105 B.1 and cassette recorder MEMODYNE GOLD 1 graphic recorder of a channel	
Scientific services possible: Seismograph data transmitted in real time	
Long-term monitoring/observations: Geodetic GPS; Ionospheric sounding research; Seismological monitoring	
MEDICAL FACILITIES	
Area of medical facility (m <sup>2</sup> )	36
Staff with basic medical training or doctor (Summer)	1

Staff with basic medical training or doctor (Winter)	1
Capability: Basic, Dental	
Equipment: Diagnostic ultrasound, Diagnostic x-ray, Haematology, Laboratory diagnostics, Ophthalmology, Portable ultrasound, Defibrillator, Electrocardiograph, Oxygen therapy equipment	
Distance to hospital (km)	1875
Closest emergency facility in Antarctica (km)	638.3
Closest emergency facility external (km)	1875
Medical research capabilities	
Medical screening requirements	Yes
VEHICLES AT FACILITY	
Sea transportation: One Zodiac boat with outboard motors	
Land transportation: Four snowmobiles, One truck, One tracked vehicle	
WORKSHOP FACILITIES	
Mechanical, Wood workshop	
COMMUNICATIONS	
Computer, E-mail, Internet, Printer, Satellite phone, Scanner, Telephone, VHF	
TRANSPORT AND FREIGHT	
Access	Air, Sea
Transport to facility: Airplane, Ship	
Number of airstrips	1
Length (m) of longest runway	500
Width (m) of longest runway	40
Number of flight visits per year	5
Period of flight visits per year: January, February, March, April, May, June, July, August, September, October, November, December	
Helipad	Yes
Number of ship visits per year	5
Period of ship visits per year: January, February, December	
Ship landing facilities: None	



# Casey Australian Antarctic Division

66°16'54"S 110°31' 39"E

Type: Station

Operational period: Year-round

## Location

Casey is located on Bailey Peninsula in the Windmill Islands, Wilkes Land. The peninsula is on the west coast of Law Dome, an almost circular 200 km diameter ice cap that rises to a height of 1395 m. Operations are supported by Wilkins Aerodrome, ~70 km south-east of the station.

## Biodiversity and natural environment

The area's moss and lichen communities are the richest anywhere in Antarctica outside the Antarctic Peninsula. Various sites in the region, including in the station's immediate vicinity, have heightened protection as Antarctic Specially Protected Areas. Storm petrels, Snow petrels and Adélie petrels breed within 1.5 km of the station. Seals are present in small numbers.

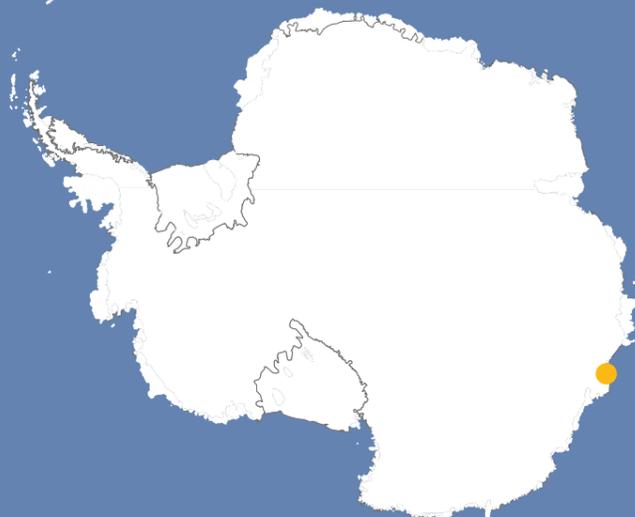
## History and facilities

The current research station, built in the 1990s and routinely modified since, replaces facilities established in 1969 at a site closer to the coast. The station is now a large and complex facility. It was named after Sir Richard Casey, an Australian Governor-General.

## General research and databases

Casey-collected data sets are lodged with the Australian Antarctic Data Centre (AADC). Data held in the AADC are qualified with metadata and discoverable through the Catalogue of Australian Antarctic and Subantarctic Metadata (CAASM – <http://data.aad.gov.au/aadc/metadata>). Some data are also delivered through customised applications on the AADC website – <http://data.aad.gov.au>.

CLIMATE	
Climate zone	Coastal Antarctica
Permafrost	Discontinuous
Mean annual wind speed (km/h)	25.2
Max wind speed (km/h)	291
Dominant wind direction	E
Sea Ice Break Up	December
Snow free period	None
Total annual precipitation (mm)	
Precipitation type	Snow
Mean annual temperature (°C)	-5.9
Mean temperature in February (°C)	-0.1
Mean temperature in July (°C)	-10.5
ENVIRONMENT	
Region	Continental Antarctica
Antarctic Environmental Domain: D – East Antarctic coastal geologic	
Antarctic Conservation Biogeographic Region: 7 East Antarctica	
Altitude of facility (m)	32
Type of surface facility built on	Ice-free ground
Long term monitoring	Yes
Waste management	Yes
Hazard(ous) management	Yes
Fuel spill response capability	Yes



## Features in the facility area

Bird colonies, Blue ice, Coast, Crevasse, Hill, Ice cap or glacier, Lake, Melt streams, Moraine, Nunatak, Other Biological, Permanent snowpatches, Rock, Sea, Sea ice, Seal colonies, Shoreline, Snow, Valley.

FACILITIES INFRASTRUCTURE	
Area under roof (m <sup>2</sup> )	8000
Area scientific laboratories (m <sup>2</sup> )	360
Type of scientific laboratories: Biology, Chemistry, Scientific diving	
Conference room (capacity)	
Logistic area (m <sup>2</sup> )	584
Number of beds	99
Showers	Yes
Laundry facilities	Yes
Power supply type	Fossil fuel, Renewable
Power supply (V)	240
Power supply (hours per day)	24
Hydroponics facilities	Yes
Number of staff on station (peak/summer season)	67
Number of scientists on station (peak/summer season)	32
Number of staff on station (off peak/winter season)	18
Number of scientists on station (off peak/winter season)	2
Max number of personnel at a time (staff, scientists and others)	99
Specific device/Scientific equipment: GPS, induction magnetometers, ionosonde, riometer, seismometers, tide gauges	
Scientific services possible: Dry and wet laboratories, electronics	
Long-term monitoring/observations: Ionosphere, geomagnetic and seismic, meteorology, sea birds, sea level and climate	
MEDICAL FACILITIES	
Area of medical facility (m <sup>2</sup> )	187
Staff with basic medical training or doctor (Summer)	2
Staff with basic medical training or doctor (Winter)	1
Capability: Basic, Dental, Surgery	

## Main science disciplines

Atmospheric chemistry and physics, Climate change, Climatology, Ecology, Environmental sciences, Geodesy, Geophysics, GIS, Glaciology, Human biology, Hydrology, Mapping, Marine biology, Medicine, Microbiology, Pollution, Soil science, Terrestrial biology.

Equipment: Aeromedical equipment, Altitude medicine, Anaesthesia, Biochemistry, Blood transfusion medicine, Diagnostic ultrasound, Diagnostic X-ray, Haematology, Laboratory diagnostics, Microbiology, Ophthalmology, Telemedicine	
Distance to hospital (km)	3430
Closest emergency facility in Antarctica (km)	1401
Closest emergency facility external (km)	3430
Medical research capabilities	Yes
Medical screening requirements	Yes
VEHICLES AT FACILITY	
Sea transportation:	
Land transportation: Wheeled and tracked	
WORKSHOP FACILITIES	
ICTS, Mechanical, Metal workshop, Plexiglas workshop, Wood workshop	
COMMUNICATIONS	
Computer, E-mail, Fax, Internet, Printer, Satellite phone, Scanner, Telephone, VHF	
TRANSPORT AND FREIGHT	
Access	Air, Sea
Transport to facility: Airplane, Ship.	
Number of airstrips	1
Length (m) of longest runway	3600
Width (m) of longest runway	45
Number of flight visits per year	20
Period of flight visits per year: January, February, March, November, December	
Helipad	Yes
Number of ship visits per year	3
Period of ship visits per year: January, February, March, November, December	
Ship landing facilities:	



Photos: Australian Antarctic Division



Photos: Australian Antarctic Division

# Davis Australian Antarctic Division

68°34'35.8"S 77°58'02.6"E

Type: Station

Operational period: Year-round

## Location

Davis is on Broad Peninsula in the Vestfold Hills, Princess Elizabeth Land. The Vestfold Hills are an ice free region covering an area of ~400 km<sup>2</sup>.

## Biodiversity and natural environment

Various sites in the area have heightened protection as Antarctic Specially Protected Areas. The region's features include:

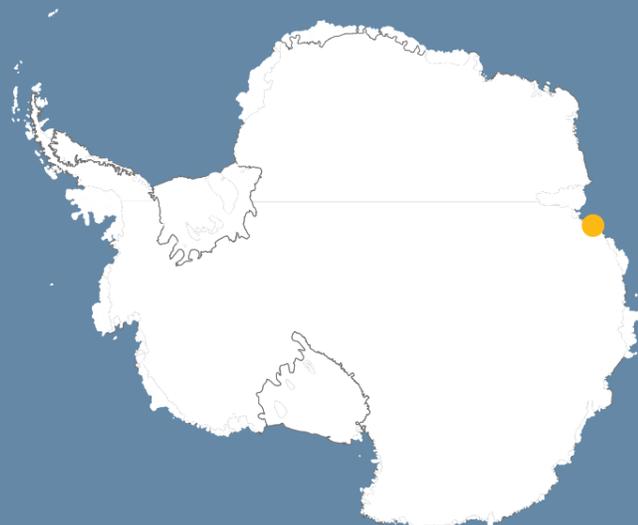
- hundreds of freshwater and saline lakes and waterbodies of outstanding and unique scenic variety and beauty, and intrinsic, scientific and educational value;
- hundreds of thousands of breeding birds, including populations/sites with international status;
- a palaeontological site of world significance.

## History and facilities

The first landing in the region was made in 1935. Davis was established in 1957, rebuilt in the 1990s and has been routinely modified since. The station is now a large and complex facility.

## General research and databases

Davis-collected data sets are lodged with the Australian Antarctic Data Centre (AADC). Data held in the AADC are qualified with metadata and discoverable through the Catalogue of Australian Antarctic and Subantarctic Metadata (CAASM – <http://data.aad.gov.au/aadc/metadata>). Some data are also delivered through customised applications on the AADC website – <http://data.aad.gov.au>.



CLIMATE	
Climate zone	Coastal Antarctica
Permafrost	Discontinuous
Mean annual wind speed (km/h)	19.6
Max wind speed (km/h)	206
Dominant wind direction	NE
Sea Ice Break Up	December
Snow free period	January, December
Total annual precipitation (mm)	
Precipitation type	Snow
Mean annual temperature (°C)	-7.3
Mean temperature in February (°C)	-0.2
Mean temperature in July (°C)	-14.3
ENVIRONMENT	
Region	Continental Antarctica
Antarctic Environmental Domain: D – East Antarctic coastal geologic	
Antarctic Conservation Biogeographic Region: 7 East Antarctica	
Altitude of facility (m)	27
Type of surface facility built on	Ice-free ground
Long term monitoring	Yes
Waste management	Yes
Hazard(ous) management	Yes
Fuel spill response capability	Yes

## Features in the facility area

Bird colonies, Coast, Crevasse, Fjord, Hill, Ice cap or glacier, Lake, Melt streams, Moraine, Other Biological, Permanent snowpatches, Plateau, Rivers, Rock, Sea, Sea ice, Seal colonies, Shoreline, Snow.

## Main science disciplines

Atmospheric chemistry and physics, Climate change, Climatology, Ecology, Environmental sciences, Geodesy, Geology, Geophysics, GIS, Glaciology, Human biology, Limnology, Mapping, Marine biology, Medicine, Microbiology, Oceanography, Paleocology, Pollution, Soil science, Terrestrial biology.



FACILITIES INFRASTRUCTURE	
Area under roof (m <sup>2</sup> )	8000
Area scientific laboratories (m <sup>2</sup> )	400
Type of scientific laboratories: Biology, Chemistry, Scientific diving	
Conference room (capacity)	
Logistic area (m <sup>2</sup> )	578
Number of beds	91
Showers	Yes
Laundry facilities	Yes
Power supply type	Fossil fuel
Power supply (V)	240
Power supply (hours per day)	24
Hydroponics facilities	Yes
Number of staff on station (peak/summer season)	62
Number of scientists on station (peak/summer season)	29
Number of staff on station (off peak/winter season)	15
Number of scientists on station (off peak/winter season)	2
Max number of personnel at a time (staff, scientists and others)	91
Specific device/Scientific equipment: All sky camera, cloud detector, GPS, Induction magnetometers, meteor radars, MFSA radar, MST radar, onosonde, riometers, scanning OH radiometer, spectrometers	
Scientific services possible: Dry and wet laboratories, electronics	
Long-term monitoring/observations: Geomagnetic, ionosphere, lower middle and upper atmosphere, meteorology, sea birds, sea level and climate	
MEDICAL FACILITIES	
Area of medical facility (m <sup>2</sup> )	191
Staff with basic medical training or doctor (Summer)	1
Staff with basic medical training or doctor (Winter)	1
Capability: Basic, Dental, Surgery	4826
Equipment: Aeromedical equipment, Altitude medicine, Anaesthesia, Biochemistry, Blood transfusion medicine, Diagnostic ultrasound, Diagnostic X-ray, Haematology, Laboratory diagnostics, Microbiology, Ophthalmology, Telemedicine	
Distance to hospital (km)	4826
Closest emergency facility in Antarctica (km)	109
Closest emergency facility external (km)	4826
Medical research capabilities	Yes
Medical screening requirements	Yes
VEHICLES AT FACILITY	
Sea transportation:	
Land transportation: Wheeled and tracked	
WORKSHOP FACILITIES	
ICTS, Mechanical, Metal workshop, Plexiglas workshop, Wood workshop	
COMMUNICATIONS	
Computer, E-mail, Fax, Internet, Printer, Satellite phone, Scanner, Telephone, VHF	
TRANSPORT AND FREIGHT	
Access	Air, Sea
Transport to facility: Airplane, Ship	
Number of airstrips	2
Length (m) of longest runway	2200
Width (m) of longest runway	50
Number of flight visits per year	20
Period of flight visits per year: January, February, March, November, December	
Helipad	Yes
Number of ship visits per year	3
Period of ship visits per year: January, February, March, November, December	
Ship landing facilities: None	



# Mawson Australian Antarctic Division

67°36'09.7"S 62°52'27.7"E

Type: Station

Operational period: Year-round

## Location

Mawson is located on the south-eastern shore of Horseshoe Harbour, a small ice-free rock outcrop ~ 900 m by 700 m on the edge of the continental ice cap. The coastline to both Mawson's east and west is mostly sheer ice cliffs, while the continental ice sheet behind it attains a height of some 1000 m within 35 km.

## Biodiversity and natural environment

The region around Mawson supports breeding colonies of Emperor and Adélie penguins, snow petrels, Antarctic petrels, Wilson's storm petrels, cape petrels, southern giant petrels, Antarctic fulmars and skuas. Weddell seals are common in the vicinity of the station – other species less so. Various sites in the station's vicinity have heightened protection as Antarctic Specially Protected Areas.

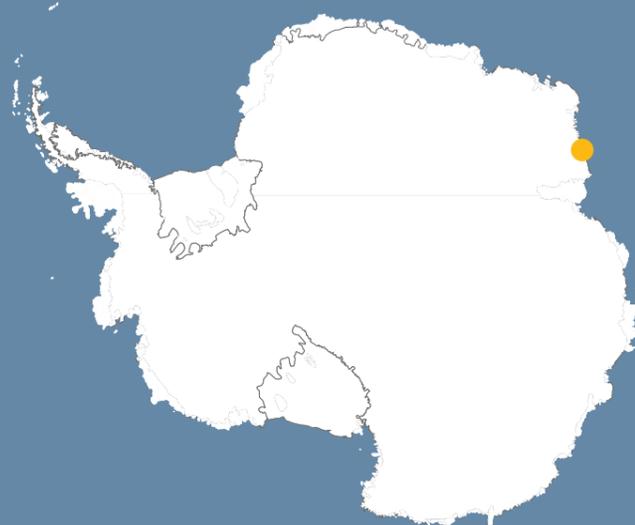
## History and facilities

The Australian flag was first raised at the Mawson station site on 13 February 1954 by a party led by Dr Phillip Law. A research station has continuously occupied the site since. It was named after Sir Douglas Mawson. The original station was replaced in the 1990s, some of the original buildings remain on site.

## General research and databases

Mawson-collected data sets are lodged with the Australian Antarctic Data Centre. Data held in the AADC are qualified with metadata and discoverable through the Catalogue of Australian Antarctic and Subantarctic Metadata (CAASM – <http://data.aad.gov.au/aadc/metadata>). Some data are also delivered through customised applications on the AADC website – <http://data.aad.gov.au>.

CLIMATE	
Climate zone	Coastal Antarctica
Permafrost	Discontinuous
Mean annual wind speed (km/h)	41
Max wind speed (km/h)	248
Dominant wind direction	SE
Sea Ice Break Up	January
Snow free period	None
Total annual precipitation (mm)	
Precipitation type	Snow
Mean annual temperature (°C)	-8.3
Mean temperature in February (°C)	-1.4
Mean temperature in July (°C)	-15
ENVIRONMENT	
Region	Continental Antarctica
Antarctic Environmental Domain: D – East Antarctic coastal geologic	
Antarctic Conservation Biogeographic Region: 7 East Antarctica	
Altitude of facility (m)	15
Type of surface facility built on	Ice-free ground
Long term monitoring	Yes
Waste management	Yes
Hazard(ous) management	Yes
Fuel spill response capability	Yes



## Features in the facility area

Bird colonies, Blue ice, Coast, Crevasse, Hill, Ice cap or glacier, Ice shelf, Melt streams, Moraine, Nunatak, Other Biological, Permanent snowpatches, Plateau, Rock, Sea, Sea ice, Seal colonies, Shoreline, Snow.

FACILITIES INFRASTRUCTURE	
Area under roof (m <sup>2</sup> )	6000
Area scientific laboratories (m <sup>2</sup> )	144
Type of scientific laboratories:	
Conference room (capacity)	
Logistic area (m <sup>2</sup> )	552
Number of beds	53
Showers	Yes
Laundry facilities	Yes
Power supply type	Fossil fuel, Renewable
Power supply (V)	240
Power supply (hours per day)	24
Hydroponics facilities	Yes
Number of staff on station (peak/summer season)	50
Number of scientists on station (peak/summer season)	3
Number of staff on station (off peak/winter season)	15
Number of scientists on station (off peak/winter season)	
Max number of personnel at a time (staff, scientists and others)	53
Specific device/Scientific equipment: Ionosonde, GPS, magnetometers, neutron detectors, riometers, seismometers, tide gauges	
Scientific services possible: Dry laboratory, electronics	
Long-term monitoring/observations: Cosmic ray, geomagnetic and seismic, ionosphere, meteorology, sea level and climate, sea birds	
MEDICAL FACILITIES	
Area of medical facility (m <sup>2</sup> )	184
Staff with basic medical training or doctor (Summer)	1
Staff with basic medical training or doctor (Winter)	1
Capability: Basic, Dental, Surgery	

## Main science disciplines

Atmospheric chemistry and physics, Climate change, Climatology, Ecology, Environmental sciences, Geodesy, Geophysics, GIS, Glaciology, Human biology, Mapping, Marine biology, Medicine, Pollution.

Equipment: Aeromedical equipment, Altitude medicine, Anaesthesia, Biochemistry, Blood transfusion medicine, Diagnostic ultrasound, Diagnostic X-ray, Haematology, Laboratory diagnostics, Microbiology, Ophthalmology, Telemedicine	
Distance to hospital (km)	4593
Closest emergency facility in Antarctica (km)	636
Closest emergency facility external (km)	4593
Medical research capabilities	Yes
Medical screening requirements	Yes
VEHICLES AT FACILITY	
Sea transportation:	
Land transportation: Wheeled and tracked	
WORKSHOP FACILITIES	
ICTS, Mechanical, Metal workshop, Plexiglas workshop, Wood workshop	
COMMUNICATIONS	
Computer, E-mail, Fax, Internet, Printer, Satellite phone, Scanner, Telephone, VHF	
TRANSPORT AND FREIGHT	
Access	Air, Sea
Transport to facility: Airplane, Ship	
Number of airstrips	2
Length (m) of longest runway	1620
Width (m) of longest runway	90
Number of flight visits per year	10
Period of flight visits per year: January, February, March, November, December	
Helipad	Yes
Number of ship visits per year	
Period of ship visits per year: January, February, March, November, December	
Ship landing facilities:	



Photos: Australian Antarctic Division

# Princess Elisabeth

Belgian Federal Science Policy and Polar Secretariat

71°56'59.5"S 23°20'48.8"E

Type: Station

Operational period:  
November–February

## Location

Princess Elisabeth station was built on Utsteinen Ridge, at the foot of the Sør Rondane Mountains, Dronning Maud Land. The station is located 200 km inland.

## Biodiversity and natural environment

The station's natural environment is that of a high plateau with a continental Antarctic climate. The station sits in the vicinity of a mountain range and a Petrel colony.

## History and facilities

In 2007–2008, Belgium constructed a new research station in Antarctica. This station replaces the former Belgian Roi Baudouin base, built in 1958 at Breid Bay in Dronning Maud Land that closed in 1967. The Princess Elisabeth station is built 173 km inland from the former Roi Baudouin base.

## General research and databases

Various research, including climatology, biodiversity, glaciology, geology and geophysics are conducted at Princess Elisabeth. In addition, the station is also a test platform for sustainable technologies.

CLIMATE	
Climate zone	Inland Antarctica
Permafrost	Continuous
Mean annual wind speed (km/h)	7
Max wind speed (km/h)	50
Dominant wind direction	E
Sea Ice Break Up	
Snow free period	None
Total annual precipitation (mm)	50
Precipitation type	Snow
Mean annual temperature (°C)	-18
Mean temperature in February (°C)	-12.3
Mean temperature in July (°C)	-24.9
ENVIRONMENT	
Region	Continental Antarctica
Antarctic Environmental Domain: N – East Antarctic inland ice sheet	
Antarctic Conservation Biogeographic Region: 6 Dronning Maud Land	
Altitude of facility (m)	1382
Type of surface facility built on	Ice-free ground
Long term monitoring	Yes
Waste management	Yes
Hazard(ous) management	Yes
Fuel spill response capability	Yes



## Features in the facility area

Bird colonies, Blue ice, Clear air zone, Coast, Crevasse, High elevation, Hill, Ice cap or glacier, Ice shelf, Ice tongue, Lake, Low artificial light pollution, Low humidity, Melt streams, Moraine, Mountain, Nunatak, Other Biological, Permanent snowpatches, Plateau, Rock, Sea, Sea ice, Shoreline, Snow, Sustrugui, Valley.

## Main science disciplines

Astrophysics, Atmospheric chemistry and physics, Climate change, Climatology, Ecology, Environmental sciences, Geodesy, Geology, Geomorphology, Geophysics, Glaciology, Hydrology, Medicine, Microbiology, Paleocology, Sustainable and communication technologies, Terrestrial biology.



Photo: Belgian Federal Science Policy and Polar Secretariat

FACILITIES INFRASTRUCTURE	
Area under roof (m <sup>2</sup> )	1800
Area scientific laboratories (m <sup>2</sup> )	50
Type of scientific laboratories: Atmospheric observatory, Geophysics, Meteorology	
Conference room (capacity)	
Logistic area (m <sup>2</sup> )	600
Number of beds	48
Showers	Yes
Laundry facilities	Yes
Power supply type	Renewable
Power supply (V)	220
Power supply (hours per day)	24
Hydroponics facilities	No
Number of staff on station (peak/summer season)	12
Number of scientists on station (peak/summer season)	10
Number of staff on station (off peak/winter season)	
Number of scientists on station (off peak/winter season)	
Max number of personnel at a time (staff, scientists and others)	40
Specific device/Scientific equipment: Aethalometer, Nephelometer, Laser Aerosol Spectrometer, TSI CPC, TEOM-FDMS, CCNc + PSU, BREWER, Radiosondes, Weather Balloons, pyrometer, Ceilometer, MRR, AWS (3), iWS (2), CIMEL, MAX-DOAS, UV-Pyranometer, SIGFOX (Receiver, antenna), RADOME, VLF magnetic	
Scientific services possible: Technical science support (integration, mechanical, energy systems, electronics, ICT), Logistic support field expeditions (vehicles, equipment, mechanics and field guides), Remote monitoring and other communication, Testing and repairs	
Long-term monitoring/observations: Atmospheric and geophysics observatory	
MEDICAL FACILITIES	
Area of medical facility (m <sup>2</sup> )	20
Staff with basic medical training or doctor (Summer)	2
Staff with basic medical training or doctor (Winter)	
Capability: Basic	
Equipment: Telemedicine, Limited diagnostic facilities and surgical facilities, Monitoring for anaesthesia, emergency equipment (defibrillators and CPR), Resident physician during summer season	
Distance to hospital (km)	
Closest emergency facility in Antarctica (km)	431
Closest emergency facility external (km)	
Medical research capabilities	No
Medical screening requirements	Yes
VEHICLES AT FACILITY	
Sea transportation:	
Land transportation: Snow tractors, sledges, 4WD tracked, Skidoos	
WORKSHOP FACILITIES	
Electric, ICTS, Mechanical, Metal workshop, Wood workshop	
COMMUNICATIONS	
Computer, E-mail, Internet, Printer, Satellite phone, Scanner, VHF	
TRANSPORT AND FREIGHT	
Access	Air
Transport to facility: Airplane	
Number of airstrips	1
Length (m) of longest runway	1200
Width (m) of longest runway	60
Number of flight visits per year	6
Period of flight visits per year: January, February, November, December	
Helipad	No
Number of ship visits per year	
Period of ship visits per year:	
Ship landing facilities:	



# Ferraz Programa Antártico Brasileiro

62°5'07.7"S 58°23'55.4"W

Type: Station

Operational period: Year-round

## Location

Ferraz Antarctic station is located on Keller Peninsula, within the Admiralty Bay, King George Island.

## Biodiversity and natural environment

Plants: Deschampsia antarctica, Colobanthus quitensis, Mosses, lichens, algae.

Animals: Skua, Larus dominicanus, Storm petrel, Sterna vitatta reproduce in neighboring areas; Pygoscelis papua, P. Antarctica, P. Adélie and Shag blue eye are visitors.

Seals: Fur seal, Weddell seal, Elephant seal, Crabeater seal and Leopard seal are frequent visitors.

Three small cirque glaciers and a small rock glacier are found on Flagstaf Mount and Tyrrell Ridge. Many seasonal small streams are found during the summer.

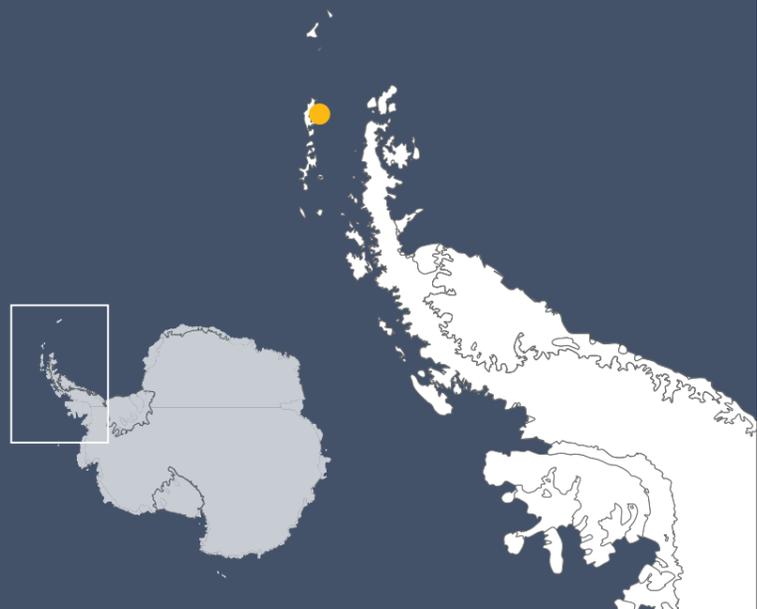
## History and facilities

Ferraz station was established in 1984 and has been occupied continuously since 1986. On February 25, 2012 it suffered a fire; such an incident was without precedent in the history of 30 years of PROANTAR.

## General research and databases

Emflia project (High Atmosphere Physics), Jacyra project (Atmosphere studies), Helena project (Marine Biogeochemistry), Davis Mendes project (Metereology), José Roberto project (Marine biology), Juliano Cury project (Plant biology), Neusa project (Geospatial studies), Paulo Câmara project (Molecular Biology), Pio project (Macro Algae), Rosa project (Medical Anthropology), Schaeffer project (Permafrost and criosols), Vivian project (Soil biology), Zarankin project (Anthropology).

CLIMATE	
Climate zone	Maritime Antarctica
Permafrost	Discontinuous
Mean annual wind speed (km/h)	21.6
Max wind speed (km/h)	
Dominant wind direction	
Sea Ice Break Up	
Snow free period	January, February, March
Total annual precipitation (mm)	
Precipitation type	Snow and Rain
Mean annual temperature (°C)	-2
Mean temperature in February (°C)	2.5
Mean temperature in July (°C)	-12
ENVIRONMENT	
Region	Antarctic Peninsula
Antarctic Environmental Domain: G – Antarctic Peninsula offshore island geologic	
Antarctic Conservation Biogeographic Region: 3 North-west Antarctic Peninsula	
Altitude of facility (m)	8
Type of surface facility built on	Ice-free ground
Long term monitoring	Yes
Waste management	Yes
Hazard(ous) management	No
Fuel spill response capability	Yes



## FACILITIES INFRASTRUCTURE

Area under roof (m <sup>2</sup> )	980
Area scientific laboratories (m <sup>2</sup> )	100
Type of scientific laboratories: Biology, Chemistry, Geophysics, GIS	
Conference room (capacity)	
Logistic area (m <sup>2</sup> )	16000
Number of beds	66
Showers	Yes
Laundry facilities	Yes
Power supply type	Fossil fuel
Power supply (V)	220
Power supply (hours per day)	24
Hydroponics facilities	No
Number of staff on station (peak/summer season)	15
Number of scientists on station (peak/summer season)	25
Number of staff on station (off peak/winter season)	15
Number of scientists on station (off peak/winter season)	0
Max number of personnel at a time (staff, scientists and others)	66
Specific device/Scientific equipment:	
Scientific services possible:	
Long-term monitoring/observations:	Yes
<b>MEDICAL FACILITIES</b>	Yes
Area of medical facility (m <sup>2</sup> )	48
Staff with basic medical training or doctor (Summer)	1
Staff with basic medical training or doctor (Winter)	1
Capability: Basic	

Equipment: Anaesthesia	
Distance to hospital (km)	
Closest emergency facility in Antarctica (km)	
Closest emergency facility external (km)	
Medical research capabilities	No
Medical screening requirements	Yes
<b>VEHICLES AT FACILITY</b>	
Sea transportation: Three boats, One launch	
Land transportation: Four quad bikes, Three snowmobiles, One pick-up, One Bulldozer	
<b>WORKSHOP FACILITIES</b>	
ICTS, Mechanical, Metal workshop, Wood workshop	
<b>COMMUNICATIONS</b>	
Computer, E-mail, Internet, Satellite phone, Telephone, VHF	
<b>TRANSPORT AND FREIGHT</b>	
Access	Air, Sea
Transport to facility: Helicopter, Ship	
Number of airstrips	0
Length (m) of longest runway	
Width (m) of longest runway	
Number of flight visits per year	0
Period of flight visits per year:	
Helipad	Yes
Number of ship visits per year	5
Period of ship visits per year: January, February, March, October, November, December	
Ship landing facilities: None	

## Features in the facility area

Bluff, Coast, Fjord, Hill, Lake, Low artificial light pollution, Low humidity, Melt streams, Moraine, Permanent snowpatches, Plateau, Rock, Sea, Sea ice, Shoreline, Snow.

## Main science disciplines

Anthropology, Atmospheric chemistry and physics, Climatology, Environmental sciences, Geodesy, Geomorphology, Geophysics, GIS, Mapping, Marine biology, Microbiology, Oceanography, Pollution, Sedimentology, Soil science, Terrestrial biology.



Photos: Programa Antártico Brasileiro



# St. Kliment Ohridski

Bulgarian Antarctic Institute

62°38'26.6''S 60°21'54.8''W

Type: Station

Operational period:  
November–March

## Location

The Bulgarian Antarctic Base “St. Kliment Ohridski” (BAB) is in the eastern part of Livingston Island, South Shetland Islands. It is located on the Bulgarian beach, Emona Harbour, east-northeast of Hesperides Point, with an elevation between 12 to 15 m above sea level. Local wildlife on Bulgarian beach includes fairly modest population of penguins and seals. At the same time, the base location offers convenient access to Mount Friesland, Burdick Ridge, Mount Bowles, southern Hurd Peninsula and Varna Peninsula areas. Near to the BAB is the Spanish Antarctic Base “Juan Carlos I”.

## Biodiversity and natural environment

In the region of the Bulgarian base, there are three species of penguins, four of seals and numerous bird species that nest in the surrounding area. Lichens, mosses and other plants grow freely. Those located near the base are surrounded and protected by a fence, and there are sign-posted protected areas.

CLIMATE	
Climate zone	Maritime Antarctica
Permafrost	Continuous
Mean annual wind speed (km/h)	27.5
Max wind speed (km/h)	140
Dominant wind direction	
Sea Ice Break Up	November
Snow free period	None
Total annual precipitation (mm)	
Precipitation type	Snow and Rain
Mean annual temperature (°C)	
Mean temperature in February (°C)	1.3
Mean temperature in July (°C)	-20
ENVIRONMENT	
Region	Antarctic Peninsula
Antarctic Environmental Domain: G – Antarctic Peninsula offshore island geologic	
Antarctic Conservation Biogeographic Region: 3 North-west Antarctic Peninsula	
Altitude of facility (m)	15
Type of surface facility built on	Ice-free ground
Long term monitoring	Yes
Waste management	Yes
Hazard(ous) management	Yes
Fuel spill response capability	Yes



## History and facilities

Following an aborted attempt on Cape Vostok in the northwest end of Alexander Island, two prefabricated huts were assembled on Livingston Island on April 26–29, 1988, by a four-member Bulgarian team logistically supported by the Soviet ship *Mihail Somov*. This refuge was later refurbished and inaugurated as a permanent base on December 11, 1993. Formerly known as Sofia University Refuge, in 1994 the base was named after St. Kliment of Ohrid (840–916 AD), a prominent Bulgarian scholar and bishop, by a Presidential decree. An expansion program was implemented at St. Kliment Ohridski in 1996–98, including construction of a new house, built with materials shipped from Argentina with the logistic support of the Spanish Antarctic Program. The house total area of 80 m<sup>2</sup> allows for two sleeping rooms, a bathroom, a scientific laboratory, living room and a kitchenette. Between 2007–2010 were built two new houses (materials from Argentina) having four more bedrooms, a medical office and two scientific laboratories (geological and biological). Thus the total capacity of the base was expanded to twenty-two persons, providing better conditions for work and living, as well as possibilities for a winter stay, if necessary. An average of twenty people work at St. Kliment Ohridski during the austral summer, usually from late November or early December until early March.

## General research and databases

Various scientists – ecologists, biologists, geomorphologists, seismologists, geologists, geodesists – work around the base. In the past five years Bulgarian scientists have been working with the scientists from Spain and Portugal, in a project called “Permafrost and Climate Change in the Maritime Antarctic” (PERMANTAR), exploring the frozen soils.

## Features in the facility area

Bird colonies, Bluff, Coast, Ice cap or glacier, Lake, Rock, Sea, Snow.

## Main science disciplines

Climate change, Geology, Geomorphology, Geophysics, Glaciology, Marine biology, Meteorology, Microbiology, Paleocology, Seismology, Soil science, Topography.



FACILITIES INFRASTRUCTURE	
Area under roof (m <sup>2</sup> )	221
Area scientific laboratories (m <sup>2</sup> )	20
Type of scientific laboratories: Biology, Geology, Geophysics	
Conference room (capacity)	20
Logistic area (m <sup>2</sup> )	60
Number of beds	22
Showers	Yes
Laundry facilities	Yes
Power supply type	Fossil fuel, Renewable
Power supply (V)	220
Power supply (hours per day)	24
Hydroponics facilities	No
Number of staff on station (peak/summer season)	6
Number of scientists on station (peak/summer season)	16
Number of staff on station (off peak/winter season)	
Number of scientists on station (off peak/winter season)	
Max number of personnel at a time (staff, scientists and others)	22
Specific device/Scientific equipment:	
Scientific services possible:	
Long-term monitoring/observations:	
MEDICAL FACILITIES	
Area of medical facility (m <sup>2</sup> )	12
Staff with basic medical training or doctor (Summer)	1
Staff with basic medical training or doctor (Winter)	
Capability: Basic	
Equipment: CPR, defibrillator, cardiograph	
Distance to hospital (km)	1100
Closest emergency facility in Antarctica (km)	120
Closest emergency facility external (km)	1100
Medical research capabilities	Yes
Medical screening requirements	Yes
VEHICLES AT FACILITY	
Sea transportation: Two Zodiac boats	
Land transportation: Three skidoos	
WORKSHOP FACILITIES	
Mechanical, Wood workshop	
COMMUNICATIONS	
Computer, E-mail, Printer, Satellite phone	
TRANSPORT AND FREIGHT	
Access	Sea
Transport to facility: Helicopter, Ship	
Number of airstrips	0
Length (m) of longest runway	
Width (m) of longest runway	
Number of flight visits per year	0
Period of flight visits per year:	
Helipad	Yes
Number of ship visits per year	5
Period of ship visits per year: January, February, March, November, December	
Ship landing facilities: None	

# Carvajal Chilean Antarctic Program

67°45'37.7"S 68°54'53.4"W

Type: Station

Operational period:  
October–March

## Location

Lt. Luis Carvajal station is located on Adelaide Island, west of the Antarctic Peninsula, 1.698 km south-east of Punta Arenas, Chile.

## Biodiversity and natural environment

In the Carvajal station area the vegetation is scarce, there are only lichen and algae. Some Elephant, Leopard, Weddell and Antarctic furs seals. Occasional sightings of Crabeater seals. Occasional sightings of Emperor penguins. Presence of Southern Giant Petrels, Blue-eyed Shags, Brown Skuas, South Polar Skuas, terns. Nearby is the largest colony of Adélie penguins on the western side of the Antarctic Peninsula (Avian Island, ASPA 117).

## History and facilities

The station was built by the United Kingdom, inaugurated on 3 February 1961, and called T Base - Adelaide Island. On August 14, 1984, the station was transferred to Chile and has been named after Lt. Luis Tomás Carvajal Villarroel in May 1985. Recently, laboratory facilities have been built and these were named after Eduardo Garcia to commemorate the Chilean geologist and mountaineer of the University of Chile. In the area nearby the station, there is also an old Chilean Refuge (Comodoro Guesalaga Refuge, built in 1962) on Avian Island.

CLIMATE	
Climate zone	Coastal Antarctica
Permafrost	Discontinuous
Mean annual wind speed (km/h)	23
Max wind speed (km/h)	174
Dominant wind direction	NE
Sea Ice Break Up	December
Snow free period	January, February
Total annual precipitation (mm)	621
Precipitation type	Snow and Rain
Mean annual temperature (°C)	-9.8
Mean temperature in February (°C)	-3
Mean temperature in July (°C)	-17.8
ENVIRONMENT	
Region	Antarctic Peninsula
Antarctic Environmental Domain: G – Antarctic Peninsula offshore island geologic	
Antarctic Conservation Biogeographic Region:	
Altitude of facility (m)	4
Type of surface facility built on	Ice-free ground
Long term monitoring	Yes
Waste management	Yes
Hazard(ous) management	No
Fuel spill response capability	No



Photos: Chilean Antarctic Program

### FACILITIES INFRASTRUCTURE

Area under roof (m²)	770
Area scientific laboratories (m²)	96
Type of scientific laboratories: Multipurpose laboratory available from 2018	
Conference room (capacity)	30
Logistic area (m²)	360
Number of beds	46
Showers	Yes
Laundry facilities	Yes
Power supply type	Fossil fuel, Renewable
Power supply (V)	220
Power supply (hours per day)	24
Hydroponics facilities	No
Number of staff on station (peak/summer season)	12
Number of scientists on station (peak/summer season)	34
Number of staff on station (off peak/winter season)	
Number of scientists on station (off peak/winter season)	
Max number of personnel at a time (staff, scientists and others)	46
Specific device/Scientific equipment: Will be available from 2018 thanks to the multipurpose laboratory	
Scientific services possible:	
Long-term monitoring/observations: Antarctic Fur seals	
MEDICAL FACILITIES	
Area of medical facility (m²)	No

## General research and databases

Antarctic fur seals and penguins, ancient seal hunter archaeological research, weather, environment, geology and glaciology have been studied here for years. Results of the research have been published in CCAMLR, and lately in ISI and WOS refereed magazines, and can therefore be searched using appropriate keywords and available searching tools. At earlier times, research was published mainly in the Instituto Antártico Chileno (INACH) *Serie Científica*. Station's research outreach papers have also been published in the INACH *Boletín Antártico Chileno* and *ILAI* magazines.

Staff with basic medical training or doctor (Summer)	
Staff with basic medical training or doctor (Winter)	
Capability:	
Equipment:	
Distance to hospital (km)	1698
Closest emergency facility in Antarctica (km)	49
Closest emergency facility external (km)	1698
Medical research capabilities	No
Medical screening requirements	
VEHICLES AT FACILITY	
Sea transportation: Zodiac boats	
Land transportation: Loader, Quad bike, Skidoos	
WORKSHOP FACILITIES	
COMMUNICATIONS	
TRANSPORT AND FREIGHT	
Access	Sea
Transport to facility: Ship	
Number of airstrips	
Length (m) of longest runway	
Width (m) of longest runway	
Number of flight visits per year	
Period of flight visits per year:	
Helipad	Yes
Number of ship visits per year	2
Period of ship visits per year: January, February, March, October, November, December	
Ship landing facilities: None	

## Features in the facility area

Bird colonies, Coast, Crevasses, Hills, Glacier, Lake, Melt streams, Moraines, Other Biological, Permanent snowpatches, Rock, Sea, Sea ice, Seal colonies, Shoreline, Snow, Valley.

## Main science disciplines

Atmospheric sciences, Environmental science, Geology, Geomorphology, Geophysics, Glaciology, Marine biology, Paleocology, Pollution, Terrestrial biology.



# Dr. Guillermo Mann

Chilean Antarctic Program

62°27'00"S 60°47'00"W

Type: Station

Operational period:  
October–March

### Location

Cape Shirreff, Livingston Island, South Shetland Islands.

### Biodiversity and natural environment

Guillermo Mann Station is located in the vicinity of a large Antarctic fur seals colony (*Arctocephalus gazella*), the largest in the Shetlands Islands, close to a US NOAA Station. There are also big colonies of Gentoo and Antarctic penguins indicating an important marine productivity in the neighbouring seas. Mosses and *Deschampsia antarctica* can be found in the valleys and some lichens on higher rocks. Some fossils can be found at the moraines in front of the Aranda and Anguita Glaciers.

### History and facilities

As early as 1966, Chilean scientists reported fur seals were recovering at Cape Shirreff. The station opened in November 1991, near the Antarctic Specially Protected Area (ASPA) 149 including Cape Shirreff and the CEMP-2 site of San Telmo Islands. Therefore, to enter the area, a special permit is required. The station is named in honour of Dr. Guillermo Mann, zoologist who participated in the first official Chilean Expedition to Antarctica in 1947.

### General research and databases

Antarctic fur seals and penguins, ancient seal hunter archaeological research, weather, environment, geology, glaciology have been studied for years. Results of the research have been published in CCAMLR and lately in ISI and WOS refereed magazines and can therefore be searched using appropriate keywords and available searching tools. At earlier times research was published mainly in the Instituto Antártico Chileno (INACH) *Serie Científica*. Station's research outreach papers have also been published in the INACH *Boletín Antártico Chileno* and *ILAIA* magazines.

CLIMATE	
Climate zone	Maritime Antarctica
Permafrost	None
Mean annual wind speed (km/h)	12.05
Max wind speed (km/h)	
Dominant wind direction	W
Sea Ice Break Up	November
Snow free period	January, February, March
Total annual precipitation (mm)	5
Precipitation type	Snow and Rain
Mean annual temperature (°C)	0.4
Mean temperature in February (°C)	2
Mean temperature in July (°C)	-3
ENVIRONMENT	
Region	Antarctic Peninsula
Antarctic Environmental Domain: G – Antarctic Peninsula offshore island geologic	
Antarctic Conservation Biogeographic Region: 3 North-west Antarctic Peninsula	
Altitude of facility (m)	15
Type of surface facility built on	Ice-free ground
Long term monitoring	Yes
Waste management	Yes
Hazard(ous) management	Yes
Fuel spill response capability	Yes



### Features in the facility area

Bird colonies, Coast, Crevasses, Hills, Glacier, Lake, Melt streams, Moraines, Other Biological, Rock, Sea, Sea ice, Seal colonies, Shoreline, Snow, Valley.

FACILITIES INFRASTRUCTURE	
Area under roof (m <sup>2</sup> )	250
Area scientific laboratories (m <sup>2</sup> )	
Type of scientific laboratories: Basic	
Conference room (capacity)	0
Logistic area (m <sup>2</sup> )	100
Number of beds	8
Showers	Yes
Laundry facilities	Yes
Power supply type	Fossil fuel, Renewable
Power supply (V)	220
Power supply (hours per day)	24
Hydroponics facilities	No
Number of staff on station (peak/summer season)	2
Number of scientists on station (peak/summer season)	6
Number of staff on station (off peak/winter season)	
Number of scientists on station (off peak/winter season)	
Max number of personnel at a time (staff, scientists and others)	8
Specific device/Scientific equipment:	
Scientific services possible:	
Long-term monitoring/observations: Antarctic Fur seals	
<b>MEDICAL FACILITIES</b>	No
Area of medical facility (m <sup>2</sup> )	
Staff with basic medical training or doctor (Summer)	

### Main science disciplines

Geology, Glaciology, Marine biology, Meteorology.

Staff with basic medical training or doctor (Winter)	
Capability:	
Equipment:	
Distance to hospital (km)	150
Closest emergency facility in Antarctica (km)	15
Closest emergency facility external (km)	
Medical research capabilities	
Medical screening requirements	
<b>VEHICLES AT FACILITY</b>	
Sea transportation:	
Land transportation: Quad bike	
<b>WORKSHOP FACILITIES</b>	
Metal Workshop; Wood Workshop	
<b>COMMUNICATIONS</b>	
Satellite phone, VHF	
<b>TRANSPORT AND FREIGHT</b>	
Access	Air, Sea
Transport to facility: Helicopter, Ship	
Number of airstrips	0
Length (m) of longest runway	
Width (m) of longest runway	
Number of flight visits per year	
Period of flight visits per year:	
Helipad	Yes
Number of ship visits per year	2
Period of ship visits per year: January, February, November, December	
Ship landing facilities: None	



Photo: Instituto Antártico Chileno

# Frei

Chilean Antarctic Program

62°12'00"S 58°57'48"W

Type: Station

Operational period:  
Year-round

## Location

Frei station is located on the Fildes Peninsula, King George Island. Nearby are also located the Great Wall Station (China), Artigas (Uruguay), King Sejong (Republic of Korea), Carlini (Argentina), Comandante Ferraz (Brazil), Henryk Arctowski (Poland) and Machu Picchu (Peru).

## Biodiversity and natural environment

An area near to the station, of 1.8 km<sup>2</sup> in King George Island, was proposed by Chile as a Specially Protected Area for four decades, on the basis of its uniqueness and paleontological richness. In this area, there are outcrops with fossils of a wide range of organisms, including vertebrates and invertebrates and abundant flora with impressions of leaves, stems, pollen grains and spores that date from the Upper Cretaceous to Eocene. The Cretaceous was a crucial time of vegetation change, mainly due to the evolutionary and geographic radiation of angiosperms. During the late Cretaceous, angiosperms infiltrated the pre-existing vegetation progressively, but gymnosperms, ferns and sphenophytes dominated terrestrial plant biomass until the Cenozoic. In addition, the Eocene represents the warmest time since the mass extinction at the end of the Cretaceous. The study of Fildes Peninsula outcrops could answer several important scientific questions.

## History and facilities

The Presidente Eduardo Frei Montalva base is the biggest and most important Chilean Antarctic station. It is an air operations station served by the Chilean Air Force, located at Fildes Peninsula, in an ice-free area, in front of Fildes (Maxwell) Bay, west of King George Island. Situated alongside are the Professor Julio Escudero Station, the Chilean Maritime Station Fildes and also it is built only 200 meters from the Russian Bellingshausen Station, with an altitude of 10 metres above sea-level.

CLIMATE	
Climate zone	Maritime Antarctica
Permafrost	Discontinuous
Mean annual wind speed (km/h)	42
Max wind speed (km/h)	93
Dominant wind direction	NW
Sea Ice Break Up	January, February, March, April, November, December
Snow free period	January, February, March
Total annual precipitation (mm)	480
Precipitation type	Snow and Rain
Mean annual temperature (°C)	-2.3
Mean temperature in February (°C)	1.5
Mean temperature in July (°C)	-6.4
ENVIRONMENT	
Region	Antarctic Peninsula
Antarctic Environmental Domain: G – Antarctic Peninsula offshore island geologic	
Antarctic Conservation Biogeographic Region: 3 North-west Antarctic Peninsula	
Altitude of facility (m)	10
Type of surface facility built on	Ice-free ground
Long term monitoring	Yes
Waste management	Yes
Hazard(ous) management	Yes
Fuel spill response capability	Yes



Photos: Chilean Antarctic Program

## FACILITIES INFRASTRUCTURE

Area under roof (m <sup>2</sup> )	5000
Area scientific laboratories (m <sup>2</sup> )	
Type of scientific laboratories: Laboratories are located at the nearby Professor Julio Escudero station	
Conference room (capacity)	50
Logistic area (m <sup>2</sup> )	2000
Number of beds	150
Showers	Yes
Laundry facilities	Yes
Power supply type	Fossil fuel
Power supply (V)	220
Power supply (hours per day)	24
Hydroponics facilities	No
Number of staff on station (peak/summer season)	150
Number of scientists on station (peak/summer season)	
Number of staff on station (off peak/winter season)	80
Number of scientists on station (off peak/winter season)	
Max number of personnel at a time (staff, scientists and others)	150
Specific device/Scientific equipment:	
Scientific services possible:	
Long-term monitoring/observations: Yes	
<b>MEDICAL FACILITIES</b>	Yes
Area of medical facility (m <sup>2</sup> )	24
Staff with basic medical training or doctor (Summer)	
Staff with basic medical training or doctor (Winter)	
Capability: Basic	

## General research and databases

Results of the research are published in ISI and WOS refereed magazines and can therefore be searched using appropriate keywords and available searching tools. At earlier times research was published mainly in the Instituto Antártico Chileno's (INACH) *Serie Científica*. Station's research outreach papers have also been published in the INACH *Boletín Antártico Chileno* and *ILAIA* magazines.

Equipment:	
Distance to hospital (km)	1000
Closest emergency facility in Antarctica (km)	0.3
Closest emergency facility external (km)	1000
Medical research capabilities	
Medical screening requirements	
<b>VEHICLES AT FACILITY</b>	
Sea transportation:	
Land transportation: Bulldozers, Loader, Quad bikes, Trucks	
<b>WORKSHOP FACILITIES</b>	
Electrical, Mechanical, Metal Workshop, Wood Workshop	
<b>COMMUNICATIONS</b>	
E-mail, Internet, Satellite phone, Telephone, VHF	
<b>TRANSPORT AND FREIGHT</b>	
Access	Air, Sea
Transport to facility: Airplane, Helicopter, Ship	
Number of airstrips	1
Length (m) of longest runway	1300
Width (m) of longest runway	100
Number of flight visits per year	300
Period of flight visits per year: January, February, March, April, May, June, July, August, September, October, November, December	
Helipad	Yes
Number of ship visits per year	100
Period of ship visits per year: January, February, March, April, October, November, December	
Ship landing facilities: None	

## Features in the facility area

Bird colonies, Coast, Crevasses, Hills, Glacier, Lake, Melt streams, Moraines, Other Biological, Permanent snowpatches, Rock, Sea, Sea ice, Seal colonies, Shoreline, Snow, Valley.

## Main science disciplines

Atmospheric chemistry and physics, Environmental sciences, Geology, Geomorphology, Geophysics, Glaciology, Marine biology, Paleocology, Pollution, Terrestrial biology.



Photos: Chilean Antarctic Program

# Gabriel González Videla

Chilean Antarctic Program

64°49'25"S 62°51'26"W

Type: Station

Operational period:  
December–April

## Location

President González Videla Station is located on the coast of the Gerlache Straits, Paradise Bay, Danco coast, Antarctic Peninsula. It is 1.430 km south of Punta Arenas, Chile.

## Biodiversity and natural environment

In the area nearby Videla station it is possible to encounter penguins, of whom there is also a rare lineage of albino specimens, humpback, killer whales, skuas and terns.

## History and facilities

The station has been active in the period 1951–58, and was reopened in the early 1980s; it is named after Chilean President Gabriel González Videla, who visited Antarctica in 1940. Chilean scientists and tourists vessels visit the station during the summer season. On the north edge of the station there is a sign identifying Waterboat Point, an HSM. This was the place where the smallest ever wintering-over party (two men) spent a year and a day in 1921-1922. The two men, Thomas Bagshawe and M.C. Lester, had been part of the British Imperial Expedition, but their particular project, which involved flying a number of aircraft to the South Pole, was aborted. Nevertheless, they decided to stay over for the winter and made their shelter in an old whaling boat they found on this site. During this time, Bagshawe wrote the first scientific study of penguin breeding development.

CLIMATE	
Climate zone	Maritime Antarctica
Permafrost	Discontinuous
Mean annual wind speed (km/h)	22
Max wind speed (km/h)	70
Dominant wind direction	NW
Sea Ice Break Up	December
Snow free period	January, February, March
Total annual precipitation (mm)	915
Precipitation type	Snow and Rain
Mean annual temperature (°C)	-6.7
Mean temperature in February (°C)	-1.9
Mean temperature in July (°C)	-12
ENVIRONMENT	
Region	Antarctic Peninsula
Antarctic Environmental Domain: G – Antarctic Peninsula offshore island geologic	
Antarctic Conservation Biogeographic Region: 3 North-west Antarctic Peninsula	
Altitude of facility (m)	6
Type of surface facility built on	Ice-free ground
Long term monitoring	Yes
Waste management	Yes
Hazard(ous) management	Yes
Fuel spill response capability	Yes



FACILITIES INFRASTRUCTURE	
Area under roof (m <sup>2</sup> )	595
Area scientific laboratories (m <sup>2</sup> )	0
Type of scientific laboratories: None	
Conference room (capacity)	0
Logistic area (m <sup>2</sup> )	160
Number of beds	15
Showers	Yes
Laundry facilities	Yes
Power supply type	Fossil fuel, Renewable
Power supply (V)	220
Power supply (hours per day)	24
Hydroponics facilities	No
Number of staff on station (peak/summer season)	11
Number of scientists on station (peak/summer season)	4
Number of staff on station (off peak/winter season)	
Number of scientists on station (off peak/winter season)	
Max number of personnel at a time (staff, scientists and others)	15
Specific device/Scientific equipment:	
Scientific services possible:	
Long-term monitoring/observations: Gentoo penguins, Humpback whales	
MEDICAL FACILITIES	
Area of medical facility (m <sup>2</sup> )	0
Staff with basic medical training or doctor (Summer)	1

## General research and databases

Results of the research are published in ISI and WOS refereed magazines and can therefore be searched using appropriate keywords and available searching tools. At earlier times research was published mainly in the Instituto Antártico Chileno's (INACH) *Serie Científica*. Station's research outreach papers have also been published in the INACH *Boletín Antártico Chileno* and *ILAI* magazines.

Staff with basic medical training or doctor (Winter)	
VEHICLES AT FACILITY	
Sea transportation: Inflatable boat	
Land transportation: None	
WORKSHOP FACILITIES	
Mechanical, Metal Workshop, Wood Workshop	
COMMUNICATIONS	
Satellite phone, VHF	
TRANSPORT AND FREIGHT	
Access	Sea
Transport to facility: Ship	
Number of airstrips	0
Length (m) of longest runway	
Width (m) of longest runway	
Number of flight visits per year	0
Period of flight visits per year:	
Helipad	Yes
Number of ship visits per year	30
Period of ship visits per year: January, February, March, October, November, December	
Ship landing facilities: None	

## Features in the facility area

Bird colonies, Coast, Crevasses, Glacier, Melt streams, Moraines, Other Biological, Permanent snowpatches, Rock, Sea, Shoreline, Snow.

## Main science disciplines

Environmental science, Geology, Glaciology, Marine biology.



Photos: Chilean Antarctic Program

# O'Higgins Chilean Antarctic Program

63°19'15"S 57°53'59"W

Type: Station

Operational period:  
Year-round

## Location

The scientific laboratory located at O'Higgins Station, which is run by the Chilean Army, is in the Antarctic Peninsula, 1,380 km south-east of Punta Arenas, Chile.

## Biodiversity and natural environment

Geology, glaciology and marine biology studies are performed at and near the station.

## History and facilities

O'Higgins station was inaugurated on February 18, 1948, during the Second Official Chilean Expedition to Antarctica; since its opening, it has never been closed.

## General research and databases

Geology, glaciology and marine biology studies are performed at and near the station. Results of the research are published in ISI and WOS refereed magazines and can therefore be searched using appropriate keywords and available searching tools. At earlier times research was published mainly in the Instituto Antártico Chileno's (INACH) *Serie Científica*. Station's research outreach papers have also been published in the INACH *Boletín Antártico Chileno* and *ILAI* magazines.

CLIMATE	
Climate zone	Maritime Antarctica
Permafrost	Discontinuous
Mean annual wind speed (km/h)	23
Max wind speed (km/h)	174
Dominant wind direction	NE
Sea Ice Break Up	December
Snow free period	January, February
Total annual precipitation (mm)	621
Precipitation type	Snow and Rain
Mean annual temperature (°C)	-9.8
Mean temperature in February (°C)	-3
Mean temperature in July (°C)	-17.8
ENVIRONMENT	
Region	Antarctic Peninsula
Antarctic Environmental Domain: A – Antarctic Peninsula northern geologic	
Antarctic Conservation Biogeographic Region:	
Altitude of facility (m)	12
Type of surface facility built on	Ice-free ground
Long term monitoring	Yes
Waste management	Yes
Hazard(ous) management	Yes
Fuel spill response capability	Yes



FACILITIES INFRASTRUCTURE	
Area under roof (m <sup>2</sup> )	3000
Area scientific laboratories (m <sup>2</sup> )	40
Type of scientific laboratories: Multipurpose	
Conference room (capacity)	80
Logistic area (m <sup>2</sup> )	500
Number of beds	60
Showers	Yes
Laundry facilities	Yes
Power supply type	Fossil fuel, Renewable
Power supply (V)	220
Power supply (hours per day)	24
Hydroponics facilities	No
Number of staff on station (peak/summer season)	44
Number of scientists on station (peak/summer season)	8
Number of staff on station (off peak/winter season)	21
Number of scientists on station (off peak/winter season)	3
Max number of personnel at a time (staff, scientists and others)	60
Specific device/Scientific equipment: Centrifuges, Freezers, Laminar flow hoods, Magnifying glasses, microscopes, Precision scales, Snow density meters, Sterilizing ovens, Vacuum pumps	
Scientific services possible: Meteorological	
Long-term monitoring/observations: Environmental	
MEDICAL FACILITIES	
Area of medical facility (m <sup>2</sup> )	No
Staff with basic medical training or doctor (Summer)	0
Staff with basic medical training or doctor (Winter)	

Capability:	
Equipment:	
Distance to hospital (km)	1380
Closest emergency facility in Antarctica (km)	137
Closest emergency facility external (km)	1380
Medical research capabilities	No
Medical screening requirements	
VEHICLES AT FACILITY	
Sea transportation: Inflatable boat	
Land transportation: Crane, Loaders, Skidoos	
WORKSHOP FACILITIES	
Mechanical, Metal Workshop, Wood Workshop	
COMMUNICATIONS	
E-mail, Internet, Satellite phone, Telephone, VHF	
TRANSPORT AND FREIGHT	
Access	Air, Sea
Transport to facility: Airplane, Ship	
Number of airstrips	1
Length (m) of longest runway	800
Width (m) of longest runway	
Number of flight visits per year	30
Period of flight visits per year: January, February, March, April, May, June, July, August, September, October, November, December	
Helipad	Yes
Number of ship visits per year	6
Period of ship visits per year: January, February, March, April, October, November, December	
Ship landing facilities: None	



## Features in the facility area

Bird colonies, Crevasses, Glacier, Melt streams, Moraines, Other Biological, Permanent snowpatches, Rock, Sea, Shoreline, Snow.

## Main science disciplines

Geology, Glaciology, Marine biology, Meteorology.



# Prat Chilean Antarctic Program

62°28'43"S 59°39'48"W

Type: Station

Operational period:  
Year-round

## Location

The scientific laboratory is located at Arturo Prat station, run by the Chilean Navy, Greenwich Island, South Shetland Islands. Antarctic Specially Protected Area (ASPA) 144, is in the area nearby the station.

## Biodiversity and natural environment

Geology, glaciology, microbiology and marine biology studies are performed at and in the area near the station.

## History and facilities

Arturo Prat station was opened on February 6, 1947 by the First Chilean Antarctic Expedition and it has been established in Iquique Cove, Chile Bay (Discovery Bay), Greenwich Island, South Shetlands Islands. It is named after Captain Arturo Prat, the most important Chilean naval hero. Since its opening, the Chilean Navy has run the Station; the Chilean Antarctic Institute built laboratory facilities and bedrooms for scientists at the site. Four sites at and nearby the station have been designated Historic Sites and Monuments (HSM) 32, 33, 34 and 35, following Chile's proposals to the Antarctic Treaty Consultative Meetings.

CLIMATE	
Climate zone	Maritime Antarctica
Permafrost	Discontinuous
Mean annual wind speed (km/h)	42.1
Max wind speed (km/h)	92.6
Dominant wind direction	NW
Sea Ice Break Up	December
Snow free period	January, February, March
Total annual precipitation (mm)	511
Precipitation type	Snow and Rain
Mean annual temperature (°C)	-2.3
Mean temperature in February (°C)	1.6
Mean temperature in July (°C)	-6.7
ENVIRONMENT	
Region	Antarctic Peninsula
Antarctic Environmental Domain: G – Antarctic Peninsula offshore island geologic	
Antarctic Conservation Biogeographic Region: 3 North-west Antarctic Peninsula	
Altitude of facility (m)	0
Type of surface facility built on	Ice-free ground
Long term monitoring	Yes
Waste management	Yes
Hazard(ous) management	Yes
Fuel spill response capability	Yes



Photos: Chilean Antarctic Program

## FACILITIES INFRASTRUCTURE

Area under roof (m <sup>2</sup> )	1500
Area scientific laboratories (m <sup>2</sup> )	150
Type of scientific laboratories: Biology, Marine biology, Microbiology	
Conference room (capacity)	20
Logistic area (m <sup>2</sup> )	500
Number of beds	30
Showers	Yes
Laundry facilities	Yes
Power supply type	Fossil fuel
Power supply (V)	220
Power supply (hours per day)	24
Hydroponics facilities	No
Number of staff on station (peak/summer season)	20
Number of scientists on station (peak/summer season)	10
Number of staff on station (off peak/winter season)	8
Number of scientists on station (off peak/winter season)	
Max number of personnel at a time (staff, scientists and others)	30
Specific device/Scientific equipment: Autoclave, Centrifuges, Freezing water baths, Freezers, Laminar flow hoods, Magnifying glasses, microscopes, Precision scales, Snow density meters, Sterilizing ovens, Vacuum pumps	
Scientific services possible:	
Long-term monitoring/observations: Yes	
MEDICAL FACILITIES	
	Yes
Area of medical facility (m <sup>2</sup> )	14
Staff with basic medical training or doctor (Summer)	

## General research and databases

Land and marine biology, microbiology, geology and glaciology studies have been performed at and near the station. Results of the research are published in ISI and WOS refereed magazines and can therefore be searched using appropriate keywords and available searching tools. At earlier times research was published mainly in the Instituto Antártico Chileno's (INACH) *Serie Científica*. Station's research outreach papers have also been published in the INACH *Boletín Antártico Chileno* and *ILAI* magazines.

Staff with basic medical training or doctor (Winter)	
Capability: Basic	
Equipment:	
Distance to hospital (km)	1000
Closest emergency facility in Antarctica (km)	
Closest emergency facility external (km)	1000
Medical research capabilities	No
Medical screening requirements	No
VEHICLES AT FACILITY	
Sea transportation: Zodiac boats	
Land transportation: Loaders, Quad bikes	
WORKSHOP FACILITIES	
Mechanical, Metal Workshop, Wood Workshop	
COMMUNICATIONS	
E-mail, Internet, Satellite phone, Telephone, VHF	
TRANSPORT AND FREIGHT	
Access	Air, Sea
Transport to facility: Helicopter, Ship	
Number of airstrips	0
Length (m) of longest runway	
Width (m) of longest runway	
Number of flight visits per year	
Period of flight visits per year:	
Helipad	Yes
Number of ship visits per year	10
Period of ship visits per year: January, February, March, October, November, December	
Ship landing facilities: Pier/Jetty	

## Features in the facility area

Bird colonies, Coast, Crevasses, Hills, Glacier, Lake, Melt streams, Moraines, Other Biological, Permanent snowpatches, Rock, Sea, Sea ice, Seal colonies, Shoreline, Snow, Valley.

## Main science disciplines

Environmental sciences, Geology, Glaciology, Meteorology, Other Biological sciences.



# Professor Julio Escudero

Chilean Antarctic Program

62°12'57"S 58°57'35"W

Type: Station

Operational period: Year-round

## Location

Professor Julio Escudero station is located on Fildes Peninsula, King George Island, Antarctic Specially Protected Area (ASPA) 125. Stations in the nearby area are Bellingshausen (Russia), Artigas (Uruguay), Great Wall Station (China), King Sejong (Korea) and Carlini (Argentina). Other Chilean facility in the area are Collins, Fildes, Frei and Ripamonti.

## Biodiversity and natural environment

An area near to the station, of 1.8 km<sup>2</sup> in King George Island, was proposed by Chile as a Special Protection Area, on the basis of its uniqueness and paleontological richness. In this area, there are outcrops with fossils of a wide range of organisms, including vertebrates and invertebrates and abundant flora with impressions of leaves, stems, pollen grains and spores that date from the Upper Cretaceous to Eocene. The Cretaceous was a crucial time of vegetation change, mainly due to the evolutionary and geographic radiation of angiosperms. During the late Cretaceous, angiosperms infiltrated the pre-existing vegetation progressively, but gymnosperms, ferns and sphenophytes dominated terrestrial plant biomass until the Cenozoic. In addition, the Eocene represents the warmest time since the mass extinction at the end of the Cretaceous. The study of Fildes Peninsula outcrops could answer several important scientific questions.

## History and facilities

During 1975, some containers were installed to support scientific studies being carried out in the area. The place was known as Refugio Fildes or Fildes station. It was expanded after 1990 with new modules. In 1994, the architecture works began for the first habitational module that was officially opened on February 5, 1995, with a ceremony led by the Director of INACH, Ambassador Oscar Pinochet de la Barra, and attended by several Chilean authorities. Currently, the facility has the capacity to accommodate sixty people, a multipurpose laboratory, a laboratory of microbiology and basic molecular biology, a wet lab, cold storage rooms and a divers working zone.

CLIMATE	
Climate zone	Maritime Antarctica
Permafrost	None
Mean annual wind speed (km/h)	
Max wind speed (km/h)	
Dominant wind direction	NW
Sea Ice Break Up	December
Snow free period	January, February, March
Total annual precipitation (mm)	38.2
Precipitation type	Snow and Rain
Mean annual temperature (°C)	-2.3
Mean temperature in February (°C)	1.5
Mean temperature in July (°C)	-6.4
ENVIRONMENT	
Region	Antarctic Peninsula
Antarctic Environmental Domain: G – Antarctic Peninsula offshore island geologic	
Antarctic Conservation Biogeographic Region: 3 North-west Antarctic Peninsula	
Altitude of facility (m)	10
Type of surface facility built on	Ice-free ground
Long term monitoring	Yes
Waste management	Yes
Hazard(ous) management	Yes
Fuel spill response capability	Yes



Photos: Instituto Antártico Chileno

FACILITIES INFRASTRUCTURE	
Area under roof (m <sup>2</sup> )	4000
Area scientific laboratories (m <sup>2</sup> )	300
Type of scientific laboratories: Atmospheric physics and chemistry, Biology, Diving, Marine biology, Microbiology, Palaeontology, Pollution	
Conference room (capacity)	50
Logistic area (m <sup>2</sup> )	760
Number of beds	60
Showers	Yes
Laundry facilities	Yes
Power supply type	
Power supply (V)	220
Power supply (hours per day)	24
Hydroponics facilities	No
Number of staff on station (peak/summer season)	10
Number of scientists on station (peak/summer season)	50
Number of staff on station (off peak/winter season)	2
Number of scientists on station (off peak/winter season)	0
Max number of personnel at a time (staff, scientists and others)	90
Specific device/Scientific equipment: Analytical Scales, Magnetic agitator, Manual autoclave, Microscopes, pH meter, Refrigerators, Spectrophotometer	
Scientific services possible:	
Long-term monitoring/observations: Yes	
MEDICAL FACILITIES	
Area of medical facility (m <sup>2</sup> )	No
Staff with basic medical training or doctor (Summer)	
Staff with basic medical training or doctor (Winter)	
Capability:	
Equipment:	
Distance to hospital (km)	
Closest emergency facility in Antarctica (km)	
Closest emergency facility external (km)	
Medical research capabilities	
Medical screening requirements	
VEHICLES AT FACILITY	
Sea transportation: Zodiac boats with outboard motor, One launch	
Land transportation: 4WD trucks, Loaders, Quad bikes	
WORKSHOP FACILITIES	
COMMUNICATIONS	
E-mail, Internet, Satellite phone, Telephone, VHF	
TRANSPORT AND FREIGHT	
Access	Air, Sea
Transport to facility: Airplane, Ship	
Number of airstrips	0
Length (m) of longest runway	
Width (m) of longest runway	
Number of flight visits per year	
Period of flight visits per year: January, February, March, April, May, June, July, August, September, October, November, December	
Helipad	Yes
Number of ship visits per year	
Period of ship visits per year: January, February, March, October, November, December	
Ship landing facilities: None	

## General research and databases

Atmospheric, biological, environmental, palaeontology, geological research, geomorphology and glaciology studies are conducted at and near the station.

## Features in the facility area

Bird colonies, Coast, Crevasses, Hills, Glacier, Lake, Melt streams, Moraines, Other Biological, Permanent snowpatches, Rock, Sea, Sea ice, Seal colonies, Shoreline, Snow, Valley.

## Main science disciplines

Atmospheric chemistry and physics, Environmental sciences, Geology, Geomorphology, Geophysics, Glaciology, Marine biology, Paleoecology, Pollution, Terrestrial biology.

# Risopatrón Chilean Antarctic Program

62°22'17"S 59°42'53"W

Type: Station

Operational period:  
October–March

## Location

Risopatrón station is located on Coppermine Cove, Robert Island, South Shetland Islands.

## Biodiversity and natural environment

Geology, geophysics, glaciology, lakes and terrestrial biology science research are performed at and in the area nearby the station.

## History and facilities

The station was established as a refuge in 1949 and opened as a small base in 1954. It is named after the Chilean geographer Luis Risopatrón.

## General research and databases

Land and lakes, environment, biology, geology, geophysical and glaciology studies are conducted at and near the station. Results of the research are published in ISI and WOS refereed magazines and can therefore be searched using appropriate keywords and available searching tools. At earlier times research was published mainly in the Instituto Antártico Chileno (INACH) *Serie Científica*. Station's research outreach papers have also been published in the INACH *Boletín Antártico Chileno* and *ILAIA* magazines.

CLIMATE	
Climate zone	Maritime Antarctica
Permafrost	None
Mean annual wind speed (km/h)	42.1
Max wind speed (km/h)	92.6
Dominant wind direction	NW
Sea Ice Break Up	December
Snow free period	January, February, March, April
Total annual precipitation (mm)	511
Precipitation type	Snow and Rain
Mean annual temperature (°C)	-2.3
Mean temperature in February (°C)	1.6
Mean temperature in July (°C)	-6.7
ENVIRONMENT	
Region	Antarctic Peninsula
Antarctic Environmental Domain: G – Antarctic Peninsula offshore island geologic	
Antarctic Conservation Biogeographic Region: 3 North-west Antarctic Peninsula	
Altitude of facility (m)	15
Type of surface facility built on	Ice-free ground
Long term monitoring	
Waste management	Yes
Hazard(ous) management	
Fuel spill response capability	No



Photos: Chilean Antarctic Program

FACILITIES INFRASTRUCTURE	
Area under roof (m <sup>2</sup> )	60
Area scientific laboratories (m <sup>2</sup> )	15
Type of scientific laboratories: Microbiology	
Conference room (capacity)	
Logistic area (m <sup>2</sup> )	25
Number of beds	6
Showers	
Laundry facilities	
Power supply type	Fossil Fuel
Power supply (V)	220
Power supply (hours per day)	10
Hydroponics facilities	No
Number of staff on station (peak/summer season)	2
Number of scientists on station (peak/summer season)	4
Number of staff on station (off peak/winter season)	
Number of scientists on station (off peak/winter season)	
Max number of personnel at a time (staff, scientists and others)	
Specific device/Scientific equipment: Magnifying glass, Microscope	
Scientific services possible:	
Long-term monitoring/observations: No	
MEDICAL FACILITIES	
Area of medical facility (m <sup>2</sup> )	
Staff with basic medical training or doctor (Summer)	
Staff with basic medical training or doctor (Winter)	
Capability:	

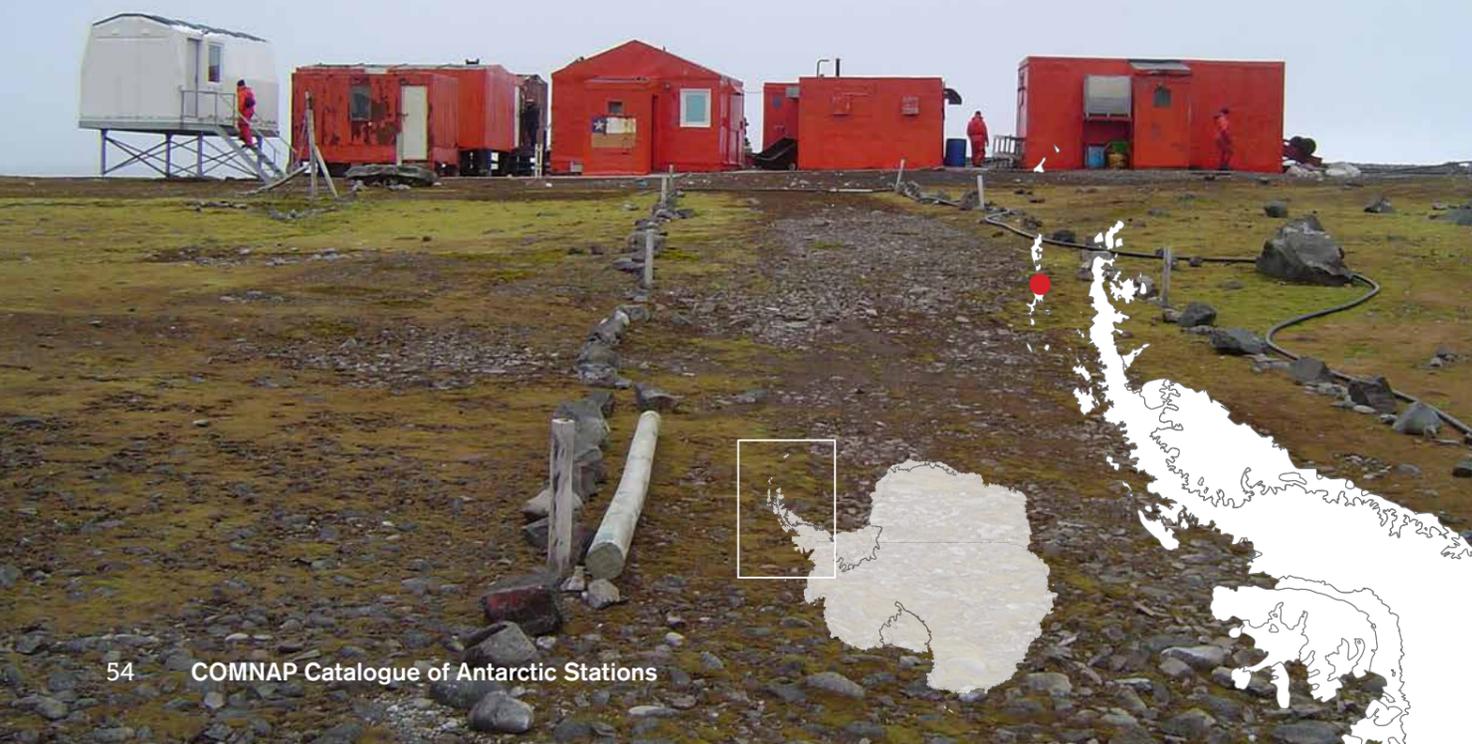
Equipment:	
Distance to hospital (km)	1000
Closest emergency facility in Antarctica (km)	20
Closest emergency facility external (km)	
Medical research capabilities	
Medical screening requirements	
VEHICLES AT FACILITY	
Sea transportation: Zodiac boats	
Land transportation: None	
WORKSHOP FACILITIES	
COMMUNICATIONS	
Satellite phone, VHF	
TRANSPORT AND FREIGHT	
Access	Sea
Transport to facility:	
Number of airstrips	0
Length (m) of longest runway	
Width (m) of longest runway	
Number of flight visits per year	
Period of flight visits per year:	
Helipad	
Number of ship visits per year	
Period of ship visits per year:	
Ship landing facilities: None	

## Features in the facility area

Bird colonies, Coast, Hills, Glacier, Lake, Melt streams, Moraines, Other Biological, Permanent snowpatches, Rock, Sea, Sea ice, Seal colonies, Shoreline, Snow, Valley.

## Main science disciplines

Environmental sciences, Geology, Glaciology, Meteorology, Terrestrial biology.



# Yelcho Chilean Antarctic Program

64°52'55"S 63°35'03"W

Type: Station

Operational period:  
October–March

## Location

Yelcho station is located on Doumer Island, South Bay.

## Biodiversity and natural environment

Antarctic Specially Protected Area (ASPA) 146 South Bay. South Bay's depths are characterized by the presence of rocky substrates. In some areas, there are rocky walls that fall steeply at depths greater than 40 m. In areas closer to the glacier, depths are a mixture of solid rock and quarry stones with less steep slopes. In general, South Bay depths are dominated by red algae and brown algae *Himantothalys grandifolius*, which dominates the bottom coverage, reaching more than 80% coverage of the substrate. There are also mixed depths with predominant sludge deposits, some outcrops of rocks with sponges and soft depths of sediment and mud.

## History and facilities

The Chilean Navy built Yelcho station on February 18, 1962, as a scientific station. It was transferred to the Chilean Antarctic Institute in the early eighties, and it was used until the 1990s to develop marine research. New facilities and laboratories were built, and the station reopened in 2015 by INACH Director José Retamales. Its name honoured the Coast Guard vessel *Yelcho*, led by Pilot Luis Pardo, who rescued Shackleton's men from Elephant Island in 1916.

## General research and databases

Marine studies are conducted at and near Yelcho station.

CLIMATE	
Climate zone	Maritime Antarctica
Permafrost	None
Mean annual wind speed (km/h)	19.8
Max wind speed (km/h)	77.8
Dominant wind direction	NW
Sea Ice Break Up	December
Snow free period	January, February, March
Total annual precipitation (mm)	44
Precipitation type	Snow and Rain
Mean annual temperature (°C)	2.0
Mean temperature in February (°C)	2.4
Mean temperature in July (°C)	
ENVIRONMENT	
Region	Antarctic Peninsula
Antarctic Environmental Domain: G – Antarctic Peninsula offshore island geologic	
Antarctic Conservation Biogeographic Region: 3 North-west Antarctic Peninsula	
Altitude of facility (m)	10
Type of surface facility built on	Ice-free ground
Long term monitoring	Yes
Waste management	Yes
Hazard(ous) management	Yes
Fuel spill response capability	No



Photo: Chilean Antarctic Program



Photo: Chilean Antarctic Program



Photo: Jairo Barroasa

## Features in the facility area

Bird colonies, Coast, Crevasses, Glacier, Melt streams, Moraines, Other Biological, Permanent snowpatches, Rock, Sea, Sea ice, Seal colonies, Snow.

## Main science disciplines

Marine biology, Oceanography.

FACILITIES INFRASTRUCTURE	
Area under roof (m <sup>2</sup> )	400
Area scientific laboratories (m <sup>2</sup> )	33
Type of scientific laboratories: Aquariums, Biology, Marine biology, Scientific diving	
Conference room (capacity)	22
Logistic area (m <sup>2</sup> )	180
Number of beds	28
Showers	Yes
Laundry facilities	Yes
Power supply type	Fossil fuel, Renewable
Power supply (V)	220
Power supply (hours per day)	24
Hydroponics facilities	No
Number of staff on station (peak/summer season)	8
Number of scientists on station (peak/summer season)	20
Number of staff on station (off peak/winter season)	
Number of scientists on station (off peak/winter season)	
Max number of personnel at a time (staff, scientists and others)	28
Specific device/Scientific equipment: Microscopes, pH meter, Refrigerator, Scale	
Scientific services possible:	
Long-term monitoring/observations:	Yes
MEDICAL FACILITIES	
Area of medical facility (m <sup>2</sup> )	
Staff with basic medical training or doctor (Summer)	1
Staff with basic medical training or doctor (Winter)	
Capability: Basic	
Equipment:	
Distance to hospital (km)	1400
Closest emergency facility in Antarctica (km)	400
Closest emergency facility external (km)	
Medical research capabilities	
Medical screening requirements	
VEHICLES AT FACILITY	
Sea transportation: One zodiac boat MK-IV, two launches	
Land transportation: ATV 1000cc	
WORKSHOP FACILITIES	
COMMUNICATIONS	
Computer, E-mail, Internet, Satellite phone, Telephone, VHF	
TRANSPORT AND FREIGHT	
Access	Land, Sea
Transport to facility: Ship	
Number of airstrips	0
Length (m) of longest runway	
Width (m) of longest runway	
Number of flight visits per year	
Period of flight visits per year:	
Helipad	Yes
Number of ship visits per year	7
Period of ship visits per year: January, February, March, April, November, December	
Ship landing facilities: None	

# Great Wall

Chinese Arctic and Antarctic Administration /  
Polar Research Institute of China

62°13'03.1"S 58°57'43.2"W

Type: Station

Operational period: Year-round

## Location

Great Wall station is located on the slopes of King George Island which are covered by snow all year and provide an abundant water supply. There is a long coastline and mudflat along the station beach.

## Biodiversity and natural environment

The area near the station has a luxuriant growth of lichens, mosses and algae. The shore area is the habitat and breeding ground for penguins, seals and seabird.

## History and facilities

The facility consists of a living building, buildings for scientific research, one multifunctional building, garage, one building for sewage treatment and one building hosting power generators.

## General research and databases

As a year-round station, the scientific research mainly focus on the study of ecology, environment monitoring, meteorological observation, ice and snow, sea ice, geology, geomagnetism, seismographic observation and remote mapping.



Photo: Cao Jianjun



Photo: Cao Jianjun

## CLIMATE

Climate zone	Coastal Antarctica
Permafrost	Discontinuous
Mean annual wind speed (km/h)	26.64
Max wind speed (km/h)	102.6
Dominant wind direction	NW
Sea Ice Break Up	
Snow free period	None
Total annual precipitation (mm)	1127
Precipitation type	
Mean annual temperature (°C)	-2.5
Mean temperature in February (°C)	-1.7
Mean temperature in July (°C)	-7.6

## ENVIRONMENT

Region	Antarctic Peninsula
Antarctic Environmental Domain: A – Antarctic Peninsula northern geologic	
Antarctic Conservation Biogeographic Region: 3 North-west Antarctic Peninsula	
Altitude of facility (m)	10
Type of surface facility built on	
Long term monitoring	Yes
Waste management	Yes
Hazard(ous) management	Yes
Fuel spill response capability	Yes

## Features in the facility area

Bird colonies, Coast, Lake, Low artificial light pollution, Other Biological, Shoreline.

## Main science disciplines

Climatology, Environmental sciences, Geology, Marine biology, Terrestrial biology.

## FACILITIES INFRASTRUCTURE

Area under roof (m <sup>2</sup> )	4082
Area scientific laboratories (m <sup>2</sup> )	1200
Type of scientific laboratories: Biology, Ecology, Meteorology	
Conference room (capacity)	60
Logistic area (m <sup>2</sup> )	1900
Number of beds	40
Showers	Yes
Laundry facilities	Yes
Power supply type	Fossil fuel
Power supply (V)	220
Power supply (hours per day)	24
Hydroponics facilities	Yes
Number of staff on station (peak/summer season)	22
Number of scientists on station (peak/summer season)	38
Number of staff on station (off peak/winter season)	11
Number of scientists on station (off peak/winter season)	2
Max number of personnel at a time (staff, scientists and others)	60

Specific device/Scientific equipment: Air sampler, Seismometer, Magnetometer, Satellite receiver, Meteorology station, Biology and ecology observation, and Laboratory equipment

Scientific services possible:

Long-term monitoring/observations: Biology, Geomagnetism, Seismography, Meteorology

## MEDICAL FACILITIES

Area of medical facility (m <sup>2</sup> )	20
Staff with basic medical training or doctor (Summer)	1
Staff with basic medical training or doctor (Winter)	1
Capability: Basic	

Equipment: Portable ECG machine, Holter ECG monitor, Automatic wrist electronic sphygmomanometer, Portable ultrasound, Handheld blood analyser

Distance to hospital (km)	3
Closest emergency facility in Antarctica (km)	5
Closest emergency facility external (km)	
Medical research capabilities	No
Medical screening requirements	Yes

## VEHICLES AT FACILITY

Sea transportation: R/V Xuelong, Zodiac, Dinghy  
Land transportation: Off-road vehicle, trailer

## WORKSHOP FACILITIES

Mechanical

## COMMUNICATIONS

Computer, E-mail, Fax, Internet, Satellite phone, Telephone, VHF

## TRANSPORT AND FREIGHT

Access	Air, Land, Sea
Transport to facility: 4WD, Helicopter, Ship, Walking	
Number of airstrips	0
Length (m) of longest runway	
Width (m) of longest runway	
Number of flight visits per year	0
Period of flight visits per year:	
Helipad	Yes
Number of ship visits per year	1
Period of ship visits per year: January, December	
Ship landing facilities: Pier/Jetty	



# Kunlun

Chinese Arctic and Antarctic Administration / Polar Research Institute of China

80°25'01.7"S 77°6'58.0"E

Type: Station

Operational period:  
December–February

## Location

Kunlun station is located in Dome Argus (Dome A) area, the highest place in Antarctica, on the East Antarctica plateau. The station is sitting at the middle section of the ice divide of the East Antarctic Ice Sheet.

## Biodiversity and natural environment

There are no flora and fauna at the station and its surrounding area; it is located 1200 km inland and the elevation rises between 3900 m and 4092 m. The thickness of the ice sheet varies from 1500 m to 3100 m. This area is highly influenced by altitude and cold air mass all year-round and is regarded to be the center of the Antarctic cold source region.

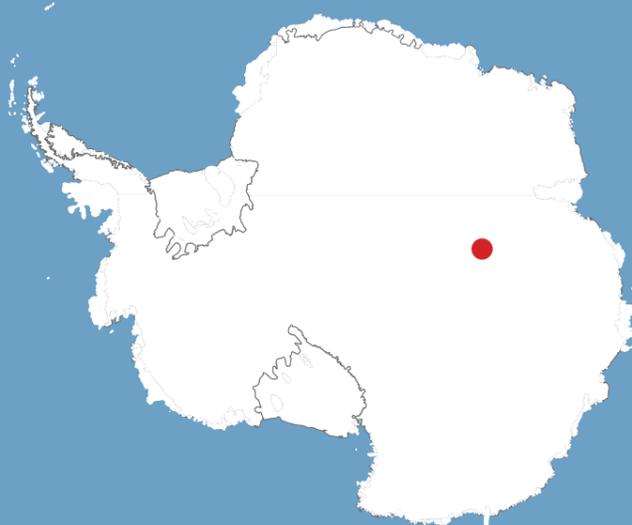
## History and facilities

The station consist of a main building, garage and a workshop for ice core drilling.

## General research and databases

Scientific research mainly focuses on the study of ice cores, snow and ice, astronomy, polar atmospheric science, geomagnetism and seismology.

CLIMATE	
Climate zone	Inland Antarctica
Permafrost	Continuous
Mean annual wind speed (km/h)	18
Max wind speed (km/h)	154
Dominant wind direction	N
Sea Ice Break Up	
Snow free period	None
Total annual precipitation (mm)	
Precipitation type	
Mean annual temperature (°C)	-51.4
Mean temperature in February (°C)	-41.2
Mean temperature in July (°C)	-60.5
ENVIRONMENT	
Region	Continental Antarctica
Antarctic Environmental Domain: N – East Antarctic inland ice sheet	
Antarctic Conservation Biogeographic Region:	
Altitude of facility (m)	4087
Type of surface facility built on	Ice-sheet
Long term monitoring	Yes
Waste management	Yes
Hazard(ous) management	Yes
Fuel spill response capability	Yes

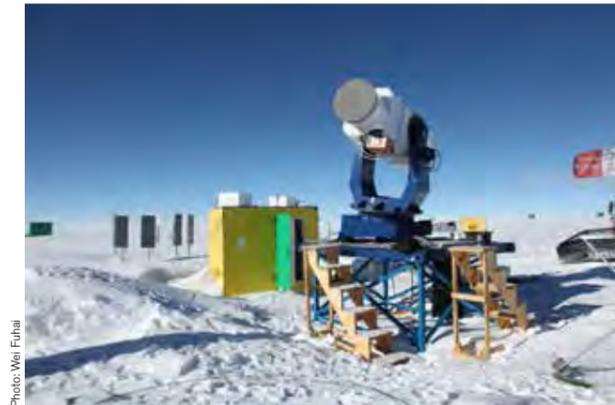


## Features in the facility area

High elevation, Ice sheet.

## Main science disciplines

Astrophysics, Atmospheric chemistry and physics, Climate change, Glaciology, Geomagnetism, Mapping, Seismology.



FACILITIES INFRASTRUCTURE	
Area under roof (m <sup>2</sup> )	558
Area scientific laboratories (m <sup>2</sup> )	80
Type of scientific laboratories: Astronomy, Ice coring	
Conference room (capacity)	20
Logistic area (m <sup>2</sup> )	270
Number of beds	20
Showers	Yes
Laundry facilities	No
Power supply type	Fossil fuel, Renewable
Power supply (V)	220
Power supply (hours per day)	24
Hydroponics facilities	No
Number of staff on station (peak/summer season)	14
Number of scientists on station (peak/summer season)	12
Number of staff on station (off peak/winter season)	
Number of scientists on station (off peak/winter season)	
Max number of personnel at a time (staff, scientists and others)	26
Specific device/Scientific equipment: Deep ice core drilling system, Snow sampling, Three Antarctic Survey Telescopes (ASTs, Optical/NIR, aperture size of 500 mm), Small telescope A-Ray (CSTAR, Optical, four wide-field telescopes with aperture size of 145 mm), Bright star survey telescope (BSST, Optical, a wide-field telescope with aperture size of 300 mm), Meteorological station	
Scientific services possible:	
Long-term monitoring/observations: Astronomical surveys in the fields of exoplanets, supernova, cosmology, galaxies, Meteorology	Yes
MEDICAL FACILITIES	
Area of medical facility (m <sup>2</sup> )	15
Staff with basic medical training or doctor (Summer)	1
Staff with basic medical training or doctor (Winter)	
Capability: Basic	
Equipment: Portable hyperbaric oxygen chamber, Pulse blood oxygen saturation instrument, Automatic wrist electronic sphygmomanometer, Oxygenator	
Distance to hospital (km)	1300
Closest emergency facility in Antarctica (km)	780
Closest emergency facility external (km)	
Medical research capabilities	No
Medical screening requirements	Yes
VEHICLES AT FACILITY	
Sea transportation:	
Land transportation: Bulldozer, snow groomer	
WORKSHOP FACILITIES	
Mechanical	
COMMUNICATIONS	
Satellite phone, VHF	
TRANSPORT AND FREIGHT	
Access	Air, Land
Transport to facility: Airplane, 4WD	
Number of airstrips	1
Length (m) of longest runway	3120
Width (m) of longest runway	80
Number of flight visits per year	
Period of flight visits per year: January, February, December	
Helipad	No
Number of ship visits per year	
Period of ship visits per year:	
Ship landing facilities:	



# Taishan

Chinese Arctic and Antarctic Administration / Polar Research Institute of China

73°51'50.0"S 76°58'27.0"E

Type: Camp

Operational period:  
December–February

## Location

Taishan camp is located in the Princess Elizabeth Land, East Antarctica inland ice sheet. There is no flora and fauna in the surrounding area within a radius of 100 km.

## Biodiversity and natural environment

A world of ice and snow, a lack of local flora and fauna.

## History and facilities

The camp was built on the same location of the refuge which was supposed to be used by the inland team going to the Kunlun Station. The construction of the main building has been completed and it is the only building forming the camp.

## General research and databases

The research currently carried out at the camp are mainly in the field of glaciology, meteorological and space physics observation.

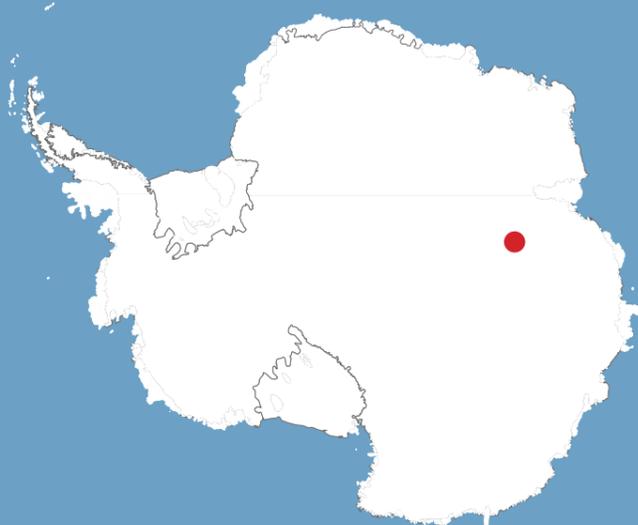
## Features in the facility area

Ice cap.

## Main science disciplines

Glaciology, Meteorological observation, Space physics observation.

CLIMATE	
Climate zone	Inland Antarctica
Permafrost	Continuous
Mean annual wind speed (km/h)	38.16
Max wind speed (km/h)	80.64
Dominant wind direction	NE
Sea Ice Break Up	None
Snow free period	None
Total annual precipitation (mm)	
Precipitation type	
Mean annual temperature (°C)	-30.3
Mean temperature in February (°C)	-28.7
Mean temperature in July (°C)	-44.1
ENVIRONMENT	
Region	Continental Antarctica
Antarctic Environmental Domain: N – East Antarctic inland ice sheet	
Antarctic Conservation Biogeographic Region:	
Altitude of facility (m)	2621
Type of surface facility built on	Ice-sheet
Long term monitoring	Yes
Waste management	Yes
Hazard(ous) management	Yes
Fuel spill response capability	Yes



FACILITIES INFRASTRUCTURE	
Area under roof (m <sup>2</sup> )	710
Area scientific laboratories (m <sup>2</sup> )	60
Type of scientific laboratories:	Glaciology, Meteorology, Space physics
Conference room (capacity)	12
Logistic area (m <sup>2</sup> )	650
Number of beds	20
Showers	Yes
Laundry facilities	No
Power supply type	Fossil fuel, Renewable
Power supply (V)	220
Power supply (hours per day)	24
Hydroponics facilities	No
Number of staff on station (peak/summer season)	8
Number of scientists on station (peak/summer season)	12
Number of staff on station (off peak/winter season)	
Number of scientists on station (off peak/winter season)	
Max number of personnel at a time (staff, scientists and others)	20
Specific device/Scientific equipment:	
Scientific services possible:	
Long-term monitoring/observations:	
<b>MEDICAL FACILITIES</b>	Yes
Area of medical facility (m <sup>2</sup> )	14
Staff with basic medical training or doctor (Summer)	1
Staff with basic medical training or doctor (Winter)	
Capability: Basic	
Equipment: Portable hyperbaric oxygen chamber, Pulse blood oxygen saturation instrument, Automatic wrist electronic sphygmomanometer, Oxygenerator	
Distance to hospital (km)	525
Closest emergency facility in Antarctica (km)	522
Closest emergency facility external (km)	
Medical research capabilities	No
Medical screening requirements	No
VEHICLES AT FACILITY	
Sea transportation:	
Land transportation: Bulldozer, snow groomer	
WORKSHOP FACILITIES	
Mechanical	
COMMUNICATIONS	
Satellite phone, VHF	
TRANSPORT AND FREIGHT	
Access	Air, Land
Transport to facility: 4WD, Airplane	
Number of airstrips	1
Length (m) of longest runway	2120
Width (m) of longest runway	80
Number of flight visits per year	
Period of flight visits per year: January, February, December	
Helipad	No
Number of ship visits per year	
Period of ship visits per year:	
Ship landing facilities:	



# Zhongshan

Chinese Arctic and Antarctic Administration /  
Polar Research Institute of China

69°22'24"S 76°22'40"E

Type: Station

Operational period: Year-round

## Location

Zhongshan station is located on the Larsemann Hills along the southeastern coast of Prydz Bay, several hundreds of kilometers away from the Amery Ice Shelf, Grove Mountains and Prince Charles Mountains in the southwest.

## Biodiversity and natural environment

Colonies of penguins, seals and seabird can be found in the area near the station. The station is located on an area characterised by hills, mostly composed of Gneiss, with a shape similar to stairs climbing up from east to west.

## History and facilities

The facility consists of two living buildings, buildings for scientific research, one multifunctional building, one building for sewage treatment and one building hosting power generators.

## General research and databases

The scientific research mainly focuses on the study of meteorological and upper atmospheric physics observation, geomagnetism, seismology, sea ice investigation in Prydz Bay and investigation in Amery Ice Shelf.

## Features in the facility area

Bird colonies, Coast, Crevasse, Fjord, Lake, Other Biological, Rock, Shoreline, Snow.

## Main science disciplines

Atmospheric chemistry and physics, Geology, Meteorology, Microbiology, Terrestrial biology.

CLIMATE	
Climate zone	Coastal Antarctica
Permafrost	Discontinuous
Mean annual wind speed (km/h)	22.64
Max wind speed (km/h)	
Dominant wind direction	
Sea Ice Break Up	
Snow free period	None
Total annual precipitation (mm)	
Precipitation type	
Mean annual temperature (°C)	-11.17
Mean temperature in February (°C)	-3.3
Mean temperature in July (°C)	-19.7
ENVIRONMENT	
Region	Continental Antarctica
Antarctic Environmental Domain: D – East Antarctic coastal geologic	
Antarctic Conservation Biogeographic Region: 7 East Antarctica	
Altitude of facility (m)	11
Type of surface facility built on	
Long term monitoring	Yes
Waste management	Yes
Hazard(ous) management	Yes
Fuel spill response capability	Yes

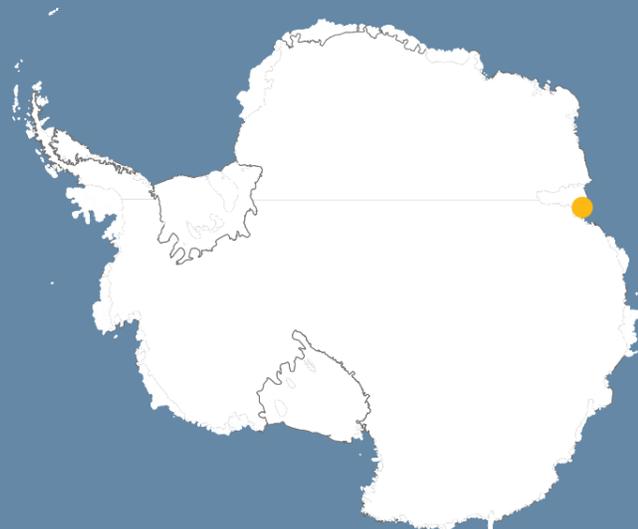


Photo: Ge Renfeng



Photo: Xiang Qian

FACILITIES INFRASTRUCTURE	
Area under roof (m <sup>2</sup> )	7436
Area scientific laboratories (m <sup>2</sup> )	2163
Type of scientific laboratories: Biology, Geology, Meteorology, Sea ice, Snow and ice, Upper atmospheric physics	
Conference room (capacity)	60
Logistic area (m <sup>2</sup> )	4700
Number of beds	60
Showers	Yes
Laundry facilities	Yes
Power supply type	Fossil fuel, Renewable
Power supply (V)	220
Power supply (hours per day)	24
Hydroponics facilities	Yes
Number of staff on station (peak/summer season)	39
Number of scientists on station (peak/summer season)	21
Number of staff on station (off peak/winter season)	12
Number of scientists on station (off peak/winter season)	7
Max number of personnel at a time (staff, scientists and others)	60
Specific device/Scientific equipment: Digisonde DPS-4D, Aurora Spectrograph, CCD all-sky camera, Magnetometer, Imaging riometer, Seismometer, Shallow ice core drilling system, Ice radar, Sea ice detector, Atmospheric chemistry analyser, Satellite receiver, Meteorological station, Biology sampling and laboratory equipment	
Scientific services possible:	
Long-term monitoring/observations: Upper atmospheric physics, Atmospheric chemistry, Geomagnetism, Cosmic noise absorption, Seismography, Meteorology	
MEDICAL FACILITIES	
Area of medical facility (m <sup>2</sup> )	80
Staff with basic medical training or doctor (Summer)	1
Staff with basic medical training or doctor (Winter)	1
Capability: Surgery	
Equipment: Automatic cardiopulmonary resuscitation device, Standard wheeled stretcher vehicle, Portable ECG machine	
Distance to hospital (km)	0
Closest emergency facility in Antarctica (km)	3
Closest emergency facility external (km)	
Medical research capabilities	No
Medical screening requirements	Yes
VEHICLES AT FACILITY	
Sea transportation: R/V Xuelong, Zodiac, Dinghy.	
Land transportation: Snow track towing vehicle, tractor	
WORKSHOP FACILITIES	
Mechanical, Wood workshop	
COMMUNICATIONS	
Fax, Satellite phone, Telephone, VHF	
TRANSPORT AND FREIGHT	
Access	Air, Land, Sea
Transport to facility: 4WD, Helicopter, Ship, Walking	
Number of airstrips	0
Length (m) of longest runway	
Width (m) of longest runway	
Number of flight visits per year	0
Period of flight visits per year:	
Helipad	Yes
Number of ship visits per year	2
Period of ship visits per year: January, February, November, December	
Ship landing facilities: Pier/Jetty	

# Johann Gregor Mendel

Masaryk University

63°48'02.3"S 57°52'57.3"W

Type: Station

Operational period:  
December–March

## Location

Johann Gregor Mendel Czech station is located on the Ulu Peninsula, the most northern tip of the James Ross Island, east side of Antarctic Peninsula. The nearest neighbouring stations are Marambio (Argentina) and O'Higgins (Chile). Climatically, it is the border of the maritime and continental Antarctic regions. The site is unique as it is one of the largest deglaciated coastal oasis in the area. Several local glaciers, volcanic mountain, lakes, rivers and paleontology sites are in the close vicinity.

## Biodiversity and natural environment

Unique deglaciated area of coastal oasis with two months where the mean temperature is above 0 °C, large area without any snow cover during the austral summer season. Some parts covered with various species of lichens and mosses. The depth of the permafrost active layer varies 0.5 – 1.0 m. Permanent colonies of Skuas and Terns are present in the area; in addition, small groups or individual of Chinstrap, Adélie and Gentoo penguins, Fur, Elephant, Leopard, Weddell and Crabeater seals could be occasionally encountered during the austral summer season. Killer and Humpback whales can be found in the surrounding waters.

## History and facilities

The Johann Gregor Mendel Czech Antarctic Station, with twenty persons capacity, was built during two austral summer seasons 2004-05 and 2005-06. The Czech base bears the name of J.G. Mendel (1822-1884), a founder of modern genetics and pioneering meteorologist. The Johann Gregor Mendel Czech Antarctic Station is the only Czech government research base in Antarctica. Since it was settled in 2006, successful austral summer expeditions have been held every year.

CLIMATE	
Climate zone	Coastal Antarctica
Permafrost	Continuous
Mean annual wind speed (km/h)	6
Max wind speed (km/h)	126
Dominant wind direction	W
Sea Ice Break Up	January–March
Snow free period	December–March
Total annual precipitation (mm)	
Precipitation type	Snow
Mean annual temperature (°C)	-6.8
Mean temperature in February (°C)	-0.1
Mean temperature in July (°C)	-14.1
ENVIRONMENT	
Region	Antarctic Peninsula
Antarctic Environmental Domain: A – Antarctic Peninsula northern geologic	
Antarctic Conservation Biogeographic Region: 1 North-east Antarctic Peninsula	
Altitude of facility (m)	10
Type of surface facility built on	Ice-free ground
Long term monitoring	No
Waste management	Yes
Hazard(ous) management	Yes
Fuel spill response capability	Yes



## General research and databases

Scientific research conducted at the station is multidisciplinary and includes the following research disciplines: Climatology and Meteorology, Stress plant physiology, Geomorphology (glacial and periglacial), Microbiology, (Paleo)limnology, Algology, Zoology (Parasitology, Ichthyology, Ornithology), Ecology, Ecological physiology, Bacteriology, Palaeoclimatology, Palaeontology, Quaternary geology, Sedimentology, Volcanology, Genetics, Geochemistry, Glaciology, Lichenology and Bryology, Palynology, Physical geography, Physics of the atmosphere (cosmic radiation measurement), Palaeomicrobiology, Pedology (soil research), Communication technology, Renewable energy and Waste management.

## Features in the facility area

Bluff, Coast, Fauna, Hill, Ice cap or glacier, Ice shelf, Lake, Melt streams, Moraine, Mountain, Nunatak, Other Biological, Permanent snowpatches, Plateau, Rivers, Rock, Sea, Sea ice, Shoreline, Snow, Valley.

## Main science disciplines

Atmospheric chemistry and physics, Botany, Climate change, Climatology, Ecology, Geocryology, Geodesy, Geology, Geomorphology, GIS, Glaciology, Human biology, Hydrology, Isotopic chemistry, Limnology, Mapping, Marine biology, Medicine, Microbiology, Paleocology, Paleolimnology, Pollution, Sedimentology, Sociology, Soil science, Terrestrial biology.

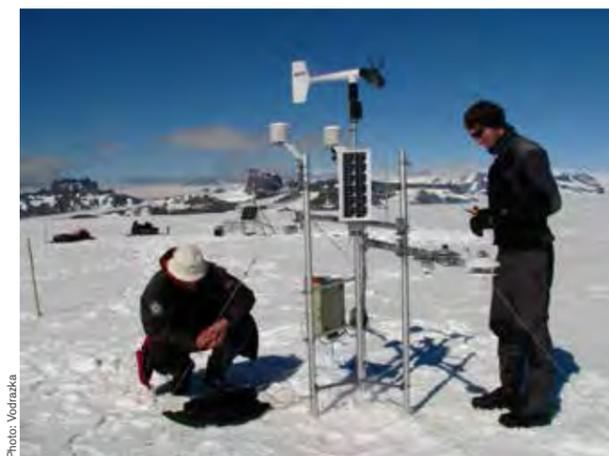


Photo: Votravka



Photo: Kawan

## FACILITIES INFRASTRUCTURE

Area under roof (m <sup>2</sup> )	288
Area scientific laboratories (m <sup>2</sup> )	33
Type of scientific laboratories: Biology, Chemistry, Climatology, Geology, Geography	
Conference room (capacity)	40
Logistic area (m <sup>2</sup> )	30
Number of beds	20
Showers	Yes
Laundry facilities	Yes
Power supply type	Fossil fuel, Renewable
Power supply (V)	230
Power supply (hours per day)	24
Hydroponics facilities	No
Number of staff on station (peak/summer season)	4
Number of scientists on station (peak/summer season)	16
Number of staff on station (off peak/winter season)	
Number of scientists on station (off peak/winter season)	
Max number of personnel at a time (staff, scientists and others)	20
Specific device/Scientific equipment: Meteorological data collecting – Meteorological stations for micro and macro climatological analysis.	
Full support to researchers – Accommodation, meals, two laboratories, technical workshop, cabotage (rubber boats), support to the field camps	
Scientific services possible: Meteorological data collecting – Meteorological stations for micro and macro climatological analysis.	
Full support to the RI users – Accommodation incl. meals, 2 laboratories, technical workshop, cabotage (rubber boats), support to the field camps.	
Long-term monitoring/observations: Continuous measurements of atmospheric pressure, temperature, relative air humidity, global and solar radiation, wind speed and its direction, individual parts of UV radiation.	
<b>MEDICAL FACILITIES</b>	Yes
Area of medical facility (m <sup>2</sup> )	9
Staff with basic medical training or doctor (Summer)	3
Staff with basic medical training or doctor (Winter)	
Capability: Basic	
Equipment: General	
Distance to hospital (km)	1406
Closest emergency facility in Antarctica (km)	80
Closest emergency facility external (km)	1406
Medical research capabilities	Yes
Medical screening requirements	No
<b>VEHICLES AT FACILITY</b>	
Sea transportation: Four Zodiac rubber boats	
Land transportation: Two 4WD ATVs, One 6WD ATV	
<b>WORKSHOP FACILITIES</b>	
Mechanical, Metal workshop, Plexiglas workshop, Wood workshop	
<b>COMMUNICATIONS</b>	
Computer, E-mail, Internet, Printer, Satellite phone, Scanner, Telephone, VHF	
<b>TRANSPORT AND FREIGHT</b>	
Access	Air, Sea
Transport to facility: 4WD, Ship, Walking	
Number of airstrips	0
Length (m) of longest runway	
Width (m) of longest runway	
Number of flight visits per year	2
Period of flight visits per year: January, February, March	
Helipad	Yes
Number of ship visits per year	1
Period of ship visits per year: January, February, March	
Ship landing facilities:	



# Pedro Vicente Maldonado

Instituto Antártico Ecuatoriano

62°26'57.6"S 59°44'27.5"W

Type: Station

Operational period:  
October–March

## Location

The Pedro Vicente Maldonado station is located on Greenwich Island, Antarctic Peninsula.

## Biodiversity and natural environment

Pedro Vicente Maldonado research station constitutes a suitable laboratory to monitor the progress and changes that occur on the ecosystem in the Antarctic Peninsula area.

## History and facilities

The seasonal Pedro Vicente Maldonado station was built in 1990 with a maximum capability of twenty-two persons at any one time. Since 2012, the maximum capability has increased up to thirty-two persons.

## General research and databases

The research undertaken by the Instituto Antártico Ecuatoriano (INAE) are in accordance with national research policies issued by the National Secretary of Higher Education, Science and Technology (SENESCYT), which is the highest research body of Ecuador. There are four lines of research: 1) Environmental Studies, 2) Interaction between Ecuador and Antarctica, 3) Climate Change and 4) Technology Applied to Antarctica.

## Features in the facility area

Bird colonies, Ice cap or glacier, Other Biological, Rock.

## Main science disciplines

Climatology, Climate change, Environmental sciences, Geodesy, Geology, Geophysics, Glaciology, Geomorphology, Mapping, Marine biology, Microbiology, Oceanography, Pollution, Sedimentology, Soil science, Terrestrial biology.

CLIMATE	
Climate zone	Maritime Antarctica
Permafrost	Continuous
Mean annual wind speed (km/h)	22.31
Max wind speed (km/h)	160.55
Dominant wind direction	E
Sea Ice Break Up: January, February, March, October, November, December	
Snow free period: January, February, March, December	
Total annual precipitation (mm)	600
Precipitation type	Snow and Rain
Mean annual temperature (°C)	
Mean temperature in February (°C)	1
Mean temperature in July (°C)	
ENVIRONMENT	
Region	Antarctic Peninsula
Antarctic Environmental Domain: G – Antarctic Peninsula offshore island geologic	
Antarctic Conservation Biogeographic Region: 3 North-west Antarctic Peninsula	
Altitude of facility (m)	10
Type of surface facility built on	Ice-Free Ground
Long term monitoring	No
Waste management	Yes
Hazard(ous) management	Yes
Fuel spill response capability	Yes



FACILITIES INFRASTRUCTURE	
Area under roof (m²)	908
Area scientific laboratories (m²)	200
Type of scientific laboratories: Biology, Chemistry, Geology, Geophysics, Oceanography, Environmental, Hydrography	
Conference room (capacity)	15
Logistic area (m²)	500
Number of beds	34
Showers	Yes
Laundry facilities	Yes
Power supply type	Fossil Fuel
Power supply (V)	220
Power supply (hours per day)	24
Hydroponics facilities	No
Number of staff on station (peak/summer season)	22
Number of scientists on station (peak/summer season)	10
Number of staff on station (off peak/winter season)	
Number of scientists on station (off peak/winter season)	22
Max number of personnel at a time (staff, scientists and others)	34
Specific device/scientific equipment: Multiparameter, Spectrophotometer, Balance, dry heat stove, muffle, Reactor, BOD incubator, Soxhlet equipment, rotavapor distiller, Incubator, laminar flow cabin, autoclave, Fluorimeter, Inverted microscope, Stereoscopic microscope, Electric mortar sieve	
Scientific services possible: Multidisciplinary scientific laboratory, Weather Station, logistical support	
Long-term monitoring/observations: Seasonal data of glaciological parameters, since 2010	
MEDICAL FACILITIES	
Area of medical facility (m²)	22

Staff with basic medical training or doctor (Summer)	1
Staff with basic medical training or doctor (Winter)	
Capability: Basic	
Equipment: Minor surgery, hypothermia, trauma, bed for hospitalization	
Distance to hospital (km)	1578
Closest emergency facility in Antarctica (km)	12
Closest emergency facility external (km)	
Medical research capabilities	No
Medical screening requirements	No
VEHICLES AT FACILITY	
Sea transportation: Three rubber boats	
Land transportation: Two snowmobiles	
WORKSHOP FACILITIES	
Electricity workshop, Mechanic workshop, Wood workshop, ICTS, Gasfitter workshop, Welding workshop	
COMMUNICATIONS	
E-mail, Satellite phone, VHF	
TRANSPORT AND FREIGHT	
Access	Air, Sea
Transport to facility: Airplane, Ship	
Number of airstrips	0
Length (m) of longest runway	
Width (m) of longest runway	
Number of flight visits per year	
Period of flight visits per year:	
Helipad	Yes
Number of ship visits per year	
Period of ship visits per year:	
Ship landing facilities: None	



# Aboa

 Finnish Antarctic Research Program  
at the Finnish Meteorological Institute

73°03'00"S 13°25'00"W

Type: Station

Operational period:  
October–March

## Location

Aboa station is located on the Basen nunatak in the Vestfjella Mountains, Dronning Maud Land.

## Biodiversity and natural environment

Vegetation is very scarce in the Basen nunatak. Some common algae, lichens and mosses, as well as some micro-organisms living in extreme conditions are present. There are a few dozen Snow petrels (*Pagodroma nivea*), a few Wilson's storm petrels (*Oceanites oceanicus*) and South Polar skuas (*Catharacta MacCormick*) nesting on the Basen cliffs.

## History and facilities

Aboa was built in 1988; the Swedish research station Wasa is located on the same nunatak, 200 metres from Aboa and the two stations together form the Nordenskiöld Base Camp. Aboa was enlarged and renovated during the summer 2002–2003. Today the research station comprises a main building, a generator building, an arch shelter, two separate research/accommodation containers, a container housing a doctor's surgery/accommodation, a container with a gravity laboratory, three 20 foot storage containers (food, spare parts, storeroom), an incinerator container, a garage and a container for climate research with a year-round weather station. Aboa can accommodate expeditions of up to 17 people and it is occupied during the Antarctic summer only.

## General research and databases

Finland started active Antarctic research when the station Aboa was founded in 1988. Since then, Finland has organized twenty-three (2015) Antarctic research expeditions at the Finnish research station Aboa. In recent years research has focused on geodesy and glaciology, soil, bedrock and marine geology and geophysics, bi-polar meteorological and space physics, marine and structural technology, and oceanography and marine biology. Metadata is stored in the data system of the Joint Committee on Antarctic Data Management.

CLIMATE	
Climate zone	Inland Antarctica
Permafrost	Continuous
Mean annual wind speed (km/h)	
Max wind speed (km/h)	
Dominant wind direction	
Sea Ice Break Up	
Snow free period	
Total annual precipitation (mm)	
Precipitation type	
Mean annual temperature (°C)	-15.3
Mean temperature in February (°C)	-5.2
Mean temperature in July (°C)	-21.9
ENVIRONMENT	
Region	Continental Antarctica
Antarctic Environmental Domain: K – Northern latitude ice shelves	
Antarctic Conservation Biogeographic Region: 6 Dronning Maud Land	
Altitude of facility (m)	400
Type of surface facility built on	
Long term monitoring	Yes
Waste management	Yes
Hazard(ous) management	Yes
Fuel spill response capability	Yes



## Features in the facility area

Nunatak.

## Main science disciplines

Atmospheric chemistry and physics, Climate change, Climatology, Geodesy, Geology, Geophysics, Glaciology.



Photos: Finnish Antarctic Research Program

FACILITIES INFRASTRUCTURE	
Area under roof (m <sup>2</sup> )	200
Area scientific laboratories (m <sup>2</sup> )	75
Type of scientific laboratories: Gravity	
Conference room (capacity)	
Logistic area (m <sup>2</sup> )	200
Number of beds	17
Showers	Yes
Laundry facilities	Yes
Power supply type	Fossil fuel, Renewable
Power supply (V)	220
Power supply (hours per day)	24
Hydroponics facilities	No
Number of staff on station (peak/summer season)	5
Number of scientists on station (peak/summer season)	8
Number of staff on station (off peak/winter season)	
Number of scientists on station (off peak/winter season)	
Max number of personnel at a time (staff, scientists and others)	17
Specific device/Scientific equipment: AWS, Seismometer, GPS	
Scientific services possible:	
Long-term monitoring/observations:	
MEDICAL FACILITIES	
Area of medical facility (m <sup>2</sup> )	24
Staff with basic medical training or doctor (Summer)	
Staff with basic medical training or doctor (Winter)	
Capability:	
Equipment:	
Distance to hospital (km)	
Closest emergency facility in Antarctica (km)	
Closest emergency facility external (km)	
Medical research capabilities	YES
Medical screening requirements	Yes
VEHICLES AT FACILITY	
Sea transportation:	
Land transportation: Tracked and ATVs, one tractor, snowmobiles	
WORKSHOP FACILITIES	
Mechanical, Metal workshop, Wood workshop	
COMMUNICATIONS	
Computer, E-mail, Printer, Satellite phone, Telephone, VHF	
TRANSPORT AND FREIGHT	
Access	Air
Transport to facility: Airplane, Helicopter, Skidoo, Walking	
Number of airstrips	0
Length (m) of longest runway	
Width (m) of longest runway	
Number of flight visits per year	
Period of flight visits per year:	
Helipad	Yes
Number of ship visits per year	
Period of ship visits per year:	
Ship landing facilities:	

# Concordia

Institut Polaire Francais Paul Emile Victor /  
Programma Nazionale Di Ricerche in Antartide

75°05'59.9"S 123°19'57.4"E

Type: Station

Operational period: Year-round

## Location

Concordia station is located at Dome C, on the high East Antarctic plateau. The site is one of the coldest and among the most remote places on Earth. Among the year-round stations in Antarctica, only 3 are located inland the continent (Amundsen-Scott, Vostok and Concordia). The closest stations are Dumont d'Urville and Mario Zucchelli.

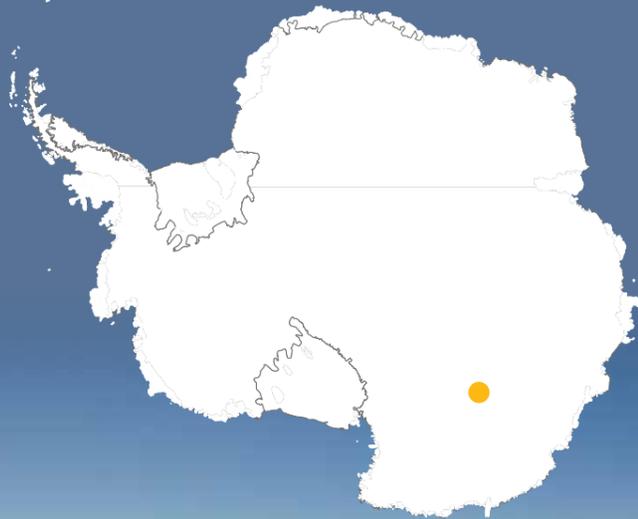
## Biodiversity and natural environment

Dome C is 1100 km from the coast at a height of 3233m a.s.l., surrounded by thousands of kilometers of solid ice. Temperatures hardly rise above -25°C in summer and can fall below -80°C in winter with record of -84.6°C reached in 2010. As a consequence, there is no fauna and no flora.

## History and facilities

The idea of constructing a European permanent research station in the heart of Antarctica, with an environment particularly hostile for humans, sprang up when the site at Dome C was revealed to be especially favourable for deep ice coring and astronomy. This scientific challenge is accompanied by another, parallel adventure: the design and construction of a modern station, capable of yielding new scientific knowledge concerning not only Antarctica, but also concerning the whole our planet and beyond, the Universe. The Institut Polaire Francais Paul Emile Victor (IPEV) and the Programma Nazionale di Ricerche in Antartide (PNRA) have therefore pooled their skills and know-how, resources and combined operations to develop this new station between 1999 and 2005. Concordia has been continuously occupied since that time.

CLIMATE	
Climate zone	Inland Antarctica
Permafrost	None
Mean annual wind speed (km/h)	10.8
Max wind speed (km/h)	114.8
Dominant wind direction	S
Sea Ice Break Up	None
Snow free period	None
Total annual precipitation (mm)	
Precipitation type	Snow
Mean annual temperature (°C)	-52.1
Mean temperature in February (°C)	-43.7
Mean temperature in July (°C)	-64.2
ENVIRONMENT	
Region	Continental Antarctica
Antarctic Environmental Domain: Q – East Antarctic high interior ice sheet	
Antarctic Conservation Biogeographic Region:	
Altitude of facility (m)	3233
Type of surface facility built on	Ice-sheet
Long term monitoring	Yes
Waste management	Yes
Hazard(ous) management	Yes
Fuel spill response capability	Yes



## General research and databases

The research projects implemented at Concordia are linked to many subjects involving societal concerns, such as climate change, the role of greenhouse gases or aerosols in past and present trends or the hole in the ozone layer. Beside the European Project for Ice Coring in Antarctica (EPICA), which was completed in December 2004 and extended the record of climate variability to around 800,000 years BP, Concordia remains an active site for glaciology. Dome C also offers an exceptional environment for astronomical observations and provides good conditions for calibration and validation of sensors embarked on polar orbit satellites. Observatories in seismology, geomagnetism, or Earth-Sun interactions are present. Concordia station itself is also considered as an excellent Earth-based analogue for orbital space stations or Mars-bound vessels and projects in collaboration with the European Space Agency (ESA) are implemented.

## Features in the facility area

Clear air zone, Ice cap or glacier, Low artificial light pollution, Low humidity, Plateau, Sustrugui.

## Main science disciplines

Astonomy, Astrophysics, Atmospheric chemistry and physics, Engineering, Environmental sciences, Geophysics, Glaciology, Human biology, Medicine, Microbiology, Paleoclimatology, Planetary Science.



Photo: Programma Nazionale Di Ricerche in Antartide



Photo: Claire Le Calvez

## FACILITIES INFRASTRUCTURE

Area under roof (m <sup>2</sup> )	3605
Area scientific laboratories (m <sup>2</sup> )	748
Type of scientific laboratories: Astronomy, Chemistry, Geophysics	
Conference room (capacity)	
Logistic area (m <sup>2</sup> )	2856
Number of beds	80
Showers	Yes
Laundry facilities	Yes
Power supply type	Fossil fuel
Power supply (V)	230
Power supply (hours per day)	24
Hydroponics facilities	No
Number of staff on station (peak/summer season)	35
Number of scientists on station (peak/summer season)	35
Number of staff on station (off peak/winter season)	8
Number of scientists on station (off peak/winter season)	5
Max number of personnel at a time (staff, scientists and others)	80
Specific device/Scientific equipment: No basic scientific equipment. Each project should bring its own necessary scientific equipment. Scientific services possible: A scientific engineer (electrician) is appointed in winter for monitoring and maintenance of automated programs.	
Long-term monitoring/observations: Earth magnetism (INTERMAGNET Network), Seismology (GEOSCOPE Network), Stratospheric ozone, SuperDARN (Super Dual Auroral Radar Network), Glacier mass balance, Baseline Surface Radiation Network (BSRN), meteorology (incl. Radio-sounding).	
<b>MEDICAL FACILITIES</b>	Yes
Area of medical facility (m <sup>2</sup> )	120
Staff with basic medical training or doctor (Summer)	2
Staff with basic medical training or doctor (Winter)	2
Capability: Basic, Dental, Surgery	
Equipment: Altitude medicine, Anaesthesia, Biochemistry, Diagnostic ultrasound, Diagnostic X-ray, Haematology, Laboratory diagnostics, Telemedicine, Echography	
Distance to hospital (km)	5000
Closest emergency facility in Antarctica (km)	1100
Closest emergency facility external (km)	5000
Medical research capabilities	Yes
Medical screening requirements	Yes
<b>VEHICLES AT FACILITY</b>	
Sea transportation:	
Land transportation: One 4WD, two snow groomers, five skidoos, one tracked loader, one telehandler, one tractor during summer, bicycles	
<b>WORKSHOP FACILITIES</b>	
ICTS, Mechanical, Metal workshop, Wood workshop	
<b>COMMUNICATIONS</b>	
Computer, E-mail, Internet, Satellite phone, Telephone, VHF	
<b>TRANSPORT AND FREIGHT</b>	
Access	Air, Land
Transport to facility: Airplane, Traverses from Cap Prud'homme	
Number of airstrips	1
Length (m) of longest runway	2000
Width (m) of longest runway	50
Number of flight visits per year	20
Period of flight visits per year: January, February, November, December	
Helipad	No
Number of ship visits per year	
Period of ship visits per year:	
Ship landing facilities:	

# Dumont d'Urville

Institut Polaire Francais Paul Emile Victor

66°39'77.0"S 140°0'08.0"E

Type: Station

Operational period: Year-round

## Location

Dumont d'Urville station is located on the coastal area of Terre Adélie, in the Pointe Géologie Archipelago, on Petrel Island, a short distance from the Antarctic continent. The Glacier l'Astrolabe, close to the station, produces large icebergs which have a strong impact on the bottom of the sea floor and its biodiversity. All the islands of the archipelago except for Ile des Pétrés constitutes the Antarctic Specially Protected Area (ASPA) 120 which includes also the Emperor penguin breeding colony on sea ice in winter.

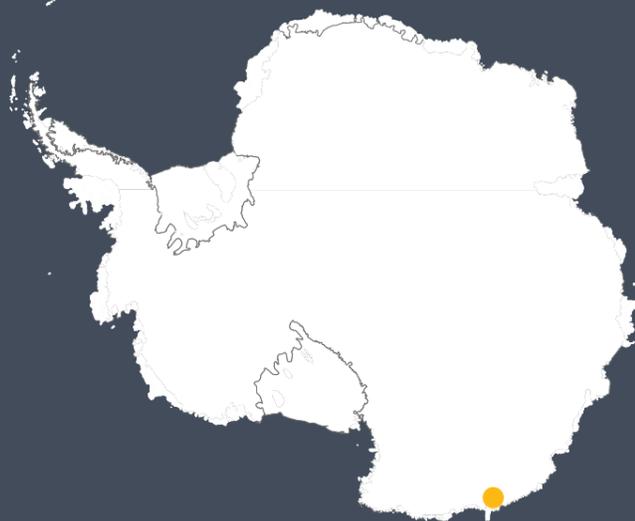
## Biodiversity and natural environment

Located on a small island at 5 km from the continent, the Dumont d'Urville station is entirely surrounded by sea ice in winter whereas the sea is usually open from December to March. A huge colony of breeding Emperor penguins is present close to the station in winter, and several sea bird species, including numerous Adélie penguins and seals breed in the area. Local conditions are characterized by temperatures varying from 0°C to -35°C, blizzard, long polar nights and winds sometimes exceeding 300 km/h.

## History and facilities

After the fire which destroyed the first French Antarctic Station (Port-Martin) in Terre Adélie in January 1952, a team of six expeditioners decided to stay during winter on Ile des Pétrés, in a small hut called "Base Marret" (HSM 47). In 1956, Dumont d'Urville station was built on this island, as a temporary station for the International Geophysical Year (1957-58). The station has been continually occupied since that time. The facility includes living quarters: sleeping accommodation, refectory, kitchen, library and hospital; laboratories – biology, geophysics, meteorology; technical areas: power generating plant, workshops and garages.

CLIMATE	
Climate zone	Coastal Antarctica
Permafrost	None
Mean annual wind speed (km/h)	33.2
Max wind speed (km/h)	324
Dominant wind direction	SE
Sea Ice Break Up	January, February, March, December
Snow free period	None
Total annual precipitation (mm)	
Precipitation type	Snow
Mean annual temperature (°C)	-10.7
Mean temperature in February (°C)	-4
Mean temperature in July (°C)	-16.7
ENVIRONMENT	
Region	Continental Antarctica
Antarctic Environmental Domain: L – Continental coastal-zone ice sheet	
Antarctic Conservation Biogeographic Region: 13 Adélie Land	
Altitude of facility (m)	42
Type of surface facility built on	Ice-free ground
Long term monitoring	Yes
Waste management	Yes
Hazard(ous) management	Yes
Fuel spill response capability	Yes



## General research and databases

The research projects implemented at Dumont d'Urville station cover a large range of scientific domains: bird and mammal ecology and physiology, marine biology, glaciology, atmosphere chemistry, stratospheric ozone, meteorology as well as long term Earth science observatories in seismology and magnetism.

## Features in the facility area

Bird colonies, Coast, Crevasse, Fauna, Ice cap or glacier, Ice tongue, Seal colonies.

## Main science disciplines

Atmospheric chemistry and physics, Environmental sciences, Geology, Geophysics, Glaciology, Marine biology.



Photo: Camille Freser



Photo: Françoise Amelineau



Photo: Erwan Amice

FACILITIES INFRASTRUCTURE	
Area under roof (m <sup>2</sup> )	4815
Area scientific laboratories (m <sup>2</sup> )	872
Type of scientific laboratories: Biology, Geophysics, Scientific diving	
Conference room (capacity)	
Logistic area (m <sup>2</sup> )	3440
Number of beds	90
Showers	Yes
Laundry facilities	Yes
Power supply type	Fossil fuel, Renewable
Power supply (V)	230
Power supply (hours per day)	24
Hydroponics facilities	No
Number of staff on station (peak/summer season)	44
Number of scientists on station (peak/summer season)	46
Number of staff on station (off peak/winter season)	14
Number of scientists on station (off peak/winter season)	10
Max number of personnel at a time (staff, scientists and others)	90
Specific device/Scientific equipment: Basic equipments (precision scales, microscopes, stove, distilled water etc.), surgery room, diving facilities	
Scientific services possible:	
Long-term monitoring/observations: Earth magnetism (INTERMAGNET Network), Seismology (GEOSCOPE Network), Sea level (GLOSS Network), Stratospheric ozone, Glacier mass balance, Atmospheric sulfur cycle, Nucleon component of the cosmic radiation, Birds and mammal population dynamics	
<b>MEDICAL FACILITIES</b>	Yes
Area of medical facility (m <sup>2</sup> )	110
Staff with basic medical training or doctor (Summer)	1
Staff with basic medical training or doctor (Winter)	1
Capability: Basic, Dental, Surgery	
Equipment: Anaesthesia, Biochemistry, Blood transfusion medicine, Diagnostic ultrasound, Diagnostic X-ray, Haematology, Telemedicine, Echography	
Distance to hospital (km)	2700
Closest emergency facility in Antarctica (km)	1500
Closest emergency facility external (km)	2700
Medical research capabilities	No
Medical screening requirements	Yes
<b>VEHICLES AT FACILITY</b>	
Sea transportation: One barge 13 m 280 HP, one pontoon 50 T, two dinghys 80 HP, two dinghys 10 HP	
Land transportation: Four 4WD vehicles, one tracked tractor, two tracked carrier trucks, one tracked dumper, two bulldozers, one excavator, two wheeled loaders, one wheeled telehandler	
<b>WORKSHOP FACILITIES</b>	
ICTS, Mechanical, Metal workshop, Wood workshop	
<b>COMMUNICATIONS</b>	
E-mail, Fax, Internet, Satellite phone, Telephone, VHF	
<b>TRANSPORT AND FREIGHT</b>	
Access	Air, Sea
Transport to facility: Airplane, Ship	
Number of airstrips	1
Length (m) of longest runway	1300
Width (m) of longest runway	50
Number of flight visits per year	15
Period of flight visits per year: January, February, October, November, December	
Helipad	Yes
Number of ship visits per year	5
Period of ship visits per year: January, February, November, December	
Ship landing facilities: Floating dock/Pontoon, Pier/Jetty	

# Dallmann

 Alfred Wegener Institute

62°14'25.7"S 58°40'00.3"W

Type: Laboratory

Operational period:  
October–March

## Location

The Dallmann Laboratory is located at the Argentinean station Carlini at the Potter Cove on Potter Peninsula, the southernmost extreme of King George Island. The Potter Cove is surrounded by ice fields, glaciers and the prominent Three Brothers Hill. Potter Peninsula is an Antarctic Specially Protected Area (132).

## Biodiversity and natural environment

The marine environment is a combination zone of glacier fronts, rocky shores and soft bottom areas. The coastal areas host bird colonies, marine mammal breeding areas and several vegetal species.

## History and facilities

The Dallmann Laboratory was opened in 1994 by the Alfred Wegener Institute and the Instituto Antártico Argentino. The laboratory is personned with German and Argentinian personnel, and European guests, from October to March; during the winter months, one person provided by the Instituto Antártico Argentino (IAA) / Dirección Nacional del Antártico (DNA) conducts measurements and maintains the laboratory.

## General research and databases

The main research fields are marine and terrestrial biological studies, solar UV, ecophysical investigations, geological field works.

CLIMATE	
Climate zone	Coastal Antarctica
Permafrost	Continuous
Mean annual wind speed (km/h)	36
Max wind speed (km/h)	
Dominant wind direction	
Sea Ice Break Up	
Snow free period	January, February, December
Total annual precipitation (mm)	
Precipitation type	
Mean annual temperature (°C)	-2.4
Mean temperature in February (°C)	2
Mean temperature in July (°C)	-6
ENVIRONMENT	
Region	Antarctic Peninsula
Antarctic Environmental Domain: A – Antarctic Peninsula northern geologic	
Antarctic Conservation Biogeographic Region: 1 North-east Antarctic Peninsula	
Altitude of facility (m)	10
Type of surface facility built on	Ice-free ground
Long term monitoring	No
Waste management	Yes
Hazard(ous) management	Yes
Fuel spill response capability	Yes



## Features in the facility area

Coast, Fauna, Ice cap or glacier, Nunatak, Other Biological, Sea, Sea ice.

### FACILITIES INFRASTRUCTURE

Area under roof (m <sup>2</sup> )	133
Area scientific laboratories (m <sup>2</sup> )	118
Type of scientific laboratories: Biology, Chemistry, Scientific diving	
Conference room (capacity)	
Logistic area (m <sup>2</sup> )	
Number of beds	16
Showers	Yes
Laundry facilities	Yes
Power supply type	Fossil fuel
Power supply (V)	220
Power supply (hours per day)	24
Hydroponics facilities	
Number of staff on station (peak/summer season)	2
Number of scientists on station (peak/summer season)	14
Number of staff on station (off peak/winter season)	2
Number of scientists on station (off peak/winter season)	
Max number of personnel at a time (staff, scientists and others)	16
Specific device/Scientific equipment: Laboratory fully equipped	
Scientific services possible: Providing Liquid Nitrogen, Running Decompression Chamber	
Long-term monitoring/observations: Yes, by Argentina at Carlini Station	
<b>MEDICAL FACILITIES</b>	Yes
Area of medical facility (m <sup>2</sup> )	
Staff with basic medical training or doctor (Summer)	
Staff with basic medical training or doctor (Winter)	
Capability:	

## Main science disciplines

Climate change, Ecology, Environmental sciences, Fishery, Glaciology, Marine biology, Microbiology, Sedimentology, Terrestrial biology.

Equipment:	
Distance to hospital (km)	0.2
Closest emergency facility in Antarctica (km)	
Closest emergency facility external (km)	
Medical research capabilities	No
Medical screening requirements	No
<b>VEHICLES AT FACILITY</b>	
Sea transportation: Five Zodiac boats with outboard motors, two Zodiac semi-rigid boats, model Hurricane 733 OB (as per Carlini station data)	
Land transportation: One truck, one tractor Terry, Three 4wd quad all-terrain bikes, one 6wd all-terrain, four snowmobile (as per Carlini station data)	
<b>WORKSHOP FACILITIES</b>	
Mechanical	
<b>COMMUNICATIONS</b>	
Computer, E-mail, Internet, Printer, Satellite phone, VHF	
<b>TRANSPORT AND FREIGHT</b>	
Access	Air, Sea
Transport to facility: Airplane, Helicopter, Ship	
Number of airstrips	
Length (m) of longest runway	
Width (m) of longest runway	
Number of flight visits per year	6
Period of flight visits per year: January, February, March, November, December	
Helipad	
Number of ship visits per year	2
Period of ship visits per year: March, November	
Ship landing facilities:	



Photos: Alfred Wegener Institute

# Kohnen

 Alfred Wegener Institute

75°00'06"S 00°04'04"E

Type: Station

Operational period:  
October–March

## Location

Kohnen station is located on the Antarctic plateau at an altitude of 2892 m. The bedrock is covered by 2782 m ice and snow.

## Biodiversity and natural environment

Kohnen station is located in the interior of the Antarctic continent, about 600 km away from the coast.

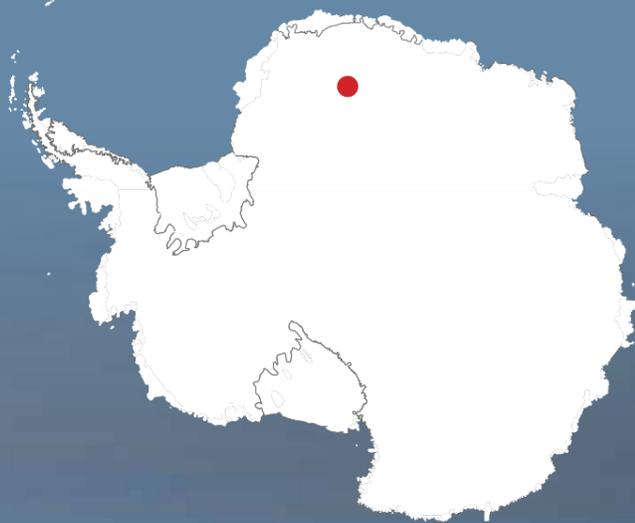
## History and facilities

The station was opened in 2001 as a logistics base for a deep ice core drilling program. The central building consists of a 32 m long and 8 m wide steel platform on 16 pillars with 11 20-foot container modules on top of it. The functions of these modules are radio room, mess room, kitchen, sanitary facilities, two sleeping rooms, snowmelter, store, workshop and power plant. Food store containers on sledges and additional sleeping modules can be parked beside the platform. Because of snow accumulation the platform has to be lifted up every second year; four technicians are needed to open the station.

## General research and databases

As Kohnen was the logistics base for ice core drilling for several years. Additional to the deep ice core drilling, different science programs took place at or near Kohnen station, including the measurement of the local topography and ice velocity, ground-based radio-echo sounding, meteorological measurements using an automatic weather station and aerosol sampling with high- and low-volume devices. Since 2012/13, the Coldest Firn (CoFi) project uses Kohnen as its logistic base. The primary objective of this project is to understand the densification and the air enclosure process of the coldest firn.

CLIMATE	
Climate zone	Inland Antarctica
Permafrost	None
Mean annual wind speed (km/h)	16.2
Max wind speed (km/h)	
Dominant wind direction	
Sea Ice Break Up	
Snow free period	None
Total annual precipitation (mm)	
Precipitation type	
Mean annual temperature (°C)	-42.2
Mean temperature in February (°C)	-32.2
Mean temperature in July (°C)	-52.3
ENVIRONMENT	
Region	Continental Antarctica
Antarctic Environmental Domain: N – East Antarctic inland ice sheet	
Antarctic Conservation Biogeographic Region:	
Altitude of facility (m)	2892
Type of surface facility built on	Ice sheet
Long term monitoring	Yes
Waste management	Yes
Hazard(ous) management	No data
Fuel spill response capability	Yes



## Features in the facility area

High elevation, Ice cap or glacier, Plateau.

FACILITIES INFRASTRUCTURE	
Area under roof (m <sup>2</sup> )	160
Area scientific laboratories (m <sup>2</sup> )	0
Type of scientific laboratories: None	
Conference room (capacity)	
Logistic area (m <sup>2</sup> )	160
Number of beds	8
Showers	Yes
Laundry facilities	Yes
Power supply type	Fossil fuel
Power supply (V)	220
Power supply (hours per day)	24
Hydroponics facilities	
Number of staff on station (peak/summer season)	4
Number of scientists on station (peak/summer season)	2
Number of staff on station (off peak/winter season)	
Number of scientists on station (off peak/winter season)	
Max number of personnel at a time (staff, scientists and others)	28
Specific device/Scientific equipment:	
Scientific services possible:	
Long-term monitoring/observations:	
<b>MEDICAL FACILITIES</b>	No
Area of medical facility (m <sup>2</sup> )	
Staff with basic medical training or doctor (Summer)	0
Staff with basic medical training or doctor (Winter)	

## Main science disciplines

Atmospheric chemistry and physics, Climate change, Climatology, Geodesy, Geophysics, Glaciology.

Capability:	
Equipment:	
Distance to hospital (km)	750
Closest emergency facility in Antarctica (km)	
Closest emergency facility external (km)	
Medical research capabilities	No
Medical screening requirements	No
VEHICLES AT FACILITY	
Sea transportation:	
Land transportation: Skidoos, snow groomer	
WORKSHOP FACILITIES	
Metal workshop	
COMMUNICATIONS	
E-mail, Satellite phone, VHF	
TRANSPORT AND FREIGHT	
Access	Air, Land
Transport to facility: Airplane, Skidoo	
Number of airstrips	1
Length (m) of longest runway	2000
Width (m) of longest runway	20
Number of flight visits per year	
Period of flight visits per year:	
Helipad	No
Number of ship visits per year	
Period of ship visits per year:	
Ship landing facilities:	



Photos: Alfred Wegener Institute

Photos: Alfred Wegener Institute



# Neumayer III

Alfred Wegener Institute

70°41'0"S 08°16'0"W

Type: Station

Operational period: Year-round

## Location

Neumayer Station III is located about 20 km inland of the ice edge on the Ekström Ice Shelf. The Ekström Ice Shelf is a part of Dronning Maud Land in the Atlantic Sector of Antarctica. In contrast to the previous stations, Neumayer Station III was built about 7 m above the snow surface.

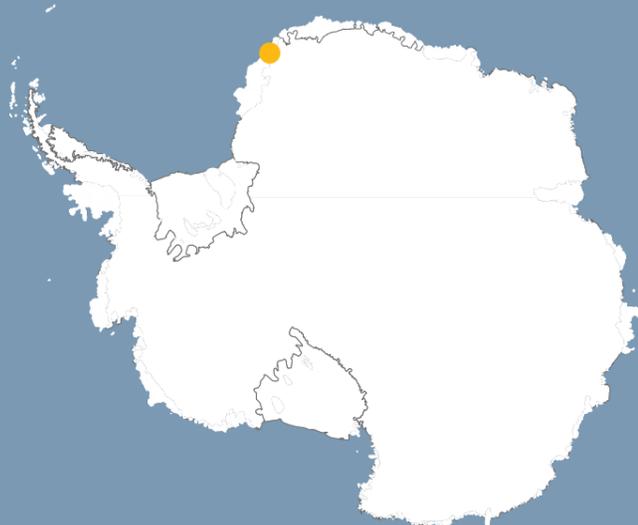
## Biodiversity and natural environment

The coastal environment favours the biodiversity in the vicinity of Neumayer Station III. Emperor penguin colony, Adélie penguins as well as Weddell seals, Skuas and other birds are present. The Ekström Ice Shelf is surrounded by two ice covered ridges and the ice shelf forms a bay (Atka Bay). The ice shelf is about 200 m thick at its front and has a velocity of 250 m/yr.

## History and facilities

Neumayer Station III follows the Georg-von-Neumayer station (1981–1992) and Neumayer II station (1992–2009) on the Ekström Ice Shelf. It is the first of these three stations to be built about 7 m above the surface. Neumayer Station III integrates research, operational and accommodation facilities in one building. On the roof of Neumayer Station III, a balloon launching hall was built to launch radiosondes. A short distance from the station (1.5 km) an air chemistry (trace gases) and a geophysics observatory are located. Together with the meteorology, they comprise the long-term observatories of Neumayer Station III.

CLIMATE	
Climate zone	Coastal Antarctica
Permafrost	None
Mean annual wind speed (km/h)	32.4
Max wind speed (km/h)	133.6
Dominant wind direction	E
Sea Ice Break Up	January
Snow free period	None
Total annual precipitation (mm)	
Precipitation type	
Mean annual temperature (°C)	-16
Mean temperature in February (°C)	-8.1
Mean temperature in July (°C)	-24.9
ENVIRONMENT	
Region	Continental Antarctica
Antarctic Environmental Domain: I – East Antarctic ice shelves	
Antarctic Conservation Biogeographic Region: 6 Dronning Maud Land	
Altitude of facility (m)	43
Type of surface facility built on	
Long term monitoring	Yes
Waste management	Yes
Hazard(ous) management	Yes
Fuel spill response capability	Yes



## General research and databases

Main research fields are meteorology, air chemistry and geophysics. These are long-term observatories and the data are available at [www.pangaea.de](http://www.pangaea.de). The meteorology observatory is part of the Baseline Surface Radiation Network (BSRN). Additionally, ocean acoustics and the observation of the penguin colony take place. The Neumayer Station III is also the location of the infra-sound array I27DE, a measuring field of the Comprehensive Nuclear Test Ban Treaty Organization (CTBTO).

## Features in the facility area

Bird colonies, Coast, Other Biological, Ice shelf, Sea ice.

## Main science disciplines

Atmospheric chemistry and physics, Climate change, Geophysics, Glaciology, Meteorology.



Photos on this page: T Steuer

FACILITIES INFRASTRUCTURE	
Area under roof (m <sup>2</sup> )	4890
Area scientific laboratories (m <sup>2</sup> )	410
Type of scientific laboratories: Chemistry, Geophysics, Meteorology	
Conference room (capacity)	
Logistic area (m <sup>2</sup> )	2511
Number of beds	40
Showers	Yes
Laundry facilities	Yes
Power supply type	Fossil fuel, Renewable
Power supply (V)	220
Power supply (hours per day)	24
Hydroponics facilities	No
Number of staff on station (peak/summer season)	20
Number of scientists on station (peak/summer season)	40
Number of staff on station (off peak/winter season)	5
Number of scientists on station (off peak/winter season)	4
Max number of personnel at a time (staff, scientists and others)	60
Specific device/Scientific equipment: Meteorological equipment, air-chemistry lab, GPS, hydrophones beneath the ice shelf, camera for observing penguin colony	
Scientific services possible:	
Long-term monitoring/observations: Meteorological observations, air-chemistry, geophysics	Yes
MEDICAL FACILITIES	
Area of medical facility (m <sup>2</sup> )	56
Staff with basic medical training or doctor (Summer)	3
Staff with basic medical training or doctor (Winter)	3
Capability: Basic, Dental, Surgery	
Equipment: Anaesthesia, Diagnostic X-ray, Laboratory diagnostics, Telemedicine	
Distance to hospital (km)	
Closest emergency facility in Antarctica (km)	
Closest emergency facility external (km)	
Medical research capabilities	Yes
Medical screening requirements	Yes
VEHICLES AT FACILITY	
Sea transportation:	
Land transportation: Ten skidoos, twenty snow groomers, two 4WD vehicles with balloon tyres	
WORKSHOP FACILITIES	
Mechanical, Metal workshop, Plexiglas workshop, Wood workshop	
COMMUNICATIONS	
Computer, E-mail, Internet, Printer, Satellite phone, Telephone, VHF	
TRANSPORT AND FREIGHT	
Access	Air, Land, Sea
Transport to facility: Airplane, Ship, Ski, Skidoo	
Number of airstrips	1
Length (m) of longest runway	1000
Width (m) of longest runway	60
Number of flight visits per year	
Period of flight visits per year: January, February, December	
Helipad	Yes
Number of ship visits per year	2
Period of ship visits per year: January, February, December	
Ship landing facilities: Ice pier	

# Bharati

National Centre for Antarctic & Ocean Research

69°24'24.4"S 76°11'42.9"E

Type: Station

Operational period: Year-round

## Location

Bharati is located in Larsemann Hills on a small promontory between Thala Fjord and Quilty bay, east of Stornes Peninsula.

## Biodiversity and natural environment

Promontory, ice-free ground, petrels and penguins, seals occasionally.

## History and facilities

About 2500 km east of Maitri, the new Indian research base Bharati is located between Thala Fjord & Quilty bay, east of Stornes Peninsula in Antarctica. A modular, three story structure with total floor area of 2900m<sup>2</sup> over a small footprint of 1650m<sup>2</sup> was commissioned on 18 March 2012 to facilitate year-round scientific research activities. The station consists of one main building, fuel farm, fuel station, sea water pump house, a summer camp and a number of smaller containerized modules. The main building offers regulated power supply, automated heating and air conditioning with hot and cold running water, flush toilets, sauna, cold storage, aesthetically designed living, dining, lounge and laboratory space. The communication is through dedicated satellite channels providing connectivity for voice, video and data with the India mainland.

## General research and databases

Earth, life and atmospheric sciences.

CLIMATE	
Climate zone	Coastal Antarctica
Permafrost	None
Mean annual wind speed (km/h)	22
Max wind speed (km/h)	122
Dominant wind direction	E
Sea Ice Break Up	February
Snow free period	January, February, December
Total annual precipitation (mm)	287
Precipitation type	Snow
Mean annual temperature (°C)	-10.2
Mean temperature in February (°C)	-4.6
Mean temperature in July (°C)	-17.6
ENVIRONMENT	
Region	Continental Antarctica
Antarctic Environmental Domain: D – East Antarctic Coastal Geologic	
Antarctic Conservation Biogeographic Region: 7 East Antarctica	
Altitude of facility (m)	35
Type of surface facility built on	Ice-free ground
Long term monitoring	Yes
Waste management	Yes
Hazard(ous) management	Yes
Fuel spill response capability	Yes



## Features in the facility area

Bird colonies, Bluff, Clear air zone, Coast, Fjord, Hill, Lake, Other Biological, Rock, Sea, Sea ice, Shoreline, Snow.

FACILITIES INFRASTRUCTURE	
Area under roof (m <sup>2</sup> )	2900
Area scientific laboratories (m <sup>2</sup> )	270
Type of scientific laboratories: Biology, Chemistry, Geology	
Conference room (capacity)	70
Logistic area (m <sup>2</sup> )	332
Number of beds	47
Showers	Yes
Laundry facilities	Yes
Power supply type	Fossil fuel
Power supply (V)	220
Power supply (hours per day)	24
Hydroponics facilities	No
Number of staff on station (peak/summer season)	24
Number of scientists on station (peak/summer season)	22
Number of staff on station (off peak/winter season)	18
Number of scientists on station (off peak/winter season)	5
Max number of personnel at a time (staff, scientists and others)	47
Specific device/Scientific equipment: Digital Fluxgate; Proton Precision; Induction Coil magnetometers; Automatic Weather Station; GSV-4004B GISTM receiver	
Scientific services possible: Weather services	
Long-term monitoring/observations: Weather; Magnetic observations for electromagnetic changes in the near-Earth environment; Ionospheric Total Electron Content; Environmental radiation monitoring	
MEDICAL FACILITIES	
Area of medical facility (m <sup>2</sup> )	54
Staff with basic medical training or doctor (Summer)	2

## Main science disciplines

Atmospheric chemistry and physics, Climate change, Environmental sciences, Geology, Geomorphology, Geophysics, Glaciology, Human biology, Isotopic chemistry, Mapping, Paleolimnology, Sedimentology.

Staff with basic medical training or doctor (Winter)	2
Capability: Basic, Surgery	
Equipment: Anaesthesia, Biochemistry	
Distance to hospital (km)	
Closest emergency facility in Antarctica (km)	
Closest emergency facility external (km)	
Medical research capabilities	No
Medical screening requirements	No
VEHICLES AT FACILITY	
Sea transportation:	
Land transportation: Snowmobiles	
WORKSHOP FACILITIES	
Mechanical, Wood workshop	
COMMUNICATIONS	
Computer, E-mail, Internet, Printer, Satellite phone, Telephone, VHF	
TRANSPORT AND FREIGHT	
Access	Air, Sea
Transport to facility: Airplane, Helicopter, Ship, Skidoo, Walking	
Number of airstrips	0
Length (m) of longest runway	
Width (m) of longest runway	
Number of flight visits per year	7
Period of flight visits per year: January, February, November, December	
Helipad	Yes
Number of ship visits per year	1
Period of ship visits per year: January, February	
Ship landing facilities: None	



# Maitri

 National Centre for Antarctic & Ocean Research

70°46'00.6"S 11°43'50.8"E

Type: Station

Operational period: Year-round

## Location

Maitri station is situated on an ice free, rocky area on the Schirmacher Oasis in the central Dronning Maud Land region of East Antarctica.

## Biodiversity and natural environment

Ice-free ground; petrels, skua and penguins are occasionally seen.

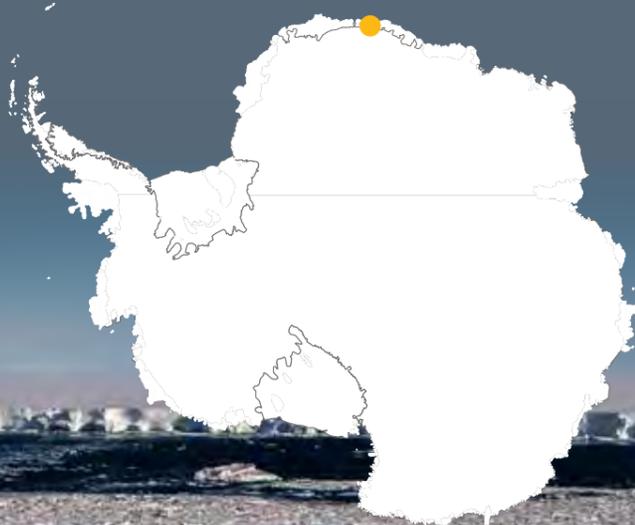
## History and facilities

Since 1983 the Indian scientific endeavors in Antarctica have been sustained on a year-round basis, from the Indian permanent stations "Dakshin Gangotri" (1983-1989) and "Maitri" (1989 – present). In the year 1986, an ice free, rocky area on the Schirmacher Oasis was selected to build the second research station "Maitri". It is an inland station at an elevation of about 117 m and about 100 km from the sea with an intervening ice shelf in between. Dakshin Gangotri station was decommissioned in 1990.

## General research and databases

The infrastructure available at the station has enabled the scientists to conduct research in various disciplines such as Atmospheric Sciences & Meteorology, Earth Sciences including Glaciology, Human Biology, Medicine, Biology and Environmental Sciences.

CLIMATE	
Climate zone	Coastal Antarctica
Permafrost	Continuous
Mean annual wind speed (km/h)	31.5
Max wind speed (km/h)	204
Dominant wind direction	SE
Sea Ice Break Up	February, March
Snow free period	January, February, December
Total annual precipitation (mm)	
Precipitation type	Snow
Mean annual temperature (°C)	-9.7
Mean temperature in February (°C)	-3
Mean temperature in July (°C)	-16.8
ENVIRONMENT	
Region	Continental Antarctica
Antarctic Environmental Domain: D – East Antarctic Coastal Geologic	
Antarctic Conservation Biogeographic Region: 6 Dronning Maud Land	
Altitude of facility (m)	117
Type of surface facility built on	Ice-free ground
Long term monitoring	Yes
Waste management	Yes
Hazard(ous) management	Yes
Fuel spill response capability	Yes



## FACILITIES INFRASTRUCTURE

Area under roof (m <sup>2</sup> )	1030
Area scientific laboratories (m <sup>2</sup> )	105
Type of scientific laboratories: Geology, Geophysics	
Conference room (capacity)	
Logistic area (m <sup>2</sup> )	449
Number of beds	65
Showers	Yes
Laundry facilities	Yes
Power supply type	Fossil fuel
Power supply (V)	220
Power supply (hours per day)	24
Hydroponics facilities	No
Number of staff on station (peak/summer season)	20
Number of scientists on station (peak/summer season)	25
Number of staff on station (off peak/winter season)	18
Number of scientists on station (off peak/winter season)	7
Max number of personnel at a time (staff, scientists and others)	65
Specific device/Scientific equipment: Imaging Riometer, Ionosonde, Digital Fluxgate, Proton Precision, Induction Coil magnetometers, Automatic Weather Station, Movable Atmospheric RADAR for Antarctica, Digital Broadband Seismograph	
Scientific services possible: Weather Services	
Long-term monitoring/observations: Weather, Magnetic observations for electromagnetic changes in the near-Earth environment, Ionospheric Total Electron Content, Seismicity, Wind Profile	
<b>MEDICAL FACILITIES</b>	Yes
Area of medical facility (m <sup>2</sup> )	22

## Features in the facility area

Bird colonies, Clear air zone, Hill, Ice cap or glacier, Ice shelf, Ice tongue, Lake, Melt streams, Moraine, Mountain, Other Biological, Permanent snowpatches, Rock, Snow, Valley.

## Main science disciplines

Atmospheric chemistry and physics, Climate change, Environmental sciences, Geodesy, Geology, Geomorphology, Geophysics, Glaciology, Isotopic chemistry, Mapping, Paleolimnology, Sedimentology.



Staff with basic medical training or doctor (Summer)	2
Staff with basic medical training or doctor (Winter)	2
Capability: Basic, Surgery	
Equipment: Anaesthesia, Biochemistry, Diagnostic ultrasound	
Distance to hospital (km)	
Closest emergency facility in Antarctica (km)	3.5
Closest emergency facility external (km)	
Medical research capabilities	No
Medical screening requirements	No
<b>VEHICLES AT FACILITY</b>	
Sea transportation:	
Land transportation: Snowmobiles	
<b>WORKSHOP FACILITIES</b>	
Mechanical, Wood workshop	
<b>COMMUNICATIONS</b>	
Computer, E-mail, Internet, Printer, Satellite phone, Scanner, Telephone, VHF.	
<b>TRANSPORT AND FREIGHT</b>	
Access	Air, Land
Transport to facility: 4WD, Airplane, Helicopter, Ship, Skidoo, Walking	
Number of airstrips	0
Length (m) of longest runway	
Width (m) of longest runway	
Number of flight visits per year	10
Period of flight visits per year: January, February, November, December	
Helipad	Yes
Number of ship visits per year	1
Period of ship visits per year: February, March	
Ship landing facilities: Ice pier	





# Mario Zucchelli

Programma Nazionale di Ricerche in Antartide

74°41'42''S 164°7'23''E

Type: Station

Operational period:  
October–February

## Location

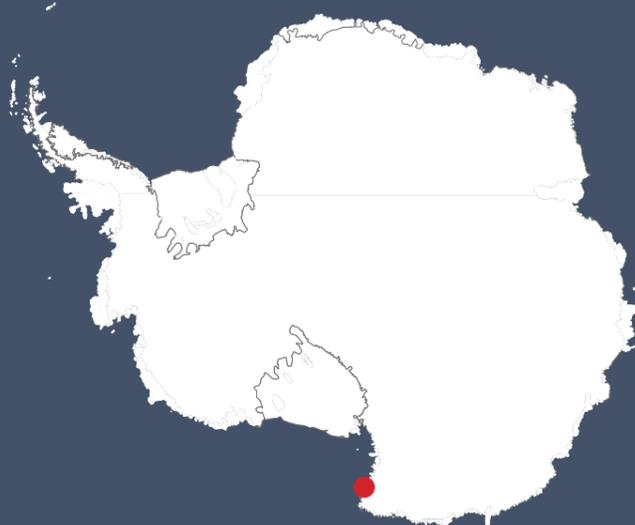
Mario Zucchelli station (MZS) is located in the Ross Sea area, in the Victoria Land, at the foot of small range called Northern Foothills. MZS is a coastal station built on a granite promontory overlooking the Gerlache Inlet, within the wider Terra Nova Bay.

## Biodiversity and natural environment

MZS is located in the Northern Foothills, an ice-marginal, high latitude periglacial environment covered only by local glaciers and snowfields. The area, characterized by Adélie and Emperor penguin colonies and Skua colonies (at Edmonson Point, Cape Washington, Adélie Cove and Inexpressible Island), hosts some marine and terrestrial protected areas (ASPA161, 118 and 173). The fauna comprises also other species of seabirds (Snow and Wilson's Storm petrel), seals (Leopard and Weddell seal) and whales (Killer, Antarctic minke and Arnoux's beaked whale). Furthermore Wood Bay and Terra Nova Bay are among the most biologically and ecologically diverse areas in Antarctica with many species of bryophytes, lichens, algae, cyanobacteria and invertebrates. The vegetation of Victoria Land is entirely cryptogamic and vascular plants are absent.



CLIMATE	
Climate zone	Coastal Antarctica
Permafrost	Continuous
Mean annual wind speed (km/h)	22
Max wind speed (km/h)	243
Dominant wind direction	W
Sea Ice Break Up	December
Snow free period	January, December
Total annual precipitation (mm)	
Precipitation type	Snow
Mean annual temperature (°C)	-14
Mean temperature in February (°C)	-7
Mean temperature in July (°C)	-22
ENVIRONMENT	
Region	Continental Antarctica
Antarctic Environmental Domain: U – North Victoria Land geologic	
Antarctic Conservation Biogeographic Region: 8 North Victoria Land	
Altitude of facility (m)	15
Type of surface facility built on	Ice-free ground
Long term monitoring	Yes
Waste management	Yes
Hazard(ous) management	Yes
Fuel spill response capability	Yes



## History and facilities

The site for the permanent Italian station, built in 1986, is Terra Nova Bay between Cape Washington and the Drygalski Ice Tongue, along the coast of Northern Victoria Land. The station was called Baia Terra Nova until 2004. The station is built right on the shore, on a granite rocky peninsula with a north-south orientation. The area assigned to the buildings provides easy access from/to the sea from both east and west. The small inlet on the east shore is particularly suited for unloading cargo at the beginning of the season, when the sea is totally covered with ice. The fast-ice in Tethys Bay is used at the beginning of the season as an aircraft landing place. The main facilities are runways, helipads, plants (power production, incinerator, waste water treatment, desalinator, liquefier), fuel storage and aquarium.

## General research and databases

Terra Nova Bay area has been widely scientifically investigated in the last thirty-two years, through extensive geological, oceanographic, marine, ecological and biological research. Marine biological research activities were carried out in the area during the austral summers since the early 1990s including fish community dynamics (in particular the Silver fish). Since 1987, the Meteo-Climatological Observatory of the Programma

## FACILITIES INFRASTRUCTURE

Area under roof (m <sup>2</sup> )	7500
Area scientific laboratories (m <sup>2</sup> )	2400
Type of scientific laboratories: Astrophysics, Biology, Chemistry, Climate, Geodesy, Geology, Geomagnetism, Geophysics, Glaciology, Gravimetric, Ionosphere, Scientific diving, Seismology	
Conference room (capacity)	100
Logistic area (m <sup>2</sup> )	5100
Number of beds	124
Showers	Yes
Laundry facilities	Yes
Power supply type	Fossil fuel
Power supply (V)	380
Power supply (hours per day)	24
Hydroponics facilities	Yes
Number of staff on station (peak/summer season)	80
Number of scientists on station (peak/summer season)	40
Number of staff on station (off peak/winter season)	
Number of scientists on station (off peak/winter season)	
Max number of personnel at a time (staff, scientists and others)	120
Specific device/Scientific equipment: The station has several research facilities that include helicopters, boats (a 15 m oceanographic vessel and six rubber-dinghies), terrestrial cross-country vehicles (mainly as support of scientific activities in remote areas) and common laboratories.	
Scientific services possible: Along with helicopter and airplane services for remote field research, a diving research service is available as well, allowed by the regular presence on field of professional divers. For this purpose a hyperbaric chamber is available at MZS.	
Long-term monitoring/observations: Long-term monitoring and observations consist of: five year-round automatic observatories (geomagnetism, ionosphere, seismology, space weather and surface radiative fluxes), the Meteo-climatic PNRA AWS network (since 1987), the permafrost active layer monitoring CALM grid (since 2000), the long-term monitoring of Adélie penguin colonies at Adélie Cove and of silver fish reproduction at Terra Nova Bay.	

Nazionale di Ricerche in Antartide (PNRA) has collected meteorological data by means of several automatic weather stations (over thirty at present) installed in the Victoria Land region. Measurements of the size of Adélie penguin colonies of the southern Ross Sea since 1984 are among the longest biologic time series in Antarctica. At Boulder Clay, since 2000, an automatic station (CALM protocol grid) is monitoring the permafrost thermal regime.

## Features in the facility area

Bird colonies, Blue ice, Bluff, Clear air zone, Coast, Crevasse, High elevation, Hill, Ice cap or glacier, Ice shelf, Ice tongue, Lake, Low artificial light pollution, Low humidity, Melt streams, Moraine, Mountain, Nunatak, Other Biological, Permanent snowpatches, Plateau, Rock, Sea, Sea ice, Seal colonies, Shoreline, Snow, Sustrugui, Terrestrial geothermal, Valley.

## Main science disciplines

Astrophysics, Atmospheric chemistry and physics, Climate change, Climatology, Ecology, Environmental sciences, Fishery, Geodesy, Geology, Geomorphology, Geophysics, GIS, Glaciology, Hydrology, Isotopic chemistry, Limnology, Mapping, Marine biology, Medicine, Microbiology, Oceanography, Paleocology, Pollution, Soil science, Terrestrial biology.

## MEDICAL FACILITIES

Area of medical facility (m <sup>2</sup> )	60	Yes
Staff with basic medical training or doctor (Summer)	3	
Staff with basic medical training or doctor (Winter)	0	
Capability: Basic, Dental, Surgery		
Equipment: Anaesthesia, Diagnostic ultrasound, Diagnostic X-ray, Hyperbaric Recompression Chamber, Laboratory diagnostics, Ophthalmology, Telemedicine, Surgical theatre, Traumatology, Portable field X-ray		
Distance to hospital (km)	3500	
Closest emergency facility in Antarctica (km)	360	
Closest emergency facility external (km)	3500	
Medical research capabilities	No	
Medical screening requirements	Yes	

## VEHICLES AT FACILITY

Sea transportation: "Malippo" 15 m aluminum boat, "Skua" 14 m boat, four Zodiac rubber boats  
Land transportation: Ten pickup trucks, one minibus, six quad bikes, eight skidoos, snow groomer

## WORKSHOP FACILITIES

Electrical, ICTS, Mechanical, Metal workshop, Plexiglas workshop, Welding, Wood workshop

## COMMUNICATIONS

Computer, E-mail, Fax, Internet, Printer, Satellite phone, Scanner, Telephone, VHF

## TRANSPORT AND FREIGHT

Access	Air, Sea
Transport to facility: Airplane, Helicopter, Ship	
Number of airstrips	4
Length (m) of longest runway	3000
Width (m) of longest runway	70
Number of flight visits per year	20
Period of flight visits per year: January, February, October, November, December	
Helipad	Yes
Number of ship visits per year	1
Period of ship visits per year: January	
Ship landing facilities: Pier/Jetty	

# Syowa National Institute of Polar Research

69°0'25.1"S 39°35'01.5"E

Type: Station

Operational period: Year-round

## Location

Syowa station was established on East Ongul Island, Lützw – Holm Bay, on 29 January 1957.

## Biodiversity and natural environment

Syowa station is located on East Ongul Island being separated by the Ongul Strait, which is approximately 4 km wide, the climate is comparatively moderate. The rock surface is exposed in the summer, revealing moss and lichen colonies.

## History and facilities

Syowa station was built in 1957 in the International Geophysical Year. Initially, cartographic, astronomical and gravity surveys were undertaken at the station. Now, a range of diverse research is carried out there and in the immediate vicinity of the station. Syowa is a year-round station with capacity for up to 130 people in the summer and a maximum of 42 people in winter.

## General research and databases

Research undertaken at Syowa includes space and upper atmospheric, meteorology, glaciology, geosciences, bioscience, polar engineering, and climate change studies. At present, National Institute of Polar Research (NIPR) and Syowa station are constantly networked via an Intelsat satellite link, and the data from Syowa are directly transferred to NIPR through this network via a high-speed LAN in the station. The "Multipurpose Satellite Data Receiving System" at Syowa is operated by the Polar Data Centre (PDC), and data from various earth observation satellites are received and transferred to NIPR. The transferred data from Syowa are stored in the Polar Science Data Library System (POLARIS) in NIPR, and transferred to researchers in collaborating universities and institutes via the Science Information Network (SINET).

CLIMATE	
Climate zone	Coastal Antarctica
Permafrost	Continuous
Mean annual wind speed (km/h)	6.7
Max wind speed (km/h)	
Dominant wind direction	
Sea Ice Break Up	None
Snow free period	None
Total annual precipitation (mm)	
Precipitation type	Snow
Mean annual temperature (°C)	-10.4
Mean temperature in February (°C)	-2.9
Mean temperature in July (°C)	-17.3
ENVIRONMENT	
Region	Continental Antarctica
Antarctic Environmental Domain: D – East Antarctic coastal geologic	
Antarctic Conservation Biogeographic Region: 6 Dronning Maud Land	
Altitude of facility (m)	29
Type of surface facility built on	Ice-free ground
Long term monitoring	Yes
Waste management	Yes
Hazard(ous) management	Yes
Fuel spill response capability	Yes



Photos: National Institute of Polar Research

## Features in the facility area

Coast, Lake, Low artificial light pollution, Low humidity, Melt streams, Permanent snowpatches, Sea, Sea ice, Snow.

## Main science disciplines

Astrophysics, Atmospheric chemistry and physics, Climate change, Climatology, Ecology, Environmental sciences, Geocryology, Geodesy, Geology, Geomorphology, Geophysics, Glaciology, Human biology, Isotopic chemistry, Limnology, Mapping, Marine biology, Medicine, Microbiology, Oceanography, Paleolimnology, Pollution, Terrestrial biology.

FACILITIES INFRASTRUCTURE	
Area under roof (m <sup>2</sup> )	7480
Area scientific laboratories (m <sup>2</sup> )	1330
Type of scientific laboratories: Biology, Chemistry, Geology, Geophysics	
Conference room (capacity)	
Logistic area (m <sup>2</sup> )	6150
Number of beds	130
Showers	Yes
Laundry facilities	Yes
Power supply type	Fossil fuel, Renewable
Power supply (V)	100
Power supply (hours per day)	
Hydroponics facilities	Yes
Number of staff on station (peak/summer season)	120
Number of scientists on station (peak/summer season)	50
Number of staff on station (off peak/winter season)	30
Number of scientists on station (off peak/winter season)	10
Max number of personnel at a time (staff, scientists and others)	130
Specific device/Scientific equipment:	
Scientific services possible:	
Long-term monitoring/observations:	
<b>MEDICAL FACILITIES</b>	Yes
Area of medical facility (m <sup>2</sup> )	100
Staff with basic medical training or doctor (Summer)	4
Staff with basic medical training or doctor (Winter)	2
Capability: Dental, Surgery	
Equipment: Anaesthesia, Biochemistry, Diagnostic ultrasound, Diagnostic X-ray, Laboratory diagnostics, Telemedicine	
Distance to hospital (km)	
Closest emergency facility in Antarctica (km)	
Closest emergency facility external (km)	
Medical research capabilities	Yes
Medical screening requirements	Yes
<b>VEHICLES AT FACILITY</b>	
Sea transportation: Rubber boats	
Land transportation: 4WD cars, snow vehicles, skidoos	
<b>WORKSHOP FACILITIES</b>	
Mechanical, Metal workshop, Wood workshop	
<b>COMMUNICATIONS</b>	
Computer, E-mail, Fax, Internet, Satellite phone, Telephone, VHF	
<b>TRANSPORT AND FREIGHT</b>	
Access	Air, Sea
Transport to facility: Airplane, Ship	
Number of airstrips	2
Length (m) of longest runway	1200
Width (m) of longest runway	50
Number of flight visits per year	5
Period of flight visits per year: January, February, November, December	
Helipad	Yes
Number of ship visits per year	1
Period of ship visits per year: January, February, December	
Ship landing facilities: None	

# Dirck Gerritsz Laboratory

Netherlands Organization for Scientific Research

67°34'07.1''S 68°07'27.8''W

Type: Laboratory

Operational period:  
October–March

## Location

Dirck Gerritsz Laboratory is located at Rothera Research station, run by the British Antarctic Survey, Adelaide Island, Western Antarctic Peninsula.

## Biodiversity and natural environment

As per Rothera Research station information, the Flora mainly limited to lichen. Breeding colonies of South polar skua, terns and Imperial Cormorants in the area. Large transitory populations of other bird species (petrels, gulls etc). Regular visits from Adélie penguins although no breeding colonies close by. Occasional sightings of Chinstrap and Emperor penguins. Regular sightings of Weddell, Crabeater, Fur, Elephant and Leopard seals. Regular sightings of Minke whale and Orca, occasionally Humpbacks.

## History and facilities

Officially opened January 2013, four flexible high tech mobile labs built in standard ISO 20 feet high cube containers. All four housed in a specially designed docking station.

1. A dry lab suitable for the use of a wide range of analytical instruments (e.g. flow cytometry) that need to be run at room temperature (15-22 °C).
2. A dry lab suitable for culturing using a cabinet with plasma lamps that provide the daylight spectrum. The temperature in this container is kept between 0 °C and 22 °C.
3. A wet lab suitable for processing water samples and biological rate measurements at the temperature of the sample of interest. The temperature in this container is kept between 2 °C and 15 °C.

CLIMATE	
Climate zone	Coastal Antarctica
Permafrost	Continuous
Mean annual wind speed (km/h)	
Max wind speed (km/h)	
Dominant wind direction	
Sea Ice Break Up	
Snow free period	
Total annual precipitation (mm)	
Precipitation type	
Mean annual temperature (°C)	-5
Mean temperature in February (°C)	-0.1
Mean temperature in July (°C)	-11.6
ENVIRONMENT	
Region	Antarctic Peninsula
Antarctic Environmental Domain: G – Antarctic Peninsula offshore island geologic	
Antarctic Conservation Biogeographic Region: 4 Central South Antarctic Peninsula	
Altitude of facility (m)	16
Type of surface facility built on	Ice-free ground
Long term monitoring	No data
Waste management	No data
Hazard(ous) management	No data
Fuel spill response capability	No data



4. A clean room laboratory suitable for trace metal research. It is equipped with special filters in the air-processing system to ensure that the air entering the container is completely particle free. The temperature in this container can be controlled between 5 °C and 20 °C.

## General research and databases

Chemical oceanography, terrestrial and marine ecology. To view all the data collected, please visit [www.npdc.nl](http://www.npdc.nl).

FACILITIES INFRASTRUCTURE	
Area under roof (m <sup>2</sup> )	48
Area scientific laboratories (m <sup>2</sup> )	48
Type of scientific laboratories: Biology, Chemistry	
Conference room (capacity)	
Logistic area (m <sup>2</sup> )	0
Number of beds	0
Showers	
Laundry facilities	
Power supply type	Fossil fuel, Renewable
Power supply (V)	
Power supply (hours per day)	
Hydroponics facilities	
Number of staff on station (peak/summer season)	2
Number of scientists on station (peak/summer season)	8
Number of staff on station (off peak/winter season)	
Number of scientists on station (off peak/winter season)	
Max number of personnel at a time (staff, scientists and others)	10
Specific device/Scientific equipment:	
Scientific services possible:	
Long-term monitoring/observations:	
MEDICAL FACILITIES	
Area of medical facility (m <sup>2</sup> )	0
Staff with basic medical training or doctor (Summer)	0
Staff with basic medical training or doctor (Winter)	

## Features in the facility area

Bird colonies, Coast, Crevasse, Fjord, Ice cap or glacier, Ice shelf, Mountain, Other Biological, Permanent snowpatches, Rock, Sea, Sea ice, Seal colonies, Shoreline, Snow.

## Main science disciplines

Climate change, Climatology, Ecology, Environmental sciences, Glaciology, Isotopic chemistry, Marine biology, Microbiology, Oceanography, Terrestrial biology.

Capability: None	
Equipment: None	
Distance to hospital (km)	
Closest emergency facility in Antarctica (km)	
Closest emergency facility external (km)	
Medical research capabilities	
Medical screening requirements	
VEHICLES AT FACILITY	
Sea transportation:	
Land transportation:	
WORKSHOP FACILITIES	
None	
COMMUNICATIONS	
E-mail, Telephone	
TRANSPORT AND FREIGHT	
Access	Air, Sea
Transport to facility: Airplane, Ship	
Number of airstrips	0
Length (m) of longest runway	
Width (m) of longest runway	
Number of flight visits per year	
Period of flight visits per year:	
Helipad	
Number of ship visits per year	
Period of ship visits per year:	
Ship landing facilities:	



Photos: D. van der Kreef

# Scott Base

Antarctica New Zealand

77°50'58.0"S 166°46'02.2"E

Type: Station

Operational period: Year-round

## Location

Pram Point, Ross Island Antarctica. Scott Base has been New Zealand's permanent base in Antarctica since 1957. The Base provides services and accommodation for the many scientific research parties and groups who visit Antarctica during the summer. The Base is located 3932 km (2114 nautical miles) from Christchurch, New Zealand and 1500 km from the South Pole. The Antarctic mainland is 70 km across McMurdo Sound from Scott Base.

## Biodiversity and natural environment

The topography of Pram Point and the southern tip of Hut Point Peninsula slopes gently southwards to where the land meets the sea or sea ice. The soils are derived from basaltic lava, and consist of loosely compacted stony gravelly sand. Permafrost generally occurs at a depth of approximately 300 mm. The ice free terrestrial environment of the southern tip of Hut Point Peninsula has been modified significantly since 1956 as a result of activities associated with the operation of both Scott Base and McMurdo Station. Despite significant ground disturbance over sixty years of operations at Scott Base, a recent environmental assessment of Pram Point found the area to support diverse biological communities including mosses, lichens, algae and soil invertebrates. Their distribution is sparse but widespread, and predominantly found in areas with low disturbance and higher water availability. South polar skua (*Catharacta maccormicki*) and Weddell seals (*Leptonychotes weddellii*) are regular visitors to Scott Base with Weddell seals occurring in significant numbers (~ 100-200 animals) during mid-summer on the sea ice in front of Scott Base. Adélie penguins (*Pygoscelis adeliae*) and Emperor penguin (*Aptenodytes forsteri*) are occasionally seen in the vicinity of Scott Base. Minke whales (*Balaenoptera acutorostrata*), Killer whales (*Orcinus orca*) and Leopard seals (*Hydrurga leptonyx*) have also been sighted in McMurdo Sound and occasionally come close to shore in front of Scott Base when the sea ice has broken out.

CLIMATE	
Climate zone	Coastal Antarctica
Permafrost	Continuous
Mean annual wind speed (km/h)	19.1
Max wind speed (km/h)	177.8
Dominant wind direction	NE
Sea Ice Break Up	January
Snow free period	None
Total annual precipitation (mm)	
Precipitation type	
Mean annual temperature (°C)	-19.8
Mean temperature in February (°C)	-11.3
Mean temperature in July (°C)	-29
ENVIRONMENT	
Region	Continental Antarctica
Antarctic Environmental Domain: S – McMurdo – South Victoria Land geologic	
Antarctic Conservation Biogeographic Region: 9 South Victoria Land	
Altitude of facility (m)	10
Type of surface facility built on	Scoria permafrost
Long term monitoring	Yes
Waste management	Yes
Hazard(ous) management	Yes
Fuel spill response capability	Yes



## History and facilities

Sir Edmund Hillary's leadership in 1957 set a high standard of endeavour and marked the beginning of the development of a solid science support programme. His overland trip to the South Pole, backing the Commonwealth Trans-Antarctic Expedition, was a daring and innovative journey. The proposal for a New Zealand base in Antarctica was put to the New Zealand Government in 1953. The building of the base began in 1956 to support the Trans-Antarctic Expedition and International Geophysical Year of 1957-1958. Aircraft and ship operations and infrastructure are supported by the United States Antarctic Program (USAP) through the joint logistic pool arrangements.

## General research and databases

The science supported by Antarctica New Zealand fits within three research themes outlined in the Antarctic and Southern Ocean Science Strategy. Scientific research from a wide variety of disciplines is supported within these themes and it is recognised that much of the research is applicable to more than one of these themes. See more at: [www.antarcticanz.govt.nz/science/](http://www.antarcticanz.govt.nz/science/).

## Features in the facility area

Coast, Hill, Ice shelf, Low artificial light pollution, Low humidity, Melt streams, Mountain, Other Biological, Rock, Sea, Sea ice, Seal colonies, Shoreline, Snow, Sustrugi.

## Main science disciplines

Atmospheric chemistry and physics, Climate change, Climatology, Ecology, Environmental sciences, Fishery, Geocryology, Geodesy, Geology, Geomorphology, Geophysics, GIS, Glaciology, Limnology, Mapping, Marine biology, Oceanography, Paleoclimatology, Paleoecology, Paleolimnology, Sedimentology, Soil science, Terrestrial biology.



Photo: C. Cary, Antarctica, New Zealand Pictorial Collection



Photo: A. Powell, Antarctica, New Zealand Pictorial Collection

FACILITIES INFRASTRUCTURE	
Area under roof (m <sup>2</sup> )	4000
Area scientific laboratories (m <sup>2</sup> )	400
Type of scientific laboratories: General purpose and clean staging areas for scientific groups; Customised facilities in portable container laboratories that can dock into main building; Small wet laboratory facilities	
Conference room (capacity)	30
Logistic area (m <sup>2</sup> )	250
Number of beds	86
Showers	Yes
Laundry facilities	Yes
Power supply type	Fossil fuel, Renewable
Power supply (V)	240
Power supply (hours per day)	24
Hydroponics facilities	Yes
Number of staff on station (peak/summer season)	27
Number of scientists on station (peak/summer season)	51
Number of staff on station (off peak/winter season)	11
Number of scientists on station (off peak/winter season)	0
Max number of personnel at a time (staff, scientists and others)	86
Specific device/Scientific equipment: MF Radar, Ionosonde, Dobson Ozone Spectrophotometer, Thermo Electric Instrument (TEI), Jobin Yvon spectrometer (JY), Antarctic Diode Array Spectrometer (ADAS), Antarctic Diode Array Spectrometer II (ADASII), Bruker Fourier Transform Interferometer, Chlorine Monoxide Microwave Radiometer (CLOE), Air sampler, Geomagnetic instruments, Worldwide Lightning Location Network (WWLN), Antarctic-Arctic Radiation Belt (Dynamic) Deposition VLF Atmospheric Research Consortium (AARDDVARK)	
Scientific services possible: Scientific services are supporting research related to long-term monitoring/observations	
Long-term monitoring/observations: Includes Ross Sea penguin census, atmospheric measurements including ozone concentration, climate data and geophysical measurements. See more at: <a href="http://www.antarcticanz.govt.nz/science/our-science/science-in-progress/">www.antarcticanz.govt.nz/science/our-science/science-in-progress/</a>	
MEDICAL FACILITIES	
Area of medical facility (m <sup>2</sup> )	10
Staff with basic medical training or doctor (Summer)	6
Staff with basic medical training or doctor (Winter)	2
Capability: Basic	
Equipment: Limited to basic first aid equipment and care facilities as the USAP support higher medical care for Antarctica New Zealand personnel if required	
Distance to hospital (km)	3
Closest emergency facility in Antarctica (km)	3
Closest emergency facility external (km)	4000
Medical research capabilities	
Medical screening requirements	Yes
VEHICLES AT FACILITY	
Sea transportation:	
Land transportation: Bulldozers, All-Terrain Tracked vehicle, snow groomers, snowmobile, ATVs, wheeled loaders, telehandler, 4WDs, trucks	
WORKSHOP FACILITIES	
Mechanical, Light Engineering and Carpentry workshop	
COMMUNICATIONS	
Computer, E-mail, Internet, Satellite phone, VHF	
TRANSPORT AND FREIGHT	
Access	Air, Ship
Transport to facility: 4WD	
Number of airstrips	0
Length (m) of longest runway	
Width (m) of longest runway	
Number of flight visits per year	
Period of flight visits per year:	
Helipad	Yes
Number of ship visits per year	
Period of ship visits per year:	
Ship landing facilities:	

# Troll Norwegian Polar Institute

72°00'43.0"S 2°31'59.1"E

Type: Station

Operational period: Year-round

## Location

Troll is around 235 km from the coast, at Jutulsessen, in Dronning Maud Land.

## Biodiversity and natural environment

Bird colonies in the area.

## History and facilities

Troll station opened on February 1990 for summer-only operation. Opened for year-round operation on February 2005.

## General research and databases

Year round clean air facility, geology, geodesy, glaciology and biology. Satellite ground station.

## Features in the facility area

Bird colonies, Blue ice, Clear air zone, Crevasse, High elevation, Ice cap or glacier, Low humidity, Moraine, Mountain, Nunatak, Other Biological, Permanent snowpatches, Rock.

## Main science disciplines

Climate change, Climatology, Ecology, Environmental sciences, Geodesy, Geology, Glaciology.

CLIMATE	
Climate zone	Inland Antarctica
Permafrost	Continuous
Mean annual wind speed (km/h)	4
Max wind speed (km/h)	202
Dominant wind direction	E
Sea Ice Break Up	
Snow free period	None
Total annual precipitation (mm)	
Precipitation type	Snow
Mean annual temperature (°C)	-18
Mean temperature in February (°C)	-10.9
Mean temperature in July (°C)	-24.8
ENVIRONMENT	
Region	Continental Antarctica
Antarctic Environmental Domain: N – East Antarctic inland ice sheet	
Antarctic Conservation Biogeographic Region: 6 Dronning Maud Land	
Altitude of facility (m)	1275
Type of surface facility built on	Ice-free ground
Long term monitoring	Yes
Waste management	Yes
Hazard(ous) management	Yes
Fuel spill response capability	Yes



## FACILITIES INFRASTRUCTURE

Area under roof (m <sup>2</sup> )	1500
Area scientific laboratories (m <sup>2</sup> )	
Type of scientific laboratories: None	
Conference room (capacity)	20
Logistic area (m <sup>2</sup> )	1000
Number of beds	60
Showers	Yes
Laundry facilities	Yes
Power supply type	Fossil fuel, Renewable
Power supply (V)	220
Power supply (hours per day)	24
Hydroponics facilities	No
Number of staff on station (peak/summer season)	35
Number of scientists on station (peak/summer season)	10
Number of staff on station (off peak/winter season)	6
Number of scientists on station (off peak/winter season)	1
Max number of personnel at a time (staff, scientists and others)	70
Specific device/Scientific equipment: As requested	
Scientific services possible: As requested	
Long-term monitoring/observations: Weather station, climate data, clear air facility with sampling	
<b>MEDICAL FACILITIES</b>	Yes
Area of medical facility (m <sup>2</sup> )	15
Staff with basic medical training or doctor (Summer)	2
Staff with basic medical training or doctor (Winter)	1
Capability: Dental, Surgery	

Equipment: Anaesthesia, Blood transfusion medicine, Diagnostic ultrasound, Diagnostic X-ray, Laboratory diagnostics, Telemedicine	
Distance to hospital (km)	4400
Closest emergency facility in Antarctica (km)	4400
Closest emergency facility external (km)	4400
Medical research capabilities	No
Medical screening requirements	Yes

## VEHICLES AT FACILITY

Sea transportation:  
Land transportation: Tracked vehicles, skidoos, tractors, 4WD, quad bikes, electrical vehicles

## WORKSHOP FACILITIES

Mechanical, Metal workshop, Wood workshop

## COMMUNICATIONS

Computer, E-mail, Fax, Internet, Printer, Satellite phone, Scanner, Telephone, VHF

## TRANSPORT AND FREIGHT

Access	Air, Land
Transport to facility: Airplane, Helicopter, Ship, Skidoo	
Number of airstrips	1
Length (m) of longest runway	3000
Width (m) of longest runway	60
Number of flight visits per year	7
Period of flight visits per year: January, February, March, November, December	
Helipad	Yes
Number of ship visits per year	1
Period of ship visits per year: January, February, December	
Ship landing facilities: Ice pier	



Photo: Sven Lidstrom



Photo: Sven Lidstrom



Photo: Sven Lidstrom

# Machu Picchu

Division of Antarctic Affairs

62°05'49.6"S 58°28'23.4"W

Type: Station

Operational period:

October–March

## Location

Crepin Point, Mackellar Inlet, Admiralty Bay, King George Island, South Shetland Islands.

## Biodiversity and natural environment

Flora: Crustose lichens and mosses which grow directly on rock predominate. Birds: Brown skua and South polar skua (*Stercorarius antarcticus*, *Stercorarius maccormicki* and *Catharacta chilensis*), Antarctic tern (*Sterna vittata*). Mammals: Elephant seals (*Mirounga leonina*), Fur seals (*Arctocephalus gazella*) and Crabeater seal (*Lobodon carcinophagus*). Marine ecology: Variety of benthic species, including diatoms, foraminiferans, macroalgae, invertebrates and demersal fish.

## History and facilities

The station consists of eight metallic modules including two dormitories, one kitchen and canteen, a generator room, a scientific laboratory, a waste treatment building, an emergency room and one maintenance room.

## General research and databases

Research: Krill ecology, marine biodiversity, biotechnology, biological oceanography, geology, upper atmosphere, glaciology, hydrology, meteorology.

CLIMATE	
Climate zone	Coastal Antarctica
Permafrost	None
Mean annual wind speed (km/h)	25
Max wind speed (km/h)	133
Dominant wind direction	SW
Sea Ice Break Up	
Snow free period	January
Total annual precipitation (mm)	
Precipitation type	Snow and Rain
Mean annual temperature (°C)	2.1
Mean temperature in February (°C)	1.75
Mean temperature in July (°C)	
ENVIRONMENT	
Region	Antarctic Peninsula
Antarctic Environmental Domain: G – Antarctic Peninsula offshore island geologic	
Antarctic Conservation Biogeographic Region: 3 North-west Antarctic Peninsula	
Altitude of facility (m)	3.5
Type of surface facility built on	
Long term monitoring	Yes
Waste management	Yes
Hazard(ous) management	No data
Fuel spill response capability	Yes

FACILITIES INFRASTRUCTURE	
Area under roof (m <sup>2</sup> )	872
Area scientific laboratories (m <sup>2</sup> )	73.50
Type of scientific laboratories: Biology, Geology	
Conference room (capacity)	
Logistic area (m <sup>2</sup> )	
Number of beds	30
Showers	Yes
Laundry facilities	Yes
Power supply type	Fossil fuel
Power supply (V)	220
Power supply (hours per day)	24
Hydroponics facilities	No
Number of staff on station (peak/summer season)	15
Number of scientists on station (peak/summer season)	15
Number of staff on station (off peak/winter season)	
Number of scientists on station (off peak/winter season)	
Max number of personnel at a time (staff, scientists and others)	30
Specific device/Scientific equipment:	
Scientific services possible:	
Long-term monitoring/observations:	Yes
MEDICAL FACILITIES	
Area of medical facility (m <sup>2</sup> )	10
Staff with basic medical training or doctor (Summer)	1
Staff with basic medical training or doctor (Winter)	

Capability: Basic	
Equipment: First Aid	
Distance to hospital (km)	
Closest emergency facility in Antarctica (km)	
Closest emergency facility external (km)	
Medical research capabilities	No
Medical screening requirements	Yes
VEHICLES AT FACILITY	
Sea transportation: Zodiac	
Land transportation: ATV	
WORKSHOP FACILITIES	
Mechanical, Wood workshop	
COMMUNICATIONS	
Internet, Satellite phone, VHF	
TRANSPORT AND FREIGHT	
Access	Air, Sea
Transport to facility: Ship, Zodiac.	
Number of airstrips	0
Length (m) of longest runway	
Width (m) of longest runway	
Number of flight visits per year	0
Period of flight visits per year: None	
Helipad	Yes
Number of ship visits per year	2
Period of ship visits per year: January, February	
Ship landing facilities: None	



Photos: Peruvian Division of Antarctic Affairs

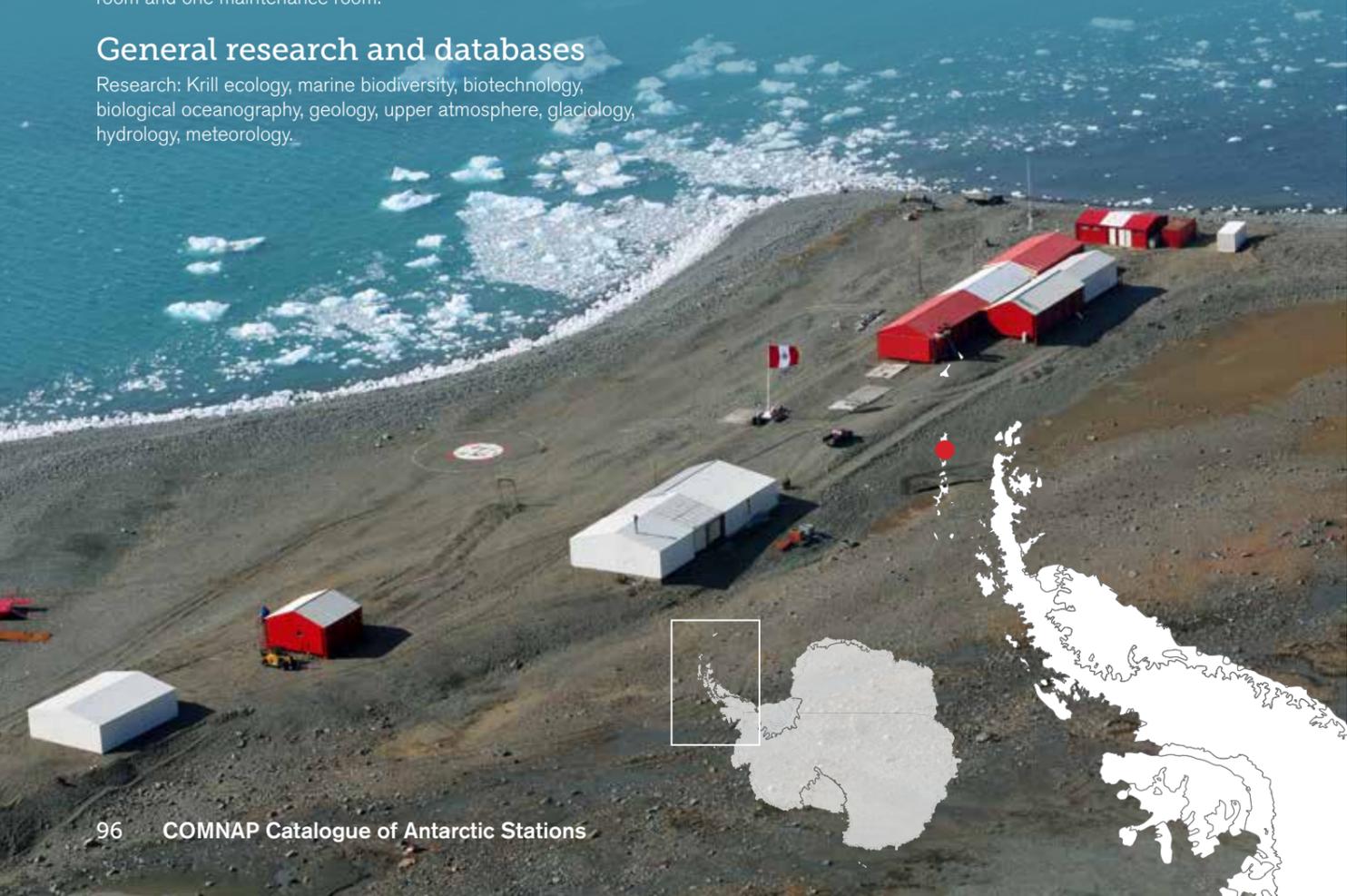


## Features in the facility area

Bird colonies, Glacier, Moraine.

## Main science disciplines

Climate change, Climatology, Ecology, Environmental sciences, Geodesy, Geology, Glaciology, Hydrology, Marine biology, Microbiology, Oceanography, Paleoecology, Pollution, Sedimentology, Terrestrial biology.



# Henryk Arctowski

Institute of Biochemistry and Biophysics Polish Academy of Sciences

62°09'35.2''S 58°28'23.9''W

Type: Station

Operational period: Year-round

## Location

The Henryk Arctowski Polish Antarctic station is located on the western shore of Admiralty Bay on King George Island (South Shetland Islands, Antarctic Peninsula) in an ice-free oasis of more than 4.2 km<sup>2</sup>. The area is restricted by Ezcurra Inlet and the central part of the Admiralty Bay in the north and east, and by glaciers of Warszawa Icefield System in the west and south. Admiralty Bay opens widely into the Bransfield Strait. The surrounding areas differ in height, exceeding 600 m a.s.l. in the northern and north-western part. It is situated within Antarctic Specially Managed Area (ASMA) 1 Admiralty Bay. ASPA 128 Western Shore of Admiralty Bay is located approximately 700 m to the east of the station. The Polish National Antarctic Program also operates two refuges: at Paradise Cove (within ASPA 128) and at Cape Lion's Rump (50 m outside the border of ASPA 151). The other year-round scientific station, Comandante Ferraz Antarctic station (Brazil), is approximately 10 km away, on the eastern shore of Admiralty Bay.

## Biodiversity and natural environment

King George Island is situated in Maritime Antarctic, with prevailing western atmospheric circulation, from which the station is sheltered by the dome of the Arctowski Glacier (more than 650 m). The non-glaciated oasis of Point Thomas, where the station is located, forms a specific, milder topoclimate. Flora of the area is represented by more than three hundred species of lichens, around sixty species of mosses and numerous algae, as well as two species of native vascular plants (*Deschampsia antarctica* and *Colobanthis quitensis*). Twenty-four species of birds and six species of pinnipeds have been registered, but only fourteen species of birds and three species of pinnipeds breed here. The Admiralty Bay shelf benthic community is characterized by high species richness and high assemblage diversity. A unique site, Napier Rock, situated at the entrance of the Admiralty Bay, supports especially rich and highly diverse benthic invertebrate fauna. Fish are represented by fifteen species of Nototheniidae.

CLIMATE	
Climate zone	Maritime Antarctica
Permafrost	None
Mean annual wind speed (km/h)	24
Max wind speed (km/h)	223
Dominant wind direction	SW
Sea Ice Break Up	
Snow free period	January, February, December
Total annual precipitation (mm)	505.7
Precipitation type	Snow and Rain
Mean annual temperature (°C)	-1.6
Mean temperature in February (°C)	2.3
Mean temperature in July (°C)	-6.6
ENVIRONMENT	
Region	Antarctic Peninsula
Antarctic Environmental Domain: G – Antarctic Peninsula offshore island geologic	
Antarctic Conservation Biogeographic Region: 3 North-west Antarctic Peninsula	
Altitude of facility (m)	2
Type of surface facility built on	Ice-free ground
Long term monitoring	Yes
Waste management	Yes
Hazard(ous) management	Yes
Fuel spill response capability	Yes



## History and facilities

The Henryk Arctowski Polish Antarctic station is a year-round, medium-sized station, which was established in 1977 as a base for scientific research and associated logistic operations of the Polish National Antarctic Program. Until 2012, the station was operated by the Department of Antarctic Biology Polish Academy of Sciences (PAS), which provided logistical and technical support for the station and was responsible for the scientific management of the station. In 2012, both the station and the Department of Antarctic Biology PAS were incorporated into the Institute of Biochemistry and Biophysics PAS, one of the leading Polish scientific institutions. Most of the buildings were built in 1977. In 1998, parts of the main building and the biological laboratory were reconstructed. In 2007, two laboratory buildings were merged, reducing energy expenditure for heating and shortening utility lines. For additional information please visit [www.arctowski.aq](http://www.arctowski.aq).

## General research and databases

The scope of scientific research conducted at the Henryk Arctowski station includes microbiology, biology, ecology, climatology and Earth sciences. Long-term monitoring programs exist for ecology, meteorology and glaciology. New methods using fixed-wing Unmanned Aerial Vehicles to collect geospatial environmental data are being developed. Microbial collection of more than five-hundred strains of Antarctic microorganisms collected in the vicinity of the station are maintained in the Institute of Biochemistry and Biophysics PAS for research on bioremediation and cold-adaptation. Research on non-native species and the pathways of their dissemination on King George Island is conducted. Year-long programs to monitor breeding and non-breeding bird and pinniped species in the vicinity of the station and in ASPA 128 has been conducted over the past forty years. International collaboration forms a key part of the Polish Antarctic Program.

## Features in the facility area

Bird colonies, Coast, Fjord, Hill, Ice cap or glacier, Ice tongue, Melt streams, Moraine, Nunatak, Other Biological, Rock, Sea, Seal colonies, Shoreline, Snow, Tundra.

## Main science disciplines

Climatology, Ecology, Environmental sciences, Geodesy, Geology, Geomorphology, Geophysics, Glaciology, Hydrology, Mapping, Marine biology, Microbiology, Oceanography, Terrestrial biology.



FACILITIES INFRASTRUCTURE	
Area under roof (m <sup>2</sup> )	1800
Area scientific laboratories (m <sup>2</sup> )	200
Type of scientific laboratories: Biology, Chemistry, Geophysics	
Conference room (capacity)	
Logistic area (m <sup>2</sup> )	1000
Number of beds	40
Showers	Yes
Laundry facilities	Yes
Power supply type	Fossil fuel, Renewable
Power supply (V)	220
Power supply (hours per day)	24
Hydroponics facilities	No
Number of staff on station (peak/summer season)	14
Number of scientists on station (peak/summer season)	26
Number of staff on station (off peak/winter season)	8
Number of scientists on station (off peak/winter season)	8
Max number of personnel at a time (staff, scientists and others)	40
Specific device/Scientific equipment:	
Scientific services possible:	
Long-term monitoring/observations:	
<b>MEDICAL FACILITIES</b>	Yes
Area of medical facility (m <sup>2</sup> )	10
Staff with basic medical training or doctor (Summer)	1
Staff with basic medical training or doctor (Winter)	1
Capability: Basic	
Equipment:	
Distance to hospital (km)	1500
Closest emergency facility in Antarctica (km)	40
Closest emergency facility external (km)	
Medical research capabilities	No
Medical screening requirements	Yes
VEHICLES AT FACILITY	
Sea transportation:	
Land transportation:	
WORKSHOP FACILITIES	
Mechanical, Metal workshop, Wood workshop	
COMMUNICATIONS	
Computer, E-mail, Fax, Internet, Printer, Satellite phone, Scanner, Telephone, VHF	
TRANSPORT AND FREIGHT	
Access	Air, Sea
Transport to facility: Helicopter, Ship	
Number of airstrips	0
Length (m) of longest runway	
Width (m) of longest runway	
Number of flight visits per year	0
Period of flight visits per year:	
Helipad	Yes
Number of ship visits per year	
Period of ship visits per year: January, February, March, November, December	
Ship landing facilities: None	

# Mountain Evening/ Vechernyaya

Belarus National Academy of Sciences

67°39'35"S 46°09'18"E

Type: Station

Operational period:  
December–March

## Location

East Antarctic, Enderby Land, Tala hills, Mountain Evening/  
Vechernyaya.

## Biodiversity and natural environment

Mountain Evening/Vechernyaya station is built on ice-free ground, Enderby Land, at 95m above sea level.

## History and facilities

Within the thirty-seven year period from 1955 to 1992, one hundred and two Belarusian specialists took part in Antarctic research as part of the Soviet Antarctic expeditions. Later, for the ten year period from 2006 to 2016 with logistics assistance of the Russian Federation, eight Belarusian Antarctic Expeditions (BAE) were organized. More than thirty Belarusian specialists conducted scientific research in the Antarctic within the BAE, in particular, at the field base of the Russian Antarctic Expedition (RAE) "Evening Mountain" (Eastern Antarctic, Enderby Land, Tala Hills) and, between 2007 and 2015, performed significant technical work in support of BAE activity. From December 2015 through January 2016, the first portion of the national research station, a three-section module for control, communication and navigation, was assembled in Antarctica.

CLIMATE	
Climate zone	Coastal Antarctica
Permafrost	Continuous
Mean annual wind speed (km/h)	
Max wind speed (km/h)	194
Dominant wind direction	SE
Sea Ice Break Up	January–March
Snow free period	November–April
Total annual precipitation (mm)	
Precipitation type	Snow
Mean annual temperature (°C)	
Mean temperature in February (°C)	-9.2
Mean temperature in July (°C)	
ENVIRONMENT	
Region	Continental Antarctica
Antarctic Environmental Domain: D – East Antarctic coastal geologic	
Antarctic Conservation Biogeographic Region: 5 Enderby Land	
Altitude of facility (m)	95
Type of surface facility built on	Ice-free ground
Long term monitoring	Yes
Waste management	Yes
Hazard(ous) management	Yes
Fuel spill response capability	Yes



MOUNTAIN EVENING/ VECHERNYAYA

MOUNTAIN EVENING/ VECHERNYAYA

## General research and databases

Scientific activity within the period 2007–2015 was conducted within six themes: complex ground-based and satellite monitoring of tropospheric aerosol, clouds and underlying surface, research of the state of ozonosphere and ultraviolet radiation, hydrometeorological and climatic research, development of radio engineering facilities for monitoring of the snow-ice cover, geophysical research, biodiversity of nearshore ecosystems and anthropogenic influence on the environment, influence of extreme production and natural factors on humans. Since 2016, the realization of the regular five-year stage of the national program for polar research "Monitoring of Earth's polar areas, creation of Belarusian Antarctic station and ensuring the activity of polar expeditions for 2016–2020 and for the period till 2025" began. To realize the goals of the scientific programmes a range of activity will be supported, these include: complex ground-based and satellite monitoring of the atmosphere and underlying surface, development of the optical model of atmospheric aerosol of the underlying surface of Enderby Land and adjacent territories, research on the influence of small gas components of atmosphere on seasonal variations of UV irradiation in the ground layer and water ecosystems of Enderby Land and adjacent territories, geophysical and geological research, complex research of biological resources and ecological monitoring of biotical components of Enderby Land of offshore zones, research of environmental change and climate of Enderby Land and adjacent territories under the influence of natural and anthropogenic factors, and scientific support of performance of obligations of the Republic of Belarus within the Environmental Protocol.

## Features in the facility area

Biological features, Bird colonies, Bluff, Clear air zone, Coast, Crevasse, Fauna, Hill, Ice cap or glacier, Ice tongue, Lake, Low humidity, Melt streams, Moraine, Mountain, Permanent snowpatches, Sea, Sea ice, Seal colonies, Snow.

## Main science disciplines

Atmospheric chemistry and physics, Climatology, Ecology, Environmental sciences, Geology, Geophysics, GIS, Isotopic chemistry, Limnology, Marine biology, Microbiology, Ozone study, Paleolimnology, Pollution, Sedimentology, Soil science, Terrestrial biology.



Photo: Haidashou

FACILITIES INFRASTRUCTURE	
Area under roof (m <sup>2</sup> )	108
Area scientific laboratories (m <sup>2</sup> )	21
Type of scientific laboratories: Biology	
Conference room (capacity)	10
Logistic area (m <sup>2</sup> )	15000
Number of beds	7
Showers	Yes
Laundry facilities	Yes
Power supply type	Fossil fuel, Renewable
Power supply (V)	60
Power supply (hours per day)	24
Hydroponics facilities	Yes
Number of staff on station (peak/summer season)	7
Number of scientists on station (peak/summer season)	4
Number of staff on station (off peak/winter season)	
Number of scientists on station (off peak/winter season)	
Max number of personnel at a time (staff, scientists and others)	12
Specific device/Scientific equipment: Multi-wave length scanning polarization sun/sky radiometer CE-318N, Spectral albedometer AS-A, Multi-wave length polarization Raman LIDAR, Filter ozonometer M124-M designed to measure TOA in the atmosphere employing "direct sun" (DS) and "zenith" (Z)	
Scientific services possible: Columnar optical parameters of atmospheric aerosol. Data are presented in AERONET database. Spectra of diffuse reflection coefficient (albedo). Profiles of the optical and microstructure parameters of aerosol and cloud particles.	
Long-term monitoring/observations: Start of observations: radiometer, since December, 2008; albedometer, since December 2011; LIDAR, since December, 2012. Filter ozonometer M124-M from 2006/2007. Multi-functional UV Spectroradiometer PION-UV-II from 2007/2008. Autonomous remote system PION-FN from 2015/2016. Semiconductor gas sensor. PION-SO 2007/2008, 2015/2016. Image spectrograph MARS-B 2013/2014.	
MEDICAL FACILITIES	
Area of medical facility (m <sup>2</sup> )	18
Staff with basic medical training or doctor (Summer)	1
Staff with basic medical training or doctor (Winter)	
Capability: Basic, Surgery	
Equipment: Anaesthesia, Diagnostic X-ray, Microbiology	
Distance to hospital (km)	
Closest emergency facility in Antarctica (km)	1400
Closest emergency facility external (km)	8000
Medical research capabilities	No
Medical screening requirements	Yes
VEHICLES AT FACILITY	
Sea transportation:	
Land transportation: Three snowmobiles, one snow truck, one truck	
WORKSHOP FACILITIES	
Metal workshop, Wood workshop	
COMMUNICATIONS	
Computer, E-mail, Fax, Printer, Satellite phone, Scanner	
TRANSPORT AND FREIGHT	
Access	Air, Sea
Transport to facility: 4WD, Airplane, Helicopter, Ship, Skidoo, Truck	
Number of airstrips	
Length (m) of longest runway	
Width (m) of longest runway	
Number of flight visits per year	4
Period of flight visits per year: January, February, November, December	
Helipad	Yes
Number of ship visits per year	2
Period of ship visits per year: January, February, March, April, November, December	
Ship landing facilities: None	

# Jang Bogo Korean Polar Research Institute

74°37'38"S 164°14'16"E

Type: Station

Operational period: Year-round

## Location

Terra Nova Bay, Northern Victoria Land, Antarctica.

## Biodiversity and natural environment

There are not many creatures that inhabit the area around Jang Bogo station. About twenty-one species of lichens and four mosses including *Umblicaria* spp., *Usnea antarctica*, and *Syntrichia magellanica* were found. Colonies of Weddell seal are usually found resting on a crevasse of Campbell Glacier Tongue as well as on the fast ice near the east of the station. During the austral summer, dozens of Crabeater seal and Weddell seal are encountered at the beach. A breeding place of South Polar skuas is located in the southeastern hill of the station, and Adélie penguins are spotted in shores and on the ice field individually or in small groups of up to five.

## History and facilities

Jang Bogo station was inaugurated on 12 February, 2014 at Terra Nova Bay. This station is operated by the Korea Polar Research Institute (KOPRI) with the support from the Ministry of Oceans and Fisheries of the Republic of Korea.

## General research and databases

Research on climate change over the Pacific Ocean side of Antarctica, Jang Bogo research station is expected to provide an ideal platform for the research on climate change over the Pacific Ocean side of Antarctica.

CLIMATE	
Climate zone	Coastal Antarctica
Permafrost	None
Mean annual wind speed (km/h)	15.12
Max wind speed (km/h)	144.36
Dominant wind direction	NW
Sea Ice Break Up	January
Snow free period	None
Total annual precipitation (mm)	
Precipitation type	
Mean annual temperature (°C)	-15.1
Mean temperature in February (°C)	-5.4
Mean temperature in July (°C)	-24.9
ENVIRONMENT	
Region	Continental Antarctica
Antarctic Environmental Domain: U – North Victoria Land geologic	
Antarctic Conservation Biogeographic Region: 8 North Victoria Land	
Altitude of facility (m)	36.6
Type of surface facility built on	Ice-free ground
Long term monitoring	Yes
Waste management	Yes
Hazard(ous) management	Yes
Fuel spill response capability	Yes

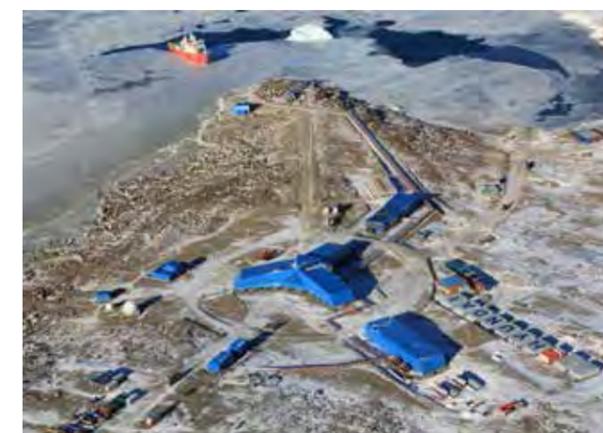


## Features in the facility area

Rock.

## Main science disciplines

Atmospheric chemistry and physics, Environmental sciences, Geology, Glaciology, Oceanography, Physics and astronomy - other.



Photos: Korean Polar Research Institute

## FACILITIES INFRASTRUCTURE

Area under roof (m <sup>2</sup> )	4661
Area scientific laboratories (m <sup>2</sup> )	963
Type of scientific laboratories: Autosonde, Geophysics, Neutron monitor, Scientific diving, Upper Atmosphere study	
Conference room (capacity)	15
Logistic area (m <sup>2</sup> )	3698
Number of beds	62
Showers	Yes
Laundry facilities	Yes
Power supply type	Fossil fuel, Renewable
Power supply (V)	220
Power supply (hours per day)	24
Hydroponics facilities	Yes
Number of staff on station (peak/summer season)	22
Number of scientists on station (peak/summer season)	40
Number of staff on station (off peak/winter season)	17
Number of scientists on station (off peak/winter season)	6
Max number of personnel at a time (staff, scientists and others)	62
Specific device/Scientific equipment:	
Scientific services possible:	
Long-term monitoring/observations:	
<b>MEDICAL FACILITIES</b>	Yes
Area of medical facility (m <sup>2</sup> )	71
Staff with basic medical training or doctor (Summer)	2
Staff with basic medical training or doctor (Winter)	2
Capability: Basic	
Equipment: Diagnostic ultrasound, Diagnostic X-ray, Hyperbaric Recompression Chamber, Telemedicine, Automatic External Defibrillator (AED), UV Dry Heat Oven, Neuromed, Cardiac Defibrillator	
Distance to hospital (km)	3500
Closest emergency facility in Antarctica (km)	350
Closest emergency facility external (km)	
Medical research capabilities	No
Medical screening requirements	Yes
<b>VEHICLES AT FACILITY</b>	
Sea transportation: Zodiac, barge	
Land transportation: Utility Task Vehicle, tractor, snow groomer, skidoo	
<b>WORKSHOP FACILITIES</b>	
Mechanical, Metal workshop, Wood workshop	
<b>COMMUNICATIONS</b>	
Computer, E-mail, Satellite phone, Telephone, VHF	
<b>TRANSPORT AND FREIGHT</b>	
Access	Air, Sea
Transport to facility: Airplane, Helicopter, Ship	
Number of airstrips	0
Length (m) of longest runway	
Width (m) of longest runway	
Number of flight visits per year	6
Period of flight visits per year: October, November	
Helipad	Yes
Number of ship visits per year	3
Period of ship visits per year: January, February, March, December	
Ship landing facilities: Ice pier	

# King Sejong

Korean Polar Research Institute

62°13'39.4"S 58°47'19.0"W

Type: Station

Operational period: Year-round

## Location

King Sejong station is located in Barton Peninsula, King George Island.

## Biodiversity and natural environment

The climate of Barton Peninsula is humid and relatively mild because of a strong maritime effect. Most of the ice-free areas of the Peninsula are covered by relatively rich vegetation, dominated by cryptogamic species with two Antarctic flowering plants. Narepski Point (ASPA 171) is located 2 km to the southeast of the station. Over three thousand pairs of Chinstrap penguins – the largest number in King George Island – and over two thousand three hundred pairs of Gentoo penguins inhabit in the area. There are also sixteen other bird species including eight breeding birds such as Brown skua, South polar skua, Kelp gull, Antarctic tern, Wilson's storm petrel, Black-bellied storm petrel, Snowy sheathbill, and the Southern giant petrel.

## History and facilities

King Sejong station was inaugurated on 17 February, 1988. This station is operated by the Korea Polar Research Institute (KOPRI) with the support from the Ministry of Oceans and Fisheries of the Republic of Korea.

## General research and databases

The over-winter party comprising seventeen scientists and engineers who stay at the King Sejong Station all year round, routinely collects geophysical and meteorological records and observes biological and oceanographical parameters.

CLIMATE	
Climate zone	Maritime Antarctica
Permafrost	None
Mean annual wind speed (km/h)	28.8
Max wind speed (km/h)	186.84
Dominant wind direction	NE
Sea Ice Break Up	
Snow free period	
Total annual precipitation (mm)	536.8
Precipitation type	Snow
Mean annual temperature (°C)	-1.8
Mean temperature in February (°C)	1.8
Mean temperature in July (°C)	-7
ENVIRONMENT	
Region	Antarctic Peninsula
Antarctic Environmental Domain: B – Antarctic Peninsula mid-northern latitudes geologic	
Antarctic Conservation Biogeographic Region: 3 North-west Antarctic Peninsula	
Altitude of facility (m)	10
Type of surface facility built on	Ice-free ground
Long term monitoring	Yes
Waste management	Yes
Hazard(ous) management	Yes
Fuel spill response capability	Yes



## Features in the facility area

Rock.

## Main science disciplines

Geology, Marine biology, Terrestrial biology.



Photos: Korean Polar Research Institute

## FACILITIES INFRASTRUCTURE

Area under roof (m <sup>2</sup> )	4318
Area scientific laboratories (m <sup>2</sup> )	741
Type of scientific laboratories: Biology, Geology, Geophysics, Scientific diving, Upper atmosphere study	
Conference room (capacity)	30
Logistic area (m <sup>2</sup> )	2348
Number of beds	68
Showers	Yes
Laundry facilities	Yes
Power supply type	Fossil fuel
Power supply (V)	220
Power supply (hours per day)	24
Hydroponics facilities	Yes
Number of staff on station (peak/summer season)	20
Number of scientists on station (peak/summer season)	48
Number of staff on station (off peak/winter season)	17
Number of scientists on station (off peak/winter season)	5
Max number of personnel at a time (staff, scientists and others)	68
Specific device/Scientific equipment:	
Scientific services possible:	
Long-term monitoring/observations:	

<b>MEDICAL FACILITIES</b>	Yes
Area of medical facility (m <sup>2</sup> )	70
Staff with basic medical training or doctor (Summer)	1
Staff with basic medical training or doctor (Winter)	1
Capability: Basic	
Equipment: Diagnostic X-ray, Hyperbaric Recompression Chamber, Telemedicine, Automatic External Defibrillator (AED), UV Dry Heat Oven, Neuromed, Cardiac Defibrillator	
Distance to hospital (km)	1230
Closest emergency facility in Antarctica (km)	10
Closest emergency facility external (km)	
Medical research capabilities	No
Medical screening requirements	Yes

## VEHICLES AT FACILITY

Sea transportation: Zodiac, barge  
Land transportation: Tractor, tracked all purposes machine, skidoo

## WORKSHOP FACILITIES

Mechanical, Metal workshop, Wood workshop

## COMMUNICATIONS

E-mail, Satellite phone, VHF

## TRANSPORT AND FREIGHT

Access	Air, Sea
Transport to facility: Airplane, Helicopter, Ship	
Number of airstrips	0
Length (m) of longest runway	
Width (m) of longest runway	
Number of flight visits per year	6
Period of flight visits per year: January, February, December	
Helipad	Yes
Number of ship visits per year	2
Period of ship visits per year: November, December	
Ship landing facilities: Pier/Jetty	



# Bellingshausen

Arctic and Antarctic Research Institute / Russian Antarctic Expedition

62° 12'00"S 58°58'00"W

Type: Station

Operational period: Year-round

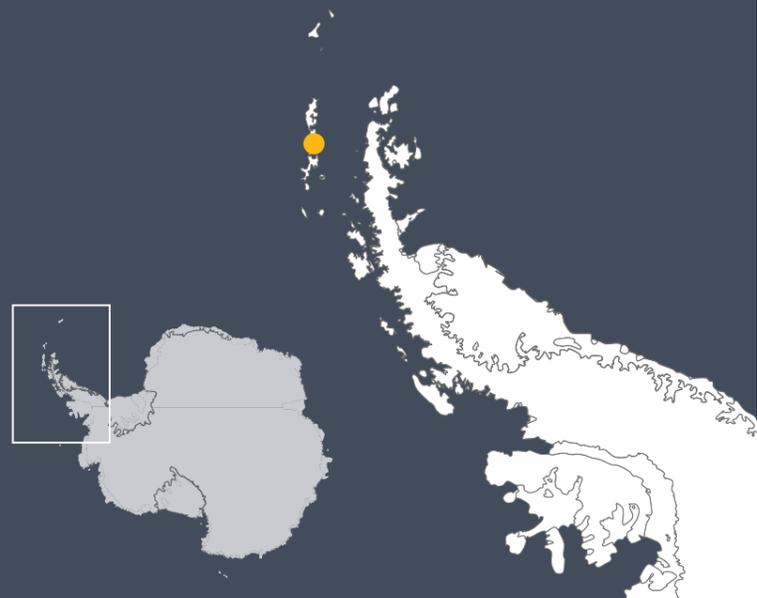
## Location

Bellingshausen station is located at the center of the Fildes Peninsula (southwestern tip of King George Island in the group of South Shetland Islands).

## Biodiversity and natural environment

The Fildes Peninsula presents the largest ice-free area of King George Island. The coastline is jagged by numerous bays and capes. The northwest shore of the Fildes Peninsula is washed by waters of the Drake Passage. From the south, the peninsula is separated by a narrow Fildes Strait from Nelson (Leipzig) Island. The relief of the peninsula presents a typical low hilly area with the absolute heights of up to 150m. Permafrost is spread everywhere. The hydrographic network is very poorly developed in general. The low places are filled with melt water forming dozens of shallow small lakes and pools with a depth of up to 2m and several quite deep (up to 16m) lakes that are confined to the bottom depressions of through valleys. There are around sixty lakes on the peninsula. Climate of the Fildes Peninsula is of marine type with small seasonal temperature variations. The synoptic processes are distinguished by intense cyclonic activity. The continuous soil-vegetation cover is absent. Lichens are represented by more than hundred species. Moss grows in moistened habitats, the patches of moss covering sometimes tens and hundreds of square meters. Unlike the mainland Antarctica, two species of flowering plants are observed here. The lakes are relatively rich in phyto and zooplankton. Birds comprise the basis of the fauna of vertebrates. Five species of Pinnipeds were observed on the peninsula.

CLIMATE	
Climate zone	Maritime Antarctica
Permafrost	Continuous
Mean annual wind speed (km/h)	25.56
Max wind speed (km/h)	100.8
Dominant wind direction	SE
Sea Ice Break Up	September, October, November, December
Snow free period	
Total annual precipitation (mm)	729
Precipitation type	Snow and Rain, Drizzling rain
Mean annual temperature (°C)	-2.8
Mean temperature in February (°C)	
Mean temperature in July (°C)	
ENVIRONMENT	
Region	Antarctic Peninsula
Antarctic Environmental Domain: A – Antarctic Peninsula offshore island geologic	
Antarctic Conservation Biogeographic Region: 3 North-west Antarctic Peninsula	
Altitude of facility (m)	16
Type of surface facility built on	Ice-free ground
Long term monitoring	Yes
Waste management	Yes
Hazard(ous) management	Yes
Fuel spill response capability	Yes



## History and facilities

The Bellingshausen station was opened on February 22, 1968 as a base for field route investigations at the King George Island. In the 1980s, the scientific expedition group was working at the station, the duties of which included providing ships with the weather forecasts and with the ice situation information for the south-western part of the Atlantic and for the south-eastern part of the Pacific.

## General research and databases

At the Bellingshausen station hydrometeorology, aerometeorology, oceanology, glaciology, geophysics observations and biology, glaciology and environment surveys are carried out.

## Features in the facility area

Bird colonies, Coast, Hill, Ice cap or glacier, Lake, Moraine, Other Biological, Rock, Sea, Sea ice, Seal colonies, Snow.

## Main science disciplines

Ecology, Fishery, Geomorphology, Geophysics, Glaciology, Hydrology, Limnology, Marine biology, Medicine, Microbiology, Oceanography, Soil science, Terrestrial biology.



Photos: Arctic and Antarctic Research Institute – Russian Antarctic Expedition

FACILITIES INFRASTRUCTURE	
Area under roof (m <sup>2</sup> )	1500
Area scientific laboratories (m <sup>2</sup> )	
Type of scientific laboratories: Aerology, Biology	
Conference room (capacity)	
Logistic area (m <sup>2</sup> )	
Number of beds	40
Showers	No
Laundry facilities	Yes
Power supply type	Fossil fuel
Power supply (V)	220
Power supply (hours per day)	
Hydroponics facilities	No
Number of staff on station (peak/summer season)	40
Number of scientists on station (peak/summer season)	
Number of staff on station (off peak/winter season)	20
Number of scientists on station (off peak/winter season)	
Max number of personnel at a time (staff, scientists and others)	40
Specific device/Scientific equipment:	
Scientific services possible:	
Long-term monitoring/observations:	
MEDICAL FACILITIES	
Area of medical facility (m <sup>2</sup> )	70
Staff with basic medical training or doctor (Summer)	1
Staff with basic medical training or doctor (Winter)	1
Capability: Basic, Dental, Surgery	
Equipment: Anaesthesia, Telemedicine	
Distance to hospital (km)	
Closest emergency facility in Antarctica (km)	
Closest emergency facility external (km)	
Medical research capabilities	
Medical screening requirements	
VEHICLES AT FACILITY	
Sea transportation:	
Land transportation:	
WORKSHOP FACILITIES	
Mechanical	
COMMUNICATIONS	
Computer, E-mail, Fax, Internet, Printer, Satellite phone, Scanner, Telephone, VHF	
TRANSPORT AND FREIGHT	
Access	Air, Land, Sea
Transport to facility: 4WD, Helicopter, Ship, Walking	
Number of airstrips	0
Length (m) of longest runway	
Width (m) of longest runway	
Number of flight visits per year	0
Period of flight visits per year:	
Helipad	No
Number of ship visits per year	1
Period of ship visits per year: March, April	
Ship landing facilities: None	

# Druzhnaya IV

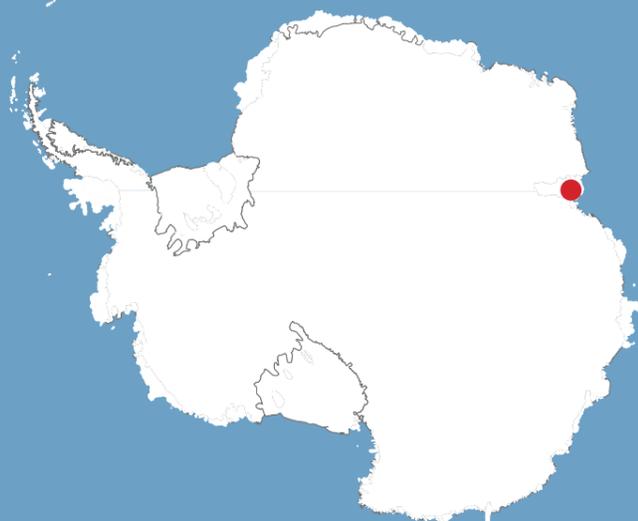
Arctic and Antarctic Research Institute / Russian Antarctic Expedition

69°44'00"S 73°43'00"E

Type: Station

Operational period:  
October–March

CLIMATE	
Climate zone	Coastal Antarctica
Permafrost	Continuous
Mean annual wind speed (km/h)	
Max wind speed (km/h)	
Dominant wind direction	
Sea Ice Break Up	
Snow free period	
Total annual precipitation (mm)	
Precipitation type	
Mean annual temperature (°C)	
Mean temperature in February (°C)	
Mean temperature in July (°C)	
ENVIRONMENT	
Region	Continental Antarctica
Antarctic Environmental Domain: D – East Antarctic coastal geologic	
Antarctic Conservation Biogeographic Region: 7 East Antarctica	
Altitude of facility (m)	20
Type of surface facility built on	Ice-free ground
Long term monitoring	Yes
Waste management	Yes
Hazard(ous) management	Yes
Fuel spill response capability	Yes



## Location

Druzhnaya IV base is located at Landing Bluff in Sandefjord Cove of Prydz Bay, 2 km from the barrier whose height is about 6 m and the sea depth reaches 100 m.

## Biodiversity and natural environment

The climate conditions are favorable for development of seasonal geological-geophysical studies in the area. On the islands and in the coastal ice-free territories in the Druzhnaya IV base area, one encounters small (up to one hundred individuals) groups of Adélie penguins.

## History and facilities

The Druzhnaya IV base was opened in January 1987 as a regional field center that organizes field geological studies in the International Geophysical Year (IGY) Valley. The base infrastructure consists of temporary panel huts. The power of the diesel electric station (DES) is 78 kW and the oil storage tank capacity is 120 t.

## General research and databases

The base is a logistics center of seasonal geological-geophysical studies in the East Antarctica region including McRobertson and Princess Elisabeth Lands with the Prince Charles Mountains and mountain oases of the Ingrid Christensen Coast. Automated meteorological and geodetic stations are operated at Druzhnaya IV base.

## Features in the facility area

Bluff, Coast, Fjord, Hill, Ice cap or glacier, Ice shelf, Lake, Mountain, Nunatak, Rock, Snow.

## Main science disciplines

Environmental sciences, Geodesy, Geology, Geophysics.

FACILITIES INFRASTRUCTURE	
Area under roof (m <sup>2</sup> )	
Area scientific laboratories (m <sup>2</sup> )	0
Type of scientific laboratories: None	
Conference room (capacity)	
Logistic area (m <sup>2</sup> )	
Number of beds	50
Showers	No
Laundry facilities	No
Power supply type	Fossil fuel
Power supply (V)	220
Power supply (hours per day)	
Hydroponics facilities	No
Number of staff on station (peak/summer season)	50
Number of scientists on station (peak/summer season)	
Number of staff on station (off peak/winter season)	
Number of scientists on station (off peak/winter season)	
Max number of personnel at a time (staff, scientists and others)	50
Specific device/Scientific equipment:	
Scientific services possible:	
Long-term monitoring/observations:	
MEDICAL FACILITIES	
Area of medical facility (m <sup>2</sup> )	0
Staff with basic medical training or doctor (Summer)	1
Staff with basic medical training or doctor (Winter)	
Capability: None	
Equipment: None	
Distance to hospital (km)	
Closest emergency facility in Antarctica (km)	
Closest emergency facility external (km)	
Medical research capabilities	
Medical screening requirements	
VEHICLES AT FACILITY	
Sea transportation:	
Land transportation:	
WORKSHOP FACILITIES	
None	
COMMUNICATIONS	
Satellite phone, VHF	
TRANSPORT AND FREIGHT	
Access	Air, Sea
Transport to facility: Helicopter, Ship	
Number of airstrips	0
Length (m) of longest runway	
Width (m) of longest runway	
Number of flight visits per year	0
Period of flight visits per year: None	
Helipad	No
Number of ship visits per year	2
Period of ship visits per year: January, February, November, December	
Ship landing facilities: None	



# Leningradskaya

Arctic and Antarctic Research Institute / Russian Antarctic Expedition

69°30'00"S 159°23'00"E

Type: Station

Operational period:  
October–March

## Location

The Leningradskaya base is located in the ice-free area at the nunatak top at Oates Coast, Victoria Land.

## Biodiversity and natural environment

The nunatak presents a rocky feature. Its ridge is comprised of alternating leucocratic granites and grey biotite gneiss extending from east to west over 1 km at a width of 100-150 m. Snow covers two-thirds of the nunatak area. The base is located in the western nunatak area at a distance of 600 m from its top (330 m). The nunatak height comprises 100-230 m relative to the surrounding glaciers. The ice barrier in this area has a height of 15-20 m. The base is located in the zone of marine Antarctic climate with a rapid and sharp change of weather conditions. The base is known by its persistent and frequent storms that occur due to its considerable elevation above sea level. The local flora and fauna are very poor.

## History and facilities

The Leningradskaya base was opened on February 25, 1971. The base structures consist of several houses with living space, a radio station, a power station, a meteorological station, an upper-air sounding complex, a garage and a warehouse. The living and life conditions are quite peculiar, with the station territory restricted to only 200-250 m in length and not more than 50 m in width. The base facilities are currently mothballed.

CLIMATE	
Climate zone	Coastal Antarctica
Permafrost	Continuous
Mean annual wind speed (km/h)	30.24
Max wind speed (km/h)	133.2
Dominant wind direction	SE
Sea Ice Break Up	None
Snow free period	
Total annual precipitation (mm)	59.6
Precipitation type	Snow
Mean annual temperature (°C)	-14.2
Mean temperature in February (°C)	
Mean temperature in July (°C)	
ENVIRONMENT	
Region	Continental Antarctica
Antarctic Environmental Domain: U – North Victoria Land geologic	
Antarctic Conservation Biogeographic Region: 8 North Victoria Land	
Altitude of facility (m)	300
Type of surface facility built on	Ice-free ground
Long term monitoring	Yes
Waste management	Yes
Hazard(ous) management	Yes
Fuel spill response capability	Yes



## General research and databases

Automated meteorological and geodetic stations are operated at Russkaya base.

## Features in the facility area

Coast, Mountain, Nunatak, Rock, Sea, Sea ice, Snow.

FACILITIES INFRASTRUCTURE	
Area under roof (m <sup>2</sup> )	800
Area scientific laboratories (m <sup>2</sup> )	0
Type of scientific laboratories: None	
Conference room (capacity)	
Logistic area (m <sup>2</sup> )	
Number of beds	10
Showers	No
Laundry facilities	No
Power supply type	Fossil fuel
Power supply (V)	220
Power supply (hours per day)	
Hydroponics facilities	No
Number of staff on station (peak/summer season)	10
Number of scientists on station (peak/summer season)	
Number of staff on station (off peak/winter season)	
Number of scientists on station (off peak/winter season)	
Max number of personnel at a time (staff, scientists and others)	10
Specific device/Scientific equipment:	
Scientific services possible:	
Long-term monitoring/observations:	
<b>MEDICAL FACILITIES</b>	Yes
Area of medical facility (m <sup>2</sup> )	20
Staff with basic medical training or doctor (Summer)	0
Staff with basic medical training or doctor (Winter)	

## Main science disciplines

Environmental sciences, Geodesy.

Capability: Basic	
Equipment: None	
Distance to hospital (km)	
Closest emergency facility in Antarctica (km)	
Closest emergency facility external (km)	
Medical research capabilities	
Medical screening requirements	
<b>VEHICLES AT FACILITY</b>	
Sea transportation:	
Land transportation:	
<b>WORKSHOP FACILITIES</b>	
Mechanical	
<b>COMMUNICATIONS</b>	
Satellite phone	
<b>TRANSPORT AND FREIGHT</b>	
Access	Sea
Transport to facility: Air, Ship	
Number of airstrips	0
Length (m) of longest runway	
Width (m) of longest runway	
Number of flight visits per year	0
Period of flight visits per year:	
Helipad	Yes
Number of ship visits per year	1
Period of ship visits per year: January, February, March, December	
Ship landing facilities: None	



Photos: Arctic and Antarctic Research Institute – Russian Antarctic Expedition



# Mirny

Arctic and Antarctic Research Institute / Russian Antarctic Expedition

66°31'00"S 93°01'00"E

Type: Station

Operational period: Year-round

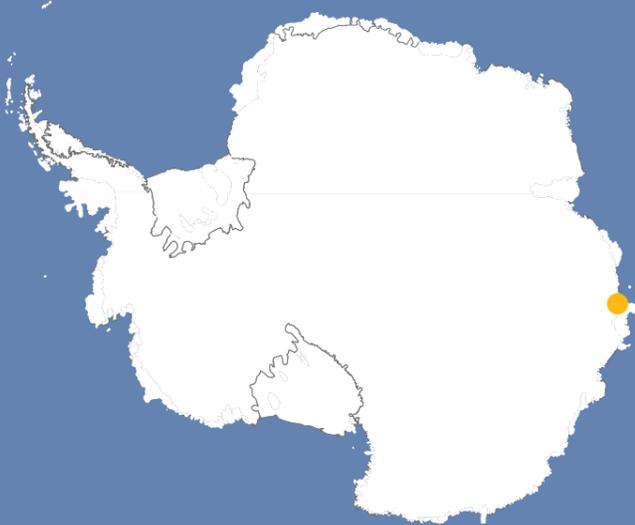
## Location

Mirny station is situated at a small bench known as Mirny Peninsula on the Davis Sea shore.

## Biodiversity and natural environment

The station facilities are located at four rock outcrops: Komsomolskaya, Radio, Morennaya and Vetrov Hills elevating above the ice sheet at the very shore. In the territory of the research settlement between the hills, the ice thickness comprises 80–100 m. South of the station, it gradually increases comprising more than 1.5 km at a distance of 100 km from Mirny. The coastal ice sheet band, 50 km in width, is covered with cracks. The sea in the Mirny area is covered with landfast ice much of the year whose width at the end of winter achieves 30–40 km. The Mirny observatory is located in the climatic area of the glacial slope foot. Local climate is strongly influenced by the close proximity of the ocean resulting in unstable and sharply changing weather as the oceanic cyclones closely approach the Antarctic coast and often persist near it. The hills where Mirny is located and the rocky small islands near the coast are almost devoid of vegetation cover. Only lichen, moss and algae are observed in small numbers. An abundant food base and the availability of suitable grounds for nesting create favorable conditions for the existence of a large number of sea birds. Pinnipeds are typical fauna representatives at the coast. The Weddell seal is most widespread on the coastal ice breeding here. Single individuals of the sea elephant and the Ross seal are encountered in the Mirny area. The Crabeater seal and the Sea leopard keep to the drifting ice. Minke whales approach frequently the Mirny area. The ASPA 127 is at 2.5 km distance from the Mirny station.

CLIMATE	
Climate zone	Coastal Antarctica
Permafrost	Continuous
Mean annual wind speed (km/h)	39.6
Max wind speed (km/h)	
Dominant wind direction	SE
Sea Ice Break Up	December, January, February, March
Snow free period	
Total annual precipitation (mm)	624
Precipitation type	Snow and Rain
Mean annual temperature (°C)	-11.4
Mean temperature in February (°C)	
Mean temperature in July (°C)	
ENVIRONMENT	
Region	Continental Antarctica
Antarctic Environmental Domain: D – East Antarctic coastal geologic	
Antarctic Conservation Biogeographic Region: 7 East Antarctica	
Altitude of facility (m)	35
Type of surface facility built on	Ice-free ground
Long term monitoring	Yes
Waste management	Yes
Hazard(ous) management	Yes
Fuel spill response capability	Yes



## History and facilities

The Mirny Observatory was opened on February 13, 1956. One of the main functions of the station was to provide support for activities at the Vostok station. The supplies were delivered to Vostok from Mirny by transport vehicles. A permanent synoptic group at the station provided prognostic data for transportation traverses along the Mirny-Vostok-Mirny route, cargo operations near the landfast ice and at the approaches during the navigation period, as well as for other operations. The station infrastructure is represented by three two-storied module buildings, garage for repair of heavy transport vehicles, "baseline" station building, workshops and some supporting objects. The total number of capital and temporary structures is over thirty.

## General research and databases

At Mirny station hydrometeorology, aero-meteorology, oceanology and geophysics observations, biological and environmental surveys are carried out.

## Features in the facility area

Bird colonies, Coast, Crevasse, Ice cap or glacier, Moraine, Other Biological, Permanent snowpatches, Sea, Sea ice, Snow.

## Main science disciplines

Climate change, Environmental sciences, Geodesy, Geophysics, Glaciology, Hydrology, Marine biology, Medicine, Microbiology, Oceanography, Pollution.



Photos: Arctic and Antarctic Research Institute – Russian Antarctic Expedition



FACILITIES INFRASTRUCTURE	
Area under roof (m <sup>2</sup> )	3000
Area scientific laboratories (m <sup>2</sup> )	
Type of scientific laboratories: Aerology, Geophysics	
Conference room (capacity)	
Logistic area (m <sup>2</sup> )	
Number of beds	50
Showers	No
Laundry facilities	Yes
Power supply type	Fossil fuel
Power supply (V)	220
Power supply (hours per day)	
Hydroponics facilities	No
Number of staff on station (peak/summer season)	50
Number of scientists on station (peak/summer season)	
Number of staff on station (off peak/winter season)	25
Number of scientists on station (off peak/winter season)	
Max number of personnel at a time (staff, scientists and others)	50
Specific device/Scientific equipment:	
Scientific services possible:	
Long-term monitoring/observations:	
MEDICAL FACILITIES	
Area of medical facility (m <sup>2</sup> )	65
Staff with basic medical training or doctor (Summer)	2
Staff with basic medical training or doctor (Winter)	2
Capability: Basic, Dental, Surgery	
Equipment: Anaesthesia, Telemedicine	
Distance to hospital (km)	
Closest emergency facility in Antarctica (km)	
Closest emergency facility external (km)	
Medical research capabilities	
Medical screening requirements	
VEHICLES AT FACILITY	
Sea transportation:	
Land transportation:	
WORKSHOP FACILITIES	
Mechanical	
COMMUNICATIONS	
Computer, E-mail, Internet, Satellite phone, Telephone, VHF	
TRANSPORT AND FREIGHT	
Access	Air, Sea
Transport to facility: Airplane, Helicopter, Ship	
Number of airstrips	1
Length (m) of longest runway	
Width (m) of longest runway	
Number of flight visits per year	
Period of flight visits per year: January, February, March, December	
Helipad	No
Number of ship visits per year	1
Period of ship visits per year: January, December	
Ship landing facilities: None	



# Molodezhnaya

Arctic and Antarctic Research Institute / Russian Antarctic Expedition

67°40'00"S 45°51'00"E

Type: Station

Operational period:  
December–March

## Location

Molodezhnaya station is located in the Molodezhny Oasis (Thala Hills) in the western area of the Enderby Land on the shore of Alasheyev Bay (Cosmonauts Sea).

## Biodiversity and natural environment

The Oasis extends over 8.3 km, its largest width comprising 2.7 km. The largest height reaches 110 m. The relief of lithogenic geo-complexes of the Oasis are part of a rocky hilly area, its ridges are elongated close to the northwestern direction. The length of ridges is up to 1 km at a width of up to 150 m, while the depressions between them are mainly occupied by small glaciers, snowfields and lakes. South of the Molodezhny Oasis, there is a gradually elevating ice sheet slope of Antarctica. In the vicinity of Molodezhny Oasis, more than forty temporary and permanent lakes were discovered. Their surface area varies between 0.5 to more than 400 ha with depths from several centimeters to slightly more than 36 m. Vegetation of periglacial complexes is represented by lichen, algae and mosses; there are also bacteria and microscopic fungi. At the slopes of the Oasis and on nearby islands, small colonies of Adélie penguins are observed. The Wilson's storm petrel and South polar skua nest in insignificant numbers. Antarctic petrels fly in and Emperor penguins call occasionally. Of mammals, the Weddell seals and sometimes Ross seals breed in the station area; one observes sometimes Sea leopards. Near the coast of Alasheyev Bay, one can observe whales, including killer whale.

CLIMATE	
Climate zone	Coastal Antarctica
Permafrost	Continuous
Mean annual wind speed (km/h)	38.16
Max wind speed (km/h)	
Dominant wind direction	SE
Sea Ice Break Up	
Snow free period	
Total annual precipitation (mm)	270
Precipitation type	Snow
Mean annual temperature (°C)	-11
Mean temperature in February (°C)	
Mean temperature in July (°C)	
ENVIRONMENT	
Region	Continental Antarctica
Antarctic Environmental Domain: D – East Antarctic coastal geologic	
Antarctic Conservation Biogeographic Region: 5 Enderby Land	
Altitude of facility (m)	40
Type of surface facility built on	Ice-free ground
Long term monitoring	Yes
Waste management	Yes
Hazard(ous) management	Yes
Fuel spill response capability	Yes



FACILITIES INFRASTRUCTURE	
Area under roof (m²)	7000
Area scientific laboratories (m²)	0
Type of scientific laboratories: None	
Conference room (capacity)	
Logistic area (m²)	
Number of beds	15
Showers	No
Laundry facilities	Yes
Power supply type	Fossil fuel
Power supply (V)	220
Power supply (hours per day)	
Hydroponics facilities	No
Number of staff on station (peak/summer season)	15
Number of scientists on station (peak/summer season)	
Number of staff on station (off peak/winter season)	
Number of scientists on station (off peak/winter season)	
Max number of personnel at a time (staff, scientists and others)	15
Specific device/Scientific equipment:	
Scientific services possible:	
Long-term monitoring/observations:	
MEDICAL FACILITIES	
Area of medical facility (m²)	20
Staff with basic medical training or doctor (Summer)	1
Staff with basic medical training or doctor (Winter)	

## History and facilities

The Molodezhnaya station operating from 1962 (the official opening date is January 14, 1963) developed quite intensely for a long time as the main Soviet Antarctic Expedition base, center of hydro-meteorological studies and processing of hydro-meteorological information, including rocket sounding of the upper atmospheric layers and geophysical and seismic studies. It was also the major snow-ice airfield to receive heavy aircraft. For the last few years, most research programs at the station have been cut back. The settlement numbers more than seventy structures, including living and office buildings, a mess-room, upper-air sounding station, aerological building, power station, radio-center and warehousing. West of the settlement there is a runway for aircraft and in 12 km to the east-south-east of the station a snow-ice airfield was constructed for heavy aircraft. Today, the station infrastructure remains to a great extent unused.

## General research and databases

Beginning from 1998, the work to establish a self-contained structure ("small" Molodezhnaya) was undertaken at the station in order to be able to dismantle the buildings and clean the territory. Automated meteorological and geodetic stations are operated at Molodezhnaya base.

## Features in the facility area

Coast, Hill, Lake, Sea, Sea ice, Snow.

## Main science disciplines

Environmental sciences, Geodesy, Pollution.

Capability: Basic	
Equipment: None	
Distance to hospital (km)	
Closest emergency facility in Antarctica (km)	
Closest emergency facility external (km)	
Medical research capabilities	
Medical screening requirements	
VEHICLES AT FACILITY	
Sea transportation:	
Land transportation:	
WORKSHOP FACILITIES	
Mechanical	
COMMUNICATIONS	
Satellite phone, VHF	
TRANSPORT AND FREIGHT	
Access	Air, Sea
Transport to facility: Airplane, Helicopter, Ship	
Number of airstrips	1
Length (m) of longest runway	2560
Width (m) of longest runway	42
Number of flight visits per year	
Period of flight visits per year: January, February, March, December	
Helipad	No
Number of ship visits per year	2
Period of ship visits per year: January, February, March, December	
Ship landing facilities: None	



Photos: Arctic and Antarctic Research Institute – Russian Antarctic Expedition

# Novolazarevskaya

Arctic and Antarctic Research Institute / Russian Antarctic Expedition

70°46'00"S 11°50'00"E

Type: Station

Operational period: Year-round

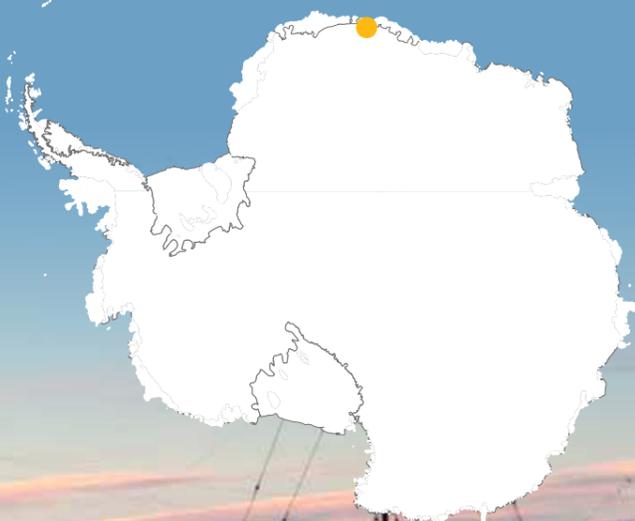
## Location

Novolazarevskaya station is located at the extreme southeastern tip of the Schirmacher Oasis (Queen Maud Land), 80 km from the Lazarev Sea coast.

## Biodiversity and natural environment

The Oasis presents a zone of bedrock outcropping to the surface at the boundary between the land ice sheet and the Lazarev Ice Shelf. It extends in a narrow band up to 3 km wide in the direction from west-northwest to east-southeast. Its length is about 17 km. The relief is hilly with the absolute marks of up to 228 m. The depressions between the hills deepened by glacial gouging are partly occupied by the lakes whose total number is about hundred-eighty. By genesis, the lakes of glacial origin dominate. There are many relict lakes-lagoons located at the boundary between the Oasis and the ice shelf. The climate of the Oasis, has a dominating continental character with low temperatures and intensity of solar radiation. The weather forms, depending on the type of winds, determine the character of clouds and air temperature. The Oasis flora is generally lacking. The terrestrial vegetation is represented by the individual rare patches of lichen on a rocky substrate and by moss concentrations on silt. A total of twenty-one species of lichen were observed in the Oasis. Waters of lakes of the oases are populated by diatom algae. Of birds, the Snow petrels, Wilson's storm petrel and the South polar skua are not numerous at nesting. The Adélie penguins are sometimes observed.

CLIMATE	
Climate zone	Inland Antarctica
Permafrost	Continuous
Mean annual wind speed (km/h)	36
Max wind speed (km/h)	
Dominant wind direction	SE
Sea Ice Break Up	None
Snow free period	
Total annual precipitation (mm)	309
Precipitation type	Snow
Mean annual temperature (°C)	-11
Mean temperature in February (°C)	
Mean temperature in July (°C)	
ENVIRONMENT	
Region	Continental Antarctica
Antarctic Environmental Domain: T – Inland continental geologic	
Antarctic Conservation Biogeographic Region: 7 East Antarctica	
Altitude of facility (m)	102
Type of surface facility built on	Ice-free ground
Long term monitoring	Yes
Waste management	Yes
Hazard(ous) management	Yes
Fuel spill response capability	Yes



Photos: Arctic and Antarctic Research Institute – Russian Antarctic Expedition

## History and facilities

The station was opened on January 18, 1961. First constructions included service space, a living house, a mess-room and a power station, as well as glaciological, magnetic and actinometrical pavilions and auxiliary space. In 1962, 100 km southwest of the main buildings, one more panel house was constructed for accommodation of geophysical equipment and the fourth magnetic pavilion near it. The actual station infrastructure is represented by more than twenty capital and temporary structures.

## General research and databases

In scientific respect, the station is a base station in the global seismological network. Here, glaciological, hydrological, geological and aero-meteorological observations and studies are carried out.

## Features in the facility area

Blue ice, Hill, Ice cap or glacier, Ice shelf, Lake, Mountain, Snow.

## Main science disciplines

Climate change, Environmental sciences, Geodesy, Geology, Geomorphology, Geophysics, Glaciology, Hydrology, Limnology, Medicine, Microbiology, Oceanography, Pollution, Soil science.

FACILITIES INFRASTRUCTURE	
Area under roof (m <sup>2</sup> )	1000
Area scientific laboratories (m <sup>2</sup> )	
Type of scientific laboratories: Aerology, Geophysics, Seismic.	
Conference room (capacity)	
Logistic area (m <sup>2</sup> )	
Number of beds	70
Showers	No
Laundry facilities	Yes
Power supply type	Fossil fuel
Power supply (V)	220
Power supply (hours per day)	
Hydroponics facilities	No
Number of staff on station (peak/summer season)	70
Number of scientists on station (peak/summer season)	
Number of staff on station (off peak/winter season)	40
Number of scientists on station (off peak/winter season)	
Max number of personnel at a time (staff, scientists and others)	70
Specific device/Scientific equipment:	
Scientific services possible:	
Long-term monitoring/observations:	
MEDICAL FACILITIES	
Area of medical facility (m <sup>2</sup> )	40
Staff with basic medical training or doctor (Summer)	2
Staff with basic medical training or doctor (Winter)	2
Capability: Basic, Dental, Surgery	
Equipment: Anaesthesia, Telemedicine	
Distance to hospital (km)	
Closest emergency facility in Antarctica (km)	
Closest emergency facility external (km)	
Medical research capabilities	
Medical screening requirements	
VEHICLES AT FACILITY	
Sea transportation:	
Land transportation:	
WORKSHOP FACILITIES	
Mechanical	
COMMUNICATIONS	
Computer, E-mail, Internet, Satellite phone, Telephone, VHF	
TRANSPORT AND FREIGHT	
Access	Air, Sea
Transport to facility: Airplane, Helicopter, Ship	
Number of airstrips	1
Length (m) of longest runway	3045
Width (m) of longest runway	61
Number of flight visits per year	
Period of flight visits per year: January, February, March, October, November, December	
Helipad	Yes
Number of ship visits per year	1
Period of ship visits per year: January, February, March, December	
Ship landing facilities: None	

# Oazis

Arctic and Antarctic Research Institute / Russian Antarctic Expedition

66°16'00"S 100°44'00"E

Type: Station

Operational period:  
October–March

## Location

Oazis base is located in the Bunger Hills on the Knox Coast in Wilkes Land.

## Biodiversity and natural environment

The oasis is surrounded by glaciers. On the southeast it is bordered by the Antarctic ice sheet, on the south and west by outlet glaciers, and on the north by Shackleton Ice Shelf, which separates the area from the open sea. The topography is characterized by rugged hills, and there are many freshwater and salt lakes.

## History and facilities

Oazis base was opened in October 1956. It was subsequently handed over by the Soviet Union to Poland in January 1959. The Oazis-2 was opened in 1987. The base infrastructure consists of five huts.

## General research and databases

Automated meteorological station is operated at Oazis base.

CLIMATE	
Climate zone	Coastal Antarctica
Permafrost	Continuous
Mean annual wind speed (km/h)	6.6
Max wind speed (km/h)	
Dominant wind direction	E
Sea Ice Break Up	
Snow free period	
Total annual precipitation (mm)	220
Precipitation type	
Mean annual temperature (°C)	-9.1
Mean temperature in February (°C)	
Mean temperature in July (°C)	
ENVIRONMENT	
Region	Continental Antarctica
Antarctic Environmental Domain: D – East Antarctic coastal geologic	
Antarctic Conservation Biogeographic Region: 7 East Antarctica	
Altitude of facility (m)	29
Type of surface facility built on	Ice-free ground
Long term monitoring	Yes
Waste management	Yes
Hazard(ous) management	Yes
Fuel spill response capability	Yes



Photos: Antarctic Research Institute - Russian Antarctic Expedition

## Features in the facility area

Coast, Hill, Lake, Sea, Sea ice, Snow.

FACILITIES INFRASTRUCTURE	
Area under roof (m <sup>2</sup> )	
Area scientific laboratories (m <sup>2</sup> )	0
Type of scientific laboratories: None	
Conference room (capacity)	
Logistic area (m <sup>2</sup> )	
Number of beds	10
Showers	No
Laundry facilities	No
Power supply type	Fossil fuel
Power supply (V)	220
Power supply (hours per day)	
Hydroponics facilities	No
Number of staff on station (peak/summer season)	10
Number of scientists on station (peak/summer season)	
Number of staff on station (off peak/winter season)	
Number of scientists on station (off peak/winter season)	
Max number of personnel at a time (staff, scientists and others)	10
Specific device/Scientific equipment:	
Scientific services possible:	
Long-term monitoring/observations:	
MEDICAL FACILITIES	
Area of medical facility (m <sup>2</sup> )	0
Staff with basic medical training or doctor (Summer)	0
Staff with basic medical training or doctor (Winter)	
Capability: None	

## Main science disciplines

Environmental sciences, Geodesy, Geology, Microbiology.

Equipment: None	
Distance to hospital (km)	
Closest emergency facility in Antarctica (km)	
Closest emergency facility external (km)	
Medical research capabilities	
Medical screening requirements	
VEHICLES AT FACILITY	
Sea transportation:	
Land transportation:	
WORKSHOP FACILITIES	
None	
COMMUNICATIONS	
Satellite phone	
TRANSPORT AND FREIGHT	
Access	Air, Sea
Transport to facility: Helicopter, Ship	
Number of airstrips	0
Length (m) of longest runway	
Width (m) of longest runway	
Number of flight visits per year	0
Period of flight visits per year: None	
Helipad	No
Number of ship visits per year	1
Period of ship visits per year: January, February, March, December	
Ship landing facilities: None	



# Progress

Arctic and Antarctic Research Institute / Russian Antarctic Expedition

69°23'00"S 76°23'00"E

Type: Station

Operational period: Year-round

## Location

Progress station is located in the Larsemann Hills at the Ingrid Christensen Coast, Princess Elizabeth Land. The Larsemann Hills are designated as an Antarctic Specially Managed Area (ASMA) 6.

## Biodiversity and natural environment

The Oasis Larsemann Hills presents a large group of rocky promontories in island-like style projecting from the Antarctic ice sheet. Its surface is strongly dissected with the maximum heights of about 150 m above the ocean level. Along with the slopes whose sloping angles comprise 45°, there are relatively large leveled surfaces in the area. Due to relief features, insignificant thickness of loose deposits and poor drainage of permafrost, more than one hundred lakes are observed over a small area. Large streams are absent in the area, short water flows are observed only during the active melting period. A major feature of the climate of the Larsemann Hills is the existence of persistent and strong katabatic winds that blow from the north-east on most summer days. The terrestrial vegetation is very poor. The local flora is similar to the entire East Antarctica, represented only by a-vascular plants: algae, lichen, microscopic fungi and moss. The ornithological fauna of the area is poor in respect of the species composition, the population of birds is not numerous with only five species were recorded in the area. Of mammals, the Weddell seal is common on landfast ice.

## History and facilities

Progress station was opened on March 7, 1988. The station was occupied sporadically, closed during the 1993/94 summer, and reopened in the 1997/98 summer season for operation as a year-round research facility. The station is suited to accommodate up to fifty personnel during summer.

CLIMATE	
Climate zone	Coastal Antarctica
Permafrost	Continuous
Mean annual wind speed (km/h)	21.6
Max wind speed (km/h)	129.6
Dominant wind direction	E
Sea Ice Break Up	January, December
Snow free period	
Total annual precipitation (mm)	213
Precipitation type	Snow and Rain
Mean annual temperature (°C)	-8.9
Mean temperature in February (°C)	
Mean temperature in July (°C)	
ENVIRONMENT	
Region	Continental Antarctica
Antarctic Environmental Domain: D – East Antarctic coastal geologic	
Antarctic Conservation Biogeographic Region: 7 East Antarctica	
Altitude of facility (m)	15
Type of surface facility built on	Ice-free ground
Long term monitoring	Yes
Waste management	Yes
Hazard(ous) management	Yes
Fuel spill response capability	Yes



Photos: Arctic and Antarctic Research Institute – Russian Antarctic Expedition



## General research and databases

Progress is primarily intended as a support base for inland geological and glaciological operations. Meteorological, hydrological, geomagnetic observations and sea ice monitoring are also undertaken. Automated meteorological and geodetic stations are operated in the area of Progress station.

## Features in the facility area

Coast, Crevasse, Fjord, Hill, Ice cap or glacier, Lake, Other Biological, Rock, Sea, Sea ice.

## Main science disciplines

Climate change, Environmental sciences, Geodesy, Geology, Geomorphology, Geophysics, Glaciology, Hydrology, Limnology, Marine biology, Medicine, Microbiology, Oceanography, Pollution, Soil science.

FACILITIES INFRASTRUCTURE	
Area under roof (m <sup>2</sup> )	1500
Area scientific laboratories (m <sup>2</sup> )	
Type of scientific laboratories: Biology, Chemistry, Hydrology	
Conference room (capacity)	
Logistic area (m <sup>2</sup> )	
Number of beds	50
Showers	Yes
Laundry facilities	Yes
Power supply type	Fossil fuel
Power supply (V)	220
Power supply (hours per day)	
Hydroponics facilities	No
Number of staff on station (peak/summer season)	50
Number of staff on station (peak/summer season)	
Number of staff on station (off peak/winter season)	25
Number of scientists on station (off peak/winter season)	
Max number of personnel at a time (staff, scientists and others)	50
Specific device/Scientific equipment:	
Scientific services possible:	
Long-term monitoring/observations:	
<b>MEDICAL FACILITIES</b>	Yes
Area of medical facility (m <sup>2</sup> )	40
Staff with basic medical training or doctor (Summer)	2
Staff with basic medical training or doctor (Winter)	2
Capability: Basic, Dental, Surgery	
Equipment: Anaesthesia, Diagnostic ultrasound, Diagnostic X-ray, Endoscopy, Laboratory diagnostics, Telemedicine	
Distance to hospital (km)	
Closest emergency facility in Antarctica (km)	
Closest emergency facility external (km)	
Medical research capabilities	
Medical screening requirements	
<b>VEHICLES AT FACILITY</b>	
Sea transportation:	
Land transportation:	
<b>WORKSHOP FACILITIES</b>	
Mechanical	
<b>COMMUNICATIONS</b>	
Computer, E-mail, Internet, Satellite phone, Telephone, VHF	
<b>TRANSPORT AND FREIGHT</b>	
Access	Air, Land, Sea
Transport to facility: 4WD, Airplane, Helicopter, Quad, Ship, Walking	
Number of airstrips	1
Length (m) of longest runway	1500
Width (m) of longest runway	60
Number of flight visits per year	
Period of flight visits per year: January, February, March, October, November, December	
Helipad	Yes
Number of ship visits per year	2
Period of ship visits per year: January, February, March, December	
Ship landing facilities: None	

# Russkaya

Arctic and Antarctic Research Institute / Russian Antarctic Expedition

74°45'00"S 136°40'00"W

Type: Station

Operational period:  
October–March

## Location

Russkaya station is located in the Berks Cape, Hobbs Coast, Marie Byrd Land.

## Biodiversity and natural environment

The coast in the station area is the snow-glacial barrier with the height from 2 to 40 m. In the vicinity of the station along the coastline is situated the row of hills with height marks of 125–145 m. Typical for the station location area, the extremely severe weather conditions are formed by combination of low temperatures with hurricane winds. The local flora and fauna are very poor.

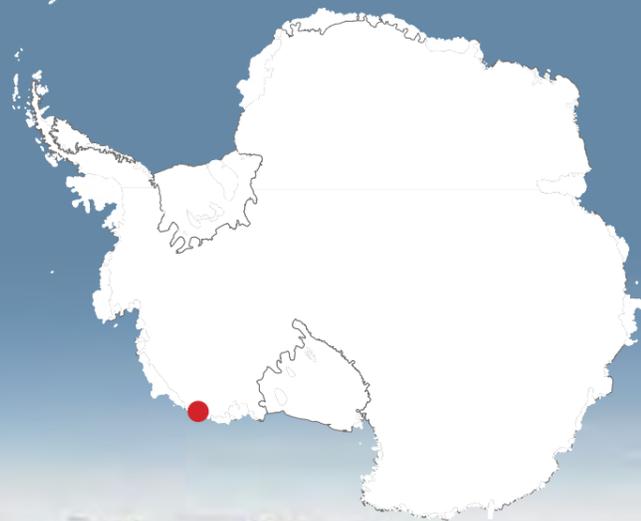
## History and facilities

Russkaya station was opened on March 9, 1980 in the central part of an immense area of Antarctica, devoid of scientific observations, and its purpose was the execution of investigations only. A complex of hydro meteorological, geophysical, astronomical, medical-physiological and others observations were carried out at the station. The synoptic information for vital activity at the station was provided by the prognostic group of Molodezhnaya station. Currently, the majority of base facilities are mothballed.

## General research and databases

Automated meteorological and geodetic stations are operated at Russkaya base.

CLIMATE	
Climate zone	Coastal Antarctica
Permafrost	Continuous
Mean annual wind speed (km/h)	46.44
Max wind speed (km/h)	219.6
Dominant wind direction	E
Sea Ice Break Up	None
Snow free period	
Total annual precipitation (mm)	1977.2
Precipitation type	Snow, Hoarfrost, Glaze ice
Mean annual temperature (°C)	-12.4
Mean temperature in February (°C)	
Mean temperature in July (°C)	
ENVIRONMENT	
Region	Continental Antarctica
Antarctic Environmental Domain: T – Inland continental geologic	
Antarctic Conservation Biogeographic Region: 12 Marie Byrd Land	
Altitude of facility (m)	126
Type of surface facility built on	Ice-free ground
Long term monitoring	Yes
Waste management	Yes
Hazard(ous) management	Yes
Fuel spill response capability	Yes



## Features in the facility area

Coast, Crevasse, Hill, Ice shelf, Ice tongue, Lake, Sea, Sea ice, Snow.

## Main science disciplines

Environmental sciences, Geodesy, Geology.

FACILITIES INFRASTRUCTURE	
Area under roof (m <sup>2</sup> )	800
Area scientific laboratories (m <sup>2</sup> )	0
Type of scientific laboratories: None	
Conference room (capacity)	
Logistic area (m <sup>2</sup> )	
Number of beds	10
Showers	No
Laundry facilities	No
Power supply type	Fossil fuel
Power supply (V)	220
Power supply (hours per day)	
Hydroponics facilities	No
Number of staff on station (peak/summer season)	10
Number of scientists on station (peak/summer season)	
Number of staff on station (off peak/winter season)	
Number of scientists on station (off peak/winter season)	
Max number of personnel at a time (staff, scientists and others)	10
Specific device/Scientific equipment:	
Scientific services possible:	
Long-term monitoring/observations:	
MEDICAL FACILITIES	
Area of medical facility (m <sup>2</sup> )	25
Staff with basic medical training or doctor (Summer)	0
Staff with basic medical training or doctor (Winter)	
Capability: Basic	
Equipment: None	
Distance to hospital (km)	
Closest emergency facility in Antarctica (km)	
Closest emergency facility external (km)	
Medical research capabilities	
Medical screening requirements	
VEHICLES AT FACILITY	
Sea transportation:	
Land transportation:	
WORKSHOP FACILITIES	
Mechanical	
COMMUNICATIONS	
Satellite phone	
TRANSPORT AND FREIGHT	
Access	Sea
Transport to facility: Helicopter, Ship	
Number of airstrips	0
Length (m) of longest runway	
Width (m) of longest runway	
Number of flight visits per year	0
Period of flight visits per year:	
Helipad	No
Number of ship visits per year	1
Period of ship visits per year: January, February, March, December	
Ship landing facilities: None	



Photos: Arctic and Antarctic Research Institute – Russian Antarctic Expedition



# Vostok

Arctic and Antarctic Research Institute / Russian Antarctic Expedition

78°28'00"S 106°48'00"E

Type: Station

Operational period: Year-round

## Location

Vostok station is located at the plain snow surface of the East Antarctic glacial plateau.

## Biodiversity and natural environment

The Vostok station is located at the "Pole of Cold" and at the South geophysical pole of the globe. The ice cover thickness in this area comprises 3700 m with the thickness of the snow-firn strata of about 120 m. The ice sheet bed under the station is at a mark of approximately 200 m below the sea level. There are no natural water bodies in the station area. The outcrops of bedrock are absent. The ice sheet is perennially snow-covered. The landscapes of this area are distinguished by a significant monotony and natural elements by uniformity. The mountain part of the shield with marks of more than 2000–3000 m belongs to the climatic area of inland Antarctica. The geographical location of the station, features of the underlying surface, solar radiation regime and atmospheric circulation govern the general climate severity.

## History and facilities

Vostok station was opened on December 16, 1957. The inland research station Vostok is one of the major base stations of Russia in Antarctica. The station infrastructure is represented by four capital structures with the design DES power of 270 kW and the oil tank capacity of 200 tons.

CLIMATE	
Climate zone	Inland Antarctica
Permafrost	Continuous
Mean annual wind speed (km/h)	19.44
Max wind speed (km/h)	
Dominant wind direction	W
Sea Ice Break Up	
Snow free period	
Total annual precipitation (mm)	50
Precipitation type	Ice needles, diamond dust.
Mean annual temperature (°C)	-55.4
Mean temperature in February (°C)	
Mean temperature in July (°C)	
ENVIRONMENT	
Region	Continental Antarctica
Antarctic Environmental Domain: Q – East Antarctic high interior ice sheet	
Antarctic Conservation Biogeographic Region: 7 East Antarctica	
Altitude of facility (m)	3488
Type of surface facility built on	Ice-sheet
Long term monitoring	Yes
Waste management	Yes
Hazard(ous) management	Yes
Fuel spill response capability	Yes



FACILITIES INFRASTRUCTURE	
Area under roof (m²)	600
Area scientific laboratories (m²)	
Type of scientific laboratories: Deep drilling, Geophysics	
Conference room (capacity)	
Logistic area (m²)	
Number of beds	30
Showers	No
Laundry facilities	Yes
Power supply type	Fossil fuel
Power supply (V)	220
Power supply (hours per day)	
Hydroponics facilities	No
Number of staff on station (peak/summer season)	30
Number of scientists on station (peak/summer season)	
Number of staff on station (off peak/winter season)	15
Number of scientists on station (off peak/winter season)	
Max number of personnel at a time (staff, scientists and others)	30
Specific device/Scientific equipment:	
Scientific services possible:	
Long-term monitoring/observations:	
<b>MEDICAL FACILITIES</b>	Yes
Area of medical facility (m²)	20
Staff with basic medical training or doctor (Summer)	2
Staff with basic medical training or doctor (Winter)	2

Capability: Basic, Dental, Surgery	
Equipment: Anaesthesia, Telemedicine	
Distance to hospital (km)	
Closest emergency facility in Antarctica (km)	
Closest emergency facility external (km)	
Medical research capabilities	
Medical screening requirements	
<b>VEHICLES AT FACILITY</b>	
Sea transportation:	
Land transportation:	
<b>WORKSHOP FACILITIES</b>	
Mechanical	
<b>COMMUNICATIONS</b>	
Computer, E-mail, Internet, Satellite phone, VHF	
<b>TRANSPORT AND FREIGHT</b>	
Access	Air, Land
Transport to facility: Airplane, Sledge tractor traverse	
Number of airstrips	1
Length (m) of longest runway	3000
Width (m) of longest runway	80
Number of flight visits per year	
Period of flight visits per year: January, February, March, October, November, December	
Helipad	No
Number of ship visits per year	0
Period of ship visits per year: None	
Ship landing facilities: None	



## General research and databases

The following year-round observations at Vostok are undertaken: meteorological and actinometric observations, snow line measurements; total ozone content measurements and observations of the anomalous phenomena in the atmosphere; geomagnetic observations, including ionosphere studies and observations of atmospheric electrical field variations; upper-air sounding of the atmosphere; deep drilling of the Antarctic ice sheet; study of the influence of environmental factors and micro-social conditions on the health of the Russian Antarctic Expedition (RAE) participants.

## Features in the facility area

Blue ice, High elevation, Ice cap or glacier, Plateau, Snow, Sustrugi.

## Main science disciplines

Climate change, Environmental sciences, Geophysics, Glaciology.



Photos: Arctic and Antarctic Research Institute – Russian Antarctic Expedition

# SANAE IV

South African National Antarctic Programme

71°40'37.2"S 2°50'41.9"W

Type: Station

Operational period: Year-round

## Location

Vesleskarvet Nunatak, approximately 160 km from Fimbul ice shelf. Station built on rock, Queen Maud Land area 50 km from base.

## Biodiversity and natural environment

Ice sheet, exposed rock. Small lichen outcrop.

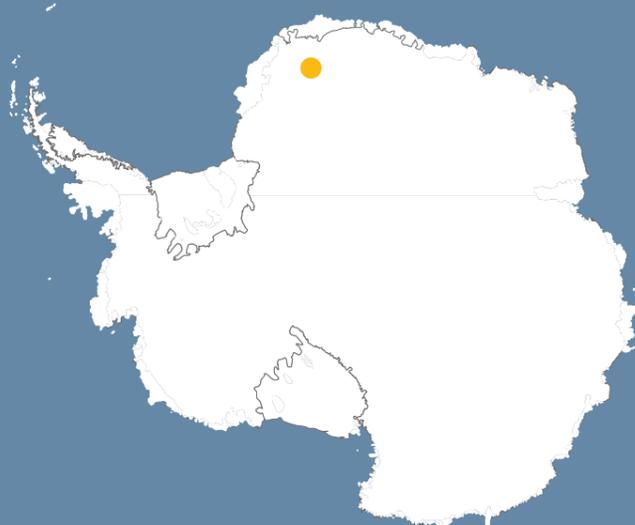
## History and facilities

SANAE IV completed and occupied in 1997, site moved from ice sheet 20km from ice shelf to rocky outcrop at Vesleskarvet for longer lifespan. Overwinter station in Antarctica occupied since 1959.

## General research and databases

Weather observations, upper air physics, HR radar, geomorphology.

CLIMATE	
Climate zone	Inland Antarctica
Permafrost	Continuous
Mean annual wind speed (km/h)	38.1
Max wind speed (km/h)	223.2
Dominant wind direction	E
Sea Ice Break Up	January, February, November, December
Snow free period	None
Total annual precipitation (mm)	
Precipitation type	Snow
Mean annual temperature (°C)	-16.5
Mean temperature in February (°C)	-10.8
Mean temperature in July (°C)	-23.1
ENVIRONMENT	
Region	Continental Antarctica
Antarctic Environmental Domain: T – Inland continental geologic	
Antarctic Conservation Biogeographic Region: 6 Dronning Maud Land	
Altitude of facility (m)	850
Type of surface facility built on	Rock outcrop
Long term monitoring	Yes
Waste management	Yes
Hazard(ous) management	Yes
Fuel spill response capability	Yes



## Features in the facility area

Bird colonies, Blue ice, Clear air zone, Crevasse, High elevation, Ice cap or glacier, Nunatak, Other Biological, Permanent snowpatches, Rock, Snow, Sustrugui.

## Main science disciplines

Astrophysics, Environmental sciences, Geophysics, Marine biology, Terrestrial biology.



Photos: South African National Antarctic Programme

FACILITIES INFRASTRUCTURE	
Area under roof (m <sup>2</sup> )	4000
Area scientific laboratories (m <sup>2</sup> )	500
Type of scientific laboratories: Biology, Chemistry, Geology, Geophysics	
Conference room (capacity)	12
Logistic area (m <sup>2</sup> )	1000
Number of beds	80
Showers	Yes
Laundry facilities	Yes
Power supply type	Fossil fuel
Power supply (V)	
Power supply (hours per day)	24
Hydroponics facilities	
Number of staff on station (peak/summer season)	80
Number of scientists on station (peak/summer season)	30
Number of staff on station (off peak/winter season)	10
Number of scientists on station (off peak/winter season)	5
Max number of personnel at a time (staff, scientists and others)	80
Specific device/Scientific equipment: Neutron monitor and detector, 64 element imaging antennae, goniometer, omnipal receiver, cld camera, pulsation, magnetometer, saol, liv flux pyrometer, seismograph, meteorological instruments	
Scientific services possible:	
Long-term monitoring/observations: Cosmic ray studies, lighting + vlf, HF radar observations, ionospheric, meteorological and seismologic observations	
<b>MEDICAL FACILITIES</b>	Yes
Area of medical facility (m <sup>2</sup> )	30
Staff with basic medical training or doctor (Summer)	2
Staff with basic medical training or doctor (Winter)	1
Capability: Dental, Surgery	
Equipment: Diagnostic X-ray, Surgery table, Defibrillator, Dental machine	
Distance to hospital (km)	
Closest emergency facility in Antarctica (km)	
Closest emergency facility external (km)	
Medical research capabilities	Yes
Medical screening requirements	Yes
<b>VEHICLES AT FACILITY</b>	
Sea transportation: None	
Land transportation: Bulldozers, tractor, skidoos	
<b>WORKSHOP FACILITIES</b>	
Mechanical, Metal workshop, Wood workshop	
<b>COMMUNICATIONS</b>	
Computer, E-mail, Fax, Internet, Telephone, VHF	
<b>TRANSPORT AND FREIGHT</b>	
Access	Air, Land, Sea
Transport to facility: Airplane, Helicopter, Ship, Skidoo	
Number of airstrips	1
Length (m) of longest runway	1000
Width (m) of longest runway	50
Number of flight visits per year	4
Period of flight visits per year: January, February, December	
Helipad	Yes
Number of ship visits per year	1
Period of ship visits per year: January, February, December	
Ship landing facilities: Ice shelf	



# Gabriel de Castilla Comité Polar Español

62°58'40"S 60°00'30"W

Type: Station

Operational period:  
November – March

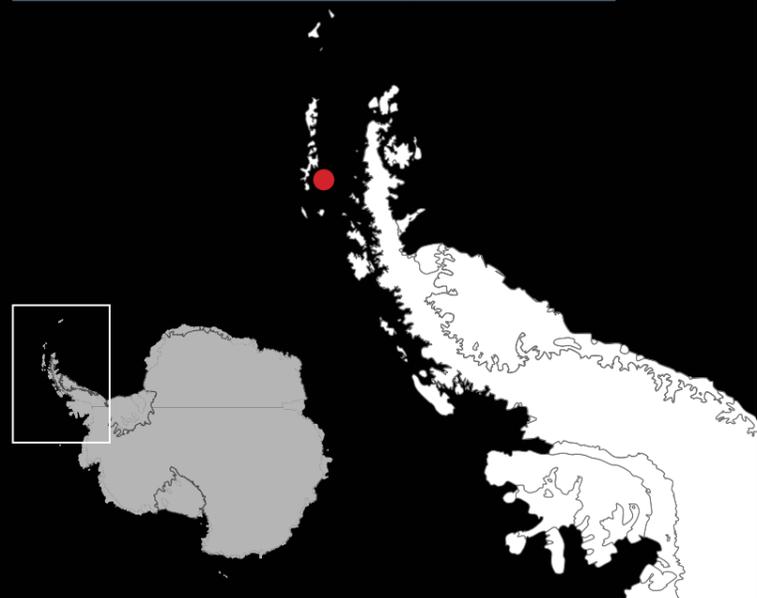
## Location

Located on Deception Island, South Shetland Islands it is a summer station opened, normally, from November to March.

## Biodiversity and natural environment

The area is located in an active volcano, and there is a unique community of organisms adapted to the geothermal activity. It is remarkably rich in criptogamic communities. There are several penguin rookeries. Over 57% of the island is covered by permanent glaciers. A ring of hills runs around the island and is the principal drainage divide, ephemeral springs flow toward the inner and outer coast. Several lakes are located on the interior side of the watershed. Kroner Lake is the only geothermal lagoon in the Antarctic.

CLIMATE	
Climate zone	Maritime Antarctica
Permafrost	Discontinuous
Mean annual wind speed (km/h)	24
Max wind speed (km/h)	130
Dominant wind direction	
Sea Ice Break Up	November
Snow free period	January, February, March
Total annual precipitation (mm)	23.2
Precipitation type	Snow and Rain
Mean annual temperature (°C)	-0.7
Mean temperature in February (°C)	2.6
Mean temperature in July (°C)	-6.9
ENVIRONMENT	
Region	Antarctic Peninsula
Antarctic Environmental Domain: G – Antarctic Peninsula offshore island geologic	
Antarctic Conservation Biogeographic Region: 3 North-west Antarctic Peninsula	
Altitude of facility (m)	15
Type of surface facility built on	Ice-free ground
Long term monitoring	Yes
Waste management	Yes
Hazard(ous) management	Yes
Fuel spill response capability	Yes



## History and facilities

The area has had a long history of human activity since about 1820, including exploration, sealing, whaling, aviation and scientific research. Deception Island is one of the few places in the world where vessels can sail directly into the centre of a restless volcanic caldera, providing the opportunity for visitors to learn about volcanoes and other aspects of the natural world, as well as early Antarctic exploration, whaling and science. Deception Island is also one of the most frequently visited sites in Antarctica by tourists. The island is an Antarctic Specially Managed Area (ASMA 4), with two Antarctic Specially Protected Areas ASPA140 and ASPA145. The station Gabriel de Castilla was set up as refuge in 1990 mainly to support the scientific research carried out by Spain in Deception Island. The interest in the natural values of the island was increasing among the scientific community and, at the same time, the requests to develop research projects with the support of Gabriel de Castilla refuge. Due to the improvement of its capabilities, in 1998 Gabriel de Castilla was designated formally as a station. Nowadays, the station Gabriel de Castilla provides a very good living and working conditions with livingroom with kitchen and bakery. There are also seven sleeping room with four beds each and one laundry room. A scientist semi-permanent building with two offices, two labs, one environment issues lab (equipped) and a bathroom. Other facilities include a ribbon boat store container, nautical equipment store container, two materials of facilities container, wet lab container, health container (infirmary container), workshop building, three building igloos, logistic stores containers, freezer container, incinerator and communications area.

## General research and databases

Databases on volcanism, seismology, marine biology, limnology, permafrost and meteorology are maintained. Research on coastal biology, pollution, human impact, invasive species.

## Features in the facility area

Bird colonies, Coast, Ice cap or glacier, Lake, Mountain, Other Biological, Permanent snowpatches, Rock, Seal colonies, Snow, Terrestrial geothermal.

## Main science disciplines

Atmospheric chemistry and physics, Climate change, Ecology, Environmental sciences, Geodesy, Geology, Geomorphology, Geophysics, GIS, Glaciology, Human biology, Human impact, Limnology, Mapping, Marine biology, Microbiology, Pollution, Soil science, Terrestrial biology.



FACILITIES INFRASTRUCTURE	
Area under roof (m <sup>2</sup> )	792
Area scientific laboratories (m <sup>2</sup> )	142
Type of scientific laboratories: Biology, Chemistry, Scientific diving.	
Conference room (capacity)	36
Logistic area (m <sup>2</sup> )	650
Number of beds	36
Showers	Yes
Laundry facilities	Yes
Power supply type	Fossil fuel, Renewable
Power supply (V)	220
Power supply (hours per day)	24
Hydroponics facilities	No
Number of staff on station (peak/summer season)	13
Number of scientists on station (peak/summer season)	20
Number of staff on station (off peak/winter season)	
Number of scientists on station (off peak/winter season)	
Max number of personnel at a time (staff, scientists and others)	36
Specific device/Scientific equipment: Environment and Food Safety Lab Equipment, one Gas Detector, one Ground Sampling Equipment, one Multiparameter Photometer Spectroquant Nova 30A, one Thermostat Lt 200, Three Pumps for Microbiological Testing	
Scientific services possible: Available tests 1. sewage water: filtration / bod5 / cod/Suspended solids/Surfactants/Oxygen/Phosphate/ Nitrogen/Ammonium/Sulfate/Sodium/Manganese/Iron Conductivity/ Turbidity/pH. 2. Soil Pollution: Petroleum ether – Petroleum hydrocarbons – Halogenated.	
Long-term monitoring/observations: Seismic, Meteorological, Permafrost, Geodesy	
MEDICAL FACILITIES	
Area of medical facility (m <sup>2</sup> )	15
Staff with basic medical training or doctor (Summer)	1
Staff with basic medical training or doctor (Winter)	
Capability	Basic, Dental
Equipment: Anesthesia, Biochemistry, Diagnostic ultrasound, Telemedicine.	
Distance to hospital (km)	1000
Closest emergency facility in Antarctica (km)	
Closest emergency facility external (km)	
Medical research capabilities	No
Medical screening requirements	No
VEHICLES AT FACILITY	
Sea transportation: Five Ribbon boats and outboard motor.	
Land transportation: One ATV on wheels, one tracked ATV, two quad bikes, two telehandlers	
WORKSHOP FACILITIES	
ICTS, Mechanical, Metal workshop	
COMMUNICATIONS	
Computer, E-mail, Fax, Internet, Printer, Satellite phone, Scanner, Telephone, VHF	
TRANSPORT AND FREIGHT	
Access	Sea
Transport to facility: Helicopter, Ship	
Number of airstrips	0
Length (m) of longest runway	
Width (m) of longest runway	
Number of flight visits per year	0
Period of flight visits per year:	
Helipad	
Number of ship visits per year	100
Period of ship visits per year: January, February, March, November, December	
Ship landing facilities: Wetdock	

# International Field Camp Peninsula Byers

Comité Polar Español

62°39'49.7"S 61°05'59.8"W

Type: Camp

Operational period:  
December–February

## Location

International Field Camp Peninsula Byers is a camp located on the South Beaches of Byers Peninsula, Livingston Island, South Shetland Islands.

## Biodiversity and natural environment

Exceptional diversity of terrestrial flora and fauna. It is the most significant limnologic site in the South Shetland Islands. Area extremely sensitive to human impact. Is the largest ice-free area in the South Shetland Islands.

## History and facilities

The peninsula has exceptional historical interest, containing the greatest concentration of 19th century historical sites in Antarctica, such as the remains of refuges, contemporary artefacts, and shipwrecks of early nineteenth century sealing expeditions. The camp was installed to support the scientific research in the area during short periods of time. Due to the increasing interest in the area, the camp is still operative but can be easily dismantled when required. It is maintained by the personnel of Juan Carlos I station who keep the camp in a good condition year by year. The camp consists in two fibre glass "melon huts" each of 6m x 2m in size, one set up for scientific research and the other for domestic activities. The camp is open to all the Parties.

## General research and databases

Limnology, human impact, ecosystem, geology, coastal science, meteorology, lichen physiology, permafrost, microbiology, invasive species, paleontology and archaeology.

CLIMATE	
Climate zone	Maritime Antarctica
Permafrost	Sporadic
Mean annual wind speed (km/h)	26
Max wind speed (km/h)	180
Dominant wind direction	
Sea Ice Break Up	
Snow free period	January, February, March, April
Total annual precipitation (mm)	800
Precipitation type	Snow and Rain
Mean annual temperature (°C)	-2.5
Mean temperature in February (°C)	1.2
Mean temperature in July (°C)	-6.4
ENVIRONMENT	
Region	Antarctic Peninsula
Antarctic Environmental Domain: G – Antarctic Peninsula offshore island geologic	
Antarctic Conservation Biogeographic Region: 3 North-west Antarctic Peninsula	
Altitude of facility (m)	10
Type of surface facility built on	Ice-free ground
Long term monitoring	Yes
Waste management	Yes
Hazard(ous) management	Yes
Fuel spill response capability	Yes



Photos on this page: A. Justel

FACILITIES INFRASTRUCTURE	
Area under roof (m <sup>2</sup> )	32
Area scientific laboratories (m <sup>2</sup> )	16
Type of scientific laboratories: None	
Conference room (capacity)	
Logistic area (m <sup>2</sup> )	16
Number of beds	
Showers	No
Laundry facilities	No
Power supply type	Fossil fuel
Power supply (V)	220
Power supply (hours per day)	24
Hydroponics facilities	No
Number of staff on station (peak/summer season)	2
Number of scientists on station (peak/summer season)	10
Number of staff on station (off peak/winter season)	
Number of scientists on station (off peak/winter season)	
Max number of personnel at a time (staff, scientists and others)	12
Specific device/Scientific equipment: None	
Scientific services possible: None	
Long-term monitoring/observations:	
MEDICAL FACILITIES	
Area of medical facility (m <sup>2</sup> )	0
Staff with basic medical training or doctor (Summer)	2
Staff with basic medical training or doctor (Winter)	
Capability: Basic	
Equipment: None	
Distance to hospital (km)	990
Closest emergency facility in Antarctica (km)	30
Closest emergency facility external (km)	100
Medical research capabilities	No
Medical screening requirements	No
VEHICLES AT FACILITY	
Sea transportation: None	
Land transportation: None	
WORKSHOP FACILITIES	
COMMUNICATIONS	
VHF	
TRANSPORT AND FREIGHT	
Access	Air, Sea
Transport to facility: Helicopter, Ship	
Number of airstrips	0
Length (m) of longest runway	
Width (m) of longest runway	
Number of flight visits per year	0
Period of flight visits per year: January, February, March, November, December	
Helipad	No
Number of ship visits per year	
Period of ship visits per year: January, February, March, November, December	
Ship landing facilities: None	

## Features in the facility area

Archaeological, Biological features, Bird colonies, Clear air zone, Fauna, Geological, Lake, Melt streams, Seal colonies.

## Main science disciplines

Climate change, Ecology, Environmental sciences, Geology, Geomorphology, Human impact, Invasive species, Limnology, Microbiology, Paleolimnology, Terrestrial biology.



# Juan Carlos I Comité Polar Español

62°39'48.3"S 60°23'17.3"W

Type: Station

Operational period:  
November–March

## Location

Seasonal coastal Antarctic station located 200 m from shore in a small bay in Livingston Island, South Shetland Islands. The station is close to Johnson Glacier and Sofia Mountain.

## Biodiversity and natural environment

Coastal area surrounded by glaciers. Around the station there are many different lichen species and some fauna including Gentoo and Chinstrap penguins, Elephant seals, and birds such as Skuas and Petrels. Permafrost is easy to find in the area. The cryptogamic prairies are remarkable. Vascular plants are present in the station vicinity.

## History and facilities

The station was set up to support the interest shown by the Spanish scientific community in Antarctica, it was the first Spanish station in Antarctica. In December 1986, a group of four scientists set up a camp in Livingston Island in order to look for the right place to build the Juan Carlos I station, taking into account that, at that time, there were no stations in Livingston Island. In 1988 the first modules of the station were disembarked, in that moment, the Juan Carlos I station was installed. Since then, the station has been operative during 28 years. The station was recently refurbished and was completed in the 2016/2017 campaign. The station consists of a set of buildings with two main modules, living/services, including infirmary, kitchen rooms and living room, with capacity for fifty people, and a laboratory module able to cover different scientific disciplines. There are another six modules dedicated to station services: workshop, waste treatment, energy generation, storage, fuel. One important aspect of the station is the importance given to energy efficiency in order to avoid energy waste and focus on decreasing consumption.

CLIMATE	
Climate zone	Maritime Antarctica
Permafrost	Sporadic
Mean annual wind speed (km/h)	14
Max wind speed (km/h)	180
Dominant wind direction	
Sea Ice Break Up	
Snow free period	February
Total annual precipitation (mm)	
Precipitation type	Snow and Rain
Mean annual temperature (°C)	-1.2
Mean temperature in February (°C)	2.2
Mean temperature in July (°C)	-5.1
ENVIRONMENT	
Region	Antarctic Peninsula
Antarctic Environmental Domain: G – Antarctic Peninsula offshore island geologic	
Antarctic Conservation Biogeographic Region: 3 North-west Antarctic Peninsula	
Altitude of facility (m)	12
Type of surface facility built on	Ice-free ground
Long term monitoring	Yes
Waste management	Yes
Hazard(ous) management	Yes
Fuel spill response capability	Yes



## General research and databases

Glaciology, lichen physiology, permafrost, geomagnetism, ionosphere, and meteorology databases are available. Research on limnology, microbiology, coastal science, soils, geology, geomorphology, geodesy are also conducted.

## Features in the facility area

Bird colonies, Clear air zone, Coast, Hill, Ice cap or glacier, Lake, Melt streams, Moraine, Mountain, Other Biological, Permanent snowpatches, Rock, Shoreline, Snow.

## Main science disciplines

Atmospheric chemistry and physics, Climate change, Climatology, Ecology, Environmental sciences, Geocryology, Geodesy, Geology, Geomorphology, Geophysics, GIS, Glaciology, Human impact, Hydrology, Limnology, Marine biology, Microbiology, Oceanography, Pollution, Soil science, Terrestrial biology.



Photo: Hilla



Photo: Felipe

FACILITIES INFRASTRUCTURE	
Area under roof (m <sup>2</sup> )	1735
Area scientific laboratories (m <sup>2</sup> )	220
Type of scientific laboratories: Biology, Chemistry, Electronic, Geology, Geophysics	
Conference room (capacity)	25
Logistic area (m <sup>2</sup> )	1215
Number of beds	50
Showers	Yes
Laundry facilities	Yes
Power supply type	Fossil fuel, Renewable
Power supply (V)	220
Power supply (hours per day)	24
Hydroponics facilities	No
Number of staff on station (peak/summer season)	16
Number of scientists on station (peak/summer season)	11
Number of staff on station (off peak/winter season)	
Number of scientists on station (off peak/winter season)	
Max number of personnel at a time (staff, scientists and others)	50
Specific device/Scientific equipment: Microscopes, balance, basic lab glass items, fume hood, centrifuge, refrigerators, pumps, pH meter. Scientific services possible: Biological, chemical and electronic laboratories.	
Long-term monitoring/observations: Geodesy, glaciology, hydrology, meteorology	
MEDICAL FACILITIES	
Area of medical facility (m <sup>2</sup> )	10
Staff with basic medical training or doctor (Summer)	1
Staff with basic medical training or doctor (Winter)	
Capability:	
Equipment: Aeromedical equipment, Anaesthesia, Biochemistry, Haematology, Mountain medicine related equipment	
Distance to hospital (km)	990
Closest emergency facility in Antarctica (km)	100
Closest emergency facility external (km)	100
Medical research capabilities	No
Medical screening requirements	No
VEHICLES AT FACILITY	
Sea transportation: Four Zodiac rubber boats	
Land transportation: Three telehandlers, one tracked utility machine, two quad bikes, five snowmobiles	
WORKSHOP FACILITIES	
ICTS, Mechanical, Metal workshop, Wood workshop	
COMMUNICATIONS	
E-mail, Internet, Printer, Satellite phone, Scanner, Telephone, VHF	
TRANSPORT AND FREIGHT	
Access	Sea
Transport to facility: Helicopter, Ship	
Number of airstrips	0
Length (m) of longest runway	
Width (m) of longest runway	
Number of flight visits per year	1
Period of flight visits per year: January, February	
Helipad	
Number of ship visits per year	4
Period of ship visits per year: January, February, November, December	
Ship landing facilities	None

# Wasa

Swedish Polar Research Secretariat

73°03'00"S 13°25'00"W

Type: Station

Operational period:  
December–February

### Location

Dronning Maud Land. The station is co-located together with the Finnish station Aboa at the Mount Basen. The distance between Wasa and Aboa is about 200 meters. Together, the two stations form the Nordenskiöld Base Camp. The stations cooperate both in research and logistics. Distance to nearest year round Station (Neumayer Station III) is about 500 km.

### Biodiversity and natural environment

Mount Basen is a small Antarctic Nunatak completely surrounded by ice.

### History and facilities

Both Wasa and Aboa were built at the same time, no previous facilities at this location.

### General research and databases

Wasa is a small facility without permanent staff. The station is manned and opened when there is Swedish expedition activity in this area. The fields of science vary to a high degree from expedition to expedition.

CLIMATE	
Climate zone	Inland Antarctica
Permafrost	Continuous
Mean annual wind speed (km/h)	
Max wind speed (km/h)	
Dominant wind direction	
Sea Ice Break Up	
Snow free period	None
Total annual precipitation (mm)	
Precipitation type	Snow
Mean annual temperature (°C)	-15.3
Mean temperature in February (°C)	
Mean temperature in July (°C)	-21.9
ENVIRONMENT	
Region	Continental Antarctica
Antarctic Environmental Domain: K – Northern latitude ice shelves	
Antarctic Conservation Biogeographic Region: 6 Dronning Maud Land	
Altitude of facility (m)	440
Type of surface facility built on	Ice-free ground
Long term monitoring	No
Waste management	Yes
Hazard(ous) management	
Fuel spill response capability	Yes



Photo: Henrik Törnberg

### Features in the facility area

Nunatak.

FACILITIES INFRASTRUCTURE	
Area under roof (m <sup>2</sup> )	130
Area scientific laboratories (m <sup>2</sup> )	0
Type of scientific laboratories: None	
Conference room (capacity)	
Logistic area (m <sup>2</sup> )	50
Number of beds	12
Showers	Yes
Laundry facilities	Yes
Power supply type	Fossil fuel, Renewable
Power supply (V)	230
Power supply (hours per day)	24
Hydroponics facilities	No
Number of staff on station (peak/summer season)	5
Number of scientists on station (peak/summer season)	8
Number of staff on station (off peak/winter season)	
Number of scientists on station (off peak/winter season)	0
Max number of personnel at a time (staff, scientists and others)	20
Specific device/Scientific equipment:	
Scientific services possible:	
Long-term monitoring/observations:	
<b>MEDICAL FACILITIES</b>	No
Area of medical facility (m <sup>2</sup> )	0
Staff with basic medical training or doctor (Summer)	1
Staff with basic medical training or doctor (Winter)	



Photo: Henrik Törnberg



Photo: Henrik Törnberg

### Main science disciplines

Climate change, Climatology, Ecology, Geodesy, Glaciology, Terrestrial biology.

Capability: None	
Equipment: Diagnostic ultrasound	
Distance to hospital (km)	
Closest emergency facility in Antarctica (km)	
Closest emergency facility external (km)	
Medical research capabilities	No
Medical screening requirements	No
VEHICLES AT FACILITY	
Sea transportation: None	
Land transportation: Snowmobiles, Haglund, 4WD	
WORKSHOP FACILITIES	
Mechanical, Metal workshop, Wood workshop	
COMMUNICATIONS	
E-mail, Satellite phone, VHF	
TRANSPORT AND FREIGHT	
Access	Air
Transport to facility: Airplane	
Number of airstrips	1
Length (m) of longest runway	
Width (m) of longest runway	
Number of flight visits per year	
Period of flight visits per year: January, February, December	
Helipad	Yes
Number of ship visits per year	0
Period of ship visits per year:	
Ship landing facilities:	



Photo: Jyni Näränen



Photo: Jyni Näränen



# Vernadsky

National Antarctic Scientific Center of Ukraine

65°14'44.7"S 64°15'26.9"W

Type: Station

Operational period: Year-round

## Location

Vernadsky station is located at Marina Point Galindez Island, Argentine Islands Archipelago, Kiev Peninsula, Antarctic Peninsula. The Antarctic Specially Protected Area (ASP) 108 "Green Island, Berthelot Islands, Antarctic Peninsula" is situated 9 km to the South from Vernadsky. CEP Visitor Site Guidelines for nearest islands: Winter I., Petermann I., Pleneau I., Booth I., Yalour I. The station is located in the vicinity to relict Galindez Island Ice Cap (Woosle Hill), 51 m height.

## Biodiversity and natural environment

Fauna: The following species are regularly sighted on the Island: Adélie penguins (*Pygoscelis adeliae*), Gentoo penguins (*Pygoscelis papua*), Blue-eyed shags (*Phalacrocorax atriceps*), Wilson's storm-petrels (*Oceanites oceanicus*), South polar skuas (*Catharacta maccormicki*), Kelp gulls (*Larus dominicanus*) Weddell seals (*Leptonychotes weddellii*). Flora: Rhizocarpon sp. and Usnea Antarctica lichens are present on the island. The moss *Polytrichum strictum* is also found.

CLIMATE	
Climate zone	Maritime Antarctica
Permafrost	Continuous
Mean annual wind speed (km/h)	15.4
Max wind speed (km/h)	144
Dominant wind direction	N
Sea Ice Break Up	December
Snow free period	February, March
Total annual precipitation (mm)	530
Precipitation type	Snow and Rain
Mean annual temperature (°C)	3.8
Mean temperature in February (°C)	0.6
Mean temperature in July (°C)	-8.7
ENVIRONMENT	
Region	Antarctic Peninsula
Antarctic Environmental Domain: G – Antarctic Peninsula offshore island geologic	
Antarctic Conservation Biogeographic Region: 3 North-west Antarctic Peninsula	
Altitude of facility (m)	7
Type of surface facility built on	Ice-free ground
Long term monitoring	Yes
Waste management	Yes
Hazard(ous) management	Yes
Fuel spill response capability	Yes

## FACILITIES INFRASTRUCTURE

Area under roof (m <sup>2</sup> )	1150
Area scientific laboratories (m <sup>2</sup> )	180
Type of scientific laboratories: Balloon shed, Biology, Fluxgate, Geophysics, Scientific diving, Variometer	
Conference room (capacity)	
Logistic area (m <sup>2</sup> )	385
Number of beds	24
Showers	Yes
Laundry facilities	Yes
Power supply type	Fossil fuel
Power supply (V)	220
Power supply (hours per day)	24
Hydroponics facilities	No
Number of staff on station (peak/summer season)	10
Number of scientists on station (peak/summer season)	20
Number of staff on station (off peak/winter season)	5
Number of scientists on station (off peak/winter season)	7
Max number of personnel at a time (staff, scientists and others)	24
Specific device/Scientific equipment: Meteorological equipment and recording devices (mobile meteorological complex), marine and hydro-meteorological equipment (mechanical and automatic mareographs, oximeter, bathometer, bottom sampler, manual coring winch), biological equipment	
Scientific services possible: Meteorological parameters, sea level measurement, sea water saltness, oxygen content in sea water, deep water sampling and temperature measuring, bottom deposits sampling, measuring of absolute values of magnetic field and baselines values. Long-term monitoring/observations: Meteorology, oceanography, geomagnetic monitoring, Ionosphere radiosounding, total ozone measurement in the atmosphere	

## History and facilities

In 1995 the British Faraday station was transferred to Ukraine under the Memorandum of Understanding between the British Antarctic Survey and the State Institution National Antarctic Scientific Center of Ukraine (July 20, 1995). February 6, 1996 the Ukrainian State Flag was raised and the station was renamed to Vernadsky.

## General research and databases

Monitoring of environmental parameters in the Antarctic region, at all levels of geosphere – from tectonosphere to geospace – and their transfer to the national and international centers of scientific data (WMO, INTERMAGNET, MAGATE, BAS), including: research of the Earth magnetic field, radio sounding of the ionosphere in the Southern Polar region, hydro-meteorological research, geophysical research of the Earth lithosphere, research of the West Antarctic biosphere, medical and physiological research.

## MEDICAL FACILITIES

Area of medical facility (m <sup>2</sup> )	26
Staff with basic medical training or doctor (Summer)	1
Staff with basic medical training or doctor (Winter)	1
Capability: Basic, Dental, Surgery	
Equipment: Anaesthesia, Biochemistry, Blood transfusion medicine, Diagnostic X-ray, Haematology, Laboratory diagnostics, Electrocardiograph, Electroencephalograph, Reftotron (biochemical laboratory)	
Distance to hospital (km)	
Closest emergency facility in Antarctica (km)	53.5
Closest emergency facility external (km)	
Medical research capabilities	Yes
Medical screening requirements	Yes

## VEHICLES AT FACILITY

Sea transportation: Three plastic boats and six inflatable boats  
Land transportation: Skidoos

## WORKSHOP FACILITIES

ICTS, Metal workshop, Wood workshop

## COMMUNICATIONS

E-mail, Satellite phone, VHF

## TRANSPORT AND FREIGHT

Access	Sea
Transport to facility: Ship	
Number of airstrips	0
Length (m) of longest runway	
Width (m) of longest runway	
Number of flight visits per year	0
Period of flight visits per year:	
Helipad	No
Number of ship visits per year	40
Period of ship visits per year: January, February, March, December	
Ship landing facilities: Pier/Jetty	

## Features in the facility area

Bird colonies, Coast, Crevasse, Ice cap or glacier, Moraine, Other Biological, Sea, Sea ice, Seal colonies, Shoreline, Snow.

## Main science disciplines

Climatology, Geology, Geophysics, GIS, Marine biology, Medicine, Microbiology, Oceanography, Terrestrial biology.



# Halley VI British Antarctic Survey

75°34'24.56"S 25°28'1.05"W

Type: Station

Operational period: Year-round

## Location

Brunt Ice shelf, Caird Coast, 29 km south of the current shelf ice edge.

## Biodiversity and natural environment

No flora. Occasional visits from very small numbers of Emperor and Adélie penguins. Occasional visits from very small numbers of Wilson storm petrels, Snow petrels, and Antarctic skuas.

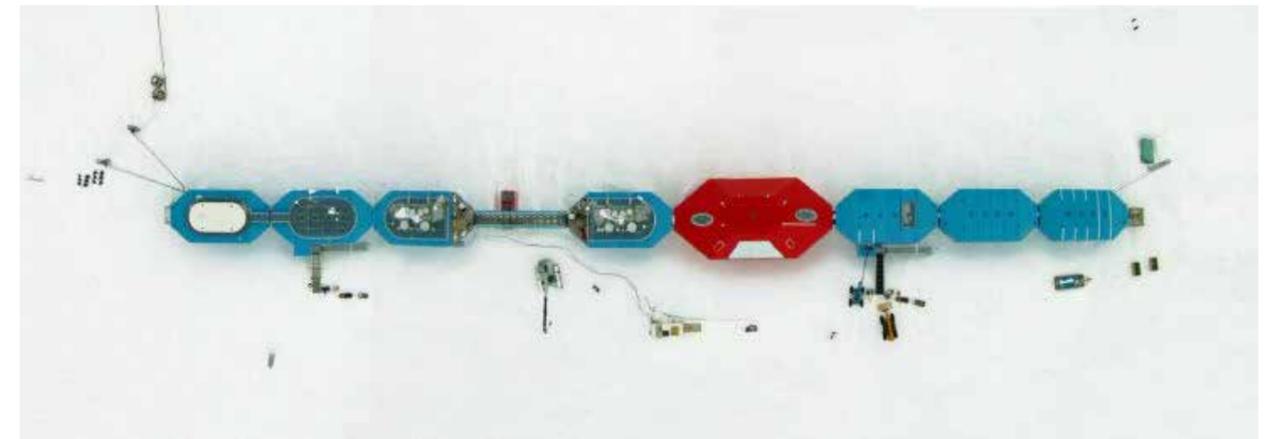
## History and facilities

Station on Brunt ice shelf, established in 1956, with Halley VI in operation since 2012. In February 2017, Halley VI was closed for the winter, station will reopen for summer season 2017/2018. Station comprised of main Halley VI platform, garage building, stores building and summer accommodation building.

## General research and databases

Meteorology, upper atmospheric, clean air sector chemistry, life sciences (Space flight research).

CLIMATE	
Climate zone	Inland Antarctica
Permafrost	None
Mean annual wind speed (km/h)	
Max wind speed (km/h)	
Dominant wind direction	
Sea Ice Break Up	
Snow free period	None
Total annual precipitation (mm)	
Precipitation type	
Mean annual temperature (°C)	-20
Mean temperature in February (°C)	-13
Mean temperature in July (°C)	-31
ENVIRONMENT	
Region	Continental Antarctica
Antarctic Environmental Domain: I – East Antarctic ice shelves	
Antarctic Conservation Biogeographic Region: 6 Dronning Maud Land	
Altitude of facility (m)	37
Type of surface facility built on	Ice-shelf
Long term monitoring	Yes
Waste management	Yes
Hazard(ous) management	Yes
Fuel spill response capability	Yes



## FACILITIES INFRASTRUCTURE

Area under roof (m <sup>2</sup> )	2000
Area scientific laboratories (m <sup>2</sup> )	200
Type of scientific laboratories: Chemistry, Geophysics.	
Conference room (capacity)	52
Logistic area (m <sup>2</sup> )	800
Number of beds	52
Showers	Yes
Laundry facilities	Yes
Power supply type	Fossil fuel
Power supply (V)	230
Power supply (hours per day)	24
Hydroponics facilities	No
Number of staff on station (peak/summer season)	52
Number of scientists on station (peak/summer season)	18
Number of staff on station (off peak/winter season)	13
Number of scientists on station (off peak/winter season)	4
Max number of personnel at a time (staff, scientists and others)	52
Specific device/Scientific equipment:	
Scientific services possible:	
Long-term monitoring/observations:	Yes
MEDICAL FACILITIES	
Area of medical facility (m <sup>2</sup> )	100
Staff with basic medical training or doctor (Summer)	5
Staff with basic medical training or doctor (Winter)	1
Capability: Surgery	

Equipment: Blood transfusion medicine, Diagnostic X-ray, Endoscopy, Telemedicine	
Distance to hospital (km)	
Closest emergency facility in Antarctica (km)	
Closest emergency facility external (km)	
Medical research capabilities	Yes
Medical screening requirements	Yes
VEHICLES AT FACILITY	
Sea transportation:	
Land transportation:	
WORKSHOP FACILITIES	
Mechanical	
COMMUNICATIONS	
Computer, E-mail, Internet, Printer, Satellite phone, Scanner, Telephone, VHF	
TRANSPORT AND FREIGHT	
Access	Air, Sea
Transport to facility: Airplane, Ship	
Number of airstrips	1
Length (m) of longest runway	1100
Width (m) of longest runway	50
Number of flight visits per year	20
Period of flight visits per year: January, February, March, November, December	
Helipad	No
Number of ship visits per year	2
Period of ship visits per year: January, February, March, December	
Ship landing facilities:	

## Features in the facility area

Clear air zone, Ice shelf, Snow.

## Main science disciplines

Atmospheric chemistry and physics, Climate change, Environmental sciences, Geophysics, Upper atmospheric science.



Photos: British Antarctic Survey



# Rothera British Antarctic Survey

67°34'00"S 68°07'59"W

Type: Station

Operational period: Year-round

## Location

Rothera research station is situated on Rothera Point – a rock and raised beach promontory at the southern extremity of the Wormald Ice Piedmont on the south-east of Adelaide Island to the west of the Antarctic Peninsula.

## Biodiversity and natural environment

Flora mainly limited to lichen. Breeding colonies of South polar skua, terns and Imperial Cormorants in the area. Large transitory populations of other bird species (petrels, gulls etc). Regular visits from Adélie penguins although no breeding colonies close by. Occasional sightings of Chinstrap and Emperor penguins. Regular sightings of Weddell, Crabeater, Fur, Elephant and Leopard seals. Regular sightings of Minke whale and Orca, occasionally Humpbacks.

## History and facilities

Station occupied continuously from 25 October 1975. Phased construction programme since that time. Runway and wharf constructed in 1991/92.

## General research and databases

Marine and terrestrial biology, geology, glaciology, meteorology and upper atmospherics.

CLIMATE	
Climate zone	Coastal Antarctica
Permafrost	Continuous
Mean annual wind speed (km/h)	
Max wind speed (km/h)	
Dominant wind direction	
Sea Ice Break Up	
Snow free period	January, February
Total annual precipitation (mm)	
Precipitation type	
Mean annual temperature (°C)	-3.7
Mean temperature in February (°C)	-0.6
Mean temperature in July (°C)	-6.7
ENVIRONMENT	
Region	Antarctic Peninsula
Antarctic Environmental Domain: G – Antarctic Peninsula offshore island geologic	
Antarctic Conservation Biogeographic Region: 4 Central South Antarctic Peninsula	
Altitude of facility (m)	16
Type of surface facility built on	Ice-free ground
Long term monitoring	Yes
Waste management	Yes
Hazard(ous) management	Yes
Fuel spill response capability	Yes



## Features in the facility area

Bird colonies, Bluff, Coast, Crevasse, Ice cap or glacier, Low artificial light pollution, Low humidity, Melt streams, Mountain, Nunatak, Other Biological, Permanent snowpatches, Rock, Sea, Sea ice, Seal colonies, Shoreline, Snow, Sustrugui.

FACILITIES INFRASTRUCTURE	
Area under roof (m <sup>2</sup> )	7200
Area scientific laboratories (m <sup>2</sup> )	450
Type of scientific laboratories: Biology, Chemistry, Scientific diving.	
Conference room (capacity)	
Logistic area (m <sup>2</sup> )	3600
Number of beds	136
Showers	Yes
Laundry facilities	Yes
Power supply type	Fossil fuel, Renewable
Power supply (V)	240
Power supply (hours per day)	24
Hydroponics facilities	No
Number of staff on station (peak/summer season)	120
Number of scientists on station (peak/summer season)	40
Number of staff on station (off peak/winter season)	22
Number of scientists on station (off peak/winter season)	5
Max number of personnel at a time (staff, scientists and others)	136
Specific device/Scientific equipment:	
Scientific services possible:	
Long-term monitoring/observations:	Yes
MEDICAL FACILITIES	
Area of medical facility (m <sup>2</sup> )	31
Staff with basic medical training or doctor (Summer)	100
Staff with basic medical training or doctor (Winter)	22
Capability: Basic, Dental	

## Main science disciplines

Atmospheric chemistry and physics, Climate change, Climatology, Ecology, Environmental sciences, Geology, Geophysics, Glaciology, Mapping, Marine biology, Microbiology, Oceanography.

Equipment: Diagnostic X-ray, Hyperbaric Recompression Chamber, Telemedicine	
Distance to hospital (km)	
Closest emergency facility in Antarctica (km)	
Closest emergency facility external (km)	
Medical research capabilities	No
Medical screening requirements	Yes
VEHICLES AT FACILITY	
Sea transportation: Three 6.0m rigid inflatable boats (console), one 4.8m rigid inflatable boat (tiller), one 6.4m HDPE workboat (console)	
Land transportation: Thirty eight skidoos, three tractors, four loaders (forklift/bucket capability), one snowcat, one bulldozer, one crane, six utility vehicles, one ATV, pick-up truck (fire response)	
WORKSHOP FACILITIES	
Mechanical, Metal workshop, Wood workshop	
COMMUNICATIONS	
Computer, E-mail, Fax, Internet, Printer, Satellite phone, Scanner, Telephone, VHF	
TRANSPORT AND FREIGHT	
Access	Air, Sea
Transport to facility: Airplane, Ship	
Number of airstrips	1
Length (m) of longest runway	900
Width (m) of longest runway	40
Number of flight visits per year	
Period of flight visits per year: January, February, March, October, November, December	
Helipad	No
Number of ship visits per year	6
Period of ship visits per year: January, February, March, April, December	
Ship landing facilities: Pier/Jetty	



Photos: British Antarctic Survey



# Signy British Antarctic Survey

60°42'29.8"S 45°35'43.4"W

Type: Station

Operational period:  
October–March

## Location

Signy research station is located on the South Orkney Islands.

## Biodiversity and natural environment

Approximately half the island is covered by a permanent ice-cap, although the highest point, Tioga Hill, is a rock outcrop in the middle of the ice. The ice-cap descends to the sea via two glaciers: the McLeod is by far the largest and terminates in an ice-front along a large part of the south coast; the Orwell is much smaller and terminates in Shallow Bay to the east. The east and west coasts are generally ice-free during summer. The glaciers and ice fields on Signy are in a period of retreat as a result of rising temperatures, and new areas of rock are being exposed every year. The rest of the Island is covered in lakes, of which there are 16, and snow-free ground in summer, which includes steep mountain slopes, mud flats as well as higher ground with extensive moss banks. The flora of Signy Island is largely cryptogamic. Only two flowering plants are found: the Antarctic hairgrass and the Antarctic pearlwort. Both of these are restricted in distribution, usually being confined to sheltered north-facing slopes. The dominant plants are mosses (around 50 species), liverworts (about 12 species) and lichens (around 120 species). Algae and cyanobacteria may also be found in wetter areas.

CLIMATE	
Climate zone	Maritime Antarctica
Permafrost	Discontinuous
Mean annual wind speed (km/h)	
Max wind speed (km/h)	
Dominant wind direction	
Sea Ice Break Up	January, November, December
Snow free period	February, March, April
Total annual precipitation (mm)	
Precipitation type	Snow and Rain
Mean annual temperature (°C)	-2.2
Mean temperature in February (°C)	1.4
Mean temperature in July (°C)	-7.7
ENVIRONMENT	
Region	
Antarctic Environmental Domain:	
Antarctic Conservation Biogeographic Region:	2 South Orkney Islands
Altitude of facility (m)	5
Type of surface facility built on	Ice-free ground
Long term monitoring	Yes
Waste management	Yes
Hazard(ous) management	Yes
Fuel spill response capability	Yes



## FACILITIES INFRASTRUCTURE

Area under roof (m <sup>2</sup> )	
Area scientific laboratories (m <sup>2</sup> )	
Type of scientific laboratories: Analytical, Biology, Rough	
Conference room (capacity)	
Logistic area (m <sup>2</sup> )	
Number of beds	8
Showers	Yes
Laundry facilities	Yes
Power supply type	Fossil fuel
Power supply (V)	240
Power supply (hours per day)	24
Hydroponics facilities	No
Number of staff on station (peak/summer season)	8
Number of scientists on station (peak/summer season)	6
Number of staff on station (off peak/winter season)	
Number of scientists on station (off peak/winter season)	
Max number of personnel at a time (staff, scientists and others)	8
Specific device/Scientific equipment: Autoclave, fume hood, ashing oven, analytical glassware, magnetic stirrers	
Scientific services possible:	
Long-term monitoring/observations:	Yes
MEDICAL FACILITIES	
Area of medical facility (m <sup>2</sup> )	8
Staff with basic medical training or doctor (Summer)	
Staff with basic medical training or doctor (Winter)	



## History and facilities

Scientific research started on Signy Island in 1947 when a three-man team occupied a site in Factory Cove above the old whaling station. A new hut (Tønsberg House) was built in 1955 on the site of an old whaling station.

## General research and databases

Penguin, seabird and seal biology, limnology and terrestrial biology related to the Southern Ocean ecosystems and climate change. Long-term monitoring, in particular for the Committee for the Conservation of Antarctic Marine Living Resources (CCAMLR). Microclimate records exist for various sites on Signy Island going back over 25 years. Much of the data has been collected to support specific projects but now only one station is installed on Jane Col, one of the more extreme habitats on the island with only sparse vegetation comprising mosses and lichens. This type of site is expected to show the greatest response to predicted climate change. The present microclimate station, installed in January 2007, transmits data back to the British Antarctic Survey (BAS) once a week via the Iridium satellite network.

# UNITED KINGDOM

Capability:	
Equipment:	
Distance to hospital (km)	
Closest emergency facility in Antarctica (km)	
Closest emergency facility external (km)	
Medical research capabilities	No
Medical screening requirements	No
VEHICLES AT FACILITY	
Sea transportation: None	
Land transportation: Two skidoos	
WORKSHOP FACILITIES	
Mechanical, Wood workshop	
COMMUNICATIONS	
Computer, E-mail, Internet, Printer, Satellite phone, Telephone, VHF	
TRANSPORT AND FREIGHT	
Access	Sea
Transport to facility: Ship	
Number of airstrips	0
Length (m) of longest runway	
Width (m) of longest runway	
Number of flight visits per year	0
Period of flight visits per year: None	
Helipad	No
Number of ship visits per year	2
Period of ship visits per year: March, November, December	
Ship landing facilities: Pier/Jetty, Beach landing for rubber inflatable boats.	



## Features in the facility area

Bird colonies, Coast, Crevasse, Hill, Ice cap or glacier, Lake, Melt streams, Moraine, Mountain, Other Biological, Permanent snowpatches, Rock, Sea, Sea ice, Seal colonies, Shoreline, Snow, Valley.

## Main science disciplines

Climate change, Limnology, Microbiology, Sedimentology, Soil science, Terrestrial biology.

# Amundsen-Scott South Pole

United States Antarctic Program

90°S 0°E  
 Type: Station  
 Operational period: Year-round

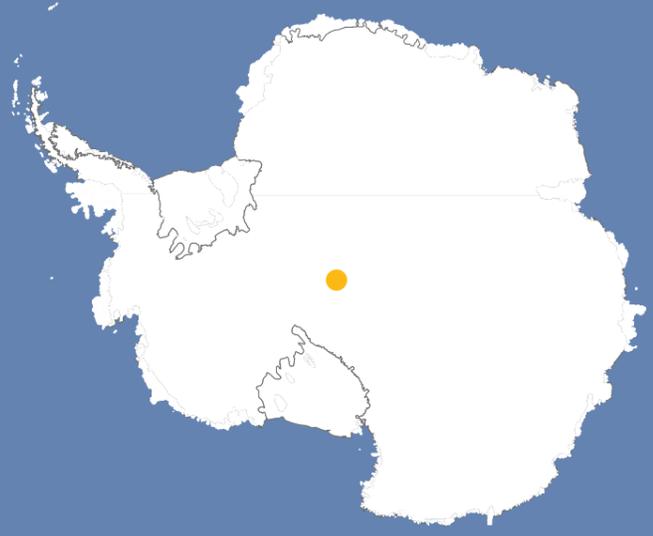
**Location**  
 Geographic South Pole Antarctic Specially Managed Area (ASMA) 5.

**Biodiversity and natural environment**  
 The station stands at an elevation of 2,835 m (9,306 feet) on Antarctica's nearly featureless ice sheet, which is about 2,700 m (9,000 feet) thick at that location. The station, which is 850 nautical miles south of McMurdo Station, is drifting with the ice sheet at about 10 m (33 feet) each year.

**History and facilities**  
 The first station, built to support researchers during the International Geophysical Year, was begun in November 1956 and completed in February 1957. In 1975 the central area of the station was rebuilt as a geodesic dome 50 m wide and 16 m high, with fourteen by 24 m steel archways, covering modular buildings, fuel bladders, and equipment. In 1997, a redevelopment plan to upgrade the station began. The new station, which was dedicated in 2008, is one connected, elevated facility. To accommodate changes in population from winter to summer, certain areas can be closed.

**General research and databases**  
 Research disciplines include astrophysics and cosmology (formation and evolution of the universe and detecting high-energy cosmic neutrinos from deep space), aeronomy and space physics (interaction of the solar wind with the Earth's magnetic field and understanding space weather), atmospheric science (changes in atmospheric circulation and composition), geophysics (monitoring global seismology), glaciology (ice sheet physics, past changes in climate), and polar medicine.

CLIMATE	
Climate zone	Inland Antarctica
Permafrost	None
Mean annual wind speed (km/h)	18.5
Max wind speed (km/h)	
Dominant wind direction	
Sea Ice Break Up	
Snow free period	None
Total annual precipitation (mm)	
Precipitation type	Snow
Mean annual temperature (°C)	-49
Mean temperature in February (°C)	-41
Mean temperature in July (°C)	-60
ENVIRONMENT	
Region	Continental Antarctica
Antarctic Environmental Domain: Q – East Antarctic high interior ice sheet	
Antarctic Conservation Biogeographic Region:	
Altitude of facility (m)	2835
Type of surface facility built on	Ice-sheet
Long term monitoring	Yes
Waste management	Yes
Hazard(ous) management	Yes
Fuel spill response capability	Yes



FACILITIES INFRASTRUCTURE	
Area under roof (m <sup>2</sup> )	16107
Area scientific laboratories (m <sup>2</sup> )	1748
Type of scientific laboratories: Astrophysics, Geophysics.	
Conference room (capacity)	
Logistic area (m <sup>2</sup> )	2102
Number of beds	150
Showers	Yes
Laundry facilities	Yes
Power supply type	Fossil fuel, Renewable
Power supply (V)	120
Power supply (hours per day)	
Hydroponics facilities	Yes
Number of staff on station (peak/summer season)	90
Number of scientists on station (peak/summer season)	60
Number of staff on station (off peak/winter season)	40
Number of scientists on station (off peak/winter season)	9
Max number of personnel at a time (staff, scientists and others)	153
Specific device/Scientific equipment:	
Scientific services possible:	
Long-term monitoring/observations:	
MEDICAL FACILITIES	
Area of medical facility (m <sup>2</sup> )	84
Staff with basic medical training or doctor (Summer)	1

Staff with basic medical training or doctor (Winter)	2
Capability: Basic	
Equipment: Altitude medicine, Diagnostic ultrasound, Diagnostic X-ray, Telemedicine	
Distance to hospital (km)	
Closest emergency facility in Antarctica (km)	
Closest emergency facility external (km)	
Medical research capabilities	Yes
Medical screening requirements	Yes
VEHICLES AT FACILITY	
Sea transportation:	
Land transportation:	
WORKSHOP FACILITIES	
ICTS, Mechanical, Metal workshop, Wood workshop	
COMMUNICATIONS	
Computer, E-mail, Internet, Satellite phone, Telephone, VHF	
TRANSPORT AND FREIGHT	
Access	Air
Transport to facility: Airplane	
Number of airstrips	1
Length (m) of longest runway	
Width (m) of longest runway	
Number of flight visits per year	
Period of flight visits per year:	
Helipad	No
Number of ship visits per year	0
Period of ship visits per year:	
Ship landing facilities:	

**Features in the facility area**  
 Clear air zone, Ice cap or glacier.

**Main science disciplines**  
 Astrophysics, Atmospheric chemistry and physics, Geophysics, Glaciology, Medicine.



# McMurdo United States Antarctic Program

77°50'53.5"S 166°40'06.3"E

Type: Station

Operational period: Year-round

## Location

McMurdo station is built on the bare volcanic rock of Hut Point Peninsula on Ross Island. Antarctic Specially Protected Area (ASPA) 122, Arrival Heights, is located near McMurdo.

## Biodiversity and natural environment

McMurdo station is a coastal station, though for most of the year, the area is surrounded by annual sea ice. Penguins, seals and skuas are found regularly in the area.

## History and facilities

The station was established in December 1955. It is the logistics hub of the U.S. Antarctic Program, with a harbor, landing strips on sea ice and shelf ice, and a helicopter pad. Its eighty-five or so buildings range in size from a small radio shack to large, three-story structures. Repair facilities, dormitories, administrative buildings, a firehouse, power plant, water distillation plant, wharf, stores, clubs, warehouses, and the first class Cray Lab are all found on the station.

## General research and databases

Research is performed at and near McMurdo in aeronomy and astrophysics, biology and medicine, geology and geophysics, glaciology and glacial geology, and ocean and climate systems.

CLIMATE	
Climate zone	Coastal Antarctica
Permafrost	Continuous
Mean annual wind speed (km/h)	18
Max wind speed (km/h)	
Dominant wind direction	
Sea Ice Break Up	
Snow free period	January
Total annual precipitation (mm)	
Precipitation type	
Mean annual temperature (°C)	-17
Mean temperature in February (°C)	-9
Mean temperature in July (°C)	-25
ENVIRONMENT	
Region	Continental Antarctica
Antarctic Environmental Domain: S – McMurdo – South Victoria Land geologic	
Antarctic Conservation Biogeographic Region: 9 South Victoria Land	
Altitude of facility (m)	10
Type of surface facility built on	Ice-free ground
Long term monitoring	Yes
Waste management	Yes
Hazard(ous) management	Yes
Fuel spill response capability	Yes

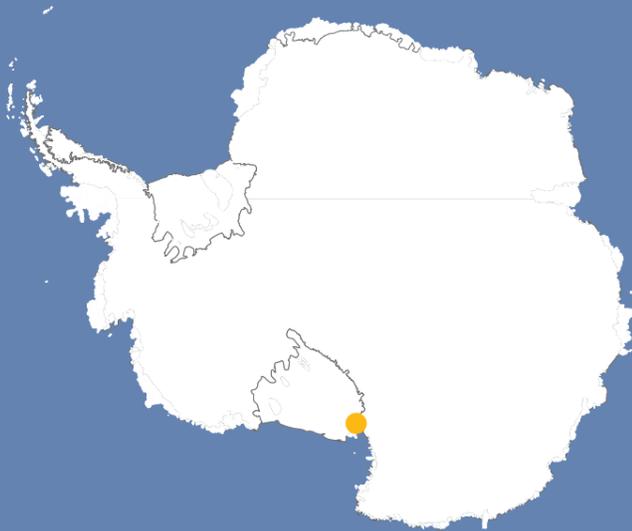


Photo: Hood



Photo: Lucibella

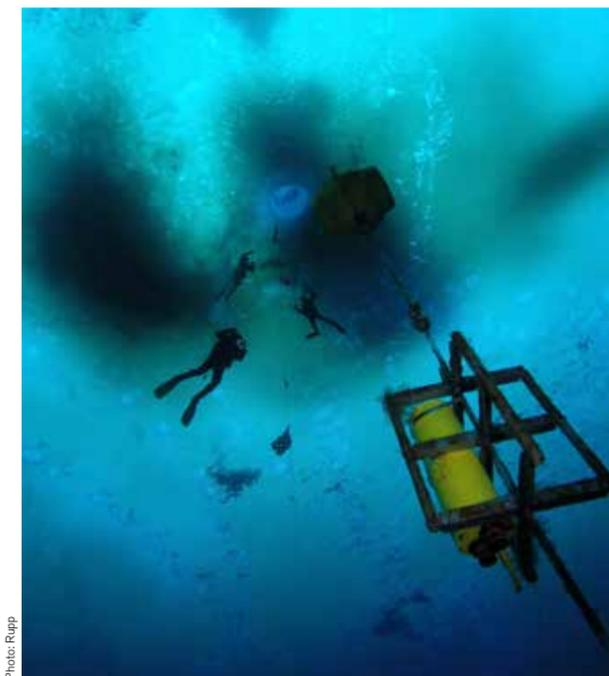


Photo: Rupp

## Features in the facility area

Coast, Hill, Ice cap or glacier, Ice shelf, Permanent snowpatches, Rock, Sea, Sea ice, Shoreline, Snow.

## Main science disciplines

Atmospheric chemistry and physics, Climate change, Climatology, Geology, Geophysics, Glaciology, Marine biology, Medicine, Oceanography.

## FACILITIES INFRASTRUCTURE

Area under roof (m <sup>2</sup> )	32750
Area scientific laboratories (m <sup>2</sup> )	5439
Type of scientific laboratories: Biology, Chemistry, Geology, GIS, Scientific diving.	
Conference room (capacity)	
Logistic area (m <sup>2</sup> )	7788
Number of beds	1200
Showers	Yes
Laundry facilities	Yes
Power supply type	Fossil fuel, Renewable
Power supply (V)	120
Power supply (hours per day)	
Hydroponics facilities	No
Number of staff on station (peak/summer season)	800
Number of scientists on station (peak/summer season)	200
Number of staff on station (off peak/winter season)	150
Number of scientists on station (off peak/winter season)	3
Max number of personnel at a time (staff, scientists and others)	1200
Specific device/Scientific equipment:	
Scientific services possible:	
Long-term monitoring/observations:	Yes
MEDICAL FACILITIES	
Area of medical facility (m <sup>2</sup> )	455
Staff with basic medical training or doctor (Summer)	8
Staff with basic medical training or doctor (Winter)	2
Capability: Basic	
Equipment: Aeromedical equipment, Altitude medicine, Diagnostic ultrasound, Diagnostic X-ray, Hyperbaric Recompression Chamber, Telemedicine.	
Distance to hospital (km)	0
Closest emergency facility in Antarctica (km)	0
Closest emergency facility external (km)	
Medical research capabilities	Yes
Medical screening requirements	Yes
VEHICLES AT FACILITY	
Sea transportation:	
Land transportation:	
WORKSHOP FACILITIES	
ICTS, Mechanical, Metal workshop, Plexiglas workshop, Wood workshop.	
COMMUNICATIONS	
Computer, E-mail, Fax, Internet, Satellite phone, Telephone, VHF	
TRANSPORT AND FREIGHT	
Access	Air, Sea
Transport to facility: Airplane, Ship	
Number of airstrips	6
Length (m) of longest runway	
Width (m) of longest runway	
Number of flight visits per year	
Period of flight visits per year:	
Helipad	Yes
Number of ship visits per year	
Period of ship visits per year:	
Ship landing facilities:	

# Palmer

United States Antarctic Program

64°46'45.6"S 64°3'20.0"W

Type: Station

Operational period: Year-round

## Location

Palmer station is located on a protected harbor on the southwestern coast of Anvers Island off the Antarctica Peninsula.

## Biodiversity and natural environment

Palmer station is superbly located for biological studies of birds, seals, and other components of the marine ecosystem.

## History and facilities

The station, built on solid rock, consists of two major buildings and three small ones, plus two large fuel tanks, and a dock. Construction was completed in 1968, replacing a prefabricated wood structure ("Old Palmer," established in 1965) 2 km away across Arthur Harbour. Old Palmer has been disassembled and removed from Antarctica.

## General research and databases

Research activities include work on population biology of seabirds, chemical defenses of marine macroalgae and invertebrates, terrestrial plant biology, ultraviolet radiation measurements and effects on marine organisms, atmospheric physics and chemistry, seismology, and marine ecology.

CLIMATE	
Climate zone	Coastal Antarctica
Permafrost	None
Mean annual wind speed (km/h)	
Max wind speed (km/h)	
Dominant wind direction	
Sea Ice Break Up	
Snow free period: January, February, March, December	
Total annual precipitation (mm)	
Precipitation type	
Mean annual temperature (°C)	-2
Mean temperature in February (°C)	2
Mean temperature in July (°C)	-6
ENVIRONMENT	
Region	Antarctic Peninsula
Antarctic Environmental Domain: E – Antarctic Peninsula and Alexander Island main ice fields	
Antarctic Conservation Biogeographic Region: 3 North-west Antarctic Peninsula	
Altitude of facility (m)	10
Type of surface facility built on	Ice-free ground
Long term monitoring	Yes
Waste management	Yes
Hazard(ous) management	Yes
Fuel spill response capability	Yes



Photo: Hood



Photo: Spence



Photo: Bonnette



Photo: Hood

# UNITED STATES

## Features in the facility area

Coast, Hill, Ice cap or glacier, Ice shelf, Permanent snowpatches, Rock, Sea, Sea ice, Shoreline, Snow.

## Main science disciplines

Atmospheric chemistry and physics, Climate change, Climatology, Geology, Geophysics, Glaciology, Marine biology, Medicine, Oceanography.

### FACILITIES INFRASTRUCTURE

Area under roof (m <sup>2</sup> )	2197
Area scientific laboratories (m <sup>2</sup> )	658
Type of scientific laboratories: Biology, Chemistry, Scientific diving	
Conference room (capacity)	
Logistic area (m <sup>2</sup> )	245
Number of beds	46
Showers	Yes
Laundry facilities	Yes
Power supply type	Fossil fuel
Power supply (V)	120
Power supply (hours per day)	
Hydroponics facilities	No
Number of staff on station (peak/summer season)	24
Number of scientists on station (peak/summer season)	20
Number of staff on station (off peak/winter season)	10
Number of scientists on station (off peak/winter season)	3
Max number of personnel at a time (staff, scientists and others)	46
Specific device/Scientific equipment:	
Scientific services possible:	
Long-term monitoring/observations:	
<b>MEDICAL FACILITIES</b>	Yes
Area of medical facility (m <sup>2</sup> )	54
Staff with basic medical training or doctor (Summer)	1
Staff with basic medical training or doctor (Winter)	1
Capability: Basic	
Equipment: Diagnostic X-ray, Telemedicine	
Distance to hospital (km)	
Closest emergency facility in Antarctica (km)	
Closest emergency facility external (km)	
Medical research capabilities	Yes
Medical screening requirements	Yes
<b>VEHICLES AT FACILITY</b>	
Sea transportation:	
Land transportation:	
<b>WORKSHOP FACILITIES</b>	
Mechanical, Metal workshop, Wood workshop	
<b>COMMUNICATIONS</b>	
Computer, E-mail, Internet, Telephone, VHF	
<b>TRANSPORT AND FREIGHT</b>	
Access	Sea
Transport to facility: Ship	
Number of airstrips	0
Length (m) of longest runway	
Width (m) of longest runway	
Number of flight visits per year	0
Period of flight visits per year:	
Helipad	No
Number of ship visits per year	
Period of ship visits per year:	
Ship landing facilities:	



# Artigas Uruguayan Antarctic Institute

62°11'07.3"S 58°54'14.7"W

Type: Station

Operational period: Year-round

## Location

King George Island, South Shetlands Islands.

## Biodiversity and natural environment

Artigas Station is located close to the sea and in the proximity of lake Uruguay and Collins glacier.

## History and facilities

The year 1984 was a milestone year for Uruguay in Antarctica. In January 1984, the first flight landed and the location for the station was decided. In December 1984 the first building was constructed. During 1987 a new habitation module and water system connected with Lake Uruguay was built.

## General research and databases

At Artigas station various research has been conducted, especially in the following five areas: Microbiology, Ecology, Geology, Atmospheric studies, and Human impact. Further research is conducted in relation to climate change, ozone depletion and meteorology.

CLIMATE	
Climate zone	Maritime Antarctica
Permafrost	Continuous
Mean annual wind speed (km/h)	27.5
Max wind speed (km/h)	
Dominant wind direction	NW
Sea Ice Break Up	September
Snow free period	January, February, March, April
Total annual precipitation (mm)	
Precipitation type	Snow and Rain
Mean annual temperature (°C)	-0.9
Mean temperature in February (°C)	1.3
Mean temperature in July (°C)	-5.9
ENVIRONMENT	
Region	Antarctic Peninsula
Antarctic Environmental Domain: G – Antarctic Peninsula offshore island geologic	
Antarctic Conservation Biogeographic Region: 3 North-west Antarctic Peninsula	
Altitude of facility (m)	17
Type of surface facility built on	Ice-free ground
Long term monitoring	Yes
Waste management	Yes
Hazard(ous) management	Yes
Fuel spill response capability	Yes



## Features in the facility area

Bird colonies, Ice cap or glacier, Lake, Moraine, Rock, Sea, Shoreline, Snow, Tundra.

## Main science disciplines

Atmospheric chemistry and physics, Climate change, Climatology, Ecology, Environmental sciences, Geology, Geomorphology, GIS, Human biology, Isotopic chemistry, Limnology, Mapping, Marine biology, Microbiology, Oceanography, Paleoecology, Paleolimnology, Pollution, Terrestrial biology.

### FACILITIES INFRASTRUCTURE

Area under roof (m <sup>2</sup> )	1700
Area scientific laboratories (m <sup>2</sup> )	85
Type of scientific laboratories: Biology, Chemistry	
Conference room (capacity)	30
Logistic area (m <sup>2</sup> )	1147
Number of beds	63
Showers	Yes
Laundry facilities	Yes
Power supply type	Fossil fuel
Power supply (V)	220
Power supply (hours per day)	24
Hydroponics facilities	No
Number of staff on station (peak/summer season)	9
Number of scientists on station (peak/summer season)	
Number of staff on station (off peak/winter season)	7
Number of scientists on station (off peak/winter season)	1
Max number of personnel at a time (staff, scientists and others)	60
Specific device/Scientific equipment: Burners, fridges and microscope. Equipment is provided by the scientific staff of each activity during their stay.	
Scientific services possible:	
Long-term monitoring/observations: CPE Glacier run – off.	
MEDICAL FACILITIES	
Area of medical facility (m <sup>2</sup> )	25
Staff with basic medical training or doctor (Summer)	1
Staff with basic medical training or doctor (Winter)	1
Capability: Basic	



Equipment:	
Distance to hospital (km)	
Closest emergency facility in Antarctica (km)	5
Closest emergency facility external (km)	
Medical research capabilities	No
Medical screening requirements	No
VEHICLES AT FACILITY	
Sea Transportation: Three Zodiac Rubber Boats (Mk-ii, Mk-iii And Mk-V).	
Land Transportation: Two All-Terrain Carriers, Two Quad Bikes, One Skidoo, One 4Wd Truck With Telescopic Handler.	
WORKSHOP FACILITIES	
ICTS, Mechanical, Metal workshop	
COMMUNICATIONS	
Computer, E-mail, Fax, Internet, Printer, Satellite phone, Scanner, Telephone, VHF	
TRANSPORT AND FREIGHT	
Access	Air, Land, Sea
Transport to facility: 4WD, Helicopter, Quad, Ship, Skidoo, Walking	
Number of airstrips	0
Length (m) of longest runway	
Width (m) of longest runway	
Number of flight visits per year	4
Period of flight visits per year: January, February, March, April, May, December	
Helipad	Yes
Number of ship visits per year	1
Period of ship visits per year: January, February	
Ship landing facilities: None	



Photos: Uruguayan Antarctic Institute

# Ruperto Elichiribehety

Uruguayan Antarctic Institute

63°24'14.2"S 59°59'45.4"W

Type: Station

Operational period:  
October–March

## Location

Choza Inlet, South-East of Hope Bay, Trinity Peninsula, North-Eastern Antarctic

## Biodiversity and natural environment

One hundred twenty thousand pairs of Adélie penguins breed North-West of the station. Access to nearby Antarctic Specially Protected Area (ASPA) 148 Mount Flora, Hope Bay, Antarctic Peninsula.

## History and facilities

Transferred by the United Kingdom to Uruguay on 8 December 1997 and renamed Teniente Ruperto Elichiribehety Uruguayan Antarctic Scientific Station.

## General research and databases

Soil microbiology and GIS mapping.

CLIMATE	
Climate zone	Coastal Antarctica
Permafrost	Discontinuous
Mean annual wind speed (km/h)	28
Max wind speed (km/h)	
Dominant wind direction	
Sea Ice Break Up	
Snow free period	
Total annual precipitation (mm)	
Precipitation type	
Mean annual temperature (°C)	-4.8
Mean temperature in February (°C)	0.3
Mean temperature in July (°C)	-9.2
ENVIRONMENT	
Region	Antarctic Peninsula
Antarctic Environmental Domain: A – Antarctic Peninsula northern geologic	
Antarctic Conservation Biogeographic Region: 1 North-east Antarctic Peninsula	
Altitude of facility (m)	2.8
Type of surface facility built on	
Long term monitoring	
Waste management	No
Hazard(ous) management	No
Fuel spill response capability	No



FACILITIES INFRASTRUCTURE	
Area under roof (m <sup>2</sup> )	244
Area scientific laboratories (m <sup>2</sup> )	33
Type of scientific laboratories: Dry Lab, Geophysics.	
Conference room (capacity)	
Logistic area (m <sup>2</sup> )	67
Number of beds	8
Showers	Yes
Laundry facilities	Yes
Power supply type	Fossil fuel
Power supply (V)	220
Power supply (hours per day)	24
Hydroponics facilities	No
Number of staff on station (peak/summer season)	4
Number of scientists on station (peak/summer season)	3
Number of staff on station (off peak/winter season)	
Number of scientists on station (off peak/winter season)	
Max number of personnel at a time (staff, scientists and others)	8
Specific device/Scientific equipment:	
Scientific services possible:	
Long-term monitoring/observations:	No
MEDICAL FACILITIES	
Area of medical facility (m <sup>2</sup> )	0
Staff with basic medical training or doctor (Summer)	0
Staff with basic medical training or doctor (Winter)	

Capability: None	
Equipment: None	
Distance to hospital (km)	
Closest emergency facility in Antarctica (km)	0.5
Closest emergency facility external (km)	
Medical research capabilities	No
Medical Screening Requirements	No
VEHICLES AT FACILITY	
Sea transportation:	
Land Transportation:	
WORKSHOP FACILITIES	
	None
COMMUNICATIONS	
Satellite phone	
TRANSPORT AND FREIGHT	
Access	Sea
Transport to facility: 4WD, Helicopter, Quad, Ship, Skidoo, Walking	
Number of airstrips	0
Length (m) of longest runway	
Width (m) of longest runway	
Number of flight visits per year	0
Period of flight visits per year: None	
Helipad	No
Number of ship visits per year	1
Period of ship visits per year: January, February	
Ship landing facilities:	

## Features in the facility area

Bird colonies, Coast, Hill, Ice cap or glacier, Melt streams.

## Main science disciplines

Environmental sciences, Geodesy, GIS, Mapping, Microbiology, Oceanography.



Photos: Uruguayan Antarctic Institute

## FURTHER INFORMATION

**For further information on the Antarctic Stations & COMNAP Member National Antarctic Programs, please visit [www.comnpa.aq](http://www.comnpa.aq) or any of these websites.**

Australia [www.aad.gov.au](http://www.aad.gov.au)  
Argentina [www.dna.gov.ar](http://www.dna.gov.ar)  
Belgium [www.belspo.be](http://www.belspo.be)  
Brazil [www.mar.mil.br/secirm/inglles/proantar.html](http://www.mar.mil.br/secirm/inglles/proantar.html)  
Bulgaria [www.bai-bg.net](http://www.bai-bg.net)  
Chile [www.inach.cl](http://www.inach.cl)  
China [www.caa.gov.cn](http://www.caa.gov.cn) [www.pric.org.cn](http://www.pric.org.cn)  
Czech Republic [www.sci.muni.cz/CARI/](http://www.sci.muni.cz/CARI/)  
Ecuador [www.inae.gob.ec](http://www.inae.gob.ec)  
Finland [www.antarctica.fi/in-english](http://www.antarctica.fi/in-english)  
France [www.institut-polaire.fr](http://www.institut-polaire.fr)  
Germany [www.awi.de/en](http://www.awi.de/en)  
India [www.ncaor.gov.in](http://www.ncaor.gov.in)  
Italy [www.pnra.it](http://www.pnra.it)  
Japan [www.nipr.ac.jp/english](http://www.nipr.ac.jp/english)  
Netherlands [www.nwo.nl/npp](http://www.nwo.nl/npp)  
New Zealand [www.antarcticanz.govt.nz](http://www.antarcticanz.govt.nz)  
Norway [www.npolar.no/en/](http://www.npolar.no/en/)  
Peru [www.rree.gob.pe](http://www.rree.gob.pe)  
Poland [www.pkpolar.pl](http://www.pkpolar.pl)  
Republic of Belarus [www.hasb.gov.by](http://www.hasb.gov.by)  
Republic of Korea [www.kopri.re.kr](http://www.kopri.re.kr)  
Russian Federation [www.aari.ru](http://www.aari.ru) [www.raexp.ru](http://www.raexp.ru)  
South Africa [www.sanap.ac.za](http://www.sanap.ac.za)  
Spain [www.idi.mineco.gob.es](http://www.idi.mineco.gob.es)  
Sweden [www.polar.se/en](http://www.polar.se/en)  
Ukraine [www.uac.gov.au/en](http://www.uac.gov.au/en)  
United Kingdom [www.antarctica.ac.uk](http://www.antarctica.ac.uk)  
United States of America [www.usap.gov](http://www.usap.gov)  
Uruguay [www.iau.gub.uy](http://www.iau.gub.uy)