### **Question on Notice 1**

Ms LEY: I want to ask about marine protected areas. I understand that Australia failed in its bid to have a new protected area declared in east Antarctic waters. Can you give me some background on that and where it might be headed, if, indeed, the issue could be regenerated, and how important you think it is.

Dr Gales: It has been a long term one. As part of the Antarctic Treaty, the conservation of the Southern Ocean, the marine living resources in the Southern Ocean, is managed by a commission based in Hobart—a secretariat here—the Commission for the Conservation of Antarctic Marine Living Resources, CCAMLR. The CCAMLR secretariat is hosted here. Its function is to ensure that the living animals—the fish and krill—are managed in a way that is consistent with our conservation objectives and allows for sustainable well-managed fisheries. That has been CCAMLR's core business.

**Ms LEY:** Is AFMA involved in that?

**Dr Gales:** They are involved. We are the lead agency with them. AFMA and other parts of the Australian government are centrally involved with us in all of our discussions around that, as well as the Australian fishing industry who operate down there, along with many other countries. It is not a fisheries based organisation, but it manages the fisheries in what we think is a really excellent manner in that it quite deliberately takes into account the needs of all of the other predators that eat the thing we are catching. So it works out what other animals need, the krill, and then sets the krill limits around what the fishery can be sustainably managed at.

Over the past few years, a new thing for CCAMLR has been the introduction of the idea of very large marine protected areas. There were two particularly large ones put up at the same time. One in the Ross Sea and one in East Antarctica. Australia, France and the European Union were the proponents for the East Antarctica marine protected area. The US and New Zealand were the lead proponents of the Ross Sea marine protected area. They have been in consultation with CCAMLR for a number of years. I would have to check exactly the number of years now, but it must be about the seventh year in which these areas have been discussed. A year ago, the Ross Sea marine protected area was finally agreed. This year we had hoped—and we had worked very closely with the other CCAMLR parties—to have the East Antarctica marine protected area agreed as well; it was not. We are hoping it is just a matter of time. The Ross Sea MPA and its implications is being resolved through CCAMLR Page 52 House of Representatives Friday, 10 November 2017 now. Australia is committed to continuing our approach to support the acceptance of marine protected areas, with on only a few parties not supportive at this stage.

### Answer

The East Antarctic Marine Protected Area proposal was first tabled in the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) in 2012. It has been considered at 6 consecutive annual meetings, as well as a Special Meeting held in 2013 specifically to consider this proposal as well as the Ross Sea region Marine Protected Area proposal.

### **Question on Notice 2**

**Mr SNOWDON:** I'm trying to get my head around the size of the asset base which has no economic value and for which you have no value in terms of the Antarctic division. What are we talking about here? **Mr Bryson:** We're talking about buildings, services like our powerhouses, the machinery inside of those powerhouses—generation equipment—water tanks, vehicles on the stations, scientific equipment, our boats that we use on station and everything that is composed in that end, computer equipment and satellite gear.

Mr SNOWDON: Do you have any idea of a replacement value for that particular 48.5 per cent? Mr Bryson: I'd have to take that on notice. At the moment, the total asset base that we have within our control is \$880 million to replace the lot. That 48 per cent is probably in the vicinity of \$400 million worth of written-off value. We will confirm those.

#### **Answer**

The estimated replacement cost of those assets with a zero net book value (fully depreciated assets) is \$139.4 million. Assets are depreciated, on a straight line basis, over their estimated useful life. These assets are still in use, so they do have an economic value, but are being used beyond their normal economic life.

### **Question on Notice 3**

**CHAIR:** Could you take on notice the stations operating within the AAT that have been inspected in the last five years and the stations which have not been inspected that operate within the AAT.

**Dr Gales:** I would be happy to do that.

**CHAIR:** Thank you.

#### **Answer**

Details of inspections conducted in accordance with the provisions of the Antarctic Treaty and the Protocol on Environmental Protection to the Antarctic Treaty are publicly available on the website of the Secretariat of the Antarctic Treaty at:

### http://www.ats.aq/devAS/ats\_governance\_listinspections.aspx

In the last five years three stations operating within the Australian Antarctic Territory (AAT) have been inspected. In December 2016 observers appointed by Australia conducted an inspection of Amundsen-Scott South Pole Station (United States). In December 2012 observers appointed by the Russian Federation and the United States inspected Bharati (India) and Zhongshan Station (China).

The following table lists stations operating within the AAT that have not been inspected in the last five years.

Station	Operating Party/Parties	Year-round / seasonal facility	Last inspected	Inspecting Party/Parties
Casey	Australia	Year-round	1998-1999	Belgium, France
Davis	Australia	Year-round	1998-1999	Belgium, France
Mawson	Australia	Year-round	1998-1999	Belgium, France
Wilkins	Australia	Seasonal	-	-
Aerodrome				
Mountain	Belarus	Seasonal	-	-
Evening				
Kunlun	China	Seasonal	-	
Taishan	China	Seasonal	-	-
Concordia	France, Italy	Year-Round	2011-2012	Russian Federation, United States
Dobrowolski	Poland	Seasonal	-	-
Druzhnaya-IV	Russian Federation	Seasonal	2009-10	Australia
Leningradskaya	Russian Federation	Seasonal	2010-11	Australia
Mirny	Russian Federation	Year-round	1994-95	United States
Molodezhnaya	Russian Federation	Seasonal	2009-10	Australia
Progress	Russian Federation	Year-round	-	-

Soyuz	Russian Federation	Seasonal	-	-
Vostok	Russian Federation	Year-round	2010-11	Australia

#### **Question on Notice 4**

**Senator McCARTHY:** Thank you. I will just go to a couple of questions on notice. Around your staffing and the people, I notice in your submission that you have total populations of around 80 in winter and around 200 in summer. Can you provide for the committee a breakdown of those positions and gender, on notice.

### **Answer**

Table attached.

### **Question on Notice 5**

Ms BRODTMANN: With regard to the inspection regime, it's designed to see if people are complying with the treaty but I imagine, given the nature of the land mass you're dealing with and the difficulty in getting across it, there is no element of surprise when you turn up. So how effective is the inspection process in reality? People would be well aware of the fact that you were coming. It sounds like there's a bit of a pattern anyway. It all happens, of course, over summer. How rigorous do you think the inspection process really is?

**Dr Gales:** It's pretty rigorous, because most of the major issues, most of the areas where there would be real problems, are not things you can quickly fix up over a few days or even a few weeks. Just as an example, with the South Pole station which we inspected last summer it was incredibly impressive to see that those buildings, as they were decommissioned, were taken down, stacked up and audited. You can see all of the systems by which they are then taken out of Antarctica. Mostly they're returned to the US but some are sent elsewhere. With systems like that you can see them and you can look at the paperwork behind them. They're not things that, if you didn't have a really robust system of management like that, you could hide from an inspector. You see their full wastewater treatment systems, so if you had a coastal station that was pumping out raw sewage—which actually is allowable under the treaty currently; that's changing—it would be obvious and apparent. But if you've got a system that's really sophisticated and is treating that water and using it in a way that's much more sophisticated, you'll see that. That's more or less the level. Really minor things: yes, they could certainly tidy up some things. But generally the scale of the types of things you need to inspect would be apparent.

You're right—notice is given. It can be quite short notice. There's an obligation, and I can't remember exactly whether it's 36 hours or 48 hours—something like that. Bri, I'm not sure if you recall. Typically, though, countries are reasonably polite and give people a bit of notice.

### **Answer**

The Antarctic Treaty (Article VII) requires that a Consultative Party that designates observers to conduct inspections in the Antarctic Treaty must communicate the names of the observers to every other Consultative Party. There is no requirement to provide advance notice of the location or timing of intended inspections. However, for practical reasons, such advance notice is often necessary, including to ensure the inspection can be carried out in a safe and efficient manner. For example, it may be appropriate to establish contact in advance to confirm the operation is a suitable facility to receive an inspection team travelling by fixed-wing aircraft, or to avoid scheduling an inspection that would coincide with the annual resupply of a station.

### **Question on Notice 6**

Mr LEESER: I want to ask a question on notice. Would it be possible to have from the AAD a table which looks at what other countries have in the Antarctic by way of people, stations, research so that we can compare what we have to what they have?

**Dr Gales:** We can certainly do that through the acronym COMNAP—I've forgotten the elements—publish a list of each of the countries and their stations. We can gather that—

Mr LEESER: And the research they're doing too.

**Dr Gales:** Sure, we can go beyond that. We have recently done that as a bit of analysis for East Antarctica, comparing the scale and the nature of Australia's activities with those of other countries.

**Mr LEESER:** What did that comparison reveal? Are we the dominant country in East Antarctica? **Dr Gales:** As a contemporary operator in East Antarctica, we have the broadest network and range of infrastructure and movements around the overall East Antarctic area. Russia, from its stations that were developed at the time of the USSR, has some more stations around the coast but several of them now are deserted and so they are not operational. Currently, Australia has the largest operational footprint in East Antarctica and the largest range of activity.

### **Answer**

Attached.

# Summer Population - 2017/18 (includes wintering expeditioners)

Work Group	Male	Female	Total	%male	%female
Aviation	17	3	20	85%	15%
AMP	3	4	7	43%	57%
Infrastructure	63	4	67	94%	6%
Mechanical	21		21	100%	0%
Chef	3	5	8	38%	63%
Engr	1		1	100%	
SSO	2	1	3	67%	33%
BoM	11	8	19	58%	42%
ICT	13	3	16	81%	19%
SL	1	3	4	25%	75%
FTO	10	2	12	83%	17%
Tas Parks					
Ops Coord	1	1	2	50%	50%
AAD Head Office	6	5	11	55%	45%
Modernisation	4	1	5	80%	20%
AAD Projects	8	10	18	44%	56%
VIP	11	1	12	92%	8%
External Projects	32	17	49	65%	35%
Aviation Crew	19		19	100%	0%
Total Station Pop *	226	68	294	77%	23%

# Summer Population - 2016/17 (includes wintering expeditioners) Male Female Total %male %female

Work Group	Male	Female	Total	%male	%female
Aviation	17	3	20	85%	15%
AMP	5	2	7	71%	29%
Infrastructure	59	1	60	98%	2%
Mechanical	20	1	21	95%	5%
Chef	6	2	8	75%	25%
Engr	1				
SSO	2		2	100%	0%
BoM	12	7	19	63%	37%
ICT	10	3	13	77%	23%
SL	1	3	4	25%	75%
FTO	7	3	10	70%	30%
TasParks		2	2		
Ops Coord	1	1	2	50%	50%
AAD Head Office	15	9	24	63%	38%
Modernisation	8		8	100%	0%
AAD Projects	10	10	20	50%	50%
VIP	2	2	4	50%	50%
External Projects	30	27	57	53%	47%
Aviation Crew	38		38	100%	0%
<b>Total Station Pop</b>	244	76	320	<b>76</b> %	24%

# Summer Population - 2015/16 (includes wintering expeditioners)

Work Group	Male	Female	Total	%male	%female
Aviation	18	2	20	90%	10%
AMP	5	3	8	63%	38%
Infrastructure	65		65	100%	0%
Mechanical	19		19	100%	0%
Chef	5	4	9	56%	44%
Engr	1		1	100%	
SSO	2	1	3	67%	33%
BoM	22	5	27	81%	19%
ICT	10	5	15	67%	33%
SL	1	3	4	25%	75%
FTO	8	3	11	73%	27%
TasParks	1		1	100%	
Ops Coord			0	0%	0%
AAD Head Office	4	4	8	50%	50%
Modernisation	1	1	2	50%	50%
AAD Project	15	12	27	56%	44%
VIP	2		2	0%	0%
External Projects	24	18	42	57%	43%
Aviation Crew	19	3	22	86%	14%
<b>Total Station Pop</b>	222	64	286	78%	22%

### Winter 2017/18

	Willter 2017/10					
Work Group	Male	Female	Total	%male	%female	
Aviation	2	1	3	67%	33%	
AMP	1	3	4	25%	75%	
Infrastructure	27		27	100%	0%	
Mechanical	9		9	100%	0%	
Elec Engr	1		1	100%	0%	
Chef	2	2	4	50%	50%	
SFTO/SSO	3		3	100%	0%	
SCTO	4		4	100%	0%	
SL	1	3	4	25%	75%	
SSO	0		0			
BoM	7	4	11	64%	36%	
Tas Parks Ranger						
Other						
Total Winter*	57	13	70	81%	19%	

Winter 2016/17

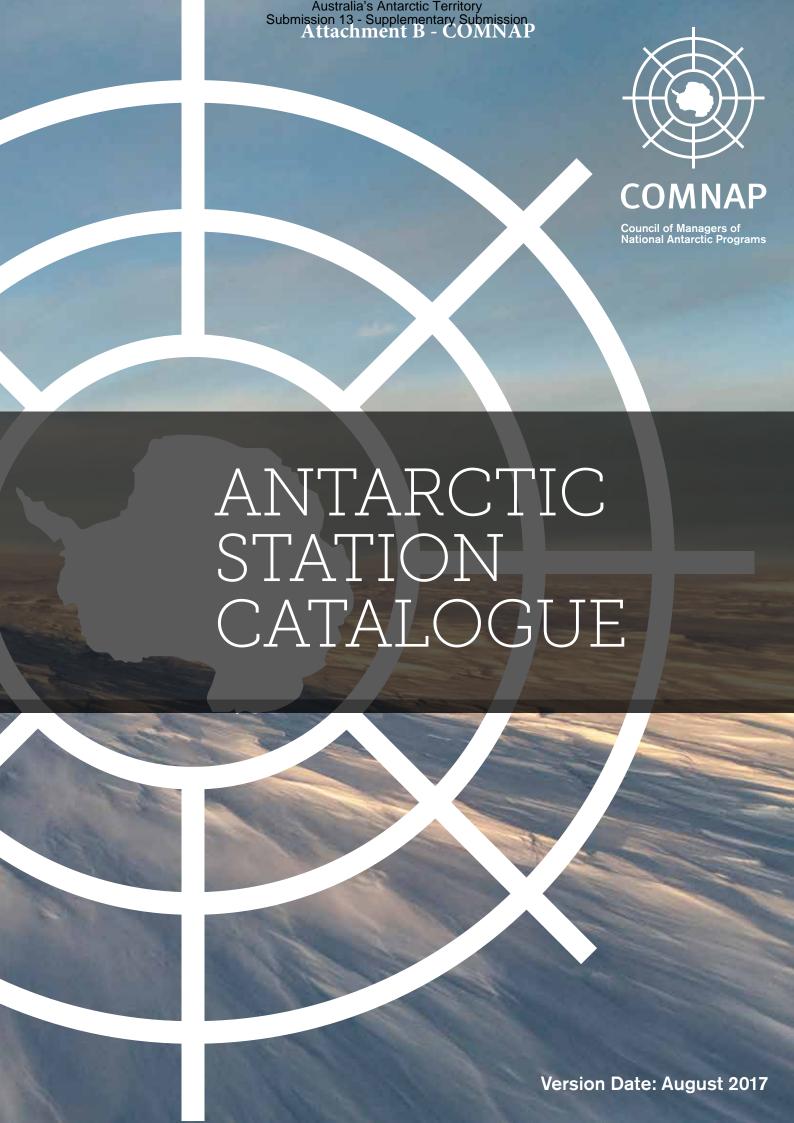
Willten 2010/17						
Work Group	Male	Female	Total	%male	%female	
Aviation	2	1	3	67%	33%	
AMP	2	2	4	50%	50%	
Infrastructure	22		22	100%	0%	
Mechanical	9		9	100%	0%	
Elec Engr	1		1	100%	0%	
Chef	3	1	4	75%	25%	
SFTO/SSO		1	1	0%	33%	
SCTO	5		5	100%	0%	
SL	1	3	4	25%	75%	
SSO	1		1	100%	0%	
BoM	7	3	10	70%	27%	
Tas Parks Ranger		2	2	0%	100%	
Other		2	2	0%	100%	
Total Winter	53	15	68	78%	22%	

### Winter 2015/16

Work Group	Male	Female	Total	%male	%female
Aviation	4		4	100%	0%
AMP	2	2	4	50%	50%
Infrastructure	26		26	100%	0%
Mechanical	9		9	100%	0%
Elec Engr	1		1	100%	0%
Chef	2	2	4	50%	50%
SFTO/SSO	1		1	100%	0%
SCTO	4		4	100%	0%
SL	1	3	4	25%	75%
SSO	1	1	2	50%	50%
BoM	7	3	10	70%	30%
Tas Parks Ranger	1		1	100%	0%
Other	1	1	2	50%	50%
Total Winter	60	12	72	83%	17%

<sup>\*</sup> As at 27 Nov 2017. This is an interim figure only.

<sup>\*</sup>As at 27 Nov 2017. This is an interim figure only.



# 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.



# 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 opensource 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-todate 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 Shiraishi NIPR Director-General COMNAP Chairman

Kazugulei Shiraibi



# 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.

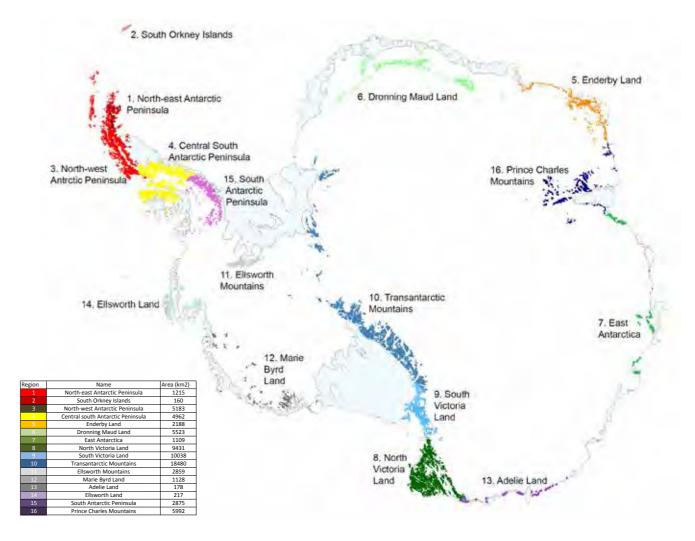
The stations are listed in the catalogue in alphabetical order of country.

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). 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.

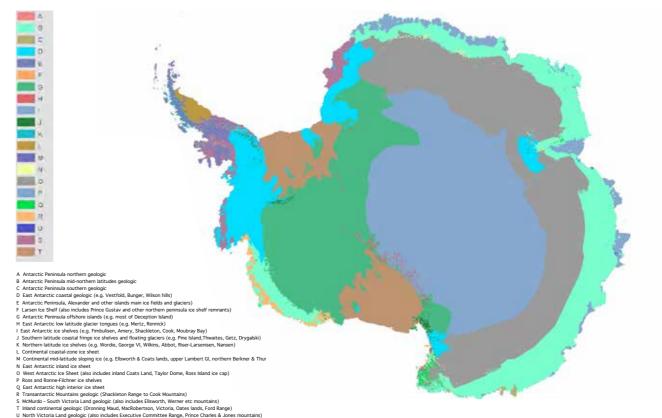
#### Acknowledgements

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 know. 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>&</sup>lt;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>&</sup>lt;sup>2</sup> Horgan F, Barker G, Brigos C, Price R and Keys H, 2007. Environmental Domains of Antarctica Version 2.0 Final Report, Managaki 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
Facility name and National Antarctic Program	
Coordinates (Latitude/Longitude)	
Туре:	Airfield camp; Camp; Depot; Laboratory; Refuge; Station.
Operational period:	Opening-Closing months; Year-round.
Location	
Biodiversity and natural environment	
History and facilities	
General research and databases	

Features in the facility area 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.

Main science disciplines<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.

physics, Systems analysis, Systems biology, Terre	strial biology , toxicology, voicariology, zoology.
CLIMATE	
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)	
ENVIRONMENT	
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.
FACILITIES INFRASTRUCTURE	
Area under roof (m <sup>2</sup> )	
Area scientific laboratories (m²)	
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 (m²)	
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	n)
Number of scientist on station (peak/summer sea	ason)
Number of staff on station (off peak/winter seaso	on)
Number of scientist on station (off peak/winter se	eason)
Max number of personnel at a time (staff, scientis	ts and others)
Specific device/Scientific equipment	
Scientific service possible	
Long-term monitoring/observations	
MEDICAL FACILITIES	Yes; No.
Area of medical facilities (m²)	
Staff with basic medical training or doctor (Summ	er)
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, 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.
VEHICLES AT FACILITY	
Sea transportation	
Land transportation	
WORKSHOP FACILITIES	ICTS (Staff available to assist with constructions); Mechanical; Metal workshop; Plexiglas workshop; Wood workshop; Other. If Other, specify.
COMMUNICATIONS	Computer; E-mail; Fax; Internet; Printer; Satellite telephone; Scanner; Telephone; VHF.
TRANSPORT AND FREIGHT	
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	
	Jan; Feb; Mar; Apr; May; Jun; Jul; Aug; Sep; Oct; Nov; Dec; None.
Period of ship visits per year	
Period of ship visits per year Ship landing facilities	Breakwater/Bulkhead; Drydock; Floating dock/Pontoon; Ice pier; None; Port; Pier/Jetty;

<sup>&</sup>lt;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.

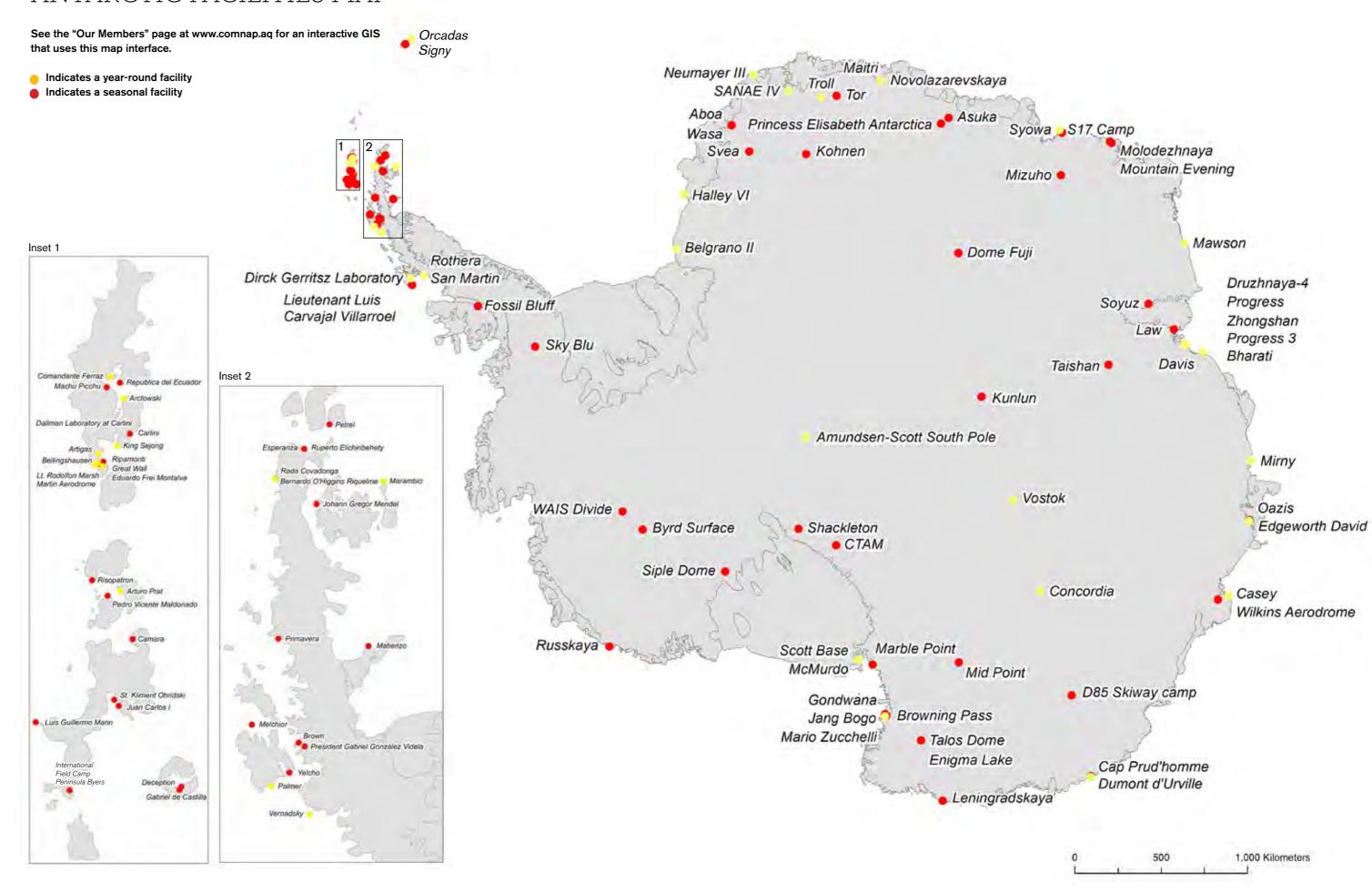
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# ANTARCTIC STATION CATALOGUE CONTENTS

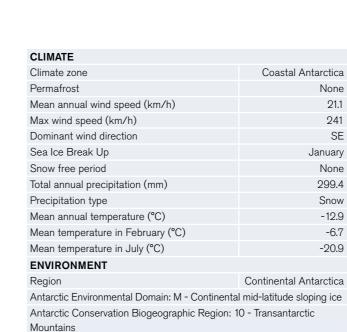
Country	Name	Latitude	Longitude	Page
Argentina	Belgrano II	77°52'26"S	34°37'40"W	9
Argentina	<ul><li>Brown</li></ul>	64°53'43"S	62°52'13"W	
	<ul><li>Camara</li></ul>	62°35'38"S	59°55'09"W	
g	<ul><li>Carlini</li></ul>	62°14'27"S	58°40'01"W	8
7 11 gorrania	Decepcion	62°58'36"S	60°42'02"W	10
9	<ul><li>Esperanza</li></ul>	63°23′50″S	56°59'54"W	12
<u> </u>	Marambio	64°14'50"S	56°37'39"W	14
Argentina	Matienzo	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	29
	Primavera	64°09'35"S	60°57'25"W	24
, a gorrana	San Martin	68°07'47"S	67°06'10"W	26
	Casey	66°16'54''S	110°31'39"E	28
	O Davis	68°34'36"S	77°58'02"E	30
	Mawson	67°36'10''S	62°52'28"E	39
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
	Carvajal	67°45'38"S	68°54'53"W	40
	Dr. Guillermo Mann	62°27'00''S	60°47'00"W	49
011110	Frei	62°12'00"S	58°57'48"W	44
	Gabriel Gonzalez Videla	64°49'25"S	62°51'26"W	46
	O'Higgins Prat	63°19'15"S	57°53'59"W	48
	<u> </u>	62°28'43"S	59°39'48"W	50
Chile	110100001 04110 20044010	62°12′57"S	58°57'35''W	59
Chile	Risopatron	62°22'17"S 64°52'55''S	59°42'53"W	54
	Yelcho     Great Wall		63°35'03"W	50 58
	Kunlun	62°13'03"S	58°57 '43"W	60
	Taishan	80°25'02"S	77°06′58"E	69
		73°51'50''S 69°22'24''S	76°58'27''E 76°22'40''E	64
				66
Ecuador	<ul><li>Johann Gregor Mendel</li><li>Pedro Vicente Maldonado</li></ul>	63°48'02'S 62°26'57''S	57°52'57''W 59°44'27''W	68
Finland	Aboa			70
	Concordia	73°03'00''S 75°05'59''S	13°25'00"W 123°19'57"E	79
	Dumont d'Urville	66°39'77''S	140°00'08"E	7
	Dallmann Laboratory	62°14'26"S	58°40'00''W	76
	Kohnen	75°00'06"S	00°04'04''E	78
	Neumayer III	73 00 00 3 70°41'00''S	08°16'00''W	80
	Bharati	69°24'24''S	76°11'43"E	82
	Maitri	70°46'00''S	11°43′51″E	84
Italy	Mario Zucchelli	70 40 00 3 74°41'42''S	164°07'23"E	86
Japan	Syowa	69°00'25"S	39°35'01"E	88
	Dirck Gerritsz Laboratory	67°34'07'S	68°07'28"W	90
	Scott Base	77°50′58"S	166°46'02"E	99
	Troll	72°00'43''S	02°31'59"E	94
	Machu Picchu	62°05'49"S	58°28'23"W	96
	Henryk Arctowski	69°09'35"S	58°28'24''W	98
	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
	King Sejong	62°13'39"S	58°47'19''W	104
	Bellingshausen	62°12′00"S	58°58'00''W	106
	Druzhnaya IV	69°44′00''S	73°43'00"E	108
	Leningradskaya	69°30′00″S	159°23'00"E	110
	Mirny	66°31'00"S	93°01'00"E	112
	Molodezhnaya	67°40'00''S	45°51'00"E	114
	Novolazarevskaya	70°46'00''S	11°50'00"E	116
Russia	Oazis	66°16'00''S	100°44'00"E	118
Russia	<ul><li>Progress</li></ul>	69°23'00''S	76°23'00"E	120
Russia	Russkaya	74°45'00''S	136°40'00"W	122
Russia	<ul><li>Vostok</li></ul>	78°28'00''S	106°48'00"E	124
	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	<ul> <li>International Field Camp Peninsula B</li> </ul>	ers 62°39'49''S	61°05'59''W	130
	<ul><li>Juan Carlos I</li></ul>	62°39'48"S	60°23'17''W	132
	<ul><li>Wasa</li></ul>	73°03'00"S	13°25'00''W	134
Ukraine	<ul><li>Vernadsky</li></ul>	65°14'44''S	64°15'27''W	136
	Vernausky	75°34'25"S	25°28'01"W	138
	Halley VI	10 04 20 0	20 20 01 VV	
		67°34′00''S	68°07'59''W	
United Kingdom	Halley VI			140
	Halley VI Rothera	67°34'00''S	68°07'59''W	140 14:
United States	Halley VI Rothera Signy	67°34′00′'S 60°42′30''S	68°07'59''W 45°35'43''W	140 140 144
United States United States	Halley VI Rothera Signy Amundsen-Scott South Pole	67°34'00''S 60°42'30''S 90°S	68°07'59''W 45°35'43''W 0°E	14( 145 144 146 148
United States United States United States	Halley VI Rothera Signy Amundsen-Scott South Pole McMurdo	67°34'00"S 60°42'30"S 90°S 77°50'53"S	68°07'59''W 45°35'43''W 0°E 166°40'06''E	140 142 144 146

Australia's Antarctic Territory
Submission 13 - Supplementary Submission

# ANTARCTIC FACILITIES MAP







Altitude of facility (m)

Long term monitoring

Waste management

Hazard(ous) management

Fuel spill response capability

Type of surface facility built on





### **FACILITIES INFRASTRUCTURE** Area under roof (m2) Area scientific laboratories (m2) Type of scientific laboratories: Geodetic GPS, Seismography station, Earth's magnetic field, lonospheric and aurorae sounding research, Atmospheric ozone Conference room (capacity) Logistic area (m<sup>2</sup>) Number of beds Laundry facilities Power supply type Power supply (V) Power supply (hours per day) Hydroponics facilities Number of staff on station (peak/summer season) 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) Specific device/Scientific equipment: Meteorology: Instruments for

**ARGENTINA** 

synoptic and climatological station surface, lonospheric 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

MEDICAL FACILITIES	Yes
Area of medical facility (m²)	
Staff with basic medical training or doctor (Summer)	2
Staff with basic medical training or doctor (Winter)	2
Canability: Basic Surgery	

Equipment: Diagnostic x-ray, Laboratory diagnostics, Diagnostic ultrasound, Anaesthesia, telemedicine, defibrillator, electrocardiograph,

mygon morapy oquipmont	
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
/EHICLES AT FACILITY	

#### Sea transportation: None Land transportation: Three snow cats, Seven snowmobiles

WORKSHOP FACILITIES

### ICTS, Mechanical, Metal workshop, Wood workshop

COMMUNICATIONS

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

****	
TRANSPORT AND FREIGHT	
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, Decem	ber
Helipad	Yes
Number of ship visits per year	1
Period of ship visits per year: January, February, Decemb	er

# Belgrano II

77°52′26′′S 34°37′40′′W

Type: Station

Operational period:

Year-round

### Location

〓

BELGRANO

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

Programa Antártico Argentino

Various research are conducted at Belgrano II station such as: lonospheric 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.





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

# 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.

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

# Features in the facility area

Bay Islands, Rock.

# Main science disciplines

Meteorology, Oceanography.



# **ARGENTINA**

**FACILITIES INFRASTRUCTURE** 

Area under roof (m<sup>2</sup>)

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 latitudes geologic	Peninsula mid-northern
Antarctic Conservation Biogeographic Regions Peninsula	: 3 North-west Antarctic
Altitude of facility (m)	22
Type of surface facility built on	Ice-free ground
Long term monitoring	No

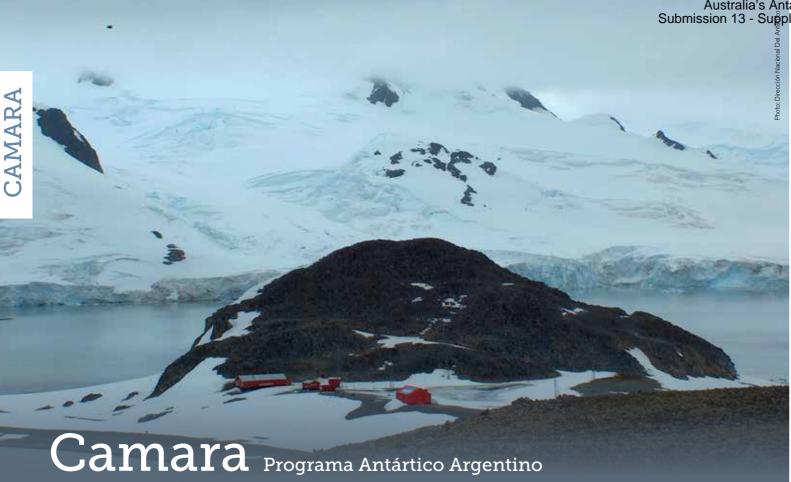


Waste management

Hazard(ous) management Fuel spill response capability



Area scientific laboratories (m²)	41
Type of scientific laboratories: Biology, Oceanography	
Conference room (capacity)	
Logistic area (m²)	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	12
(staff, scientists and others)	
Specific device/Scientific equipment: There is no perma	nent
equipment at the station	
Scientific services possible:	
Long-term monitoring/observations:	
MEDICAL FACILITIES	No
Area of medical facility (m²)	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 in Antarctica (km) Closest emergency facility external (km)	
Closest emergency facility in Antarctica (km) Closest emergency facility external (km) Medical research capabilities	306.7
Closest emergency facility in Antarctica (km) Closest emergency facility external (km)	306.7
Closest emergency facility in Antarctica (km) Closest emergency facility external (km) Medical research capabilities Medical screening requirements VEHICLES AT FACILITY	306.7 1162 Yes
Closest emergency facility in Antarctica (km) Closest emergency facility external (km) Medical research capabilities Medical screening requirements	306.7 1162 Yes
Closest emergency facility in Antarctica (km) Closest emergency facility external (km) Medical research capabilities Medical screening requirements VEHICLES AT FACILITY	306.7 1162 Yes
Closest emergency facility in Antarctica (km) Closest emergency facility external (km) Medical research capabilities Medical screening requirements VEHICLES AT FACILITY Sea transportation: Two Zodiac boats with outboard mot	306.7 1162 Yes
Closest emergency facility in Antarctica (km) Closest emergency facility external (km) Medical research capabilities Medical screening requirements VEHICLES AT FACILITY Sea transportation: Two Zodiac boats with outboard mot Land transportation: WORKSHOP FACILITIES General repairs	306.7 1162 Yes
Closest emergency facility in Antarctica (km) Closest emergency facility external (km) Medical research capabilities Medical screening requirements VEHICLES AT FACILITY Sea transportation: Two Zodiac boats with outboard mot Land transportation: WORKSHOP FACILITIES General repairs COMMUNICATIONS	306.7 1162 Yes
Closest emergency facility in Antarctica (km) Closest emergency facility external (km) Medical research capabilities Medical screening requirements VEHICLES AT FACILITY Sea transportation: Two Zodiac boats with outboard mot Land transportation: WORKSHOP FACILITIES General repairs COMMUNICATIONS Satellite phone, VHF	306.7 1162 Yes
Closest emergency facility in Antarctica (km) Closest emergency facility external (km) Medical research capabilities Medical screening requirements VEHICLES AT FACILITY Sea transportation: Two Zodiac boats with outboard mot Land transportation: WORKSHOP FACILITIES General repairs COMMUNICATIONS Satellite phone, VHF TRANSPORT AND FREIGHT	306.7 1162 Yes
Closest emergency facility in Antarctica (km) Closest emergency facility external (km) Medical research capabilities Medical screening requirements VEHICLES AT FACILITY Sea transportation: Two Zodiac boats with outboard mot Land transportation: WORKSHOP FACILITIES General repairs COMMUNICATIONS Satellite phone, VHF TRANSPORT AND FREIGHT Access	306.7 1162 Yes
Closest emergency facility in Antarctica (km) Closest emergency facility external (km) Medical research capabilities Medical screening requirements VEHICLES AT FACILITY Sea transportation: Two Zodiac boats with outboard mot Land transportation: WORKSHOP FACILITIES General repairs COMMUNICATIONS Satellite phone, VHF TRANSPORT AND FREIGHT Access Transport to facility: Ship	306.7 1162 Yes
Closest emergency facility in Antarctica (km) Closest emergency facility external (km) Medical research capabilities Medical screening requirements VEHICLES AT FACILITY Sea transportation: Two Zodiac boats with outboard mot Land transportation: WORKSHOP FACILITIES General repairs COMMUNICATIONS Satellite phone, VHF TRANSPORT AND FREIGHT Access Transport to facility: Ship Number of airstrips	306.7 1162 Yes
Closest emergency facility in Antarctica (km) Closest emergency facility external (km) Medical research capabilities Medical screening requirements VEHICLES AT FACILITY Sea transportation: Two Zodiac boats with outboard model Land transportation: WORKSHOP FACILITIES General repairs COMMUNICATIONS Satellite phone, VHF TRANSPORT AND FREIGHT Access Transport to facility: Ship Number of airstrips Length (m) of longest runway	306.7 1162 Yes
Closest emergency facility in Antarctica (km) Closest emergency facility external (km) Medical research capabilities Medical screening requirements VEHICLES AT FACILITY Sea transportation: Two Zodiac boats with outboard model Land transportation: WORKSHOP FACILITIES General repairs COMMUNICATIONS Satellite phone, VHF TRANSPORT AND FREIGHT Access Transport to facility: Ship Number of airstrips Length (m) of longest runway Width (m) of longest runway	306.7 1162 Yes
Closest emergency facility in Antarctica (km) Closest emergency facility external (km) Medical research capabilities Medical screening requirements VEHICLES AT FACILITY Sea transportation: Two Zodiac boats with outboard model Land transportation: WORKSHOP FACILITIES General repairs COMMUNICATIONS Satellite phone, VHF TRANSPORT AND FREIGHT Access Transport to facility: Ship Number of airstrips Length (m) of longest runway Width (m) of longest runway Number of flight visits per year	306.7 1162 Yes
Closest emergency facility in Antarctica (km) Closest emergency facility external (km) Medical research capabilities Medical screening requirements VEHICLES AT FACILITY Sea transportation: Two Zodiac boats with outboard mot Land transportation: WORKSHOP FACILITIES General repairs COMMUNICATIONS Satellite phone, VHF TRANSPORT AND FREIGHT Access 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:	306.7 1162 Yes Sea 0
Closest emergency facility in Antarctica (km) Closest emergency facility external (km) Medical research capabilities Medical screening requirements VEHICLES AT FACILITY Sea transportation: Two Zodiac boats with outboard mot Land transportation: WORKSHOP FACILITIES General repairs COMMUNICATIONS Satellite phone, VHF TRANSPORT AND FREIGHT Access 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	306.7 1162 Yes sors
Closest emergency facility in Antarctica (km) Closest emergency facility external (km) Medical research capabilities Medical screening requirements VEHICLES AT FACILITY Sea transportation: Two Zodiac boats with outboard mot Land transportation: WORKSHOP FACILITIES General repairs COMMUNICATIONS Satellite phone, VHF TRANSPORT AND FREIGHT Access 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:	306.7 1162 Yes Sea 0
Closest emergency facility in Antarctica (km) Closest emergency facility external (km) Medical research capabilities Medical screening requirements VEHICLES AT FACILITY Sea transportation: Two Zodiac boats with outboard mot Land transportation: WORKSHOP FACILITIES General repairs COMMUNICATIONS Satellite phone, VHF TRANSPORT AND FREIGHT Access 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 Period of ship visits per year: January, February, March, And November, December	306.7 1162 Yes sors Sea 0
Closest emergency facility in Antarctica (km) Closest emergency facility external (km) Medical research capabilities Medical screening requirements VEHICLES AT FACILITY Sea transportation: Two Zodiac boats with outboard mot Land transportation: WORKSHOP FACILITIES General repairs COMMUNICATIONS Satellite phone, VHF TRANSPORT AND FREIGHT Access Transport to facility: Ship Number of airstrips Length (m) of longest runway Width (m) of longest runway Width (m) of longest runway Number of flight visits per year Period of flight visits per year Period of ship visits per year: Jelipad Number of ship visits per year: Period of ship visits per year: Period of ship visits per year: Jebruary, March, A	306.7 1162 Yes sors Sea 0



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 Bahia 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,

Main science disciplines



# **ARGENTINA**

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 latitudes geologic	Peninsula mid-northern
Antarctic Conservation Biogeographic Region: Peninsula	3 North-west Antarctic
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

FACILITIES INFRASTRUCTURE	
Area under roof (m <sup>2</sup> )	483
Area scientific laboratories (m²)	16
Type of scientific laboratories: Geology	
Conference room (capacity)	
Logistic area (m²)	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)	00
Max number of personnel at a time (staff. scientists and others)	22
Specific device/Scientific equipment: There is no perma	nent
equipment at the station	nont
Scientific services possible:	
Long-term monitoring/observations:	
MEDICAL FACILITIES	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
VEHICLES AT FACILITY	
Sea transportation: Two Zodiac boats with outboard mot	ors
Land transportation:	.010
WORKSHOP FACILITIES	
Wood Workshop, 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	25
Period of ship visits per year: January, February, March, N December	
Ship landing facilities: None	



62°14′27.4″S 58°40′01.1″W

**Type:** Station

Operational period: Year-round

Location

CARLIN

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: Peninsula	3 North-west Antarctic
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 327 Area scientific laboratories (m<sup>2</sup>) Type of scientific laboratories: Biology, Chemistry, Scientific diving, Oceanography, Geology, Geodetic GPS, Seismography station 30 Conference room (capacity) 366 Logistic area (m<sup>2</sup>) 80 Number of beds Showers Yes Laundry facilities Power supply type 220 Power supply (V) Power supply (hours per day) Hydroponics facilities Number of staff on station (peak/summer season) 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)

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

Daotoria, Colorrological monitoring	
MEDICAL FACILITIES	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, Diagnos Anaesthesia, Defibrillator, Electrocardiograph, Oxygen the	J .
Distance to hospital (km)	998.5
Closest emergency facility in Antarctica (km)	
Closest emergency facility external (km)	998.5
Medical research capabilities	No

### **VEHICLES AT FACILITY**

Medical screening requirements

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

### **WORKSHOP FACILITIES**

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

Computer, E-mail, Internet, Satellite phone, VHF	
TRANSPORT AND FREIGHT	
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, June, July, August, September, October, November, Dece	
Helipad	Yes
Number of ship visits per year	14
Period of ship visits per year: January, February, March, A June, July, August, September, October, November, Dece	1 . 3.
Ship landing facilities: None	



ARGENTINA

### 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

### 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.



62°58'36.3"S 60°42'02.5"W

Type: Station

Operational period: October-March

### Location

DECEPCION

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 (m²)	1030
Area scientific laboratories (m²)	16
Type of scientific laboratories: Volcanology	
Conference room (capacity)	
Logistic area (m²)	337
Number of beds	30
Showers	Yes
Laundry facilities	Yes
Power supply type	Fossil fue
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)	C
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 perma equipment at the station Scientific services possible:	inent
Long-term monitoring/observations: Discontinuous mor	itoring
MEDICAL FACILITIES	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
VEHICLES AT FACILITY	
Sea transportation: Two Zodiac boats with outboard mo	tors
Land transportation:	
WORKSHOP FACILITIES	
General repairs, Mechanical, Wood workshop	
COMMUNICATIONS	
Satellite phone, VHF	
TRANSPORT AND FREIGHT	
Access	Air, Sea
Transport to facility: Ship	
Number of airstrips	C
Length (m) of longest runway	
Width (m) of longest runway	
Number of flight visits per year	C
Period of flight visits per year:	
Helipad	No
Number of ship visits per year	6
Period of ship visits per year: January, February, March, December	November,
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.



63°23′50′′S 56°59′54′′W

Type: Station

Operational period:

Year-round

### Location

ESPERANZA

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, (broadcasting since 1979), and a Catholic chapel (inaugurated in 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		





Area under roof (m <sup>2</sup> )	3877
Area scientific laboratories (m²)	135
Type of scientific laboratories: Biology, Geology, Seismog	graphy
Conference room (capacity)	
Logistic area (m²)	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: Seism Biology: Tide Gauge; Alternative Energy: Wind Generator fuel cell; Meteorology: Instrumental for synoptic and clim station	r, Hydrogen
Scientific services possible: Seismograph data transmitte Meteorology; Biology, geology and paleontology during s only	
Long-term monitoring/observations: Censuses within pe Seismological monitoring	nguin colonies;
MEDICAL FACILITIES	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 mot	tors
Land transportation: Two 4WD 1.5-Ton trucks, One pick	up, One quad
bike, Five snowmobiles, One snow-cat, One tracked vehi	icle, One truck,
One road roller, One Mobile elevator	
WORKSHOP FACILITIES	
ICTS, Mechanical, Wood workshop, Metal workshop	
COMMUNICATIONS	0
Computer, E-mail, Fax, Internet, Printer, Satellite phone,	Scanner,
Telephone, VHF TRANSPORT AND FREIGHT	
Access	Air, Sea
	All, Sea
Transport to facility: Airplane, Helicopter, Ship	
Number of airstrips	500
Length (m) of longest runway	500
Width (m) of longest runway	4(
Number of flight visits per year	15
Period of flight visits per year: April, May, June, July, Aug September, October	ust,
Helipad	Yes
Number of ship visits per year	15
Period of ship visits per year: January, February, March, N	November,
December Children Direction Control of the Control	
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.



CLIMATE

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 southeast of the northern tip of the Antarctic Peninsula, on the

### 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

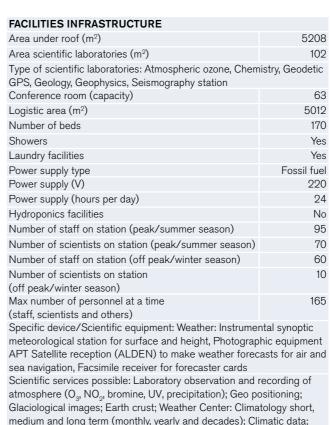
# History and facilities

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 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 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		



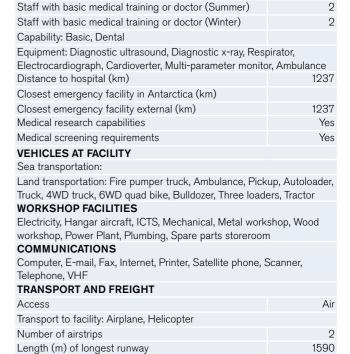




medium and long term (monthly, yearly and decades); Climatic data; Seismograph data transmitted in real time Long-term monitoring/observations: Atmosphere statistics (O<sub>st</sub> NO<sub>3</sub>, bromine, UV, precipitation); Measurement of: Meteorological parameters, O<sub>2</sub>, UV radiation, aerosol 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 (m2)

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

Period of flight visits per year: January, February, March, April, May,

Period of ship visits per year: January, February, November, December

June, July, August, September, October, November, December

# Features in the facility area

Clear air zone, High elevation, Plateau

Width (m) of longest runway

Number of flight visits per year

Number of ship visits per year

Ship landing facilities:

# 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.



Type: Station

Operational period: October-March

### Location

MATIENZO

### 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.

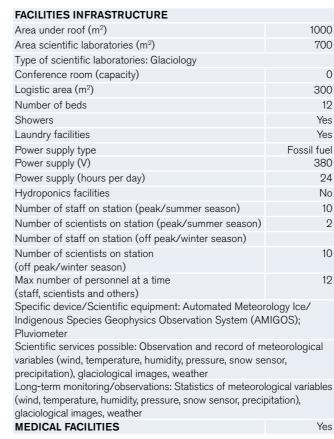
# History and facilities

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 the environment, a program for the removal of historical waste is

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		







### 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.



1433
1433
1433
1433
1433
1433
184.9
1433
No
Yes
Air, Sea
1
1500
40
0 -1 - 1
October,
Yes

## 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.



CLIMATE

64°19′54.2"S 62°58′58.0"W

**Type:** Station

Operational period: October-March

### Location

MELCHIOR

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.

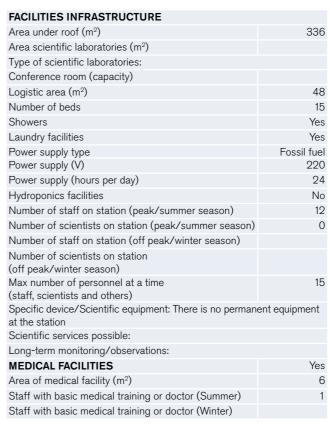
# History and facilities

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, "1st May", which was installed in 1942 and is still in operation.

Maritime Antarctica		
Continuous		
24		
222		
NW		
October		
January		
1308.7		
Snow and Rain		
-2.9		
1.5		
-9.5		
Peninsula and		
Antarctic Conservation Biogeographic Region: 2 - South Orkney Islands		
4		
Ice-sheet, Moraine		
Yes		
Yes		
Yes		









**ARGENTINA** 

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  Width (m) of longest runway  Number of flight visits per year  Period of flight visits per year  Period of ship visits per year:  Helipad No  Number of ship visits per year:  January, February, December  Ship landing facilities: Pier/Jetty	Capability: Basic	
Closest emergency facility in Antarctica (km) Closest emergency facility external (km) 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 OLength (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: Herod of ship visits per year: January, February, December	Equipment:	
Closest emergency facility external (km)  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  O 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  Period of ship visits per year:  January, February, December	Distance to hospital (km)	1103
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  O 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:  Jeriod of ship visits per year:  Period of ship visits per year:  Jeriod of ship visits per year:  Period of ship visits per year:  Jeriod of ship visits per year:  Period of ship visits per year:  Jeriod of ship visits per year:	Closest emergency facility in Antarctica (km)	
Medical screening requirements  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  O 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  Period of ship visits per year  Period of ship visits per year	Closest emergency facility external (km)	1103
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 O  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  Period of ship visits per year  Period of ship visits per year	Medical research capabilities	No
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 O 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 Period of ship visits per year	Medical screening requirements	Yes
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 Period of ship visits per year	VEHICLES AT FACILITY	
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 Period of ship visits per year	Sea transportation: Two Zodiac boats with outboard mo	tors
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  Period of ship visits per year  Period of ship visits per year	Land transportation:	
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 Period of ship visits per year Seriod of ship visits per year: Period of ship visits per year:	WORKSHOP FACILITIES	
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 Period of ship visits per year Seriod of ship visits per year	General repairs	
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  Period of ship visits per year  Period of ship visits per year  5	COMMUNICATIONS	
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 Period of ship visits per year	Satellite phone, VHF	
Transport to facility: Ship  Number of airstrips  O 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  Period of ship visits per year  Period of ship visits per year:  December	TRANSPORT AND FREIGHT	
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 Period of ship visits per year 5 Period of ship visits per year: January, February, December	Access	Sea
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	, , ,	
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	Number of airstrips	0
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	Length (m) of longest runway	
Period of flight visits per year: Helipad No Number of ship visits per year 5 Period of ship visits per year: January, February, December	Width (m) of longest runway	
Helipad No Number of ship visits per year 5 Period of ship visits per year: January, February, December	Number of flight visits per year	
Number of ship visits per year 5 Period of ship visits per year: January, February, December	Period of flight visits per year:	
Period of ship visits per year: January, February, December	Helipad	No
, , ,	Number of ship visits per year	5
Ship landing facilities: Pier/Jetty	Period of ship visits per year: January, February, Decemb	er
	Ship landing facilities: Pier/Jetty	

### General research and databases

The scientific research mainly focuses on botany.

# Features in the facility area

Bird colonies, Coast, Rock.

### Main science disciplines

Terrestrial biology.



# 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		Capability: Basic, Dental	
Area under roof (m <sup>2</sup> )	2101	Equipment: Telemedicine; Diagnostic x-ray; Anaesthesia	a, defibrillator,
Area scientific laboratories (m²)	76	electrocardiograph, oxygen therapy equipment	1539
Type of scientific laboratories: Biology, Geodetic GPS, Se	eismography	Distance to hospital (km)	103
station		Closest emergency facility in Antarctica (km)	150
Conference room (capacity)		Closest emergency facility external (km)	153
Logistic area (m <sup>2</sup> )	266	Medical research capabilities	Ye
Number of beds	52	Medical screening requirements	Ye
Showers	Yes	VEHICLES AT FACILITY	
Laundry facilities	Yes	Sea transportation: Two Zodiac boats with outboard mo	otors
Power supply type	Fossil fuel	Land transportation: One Tractor, One 6WD all-terrain b	oike, Two
Power supply (V)	220	snowmobiles	
Power supply (hours per day)	24	WORKSHOP FACILITIES	
Hydroponics facilities	No	Metal workshop, General repairs, Wood workshop, Mec	hanical, ICTS
Number of staff on station (peak/summer season)	35	COMMUNICATIONS	- \/
Number of scientists on station (peak/summer season)		E-mail; Fax; Internet; Printer; Satellite Phone; Telephone TRANSPORT AND FREIGHT	3; VHF
Number of staff on station (off peak/winter season)	15	Access	Air, Se
Number of scientists on station	2	Transport to facility: Helicopter, Ship	,
(off peak/winter season)		Number of airstrips	
Max number of personnel at a time	65	Length (m) of longest runway	
(staff, scientists and others)		Width (m) of longest runway	
Specific device/Scientific equipment: Seismograph, geode		Number of flight visits per year	
Scientific services possible: Seismograph data transmitte		Period of flight visits per year:	
Long-term monitoring/observations: Censuses within pir	nniped	Helipad	Ye
colonies; Seismological monitoring		Number of ship visits per year	2
MEDICAL FACILITIES	Yes	Period of ship visits per year: January, February, March,	November,
Area of medical facility (m <sup>2</sup> )	26	December	
Staff with basic medical training or doctor (Summer)	2	Ship landing facilities: None	
Staff with basic medical training or doctor (Winter)	2		

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 mot	tors
Land transportation: One Tractor, One 6WD all-terrain bi snowmobiles	ke, Two
WORKSHOP FACILITIES	
Metal workshop, General repairs, Wood workshop, Mech	anical, 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, N December	November,
Ship landing facilities: None	

# Features in the facility area

Beaches suitable for landing small boats, Coast, Moraine.

### Main science disciplines

Geodesy, Geophysics, Terrestrial biology.



# 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.

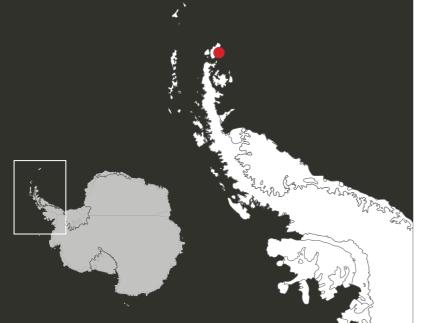
### Biodiversity and natural environment

Petrel station is located on Dundee Island, on the northeast of the Tierra de San Martin, 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

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	









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
VEHICLES AT FACILITY	
Sea transportation: Two Zodiac boats with outboard mo	tors
Land transportation: One 4WD 1.5-ton truck	
WORKSHOP FACILITIES	
General repairs	
COMMUNICATIONS	
Satellite phone, VHF	
TRANSPORT AND FREIGHT	
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,	
Helipad	Yes
Number of ship visits per year	
Period of ship visits per year: January, February, Decemb	er
Ship landing facilities: None	

### General research and databases

# Features in the facility area

Beaches suitable for landing small boats, Moraine.

# Main science disciplines



# 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



# **ARGENTINA**

**FACILITIES INFRASTRUCTURE** 

Type of scientific laboratories: Biology, Geology

Area scientific laboratories (m2)

Area under roof (m2)

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



Type of scientific laboratories. Biology, deology	
Conference room (capacity)	18
Logistic area (m²)	
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)	O
Number of scientists on station	
(off peak/winter season)	
Max number of personnel at a time	18
(staff, scientists and others)	10
Specific device/Scientific equipment: There is no permane	ent
equipment at the station	
Scientific services possible:	
ong-term monitoring/observations:	
MEDICAL FACILITIES	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)	
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 moto	ors
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	Voo
•	Yes 5
Number of ship visits per year Period of ship visits per year: January, February, March, De	
	ccennel
Ship landing facilities:	



Type: Station

Operational period:

Year-round

### Location

SAN MARTIN

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

base to numerous expeditions installing shelters, and to the 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

### General research and databases

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

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 (m²)	1499
Area scientific laboratories (m²)	1426
Type of scientific laboratories: Geology, Geophysics, Ge	-
Ionospheric sounding research, Seismography station	ouelic GF3,
Conference room (capacity)	
Logistic area (m²)	334
Number of beds	21
Showers	Yes
Laundry facilities	Yes
Power supply type	Fossil fue
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	2
(off peak/winter season)	
Max number of personnel at a time	21
(staff, scientists and others)	
Specific device/Scientific equipment: Geophysics: Seism Geodesy: GPS; Meteorology: Instruments for surface syn station; Atmosphere: Rheometer, Spectrophotometer, On magnetometer EDA model 105 B.1 and cassette recorde GOLD 1 graphic recorder of a channel	optic weather e fluxgate
Scientific services possible: Seismograph data transmit	ted in real time
Long-term monitoring/observations: Geodetic GPS; Ion	
sounding research; Seismological monitoring	
MEDICAL FACILITIES	Yes
Area of medical facility (m <sup>2</sup> )	36
Staff with basic medical training or doctor (Summer)	1

	1
Staff with basic medical training or doctor (Winter)	
Capability: Basic, Dental	
Equipment: Diagnostic ultrasound, Diagnostic x-ray, Ha Laboratory diagnostics, Ophthalmology, Portable ultras Defibrillator, Electrocardiograph, Oxygen therapy equipi	ound, ment
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 mo	cors
Land transportation: Four snowmobiles, One truck, One	tracked vehicle
WORKSHOP FACILITIES	
WORKSHOP FACILITIES	
Mechanical, Wood workshop	
Mechanical, Wood workshop	nner, Telephone,
Mechanical, Wood workshop <b>COMMUNICATIONS</b> Computer, E-mail, Internet, Printer, Satellite phone, Sca VHF	nner, Telephone,
Mechanical, Wood workshop  COMMUNICATIONS  Computer, E-mail, Internet, Printer, Satellite phone, Sca VHF  TRANSPORT AND FREIGHT	nner, Telephone, Air, Sea
Mechanical, Wood workshop  COMMUNICATIONS  Computer, E-mail, Internet, Printer, Satellite phone, Sca VHF  TRANSPORT AND FREIGHT  Access	
Mechanical, Wood workshop  COMMUNICATIONS  Computer, E-mail, Internet, Printer, Satellite phone, Sca VHF  TRANSPORT AND FREIGHT  Access  Transport to facility: Airplane, Ship	
Mechanical, Wood workshop  COMMUNICATIONS  Computer, E-mail, Internet, Printer, Satellite phone, Sca VHF  TRANSPORT AND FREIGHT  Access  Transport to facility: Airplane, Ship  Number of airstrips	Air, Sea
Mechanical, Wood workshop  COMMUNICATIONS  Computer, E-mail, Internet, Printer, Satellite phone, Sca VHF  TRANSPORT AND FREIGHT  Access  Transport to facility: Airplane, Ship  Number of airstrips  Length (m) of longest runway	Air, Sea
Mechanical, Wood workshop <b>COMMUNICATIONS</b> Computer, E-mail, Internet, Printer, Satellite phone, Sca	Air, Sea 1 500
Mechanical, Wood workshop  COMMUNICATIONS  Computer, E-mail, Internet, Printer, Satellite phone, Sca VHF  TRANSPORT AND FREIGHT  Access  Transport to facility: Airplane, Ship  Number of airstrips  Length (m) of longest runway  Width (m) of longest runway	Air, Sea 1 500 40 5 , April, May,
Mechanical, Wood workshop  COMMUNICATIONS  Computer, E-mail, Internet, Printer, Satellite phone, Sca VHF  TRANSPORT AND FREIGHT  Access  Transport to facility: Airplane, 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: January, February, March  June, July, August, September, October, November, Dec  Helipad	Air, Sea  1 500 40 5 , April, May, cember
Mechanical, Wood workshop  COMMUNICATIONS  Computer, E-mail, Internet, Printer, Satellite phone, Sca VHF  TRANSPORT AND FREIGHT  Access Transport to facility: Airplane, 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: January, February, March  June, July, August, September, October, November, Dec	Air, Sea  1 500 40 5 , April, May, cember Yes
Mechanical, Wood workshop  COMMUNICATIONS  Computer, E-mail, Internet, Printer, Satellite phone, Sca VHF  TRANSPORT AND FREIGHT  Access  Transport to facility: Airplane, 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: January, February, March  June, July, August, September, October, November, Dec  Helipad	Air, Sea  1 500 40 5 , April, May, cember Yes 5



# 66°16′54″S 110°31′39″E

**Type:** Station

Operational period: Year-round

### Location

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

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

## History and facilities

### 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.

Area under roof (m²)	8000
Area scientific laboratories (m²)	360
Type of scientific laboratories: Biology, Chemistry, Scienti	ific diving
Conference room (capacity)	
Logistic area (m²)	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 ma ionosonde, riometer, seismometers, tide guages	
Scientific services possible: Dry and wet laboratories, ele	
Long-term monitoring/observations: lonosphere, geomag	gnetic and
seismic, meteorology, sea birds, sea level and climate	Yes
	.00
Area of medical facility (m²)	187
Staff with basic medical training or doctor (Summer)	2
Staff with basic medical training or doctor (Winter) Capability: Basic, Dental, Surgery	1

### 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, Ar Biochemistry, Blood transfusion medicine, Diagnostic ultra Diagnostic X-ray, Haematology, Laboratory diagnostics, M Ophthalmology, Telemedicine	sound,
Distance to hospital (km)	3430
Closest emergency facility in Antarctica (km)	140
Closest emergency facility external (km)	3430
Medical research capabilities	Ye
Medical screening requirements	Ye
VEHICLES AT FACILITY	
Sea transportation:	
Land transportation: Wheeled and tracked	
WORKSHOP FACILITIES	
ICTS, Mechanical, Metal workshop, Plexiglas workshop, W	ood
workshop	
COMMUNICATIONS	
Computer, E-mail, Fax, Internet, Printer, Satellite phone, So Telephone, VHF	canner,
TRANSPORT AND FREIGHT	
Access	Air, Se
Transport to facility: Airplane, Ship.	
Number of airstrips	
Length (m) of longest runway	3600
Width (m) of longest runway	4!
Number of flight visits per year	20
Period of flight visits per year: January, February, March, N December	lovember,
Helipad	Ye
Number of ship visits per year	;
Period of ship visits per year: January, February, March, No	ovember,
December	



# **AUSTRALIA**



**Type:** Station

Operational period: Year-round

### Location

### 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 intrinsic, scientific and educational value;
- hundreds of thousands of breeding birds, including

# History and facilities

The first landing in the region was made in 1935. Davis was

### 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



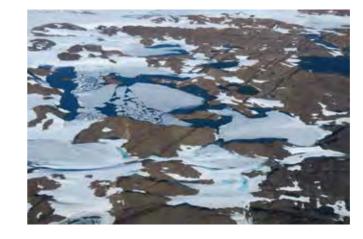
### Features in the facility area

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, Paleoecology, Pollution, Soil science, Terrestrial biology.





FACILITIES INFRASTRUCTURE	
Area under roof (m <sup>2</sup> )	8000
Area scientific laboratories (m²)	400
Type of scientific laboratories: Biology, Chemistry, Scienti	fic diving
Conference room (capacity)	
Logistic area (m²)	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, cloudes, Induction magnetometers, meteor radars, MESA rad	

onosonde, riometers, scanning OH radiometer, spectometers 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

MEDICAL FACILITIES	Yes
Area of medical facility (m²)	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) Closest emergency facility in Antarctica (km) Closest emergency facility external (km) Medical research capabilities

### **VEHICLES AT FACILITY**

Medical screening requirements

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, N December	November,
Helipad	Yes
	_

Number of ship visits per year Period of ship visits per year: January, February, March, November,

Ship landing facilities: None



### 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 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

### General research and databases

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.

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 Regio	n: 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 (m²)	6000
Area scientific laboratories (m²)	144
Type of scientific laboratories:	
Conference room (capacity)	
Logistic area (m²)	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: lonosonde, GPS, n neutron detectors, riometers, seismometers, tide gauges	
Scientific services possible: Dry laboratory, electonics	
Long-term monitoring/observations: Cosmic ray, geoma	_
seismic, ionosphere, meteorology, sea level and climate,	
MEDICAL FACILITIES	Yes
Area of medical facility (m²)	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,

Equipment: Aeromedical equipment, Altitude medicine,	
Biochemistry, Blood transfusion medicine, Diagnostic ul Diagnostic X-ray, Haematology, Laboratory diagnostics, Ophthalmology, Telemedicine	trasound,
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	0
Computer, E-mail, Fax, Internet, Printer, Satellite phone,	Scanner,
Telephone, VHF TRANSPORT AND FREIGHT	
Access	Air, Se
Transport to facility: Airplane, Ship	All, Oct
Number of airstrips	9
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	
	, rvovernber,
December	
200020.	Ye
Helipad	Ye
Helipad Number of ship visits per year	
December Helipad Number of ship visits per year Period of ship visits per year: January, February, March, December	



ELISABETH

# 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 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

### General research and databases

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 Anta	arctic inland ice sheet
Antarctic Conservation Biogeographic Region: 6	Dronning Maud Land
Altitude of facility (m)	1382
Type of surface facility built on	lce-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, Paleoecology, Sustainable and communication technologies, Terrestrial biology.







FACILITIES INFRASTRUCTURE	
Area under roof (m <sup>2</sup> )	1800
Area scientific laboratories (m²)	50
Type of scientific laboratories: Atmospheric observatory, Meteorology	Geophysics,
Conference room (capacity)	
Logistic area (m²)	600
Number of beds	48
Showers	Ye
Laundry facilities	Ye
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, Nep Laser Aerosol Spectrometer, TSI CPC, TEOM-FDMS, CO	

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	Yes
Area of medical facility (m²)	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	

### Land transportation: Snow tractors, sledges, 4WD tracked, Skidoos

Sea transportation:

**WORKSHOP FACILITIES** Electric, ICTS, Mechanical, Metal workshop, Wood workshop

### COMMUNICATIONS

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

### TRANSPORT AND FREIGHT

7100000	7 (11
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	ber, December
Helipad	No
Number of ship visits per year	
Period of ship visits per year:	
Ship landing facilities:	



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

### General research and databases

Emília 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 Regi Peninsula	on: 3 North-west Antarctic
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 INFOACTOLISTUDE	
FACILITIES INFRASTRUCTURE Area under roof (m²)	980
` '	100
Area scientific laboratories (m²)	.00
Type of scientific laboratories: Biology, Chemistry, Geoph	iysics, GIS
Conference room (capacity)	40000
Logistic area (m²)	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:	
MEDICAL FACILITIES	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
VEHICLES AT FACILITY	
Sea transportation: Three boats, One launch	
Land transportation: Four quad bikes, Three snowmobile One Bulldozer	s, One pick-up,
WORKSHOP FACILITIES	
ICTS, Mechanical, Metal workshop, Wood workshop	
COMMUNICATIONS	
Computer, E-mail, Internet, Satellite phone, Telephone, V	HF
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	5
Period of ship visits per year: January, February, March, C November, December	October,
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.



# . Kliment Ohridski **Bulgarian Antarctic Institute**

62°38'26.6"S 60°21'54.8"W

**Type:** Station

Operational period: November-March

### Location

OHRIDSKI

KLIMENT

ST.

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 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,

# Main science disciplines

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



FACILITIES INFRASTRUCTURE	
Area under roof (m²)	221
Area scientific laboratories (m²)	20
Type of scientific laboratories: Biology, Geology, Geophys	sics
Conference room (capacity)	20
Logistic area (m²)	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	22
(staff, scientists and others) Specific device/Scientific equipment:	
Scientific services possible:	
Long-term monitoring/observations:	
MEDICAL FACILITIES	Yes
Area of medical facility (m²)	12
Staff with basic medical training or doctor (Summer)	12
Staff with basic medical training or doctor (Guinner)	'
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	100
Sea transportation: Two Zodiac boats	
Land transportation: Three skidoos	
WORKSHOP FACILITIES	
Mechanical, Wood workshop  COMMUNICATIONS	
Computer, E-mail, Printer, Satellite phone	
TRANSPORT AND FREIGHT	C
Access	Sea
Transport to facility: Helicopter, Ship	
Number of airstrips	C
Length (m) of longest runway	
Width (m) of longest runway	
Number of flight visits per year	C
Period of flight visits per year:	
Helipad	Yes
Number of ship visits per year	
Period of ship visits per year: January, February, March, N December	November,
Ship landing facilities: None	

FACILITIES INFRASTRUCTURE



67°45′37.7″S 68°54′53.4″W

**Type:** Station

Operational period: October-March

### Location

CARVAJAL

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

## Biodiversity and natural environment

In the Carvajal station area the vegetation is scarce, there are only lichen and algaes. 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 İsland, 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	







FACILITIES INFRASTRUCTURE	
Area under roof (m <sup>2</sup> )	770
Area scientific laboratories (m²)	96
Type of scientific laboratories: Multipurpose laboratory a 2018	vailable from
Conference room (capacity)	30
Logistic area (m <sup>2</sup> )	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 fr	om 2018
thanks to the multipurpose laboratory	
Scientific services possible:	
$\label{long-term} \mbox{Long-term monitoring/observations: Antarctic Fur seals}$	
MEDICAL FACILITIES	No
Area of medical facility (m <sup>2</sup> )	

# 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 ILAIA 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, Paleoecology, Pollution, Terrestrial biology.

# 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.

Area under roof (m <sup>2</sup> )	250
Area scientific laboratories (m²)	
Type of scientific laboratories: Basic	
Conference room (capacity)	0
Logistic area (m²)	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	
MEDICAL FACILITIES	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)	
3	Medical research capabilities	
5	Medical screening requirements	
6	VEHICLES AT FACILITY	
,	Sea transportation:	
)	Land transportation: Quad bike	
)	WORKSHOP FACILITIES	
1	Metal Workshop; Wood Workshop	
)	COMMUNICATIONS	
2	Satellite phone, VHF	
6	TRANSPORT AND FREIGHT	
	Access	Air, Sea
	Transport to facility: Helicopter, Ship	
	Number of airstrips	0
3	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, Novemb	er, December
	Ship landing facilities: None	



Dr. Guillermo Mann

Chilean Antarctic Program

62°27′00″S 60°47′00″W

Type: Station

Operational period:

### Location

GUILLERMO

DR.

### Biodiversity and natural environment

moraines in front of the Aranda and Anguita Glaciers.

# History and facilities

### 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 Chileno (INACH) Serie Científica. Station's research outreach

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	





## 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

## 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

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	





FACILITIES INFRASTRUCTURE	
Area under roof (m <sup>2</sup> )	5000
Area scientific laboratories (m²)	
Type of scientific laboratories: Laboratories are located a Professor Julio Escudero station	•
Conference room (capacity)	50
Logistic area (m²)	2000
Number of beds	150
Showers	Yes
Laundry facilities	Yes
Power supply type Power supply (V)	Fossil fuel 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	
MEDICAL FACILITIES	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	

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	
VEHICLES AT FACILITY	
Sea transportation:	
Land transportation: Bulldozers, Loader, Quad bikes, Truc	cks
WORKSHOP FACILITIES	
Electrical, Mechanical, Metal Workshop, Wood Workshop	)
COMMUNICATIONS	
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	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, Dece	ember
Helipad	Yes
Number of ship visits per year	100
Period of ship visits per year: January, February, March, A	April, October,
November, December	

### 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.

### 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.



### Gabriel González Videla

Chilean Antarctic Program

64°49'25"S 62°51'26"W

Type: Station

Operational period: December-April

#### Location

VIDELA

GONZÁLEZ

GABRIEL

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

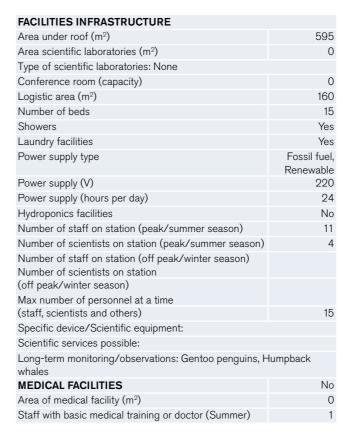
In the area nearby Videla station it is possible to encounter penguins, of whom there is also a rare lineage of albino specimens, humpback, killer whales, skuas and terns.

#### 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 Antarcti 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	
,`		

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 island geologic	Peninsula offshore
Antarctic Conservation Biogeographic Region: Peninsula	3 North-west Antarctic
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



#### 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.

Staff with basic medical training or doctor (Winter)	
Capability:	
Equipment:	
Distance to hospital (km)	1430
Closest emergency facility in Antarctica (km)	65
Closest emergency facility external (km)	1698
Medical research capabilities	No
Medical screening requirements	
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,

#### Main science disciplines

Environmental science, Geology, Glaciology, Marine biology.





### 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

#### 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 ILAIA 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 - Anta geologic	rctic Peninsula northern
Antarctic Conservation Biogeographic Reg	jion:
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 (m²)	40
Type of scientific laboratories: Multipurpose	
Conference room (capacity)	80
Logistic area (m²)	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, Freez flow hoods, Magnifying glasses, microscopes, Precision density meters, Sterilizing ovens, Vacuum pumps Scientific services possible: Meteorological	
, c	
Long-term monitoring/observations: Environmental  MEDICAL FACILITIES	No
Area of medical facility (m²)	0
* * * * * * * * * * * * * * * * * * * *	U
Staff with basic medical training or doctor (Summer)	
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. June, July, August, September, October, November, Dec	
Helipad	Yes
Number of ship visits per year	6
Period of ship visits per year: January, February, March, November, December	April, October,
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

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 island geologic	Peninsula offshore
Antarctic Conservation Biogeographic Region: Peninsula	3 North-west Antarctic
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







FACILITIES INFRASTRUCTURE	
Area under roof (m <sup>2</sup> )	1500
Area scientific laboratories (m²)	150
Type of scientific laboratories: Biology, Marine biology, M	icrobiology
Conference room (capacity)	20
Logistic area (m²)	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, Centrifuwater baths, Freezers, Laminar flow hoods, Magnifying gmicroscopes, Precision scales, Snow density meters, Ste Vacuum pumps	lasses,
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)	

Staff with basic medical training or doctor (Winter)	
Capability: Basic	
Equipment:	
Distance to hospital (km)	1000
Closest emergency facility in Antarctica (km)	1000
Closest emergency facility external (km)	1000
Medical research capabilities	No
Medical screening requirements	No
VEHICLES AT FACILITY	140
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, November, December	October,
Ship landing facilities: Pier/Jetty	

#### 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 ILAIA magazines.

#### 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.



Chilean Antarctic Program

62°12′57″S 58°57′35″W

Type: Station

Operational period: Year-round

#### Location

ESCUDERO

PROFESSOR JULIO

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). Othere 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 An area near to the station, of 1.8 km² 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 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 new modules. In 1994, the architecture works began for the first Currently, the facility has the capacity to accommodate sixty people a multipurpose laboratory, a laboratory of microbiology and basic

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	c 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

Fuel spill response capability



Yes

Yes







#### 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.

FACILITIES INFRASTRUCTURE	
Area under roof (m <sup>2</sup> )	4000
Area scientific laboratories (m²)	300
Type of scientific laboratories: Atmospheric physics and Biology, Diving, Marine biology, Microbiology, Palaeontology	ogy, Pollution
Conference room (capacity)	50
Logistic area (m²)	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, agitator, Manual autoclave, Microscopes, pH meter, Refri Spectrophotometer	U
Scientific services possible:	
Long-term monitoring/observations: Yes	
MEDICAL FACILITIES	No
Area of medical facility (m <sup>2</sup> )	

	Closest efficigency facility external (kill)
	Medical research capabilities
	Medical screening requirements
	VEHICLES AT FACILITY
	Sea transportation: Zodiac boats with outboard r
	Land transportation: 4WD trucks, Loaders, Quad
	WORKSHOP FACILITIES
	COMMUNICATIONS
	E-mail, Internet, Satellite phone, Telephone, VHF

Closest emergency facility in Antarctica (km)

Staff with basic medical training or doctor (Summer) Staff with basic medical training or doctor (Winter)

Capability:

Equipment:

Distance to hospital (km)

inan, internet, eatente priene, relepriene, vi ii	
RANSPORT AND FREIGHT	
Access	Air, Sea
ransport to facility: Airplane, Ship	
lumber of airstrips	(
ength (m) of longest runway	
Vidth (m) of longest runway	
lumber of flight visits per year	
Period of flight visits per year: January, February, March, une, July, August, September, October, November, Dece	1

motor, One launch

Number of ship visits per year Period of ship visits per year: January, February, March, October, November, December Ship landing facilities: None

### 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

#### 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	







**FACILITIES INFRASTRUCTURE** Area under roof (m<sup>2</sup>) Area scientific laboratories (m2) Type of scientific laboratories: Microbiology Conference room (capacity) Logistic area (m<sup>2</sup>) Number of beds Laundry facilities Power supply type Power supply (V) Power supply (hours per day) Hydroponics facilities Number of staff on station (peak/summer season) 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) Specific device/Scientific equipment: Magnifying glass, Microscope Scientific services possible: Long-term monitoring/observations: No MEDICAL FACILITIES Area of medical facility (m2) 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.



64°52′55"S 63°35′03"W

Type: Station

Operational period: October-March

#### Location

#### 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 Himantothalus grandifolius, which dominates the bottom coverage, reaching more than 80%

#### 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	NV
Sea Ice Break Up	Decembe
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 Re Peninsula	gion: 3 North-west Antarctic
Altitude of facility (m)	10
Type of surface facility built on	Ice-free ground
Long term monitoring	Ye
Waste management	Yes
Hazard(ous) management	Yes
Fuel spill response capability	No









#### 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.

Area under roof (m²)	400
Area scientific laboratories (m²)	33
Type of scientific laboratories: Aquariums, Biology, Marir	ne biology,
Scientific diving	
Conference room (capacity)	25
Logistic area (m²)	180
Number of beds	28
Showers	Ye
Laundry facilities	Ye
Power supply type	Fossil fue Renewabl
Power supply (V)	22
Power supply (hours per day)	2
Hydroponics facilities	N
Number of staff on station (peak/summer season)	
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)	0
Max number of personnel at a time (staff, scientists and others)	2
Specific device/Scientific equipment: Microscopes, pH	meter
Refrigerator, Scale	meter,
Scientific services possible:	
Long-term monitoring/observations:	
MEDICAL FACILITIES	Ye
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: Basic	
Equipment:	
Distance to hospital (km)	140
Closest emergency facility in Antarctica (km)	40
Closest emergency facility external (km)	
Medical research capabilities	
Medical screening requirements	
VEHICLES AT FACILITY	
Sea transportation: One zodiac boat MK-IV, two launche	es
Land transportation: ATV 1000cc	
WORKSHOP FACILITIES	
COMMUNICATIONS	
Computer, E-mail, Internet, Satellite phone, Telephone, V	/HF
TRANSPORT AND FREIGHT	
Access	Land, Se
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:	
	Ye
Helipad	
Helipad	
	April,



62°13'03.1"S 58°57'43.2"W

**Type:** Station

Operational period: Year-round

Location

GREAT WALL

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.







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 geologic	c Peninsula northern
Antarctic Conservation Biogeographic Region Peninsula	: 3 North-west Antarctic
Altitude of facility (m)	10
Type of surface facility built on	
Long term monitoring	Yes
	V
Waste management	Yes
Waste management Hazard(ous) management	Yes 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.

Area under roof (m²)	4082
Area scientific laboratories (m²)	1200
Type of scientific laboratories: Biology, Ecology, Meteoro	logy
Conference room (capacity)	60
Logistic area (m²)	1900
Number of beds	40
Showers	Yes
_aundry facilities	Yes
Power supply type Power supply (V)	Fossil fue 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
lumber 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, Seism Magnetometer, Satellite receiver, Meteorology station, Bi ecology observation, and Laboratory equipment Scientific services possible:	,
Long-term monitoring/observations: Biology, Geomagne Seismography, Meteorology	tism,
MEDICAL FACILITIES	Yes
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, wrist electronic sphygmomanometer, Portable ultrasound 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, Telephor TRANSPORT AND FREIGHT	ne, VHF
Access	Air, Land, Sea
Transport to facility: 4WD, Helicopter, Ship, Walking	
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:	V-
	res
Period of flight visits per year: Helipad Number of ship visits per year	
Helipad	Yes 1



#### 80°25′01.7″S 77°6′58.0″E

Type: Station

Operational period:

#### Location

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

#### General research and databases

Scientific research mainly focuses on the study of ice

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

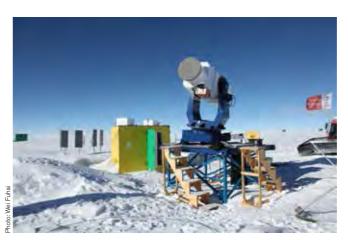


#### Features in the facility area

High elevation, Ice sheet.

#### Main science disciplines

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







ACILITIES INFRASTRUCTURE	
rea under roof (m²)	558
rea scientific laboratories (m²)	80
ype of scientific laboratories: Astronomy, Ice coring	
Conference room (capacity)	20
ogistic area (m²)	270
lumber of beds	20
Chowers	Yes
aundry facilities	No
Power supply type	Fossil fuel, Renewable
Power supply (V)	220
Power supply (hours per day)	24
Hydroponics facilities	No
lumber of staff on station (peak/summer season)	14
lumber of scientists on station (peak/summer season)	12
lumber of staff on station (off peak/winter season)	
lumber 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/ IIR, 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

MEDICAL FACILITIES	Yes
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)	
Canability Basic	

Equipment: Portable hyperbaric oxygen chamber, Pulse blood oxygen saturation instrument, Automatic wrist electronic sphygmomanometer,

vistance to hospital (km)	1300
Closest emergency facility in Antarctica (km)	780
Closest emergency facility external (km)	
Medical research capabilities	No
Medical screening requirements	Yes
EHICLES AT FACILITY	
ea transportation:	

#### Land transportation: Bulldozer, snow groomer **WORKSHOP FACILITIES**

#### 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, Decem	ber
Helipad	No
Number of ship visits per year	
Period of ship visits per year:	
Ship landing facilities:	



### Taisnan Chinese Arctic and Antarctic Administration /

Polar Research Institute of China

73°51′50.0″S 76°58′27.0″E

Type: Camp

Operational period:

#### 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

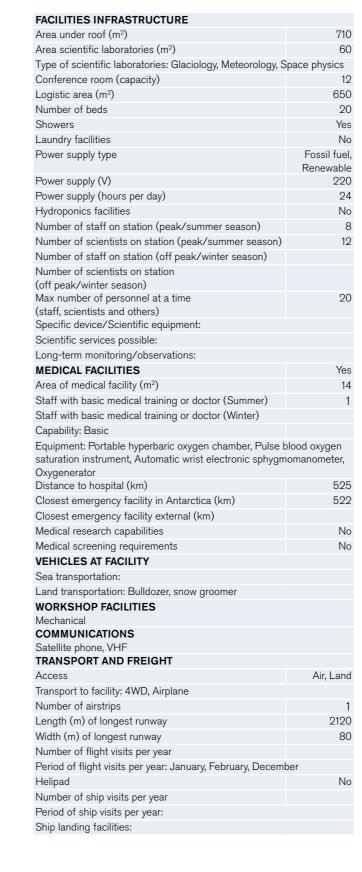
The research currently carried out at the camp are mainly

#### Features in the facility area

#### Main science disciplines

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	













69°22′24"S 76°22′40"E

Type: Station

Operational period: Year-round

#### Location

ZHONGSHAN

Zhongshan station in 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 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

Rock, Shoreline, Snow.

#### Main science disciplines

CLIMATE		
Climate zone	Coastal Antarctic	
Permafrost	Discontinuou	
Mean annual wind speed (km/h)	22.6	
Max wind speed (km/h)		
Dominant wind direction		
Sea Ice Break Up		
Snow free period	Non	
Total annual precipitation (mm)		
Precipitation type		
Mean annual temperature (°C)	-11.1	
Mean temperature in February (°C)	-3.	
Mean temperature in July (°C)	-19.	
ENVIRONMENT		
Region	Continental Antarctic	
Antarctic Environmental Domain: D - East Antarctic coastal geologic		
Antarctic Conservation Biogeographic Region: 7 East Antarctica		
Altitude of facility (m)	1	
Type of surface facility built on		
Long term monitoring	Ye	
Waste management	Ye	
Hazard(ous) management	Ye	
Fuel spill response capability	Ye	







Area under roof (m²)  Area scientific laboratories (m²)  Type of scientific laboratories: Biology, Geology, Meteorology, Sea ic Snow and ice, Upper atmospheric physics  Conference room (capacity)  Logistic area (m²)  Number of beds  Showers  Laundry facilities  Power supply type  Fossil f Renewa  Power supply (N)  Power supply (Nours per day)  Hydroponics facilities  Number of staff on station (peak/summer season)  Number of scientists on station (peak/summer season)  Number of scientists on station (off peak/winter season)  Number of scientists on station (off peak/winter season)  Number of scientists on station (off peak/winter season)  Nax number of personnel at a time (staff, scientists and others)  Specific device/Scientific equipment: Digisonde DPS-4D, Aurora Spectrograph, CCD all-sky camera, Magnetomenter, 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 (m²)  Staff with basic medical training or doctor (Summer)  Staff with basic medical training or doctor (Winter)  Capability: Surgery  Equipment: Automatic cardiopulmonary resuscitation device, Standa wheeled stretcher vehicle, Portable ECG machine  Distance to hospital (km)  Closest emergency facility external (km)  Medical research capabilities  Medical research capabilities  Medical screening requirements  VEHICLES AT FACILITY  Sea transportation: R/V Xuelong, Zodiac, Dinghy.  Land transportation: Snow track towing vehicle, tractor
Type of scientific laboratories: Biology, Geology, Meteorology, Sea ic Snow and ice, Upper atmospheric physics Conference room (capacity) Logistic area (m²) A7 Number of beds Showers Laundry facilities Power supply type Fossil f Renewa Power supply (W) Power supply (hours per day) Hydroponics facilities Number of staff on station (peak/summer season) Number of scientists on station (peak/summer season) Number of scientists on station (peak/winter season) Number of scientists on station (off peak/winter season) Number of peak/winter season) Number of personnel at a time (staff, scientists and others) Specific device/Scientific equipment: Digisonde DPS-4D, Aurora Spectrograph, CCD all-sky camera, Magnetomenter, 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 (m²) Staff with basic medical training or doctor (Summer) Staff with basic medical training or doctor (Winter) Capability: Surgery Equipment: Automatic cardiopulmonary resuscitation device, Standa wheeled stretcher vehicle, Portable ECG machine Distance to hospital (km) Closest emergency facility external (km) Medical research capabilities Medical screening requirements VEHICLES AT FACILITY Sea transportation: R/V Xuelong, Zodiac, Dinghy. Land transportation: Snow track towing vehicle, tractor WORKSHOP FACILITIES Mechanical, Wood workshop
Snow and ice, Upper atmospheric physics Conference room (capacity) Logistic area (m²) Number of beds Showers Laundry facilities Power supply type Fossil f Renewa Power supply (V) Power supply (Nours per day) Hydroponics facilities Number of staff on station (peak/summer season) Number of scientists on station (peak/summer season) Number of scientists on station (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: Digisonde DPS-4D, Aurora Spectrograph, CCD all-sky camera, Magnetomenter, 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 (m²) Staff with basic medical training or doctor (Summer) Staff with basic medical training or doctor (Winter) Capability: Surgery Equipment: Automatic cardiopulmonary resuscitation device, Standa wheeled stretcher vehicle, Portable ECG machine Distance to hospital (km) Closest emergency facility external (km) Medical research capabilities Medical screening requirements VEHICLES AT FACILITY Sea transportation: R/V Xuelong, Zodiac, Dinghy, Land transportation: Snow track towing vehicle, tractor WORKSHOP FACILITIES Mechanical, Wood workshop
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Atmospheric chemistry, Geomagnetism, Cosmic noise absorption, Seismography, Meteorology  MEDICAL FACILITIES  Area of medical facility (m²)  Staff with basic medical training or doctor (Summer)  Staff with basic medical training or doctor (Winter)  Capability: Surgery  Equipment: Automatic cardiopulmonary resuscitation device, Standa wheeled stretcher vehicle, Portable ECG machine 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: R/V Xuelong, Zodiac, Dinghy.  Land transportation: Snow track towing vehicle, tractor  WORKSHOP FACILITIES  Mechanical, Wood workshop
Seismography, Meteorology  MEDICAL FACILITIES  Area of medical facility (m²)  Staff with basic medical training or doctor (Summer)  Staff with basic medical training or doctor (Winter)  Capability: Surgery  Equipment: Automatic cardiopulmonary resuscitation device, Standa wheeled stretcher vehicle, Portable ECG machine  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: R/V Xuelong, Zodiac, Dinghy.  Land transportation: Snow track towing vehicle, tractor  WORKSHOP FACILITIES  Mechanical, Wood workshop
MEDICAL FACILITIES  Area of medical facility (m²)  Staff with basic medical training or doctor (Summer)  Staff with basic medical training or doctor (Winter)  Capability: Surgery  Equipment: Automatic cardiopulmonary resuscitation device, Standa wheeled stretcher vehicle, Portable ECG machine  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: R/V Xuelong, Zodiac, Dinghy.  Land transportation: Snow track towing vehicle, tractor  WORKSHOP FACILITIES  Mechanical, Wood workshop
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Equipment: Automatic cardiopulmonary resuscitation device, Standa wheeled stretcher vehicle, Portable ECG machine 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: R/V Xuelong, Zodiac, Dinghy. Land transportation: Snow track towing vehicle, tractor WORKSHOP FACILITIES Mechanical, Wood workshop
wheeled stretcher vehicle, Portable ECG machine 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: R/V Xuelong, Zodiac, Dinghy. Land transportation: Snow track towing vehicle, tractor WORKSHOP FACILITIES Mechanical, Wood workshop
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: R/V Xuelong, Zodiac, Dinghy.  Land transportation: Snow track towing vehicle, tractor  WORKSHOP FACILITIES  Mechanical, Wood workshop
Closest emergency facility in Antarctica (km) Closest emergency facility external (km) Medical research capabilities Medical screening requirements VEHICLES AT FACILITY Sea transportation: R/V Xuelong, Zodiac, Dinghy. Land transportation: Snow track towing vehicle, tractor WORKSHOP FACILITIES Mechanical, Wood workshop
Closest emergency facility external (km) Medical research capabilities Medical screening requirements VEHICLES AT FACILITY Sea transportation: R/V Xuelong, Zodiac, Dinghy. Land transportation: Snow track towing vehicle, tractor WORKSHOP FACILITIES Mechanical, Wood workshop
Medical research capabilities  Medical screening requirements  VEHICLES AT FACILITY  Sea transportation: R/V Xuelong, Zodiac, Dinghy.  Land transportation: Snow track towing vehicle, tractor  WORKSHOP FACILITIES  Mechanical, Wood workshop
Medical screening requirements  VEHICLES AT FACILITY  Sea transportation: R/V Xuelong, Zodiac, Dinghy.  Land transportation: Snow track towing vehicle, tractor  WORKSHOP FACILITIES  Mechanical, Wood workshop
VEHICLES AT FACILITY Sea transportation: R/V Xuelong, Zodiac, Dinghy. Land transportation: Snow track towing vehicle, tractor WORKSHOP FACILITIES Mechanical, Wood workshop
Sea transportation: R/V Xuelong, Zodiac, Dinghy. Land transportation: Snow track towing vehicle, tractor WORKSHOP FACILITIES Mechanical, Wood workshop
Land transportation: Snow track towing vehicle, tractor  WORKSHOP FACILITIES  Mechanical, Wood workshop
WORKSHOP FACILITIES Mechanical, Wood workshop
Mechanical, Wood workshop
COMMUNICATIONS
Fax, Satellite phone, Telephone, VHF
TRANSPORT AND FREIGHT
Access Air, Land, S
Transport to facility: 4WD, Helicopter, Ship, Walking
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
Number of ship visits per year
Period of ship visits per year: January, February, November, December

Ship landing facilities: Pier/Jetty

## **CZECH REPUBLIC**

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.

General research and databases

#### 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, Paleoecology, Paleolimnology, Pollution, Sedimentology, Sociology, Soil science, Terrestrial biology.





FACILITIES INFRASTRUCTURE	
Area under roof (m <sup>2</sup> )	288
Area scientific laboratories (m²)	33
Type of scientific laboratories: Biology, Chemistry, Climat Geography	ology, Geology,
Conference room (capacity)	40
Logistic area (m²)	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 dat	a collecting

Specific device/Scientific equipment: Meteorological data collecting - Meteorological stations for micro and macro climatological analysis. Full support to researchers - Accomodation, meals, two laboratories, technical workshop, cabotage (rubber boats), support to the field

Scientific services possible: Meteorological data collecting -Meteorological stations for micro and macro climatological analysis. Full support to the RI users - Accomodation incl. meals, 2 laboratories, technical workshop, cabotage (rubber boats), support to the field

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 MEDICAL FACILITIES

WEDICAL FACILITIES	100
Area of medical facility (m²)	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
VEHICLES AT FACILITY	
Sea transportation: Four Zodiac rubber boats	
Land transportation: Two 4WD ATVs, One 6WD ATV	

#### WORKSHOP FACILITIES

Mechanical, Metal workshop, Plexiglas workshop, Wood workshop

Computer, E-mail, Internet, Printer, Satellite phone, Scanner, Telephone.

VHF	
TRANSPORT AND FREIGHT	
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	

### Johann Gregor Mendel Masaryk University

63°48'02.3"S 57°52'57.3"W

Type: Station

Operational period: December-March

#### Location

딥

MEND

24

JOHANN GREGO

Johann Gregor MendelCzech 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

#### 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	



Ship landing facilities:

parameters, since 2010

**MEDICAL FACILITIES** 

Area of medical facility (m<sup>2</sup>)

**ECUADOR** 

for hospitalization

kshop, ICTS,

Air, Sea



62°26'57.6"S 59°44'27.5"W

Type: Station

Operational period: October-March

#### Location

MALDONADO

VICENTE

PEDRO

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

#### Biodiversity and natural environment

laboratory to monitor the progress and changes that occur on

#### 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

#### 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 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 Rai
Mean annual temperature (°C)	
Mean temperature in February (°C)	
Mean temperature in July (°C)	
ENVIRONMENT	

Region	Antarctic Fenins
Antarctic Environmental Domain: G - Antarctic	Peninsula offshore
island geologic	

	Antarctic Conservation Biogeographic Region: 3 North-west Antarcti
ı	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		Staff with basic medical training or doctor (Summer)
Area under roof (m <sup>2</sup> )	908	Staff with basic medical training or doctor (Winter)
Area scientific laboratories (m²)	200	Capability: Basic
Type of scientific laboratories: Biology, Chemistry, Geolog	gy, Geophysics,	Equipment: Minor surgery, hypothermia, trauma, bed f
Oceanography, Environmental, Hydrography		Distance to hospital (km)
Conference room (capacity)	15	Closest emergency facility in Antarctica (km)
Logistic area (m²)	500	Closest emergency facility external (km)
Number of beds	34	Medical research capabilities
Showers	Yes	Medical screening requirements
Laundry facilities	Yes	VEHICLES AT FACILITY
Power supply type	Fossil Fuel	Sea transportation: Three rubber boats
Power supply (V)	220	Land transportation: Two snowmobiles
Power supply (hours per day)	24	WORKSHOP FACILITIES
Hydroponics facilities	No	Electricity workshop, Mechanic workshop, Wood work
Number of staff on station (peak/summer season)	22	Gasfitter workshop, Welding workshop
Number of scientists on station (peak/summer season)	10	COMMUNICATIONS
Number of staff on station (off peak/winter season)		E-mail, Satellite phone, VHF
Number of scientists on station	22	TRANSPORT AND FREIGHT
(off peak/winter season)		Access
Max number of personnel at a time	34	Transport to facility: Airplane, Ship
(staff, scientists and others)		Number of airstrips
Specific device/scientific equipment: Multiparameter,	-t DOD	Length (m) of longest runway
Spectrophotometer, Balance, dry heat stove, muffle, Reactor, BOD		Width (m) of longest runway
incubator, Soxflett equipment, rotavapor distiller, Incubator, laminar flow cabin, autoclave, Fluorimeter, Inverted microscope, Stereoscopic microscope, Electric mortar sieve		Number of flight visits per year
		Period of flight visits per year:
Scientific services possible: Multidisciplinary scientific laboratory,		Helipad
Weather Station, logistical support	, , , , , , , , , , , , , , , , , , ,	Number of ship visits per year
Long-term monitoring/observations: Seasonal data of gl	aciological	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

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 twentythree (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.

**COMNAP Catalogue of Antarctic Stations** 

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

#### Main science disciplines

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







FACILITIES INFRASTRUCTURE	
Area under roof (m²)	200
Area scientific laboratories (m²)	75
Type of scientific laboratories: Gravity	
Conference room (capacity)	
Logistic area (m²)	200
Number of beds	17
Showers	Ye
Laundry facilities	Ye
Power supply type	Fossil fue Renewable
Power supply (V)	220
Power supply (hours per day)	24
Hydroponics facilities	N
Number of staff on station (peak/summer season)	í
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	1'
(staff, scientists and others)	
Specific device/Scientific equipment: AWS, Seismomete	r, GPS
Scientific services possible:	
Long-term monitoring/observations:	
MEDICAL FACILITIES	Ye
Area of medical facility (m²)	2
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	YE
Medical screening requirements	Ye
VEHICLES AT FACILITY	
Sea transportation:	
Land transportation: Tracked and ATVs, one tractor, snov	vmohiles
WORKSHOP FACILITIES	mobiled
Mechanical, Metal workshop, Wood workshop	
COMMUNICATIONS	
Computer, E-mail, Printer, Satellite phone, Telephone, VH TRANSPORT AND FREIGHT	ſF
Access	А
Transport to facility: Airplane, Helicopter, Skidoo, Walking	
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	Ye

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 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 As a consequence, there is no fauna and no flora.

#### History and facilities

The idea of constructing a European permanent research station 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 Français 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.

CLIMAIE	
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 sheet	Antarctic high interior ice
Antarctic Conservation Biogeographic Regi	ion:
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.





#### **FACILITIES INFRASTRUCTURE** Area under roof (m<sup>2</sup>) Area scientific laboratories (m2) Type of scientific laboratories: Astronomy, Chemistry, Geophysics Conference room (capacity) Logistic area (m<sup>2</sup>) 2856 Number of beds Showers Laundry facilities Power supply type Fossil fuel Power supply (V) 230 Power supply (hours per day) Hydroponics facilities Number of staff on station (peak/summer season) 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)

FRANCE / ITALY

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).

MEDICAL FACILITIES	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
Canability Basic Dental Surgery	

Equipment: Altitude medicine, Anaesthesia, Biochemistry, Diagnostic ultrasound, Diagnostic X-ray, Haematology, Laboratory diagnostics,

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
THIS IC AT EASILITY	

#### **VEHICLES AT FACILITY**

Sea transportation:

Land transportation: One 4WD, two snow groomers, five skidoos, one tracked loader, one telehandler, one tractor during summer, bicycles

#### WORKSHOP FACILITIES

ICTS, Mechanical, Metal workshop, Wood workshop

#### COMMUNICATIONS

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

#### TRANSPORT AND FREIGHT

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 Français Paul Emile Victor

66°39'77.0"S 140°0'08.0"E

**Type:** Station

Operational period: Year-round

#### Location

D'URVILLE

DUMONT

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 lle des Pétrels 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 lle des Pétrels, 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

#### Main science disciplines

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







FACILITIES INFRASTRUCTURE	
Area under roof (m <sup>2</sup> )	4815
Area scientific laboratories (m²)	872
Type of scientific laboratories: Biology, Geophysics, Scient	ntific diving
Conference room (capacity)	
Logistic area (m²)	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 scales, microscopes, stove, distilled water etc), surgery refacilities	
Scientific convices possible:	

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

MEDICAL FACILITIES	Yes
Area of medical facility (m²)	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
JEHICLES AT EACH ITY	

#### VEHICLES AT FACILITY

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

#### WORKSHOP FACILITIES

ICTS, Mechanical, Metal workshop, Wood workshop COMMUNICATIONS

#### E-mail, Fax, Internet, Satellite phone, Telephone, VHF TRANSPORT AND FREIGHT

Access	Air, Sea
Transport to facility: Airplane, Ship	
Number of airstrips	1
ength (m) of longest runway	1300
Nidth (m) of longest runway	50
Number of flight visits per year	15
Period of flight visits per year: January, February, Octobe December	r, November,

Number of ship visits per year

Period of ship visits per year: January, February, November, December Ship landing facilities: Floating dock/Pontoon, Pier/Jetty



#### 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, colonies, marine mammal breeding areas and several vegetal

#### History and facilities

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 National 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 geologic	Peninsula northern
Antarctic Conservation Biogeographic Region: Peninsula	1 North-east Antarctic
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
riazaru(ous) management	



#### Features in the facility area

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

FACILITIES INFRASTRUCTURE	
Area under roof (m <sup>2</sup> )	133
Area scientific laboratories (m²)	118
Type of scientific laboratories: Biology, Chemistry, Scient	ific diving
Conference room (capacity)	
Logistic area (m²)	
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	16
(staff, scientists and others)	
Specific device/Scientific equipment: Laboratory fully eq	
Scientific services possible: Providing Liquid Nitrogen, R Decompression Chamber	unning
Long-term monitoring/observations: Yes, by Argentina a	t Carlini
Station	t Cariiiii
MEDICAL FACILITIES	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:	
ospas	

#### Main science disciplines

Fauinment:

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
VEHICLES AT FACILITY	
Sea transportation: Five Zodiac boats with outboard model Zodiac semi-rigid boats, model Hurricane 733 OB (as p station data)	
Land transportation: One truck, one tractor Terry, Three all-terrain bikes, one 6wd all-terrain, four snowmobile (a station data)	
WORKSHOP FACILITIES	
Mechanical	
COMMUNICATIONS	
Computer, E-mail, Internet, Printer, Satellite phone, VHF	
TRANSPORT AND FREIGHT	
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. December	, November,
Helipad	
Number of ship visits per year	2
Period of ship visits per year: March, November	
Ship landing facilities:	



### Kohnen Alfred Wegener Institute

75°00′06″S 00°04′04″E

Type: Station

Operational period: October-March

#### Location

of 2892 m. The bedrock is covered by 2782 m ice and snow.

#### Biodiversity and natural environment

#### 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-feet 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.

Inland Antarctica		
None		
16.2		
None		
-42.2		
-32.2		
-52.3		
ENVIRONMENT		
Continental Antarctica		
Antarctic Environmental Domain: N – East Antarctic inland ice sheet		
Antarctic Conservation Biogeographic Region:		
2892		
Ice sheet		
Yes		
Yes		
No data		
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 (m²)	C
Type of scientific laboratories: None	
Conference room (capacity)	
Logistic area (m²)	160
Number of beds	8
Showers	Yes
Laundry facilities	Yes
Power supply type	Fossil fue
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	28
(staff, scientists and others)	
Specific device/Scientific equipment:	
Scientific services possible:	
Long-term monitoring/observations:	
MEDICAL FACILITIES	No
Area of medical facility (m <sup>2</sup> )	
Staff with basic medical training or doctor (Summer)	C
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:	



**GERMANY** 



### Neumayer III Alfred Wegener Institute

CLIMATE

#### 70°41′0″S 08°16′0″W

Type: Station

**Operational period**: Year-round

#### Location

Η

NEUMAYER

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

#### Biodiversity and natural environment

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 station (1.5 km) an air chemistry (trace gases) and a geophysics observatory are located. Together with the meteorology, they

CLIMAIL	
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.
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	Ye
Waste management	Ye
Hazard(ous) management	Ye
Fuel spill response capability	Ye



#### 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. 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.







	2 11 4 1
FACILITIES INFRASTRUCTURE	
Area under roof (m²)	4890
Area scientific laboratories (m²)	410
Type of scientific laboratories: Chemistry, Geophysics, M	
Conference room (capacity)	ctcorology
Logistic area (m²)	2511
Number of beds	40
Showers	Yes
Laundry facilities	Yes
Power supply type	Fossil fuel,
Tower supply type	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	4
(off peak/winter season)	
Max number of personnel at a time	60
(staff, scientists and others)	
Specific device/Scientific equipment: Meteorological equ	
air-chemistry lab, GPS, hydrophones beneath the ice she	elf, camera for
observing penguin colony	
Scientific services possible:	
Long-term monitoring/observations: Meteorological observations	ervations, air-
chemistry, geophysics	Voc

MEDICAL FACILITIES	Yes
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 di	agnostics,
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	ber
Helipad	Yes
Number of ship visits per year	2
Period of ship visits per year: January, February, Decemb	er
Ship landing facilities: Ice pier	

### Bharati National Centre for Antarctic & Ocean Research

CLIMATE

69°24′24.4″S 76°11′42.9″E

Type: Station

Operational period: Year-round

Location

#### Biodiversity and natural environment

#### History and facilities

CLIMALE		
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.

#### Main science disciplines

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

FACILITIES INFRASTRUCTURE	
Area under roof (m²)	2900
Area scientific laboratories (m²)	270
Type of scientific laboratories: Biology, Chemistry, Geolo	gy
Conference room (capacity)	70
Logistic area (m²)	332
Number of beds	47
Showers	Yes
Laundry facilities	Yes
Power supply type	Fossil fue
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; F Precision; Induction Coil magnetometers; Automatic We GSV-4004B GISTM receiver	
Scientific services possible: Weather services	
Long-term monitoring/observations: Weather; Magnetic	
for electromagnetic changes in the near-Earth environm	•
lonospheric Total Electron Content; Environmental radia	U
MEDICAL FACILITIES	Yes
Area of medical facility (m²)	54
Staff with basic medical training or doctor (Summer)	2

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, Telep	hone, VHF
TRANSPORT AND FREIGHT	
Access	Air, Sea
Transport to facility: Airplane, Helicopter, Ship, Skidoo, W	/alking
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, Novem	ber, December
Helipad	Yes
Number of ship visits per year	1
Period of ship visits per year: January, February	
Ship landing facilities: None	



MAITRI

### 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

#### Biodiversity and natural environment

Ice-free ground; petrels, skua and penguins are occassionally

#### 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.

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 Decembe  Total annual precipitation (mm)  Precipitation type Snow Mean annual temperature (°C) -9.7  Mean temperature in February (°C) -3  Mean temperature in July (°C) -16.6  ENVIRONMENT  Region Continental Antarctical 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	CLIMATE		
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: 6 Dronning Maud Land  Altitude of facility (m)  Type of surface facility built on  Long term monitoring  Waste management	Climate zone	Coastal Antarctica	
Max wind speed (km/h)  Dominant wind direction  Sea Ice Break Up  Snow free period  January, February Decembe  Total annual precipitation (mm)  Precipitation type  Snow Mean annual temperature (°C)  Mean temperature in February (°C)  Mean temperature in July (°C)  ENVIRONMENT  Region  Continental Antarctical Antarctical Coastal Geologic Antarctic Conservation Biogeographic Region: 6 Dronning Maud Land  Altitude of facility (m)  Type of surface facility built on  Long term monitoring  Waste management	Permafrost	Continuous	
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)  ENVIRONMENT  Region  Continental Antarctical Antarctical Environmental Domain: D — East Antarctic Coastal Geologic Antarctic Conservation Biogeographic Region: 6 Dronning Maud Land Altitude of facility (m)  Type of surface facility built on  Long term monitoring  Yes  Snow  Snow  Mean annual temperature (°C)  -9.7  Mean temperature in February (°C)  -16.8  Continental Antarctical Antarctical Antarctical Coastal Geologic Antarctic Conservation Biogeographic Region: 6 Dronning Maud Land Altitude of facility (m)  Type of surface facility built on  Long term monitoring  Yes  Waste management	Mean annual wind speed (km/h)	31.5	
Sea Ice Break Up Snow free period January, February December Total annual precipitation (mm) Precipitation type Snow Mean annual temperature (°C) Mean temperature in February (°C) Mean temperature in July (°C) ENVIRONMENT Region Continental Antarctical Antarctical Environmental Domain: D — East Antarctic Coastal Geologic Antarctic Conservation Biogeographic Region: 6 Dronning Maud Land Altitude of facility (m) Type of surface facility built on Long term monitoring Waste management	Max wind speed (km/h)	204	
Snow free period  December  Total annual precipitation (mm)  Precipitation type  Snow  Mean annual temperature (°C)  Mean temperature in February (°C)  Mean temperature in July (°C)  ENVIRONMENT  Region  Continental Antarctical Antarctic Environmental Domain: D – East Antarctic Coastal Geologic Antarctic Conservation Biogeographic Region: 6 Dronning Maud Land Altitude of facility (m)  Type of surface facility built on  Long term monitoring  Veryonder  January, February  December  Snow  Continental  Antarctic  Coastal Geologic  Antarctic Conservation Biogeographic Region: 6 Dronning Maud Land  Altitude of facility (m)  Type of surface facility built on  Long term monitoring  Yes  Waste management	Dominant wind direction	SE	
Total annual precipitation (mm)  Precipitation type Snow Mean annual temperature (°C) -9.7 Mean temperature in February (°C) -16.8  ENVIRONMENT  Region Continental Antarctical 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 Yest Waste management	Sea Ice Break Up	February, March	
Total annual precipitation (mm)  Precipitation type Snow Mean annual temperature (°C) -9.7 Mean temperature in February (°C) -6.8  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	Snow free period	January, February,	
Precipitation type  Mean annual temperature (°C)  Mean temperature in February (°C)  Mean temperature in July (°C)  ENVIRONMENT  Region  Continental Antarctical Antarctic Environmental Domain: D – East Antarctic Coastal Geologic Antarctic Conservation Biogeographic Region: 6 Dronning Maud Land Altitude of facility (m)  Type of surface facility built on  Long term monitoring  Vestigation  Vestigation  Snow  Continental Antarctical Continental Antarctical Antarctic Coastal Geologic Antarctic Conservation Biogeographic Region: 6 Dronning Maud Land Altitude of facility (m)  Type of surface facility built on  Long term monitoring  Vestigation  Vestigation  Yes		December	
Mean annual temperature (°C) -9.7  Mean temperature in February (°C) -3.8  ENVIRONMENT  Region Continental Antarctical 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	Total annual precipitation (mm)		
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: 6 Dronning Maud Land Altitude of facility (m)  Type of surface facility built on  Long term monitoring  Vestored   Precipitation type	Snow		
Mean temperature in July (°C) -16.8  ENVIRONMENT  Region Continental Antarctical 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	Mean annual temperature (°C)	-9.7	
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	Mean temperature in February (°C)	-3	
Region Continental Antarctical Antarctical 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	Mean temperature in July (°C)	-16.8	
Antarctic Environmental Domain: D – East Antarctic Coastal Geologic Antarctic Conservation Biogeographic Region: 6 Dronning Maud Land Altitude of facility (m)  Type of surface facility built on Long term monitoring  Ves Waste management  Ves	ENVIRONMENT		
Antarctic Conservation Biogeographic Region: 6 Dronning Maud Land Altitude of facility (m)  Type of surface facility built on Long term monitoring  Waste management  Ver	Region	Continental Antarctica	
Altitude of facility (m)  Type of surface facility built on  Long term monitoring  Waste management  117  Ice-free ground  Yes	Antarctic Environmental Domain: D – East Antarctic Coastal Geologic		
Type of surface facility built on Ice-free ground Long term monitoring Yes Waste management Yes			
Long term monitoring Yes Waste management Yes	Altitude of facility (m)	117	
Waste management Yes	Type of surface facility built on	Ice-free ground	
Č	Long term monitoring	Yes	
	Waste management	Yes	
Hazard(ous) management Yes	Hazard(ous) management	Yes	
Fuel spill response capability Yes	Fuel spill response capability	Yes	



FACILITIES INFRASTRUCTURE	
Area under roof (m²)	1030
Area scientific laboratories (m²)	105
Type of scientific laboratories: Geology, Geophysics	
Conference room (capacity)	
Logistic area (m²)	449
Number of beds	65
Showers	Yes
Laundry facilities	Yes
Power supply type Power supply (V)	Fossil fuel 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, Digital Fluxgate, Proton Precision, Induction Coil magnet Automatic Weather Station, Movable Atmospheric RADA Antarctica, Digital Broadband Seismograph	tometers,
Scientific services possible: Weather Services	
Long-term monitoring/observations: Weather, Magnetic	observations
for electromagnetic changes in the near-Earth environm	ent,
Ionospheric Total Electron Content, Seismicity, Wind Pro-	file
MEDICAL FACILITIES	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.

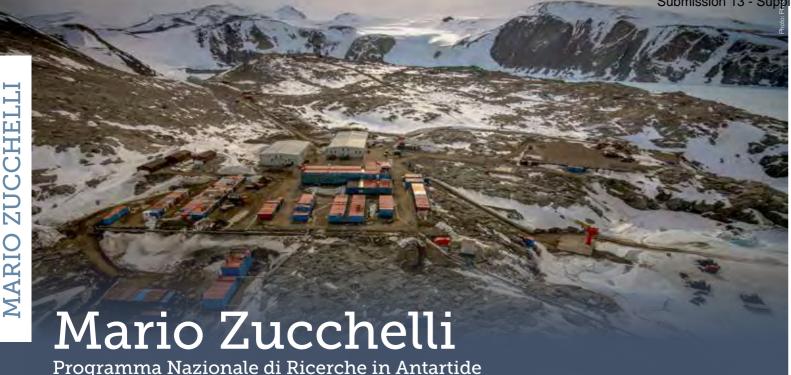
#### Main science disciplines

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









74°41′42″S 164°7′23″E

Type: Station

Operational period: October-February

#### Location

ZUCCHELLI

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 costal 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

#### 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 (m²)	2400
Type of scientific laboratories: Astrophysics, Biology, Che Climate, Geodesy, Geology, Geomagnetism, Geophysics, Gravimetric, Ionosphere, Scientific diving, Seismology Conference room (capacity)	J .
Logistic area (m²)	5100
Number of beds	124
Showers	Yes
Laundry facilities	Yes
Power supply type	Fossil fue
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 se	veral 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, Paleoecology, Pollution, Soil science, Terrestrial biology.

MEDICAL FACILITIES	Yes	
Area of medical facility (m <sup>2</sup> )	60	
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 EACH ITY		

#### 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 groome

#### **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, Octobe December	r, November,
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, Lützow – 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

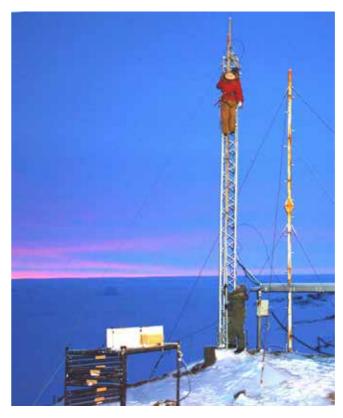
Syowa station was built in 1957 in the International Geophysical Year. Initially, cartographic, astronomical and gravity surveys were undertaken at the station. Now, a range of diverse research is Syowa is a year-round station with capacity for up to 130 people in the summer and a maximum of 42 people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







#### 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 (m²)	1330
Type of scientific laboratories: Biology, Chemistry, Geolog	gy, Geophysics
Conference room (capacity)	
Logistic area (m²)	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	10
(off peak/winter season)	
Max number of personnel at a time	130
(staff, scientists and others)	
Specific device/Scientific equipment:	
Scientific services possible:	
Long-term monitoring/observations:	
MEDICAL FACILITIES	Yes
Area of medical facility (m²)	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 ultras Diagnostic X-ray, Laboratory diagnostics, Telemedicine	ound,
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: Rubber boats	
Land transportation: 4WD cars, snow vehicles, skidoos	
WORKSHOP FACILITIES Mechanical, Metal workshop, Wood workshop	
COMMUNICATIONS	\/ LE
Computer, E-mail, Fax, Internet, Satellite phone, Telephor TRANSPORT AND FREIGHT	ne, VHF
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	ber, December
Helipad	Yes
Number of ship visits per year	1
Period of ship visits per year: January, February, Decemb	er
Ship landing facilities: None	

4. A clean room laboratory suitable for trace metal research.

to ensure that the air entering the container is completely

General research and databases

all the data collected, please visit www.npdc.nl.

Type of scientific laboratories: Biology, Chemistry

Number of staff on station (peak/summer season)

Number of scientists on station (peak/summer season) Number of staff on station (off peak/winter season)

between 5 °C and 20 °C.

**FACILITIES INFRASTRUCTURE** 

Area scientific laboratories (m2)

Conference room (capacity)

Power supply (hours per day)

Number of scientists on station (off peak/winter season)

Scientific services possible: Long-term monitoring/observations:

**MEDICAL FACILITIES** Area of medical facility (m2)

Max number of personnel at a time (staff, scientists and others)

Specific device/Scientific equipments

Area under roof (m<sup>2</sup>)

Logistic area (m<sup>2</sup>) Number of beds Showers

Laundry facilities Power supply type

Power supply (V)

Hydroponics facilities

It is equipped with special filters in the air-processing system

particle free. The temperature in this container can be controlled

Chemical oceanography, terrestrial and marine ecology. To view

#### 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	
COMMUNICATIONS	
E-mail, Telephone	
TRANSPORT AND FREIGHT	
Access	Air, Sea
Transport to facility: Airplane, 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	
Number of ship visits per year	
Period of ship visits per year:	



LABORATORY GERRITSZ 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

run by the British Antarctic Survey, Adelaide Island, Western Antarctic Peninsula.

#### Biodiversity and natural environment

terns and Imperial Cormorants in the area. Large transitory 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 temperature (15-22 °C)

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

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	



### Scott Base Antarctica New Zealand

77°50'58.0"S 166°46'02.2"E

Type: Station

Operational period: Year-round

#### Location

SCOTT BASE

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

#### 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 (Hydruga 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

**COMNAP Catalogue of Antarctic Stat** 

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/

#### 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.





Area under roof (m <sup>2</sup> )	4000
Area scientific laboratories (m²)	400
Type of scientific laboratories: General purpose and clean s areas for scientific groups; Customised facilities in portable laboratories that can dock into main building; Small wet laboratories.	container
Conference room (capacity)	30
Logistic area (m²)	250
Number of beds	86
Showers	Yes
_aundry 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)	(
Max number of personnel at a time (staff, scientists and others)	86
Specific device/Scientific equipment: MF Radar, Ionosonde, DobsonOzone Spectrophotometer, Thermo Electric Instrume Yvonspectrometer (JY), Antarctic Diode Array Spectrometer (. Antarctic Diode Array Spectrometer II (ADASII), Bruker Fourier Transform Interferometer, Chlorine Monoxide Microw (CLOE), Air sampler, Geomagnetic instruments, Worldwide Location Network (WWLN), Antarctic-Arctic Radiation Belt Deposition VLF Atmospheric Research Konsortium (AARD	nt(TEI),Jobin ADAS), ave Radiometer Lightning (Dynamic) DVARK)
Scientific services possible: Scientific services are supporelated to long-term monitoring/observations	rting research
Long-term monitoring/observations: Includes Ross Sea page census, atmospheric measurements including ozone con climate data and geophysical measurements. See more antarcticanz.govt.nz/science/our-science/science-in-processions.	centration, at: www.
MEDICAL FACILITIES	Yes
Area of medical facility (m <sup>2</sup> )	10
,	

**NEW ZEALAND** 

Staff with basic medical training or doctor (Summer)	
Staff with basic medical training or doctor (Winter)	
Capability: Basic	
Equipment: Limited to basic first aid equipment and care the USAP support higher medical care for Antarctica Ne personnel if required	
Distance to hospital (km)	
Closest emergency facility in Antarctica (km)	
Closest emergency facility external (km)	400
Medical research capabilities	
Medical screening requirements	Ye
VEHICLES AT FACILITY	
Sea transportation:	
Land transportation: Bulldozers, All-Terrain Tracked vehic groomers, snowmobile, ATVs, wheeled loaders, telehandles	•

groomers, snowmobile, ATVs, wheeled loaders, telehandler, 4WDs, trucks
WORKSHOP FACILITIES
Machanical Light Engineering and Carpentry workshop

Computer, E-mail, Internet, Satellite	phone, VH

COMMUNICATIONS

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:	

4000

### Troll Norwegian Polar Institute

72°00'43.0"S 2°31'59.1"E

Type: Station

Operational period: Year-round

#### Location

#### Biodiversity and natural environment

#### History and facilities

#### General research and databases

#### Features in the facility area

CLIMATE		
Climate zone	Inland Antarctica	
Permafrost	Continuous	
Mean annual wind speed (km/h)	4	
Max wind speed (km/h)	202	
Dominant wind direction	Е	
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 Antarctics		
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	

Yes



Hazard(ous) management Fuel spill response capability

FACILITIES INFRASTRUCTURE	
Area under roof (m <sup>2</sup> )	1500
Area scientific laboratories (m²)	
Type of scientific laboratories: None	
Conference room (capacity)	20
Logistic area (m²)	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, clir	mate data,
clear air facility with sampling	
MEDICAL FACILITIES	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) Capability: Dental, Surgery	1
1 1	

Equipment: Anaesthesia, Blood transfusion medicine,	O
ultrasound, Diagnostic X-ray, Laboratory diagnostics, T	
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, tractor bikes, electrical vehicles	s, 4WD, quad
WORKSHOP FACILITIES	
Mechanical, Metal workshop, Wood workshop	
COMMUNICATIONS	
Computer, E-mail, Fax, Internet, Printer, Satellite phone	Scanner
Telephone, VHF	, 0000.,
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, Marc	h, November,
December	,
Helipad	Yes
Number of ship visits per year	1
Period of ship visits per year: January, February, Decer	nber







MACHU PICCHU

### Machu Picchu

**Division of Antarctic Affairs** 

62°05'49.6"\$ 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 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

hydrology, meteorology.

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.

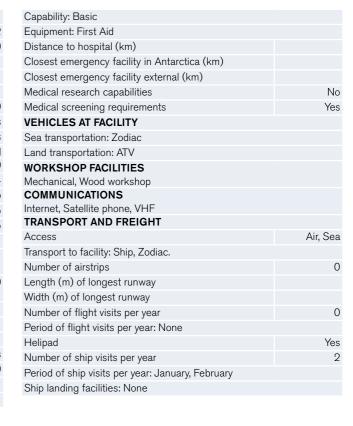
General research and databases Research: Krill ecology, marine biodiversity, biotechnology biological oceanography, geology, upper atmosphere

**COMNAP Catalogue of Antarctic Stations** 

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	
	872
Area under roof (m²)	0.2
Area scientific laboratories (m²)	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	30
(staff, scientists and others)	
Specific device/Scientific equipment:	
Scientific services possible:	
Long-term monitoring/observations:	
MEDICAL FACILITIES	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)	







#### 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.



Type: Station

Operational period: Year-round

#### Location

ARCTOWSKI

HENRYK

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 refugees: 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 Colobanthus 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. An 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.

V=		
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.ag.

#### 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 (m²)	1800
Area scientific laboratories (m²)	200
Type of scientific laboratories: Biology, Chemistry, Geoph	ysics
Conference room (capacity)	
Logistic area (m²)	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	8
(off peak/winter season)	
Max number of personnel at a time	40
(staff, scientists and others)	
Specific device/Scientific equipment:	
Scientific services possible:	
Long-term monitoring/observations:	
MEDICAL FACILITIES	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	163
Sea transportation:	
•	
Land transportation:	
WORKSHOP FACILITIES	
Mechanical, Metal workshop, Wood workshop  COMMUNICATIONS	
Computer, E-mail, Fax, Internet, Printer, Satellite phone, S	Scanner
Telephone, VHF	ocarrici,
TRANSPORT AND FREIGHT	
Access	Air, Sea
Transport to facility: Helicopter, Ship	7, 000
Number of airstrips	0
Length (m) of longest runway	0
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,

Ship landing facilities: None

#### REPUBLIC OF BELARUS

**FACILITIES INFRASTRUCTURE** 

Area scientific laboratories (m2)

Type of scientific laboratories: Biology

Area under roof (m<sup>2</sup>)

### 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/

#### 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.

NAP Catalogue of Antarctic Stations

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	



#### 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

Type of scientific laboratories: blology	
Conference room (capacity)	10
Logistic area (m²)	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	12
(staff, scientists and others)	
Specific device/Scientific equipment: Multi-wave length polarization sun/sky radiometer CE-318N, Spectral albed AS-A, Multi-wave length polarization Raman LIDAR, Filte M124-M designed to measure TOA in the atmosphere e "direct sun" (DS) and "zenith" (Z)	dometer er ozonometer
Scientific services possible: Columnar optical parameters atmospheric aerosol. Data are presented in AERONET of Spectra of diffuse reflection coefficient (albedo). Profiles and microstructure parameters of aerosol and cloud part Long-term monitoring/observations: Start of observation	latabase. s of the optical icles.
since December, 2008; albedometer, since December 20 LIDAR, since December, 2012. Filter ozonometer M124-2006/2007. Multi-functional UV Spectroradiometer PIO 2007/2008. Autonomous remote system PION-FN fror Semiconductor gas sensor. PION-SO 2007/2008, 2015 spectrograph MARS-B 2013/2014.	M from N-UV-II from n 2015/2016.
MEDICAL FACILITIES	Yes
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:	1 1
Land transportation: Three snowmobiles, one snow truck	k, one truck
WORKSHOP FACILITIES	
Metal workshop, Wood workshop	
COMMUNICATIONS Computer E-mail Fay Printer Satallite phone Scanner	
Computer, E-mail, Fax, Printer, Satellite phone, Scanner TRANSPORT AND FREIGHT	
Access	Air, Sea
Access	All, Sea

Transport to facility: 4WD, Airplane, Helicopter, Ship, Skidoo, Truck

Period of flight visits per year: January, February, November, December

Period of ship visits per year: January, February, March, April,

Number of airstrips

Length (m) of longest runway Width (m) of longest runway Number of flight visits per year

Number of ship visits per year

November, December Ship landing facilities: None VECHERNYAYA

MOUNTAIN EVENING/

### Jang Bogo Korean Polar Research Institute

74°37′38″S 164°14′16″E

Type: Station

Operational period: Year-round

Location

Terra Nova Bay, Northen 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

ANAP Catalogue

of Antarctic Stations

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 Vid	ctoria Land geologic
Antarctic Conservation Biogeographic Region: 8 North Victoria La	
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
	C I

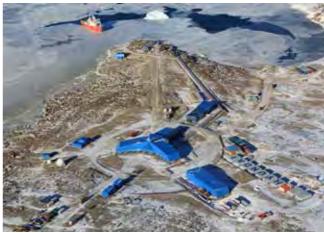


#### Features in the facility area

#### Main science disciplines

Atmospheric chemistry and physics, Environmental sciences, Geology, Glaciology, Oceanography, Physic and astronomy -







Number of flight visits per year

Ship landing facilities: Ice pier

Period of flight visits per year: October, November

Period of ship visits per year: January, February, March, December

REPUBLIC OF KOREA



### 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, plants. Narebski 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

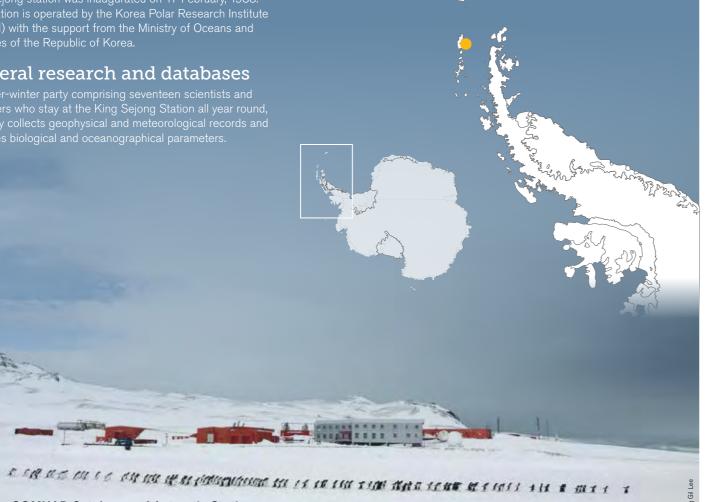
#### History and facilities

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

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 latitudes geologic	Peninsula mid-northern
Antarctic Conservation Biogeographic Region: Peninsula	3 North-west Antarctic
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



#### REPUBLIC OF KOREA

#### Features in the facility area

#### Main science disciplines

Geology, Marine biology, Terrestrial biology.







#### **FACILITIES INFRASTRUCTURE** Area under roof (m<sup>2</sup>) Area scientific laboratories (m2) Type of scientific laboratories: Biology, Geology, Geophysics, Scientific diving, Upper atmosphere study Conference room (capacity) Logistic area (m<sup>2</sup>) Number of beds Laundry facilities Power supply type Power supply (V) Power supply (hours per day) Hydroponics facilities Number of staff on station (peak/summer season) 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) Specific device/Scientific equipment: Scientific services possible: Long-term monitoring/observations: MEDICAL FACILITIES Area of medical facility (m2) Staff with basic medical training or doctor (Summer) Staff with basic medical training or doctor (Winter) 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) Closest emergency facility in Antarctica (km) Closest emergency facility external (km) Medical research capabilities Medical screening requirements **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, Se
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	
Period of flight visits per year: January, February, Decem	ber
Helipad	Ye
Number of ship visits per year	
Period of ship visits per year: November, December	
Ship landing facilities: Pier/Jetty	

# Bellingshausen Arctic and Antarctic Research Institute / Russian Antarctic Expedition CLIMATE

62° 12'00"S 58°58'00"W

Type: Station

Operational period: Year-round

#### Location

BELLINGSHAUSEN

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 hillocky 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.

CLIWATE	
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 Antar Peninsula	
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 Bellinsgausen 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.







FACILITIES INFRASTRUCTURE  Area under roof (m²)	1500
Area scientific laboratories (m²)	1000
Type of scientific laboratories: Aerology, Biology	
Conference room (capacity)	
Logistic area (m²)	
Number of beds	40
Showers	No
Laundry facilities	Yes
Power supply type	Fossil fue
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	20
(off peak/winter season)	
Max number of personnel at a time	40
(staff, scientists and others)	
Specific device/Scientific equipment:	
Scientific services possible:	
Long-term monitoring/observations:	
MEDICAL FACILITIES	Yes
Area of medical facility (m²)	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, S	Scanner,
Telephone, VHF	
TRANSPORT AND FREIGHT	Air Land C
Access	Air, Land, Sea
Transport to facility: 4WD, Helicopter, Ship, Walking	,
Number of airstrips	C

Length (m) of longest runway

Width (m) of longest runway

Number of flight visits per yea

Period of flight visits per year:

Number of ship visits per year

Ship landing facilities: None

Period of ship visits per year: March, April

### 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 Anta	arctic coastal geologic
Antarctic Conservation Biogeographic Region:	7 East Antarctica
Altitude of facility (m)	20
Type of surface facility built on	lce-free ground
Long term monitoring	Yes
Waste management	Yes
Hazard(ous) management	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

#### 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 (m²)	
Area scientific laboratories (m²)	0
Type of scientific laboratories: None	
Conference room (capacity)	
Logistic area (m²)	
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)	50
Max number of personnel at a time (staff. scientists and others)	50
Specific device/Scientific equipment:	
Scientific services possible:	
_ong-term monitoring/observations:	
MEDICAL FACILITIES	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)	
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	C
Period of flight visits per year: None	
Helipad	No
Number of ship visits per year	2
Number of ship visits per year	
Period of ship visits per year: January, February, Novemb	er, December

### 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

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 Vic	toria 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.

Area under roof (m <sup>2</sup> )	800
Area scientific laboratories (m²)	(
Type of scientific laboratories: None	
Conference room (capacity)	
Logistic area (m²)	
Number of beds	10
Showers	No
Laundry facilities	No
Power supply type	Fossil fue
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	Yes
Area of medical facility (m <sup>2</sup> )	20
Staff with basic medical training or doctor (Summer)	(
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	
VEHICLES AT FACILITY	
Sea transportation:	
Land transportation:	
WORKSHOP FACILITIES	
Mechanical	
COMMUNICATIONS	
Satellite phone	
TRANSPORT AND FREIGHT	_
Access	Se
Transport to facility: Air, 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	Ye
Number of ship visits per year	
Period of ship visits per year: January, February, March,	December
Ship landing facilities: None	





#### 66°31′00"S 93°01′00"E

Type: Station

Operational period: Year-round

#### Location

Peninsula on the Davis Sea shore.

#### Biodiversity and natural environment

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 of the glacial slope foot. Local climate is strongly influenced sharply changing weather as the oceanic cyclones closely 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 Reg	ion: 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

#### 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.





Area under roof (m <sup>2</sup> )	3000
Area scientific laboratories (m²)	
Type of scientific laboratories: Aerology, Geophysics	
Conference room (capacity)	
Logistic area (m²)	
Number of beds	50
Showers	No
Laundry facilities	Yes
Power supply type	Fossil fue
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	50
(staff, scientists and others)	
Specific device/Scientific equipment:	
Scientific services possible:	
Long-term monitoring/observations:	\ /
MEDICAL FACILITIES	Yes
Area of medical facility (m²)  Stoff with basic medical training or destar (Summer)	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	
COMMUNICATIONS Computer, E-mail, Internet, Satellite phone, Telephone, V	HF
TRANSPORT AND FREIGHT	1 11
Access	Air, Sea
Transport to facility: Airplane, Helicopter, Ship	7 (11) 000
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	110
Design of the series por your	

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

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

geo-complexes of the Oasis are part of a rocky hillocky 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 in insignificant numbers. Antarctic petrels fly in and Emperor penguins call occasionally. Of mammals, the Weddell seals and

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)	. 00.
Type of scientific laboratories: None	
Conference room (capacity)	
Logistic area (m²)	
Number of beds	15
Showers	No
Laundry facilities	Ye
Power supply type	Fossil fue
Power supply (V)	220
Power supply (hours per day)	
Hydroponics facilities	N
Number of staff on station (peak/summer season)	1!
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)	1!
Specific device/Scientific equipment:	
Scientific services possible:	
Long-term monitoring/observations:	
MEDICAL FACILITIES	Ye
Area of medical facility (m <sup>2</sup> )	20
Staff with basic medical training or doctor (Summer)	
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, 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	

#### 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 hydrometeorological 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.





OVOLAZAREVSKAYA

### Novolazarevskaya

Arctic and Antarctic Research Institute / Russian Antarctic Expedition

70°46′00"S 11°50′00"E

Type: Station

Operational period: Year-round

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

#### Biodiversity and natural environment

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 hillocky 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 rare patches of lichen on a rocky substrate and by moss concentrations on silt. A total of twenty-one species of lichen storm petrel and the South polar skua are not numerous at

Inland Antarctica				
Continuous				
36				
SE				
None				
309				
Snow				
-11				
ENVIRONMENT				
Continental Antarctica				
Antarctic Environmental Domain: T – Inland continental geologic				
Antarctic Conservation Biogeographic Region: 7 East Antarctica				
102				
Ice-free ground				
Yes				







#### 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

#### 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.

Area under roof (m <sup>2</sup> )	1000
Area scientific laboratories (m²)	
Type of scientific laboratories: Aerology, Geophysics, Sei	smic.
Conference room (capacity)	
Logistic area (m²)	
Number of beds	70
Showers	No
Laundry facilities	Yes
Power supply type	Fossil fue
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	70
(staff, scientists and others)	
Specific device/Scientific equipment:	
Scientific services possible:	
Long-term monitoring/observations:	
MEDICAL FACILITIES	Yes
Area of medical facility (m²)	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, VI	HF
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	6
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

# 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

# General research and databases

Automated	meteorological	station is	operated at	Oazis base.

**COMNAP Catalogue of Antarctic Stations** 

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	
A Company of the Comp		



## Features in the facility area

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

FACILITIES INFRASTRUCTURE	
Area under roof (m <sup>2</sup> )	
Area scientific laboratories (m²)	0
Type of scientific laboratories: None	
Conference room (capacity)	
Logistic area (m²)	
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	10
(staff, scientists and others)	
Specific device/Scientific equipment:	
Scientific services possible:	
Long-term monitoring/observations:	N.I.
MEDICAL FACILITIES	No
Area of medical facility (m²)	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:	
I	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, D	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

Christensen Coast, Princess Elizabeth Land. The Larsemann Hills are designated as an Antarctic Specially Managed Area (ASMA) 6.

# Biodiversity and natural environment

insignificant thickness of loose deposits and poor drainage of permafrost, more than one hundred lakes are observed over a 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

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	Е
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

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	lce-free ground	
Long term monitoring	Yes	
Waste management	Yes	
Hazard(ous) management	Yes	
Fuel spill response capability	Yes	











#### 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 (m²)	1500
Area scientific laboratories (m²)	
Type of scientific laboratories: Biology, Chemistry,	
Hydrology	
Conference room (capacity)	
Logistic area (m²)	
Number of beds	50
Showers	Yes
Laundry facilities	Yes
Power supply type	Fossil fue
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	50
(staff, scientists and others)	
Specific device/Scientific equipment:	
Scientific services possible:	
Long-term monitoring/observations:	
MEDICAL FACILITIES	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, Diagnos	tic 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	
VEHICLES AT FACILITY	
Sea transportation:	
Land transportation:	
WORKSHOP FACILITIES	
Mechanical	
COMMUNICATIONS	
Computer, E-mail, Internet, Satellite phone, Telephone, V	HF
TRANSPORT AND FREIGHT	
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	_ 5.0.001,
Helipad	Yes
Number of ship visits per year	2

Ship landing facilities: None

Period of ship visits per year: January, February, March, December

# 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

# 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.

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	Е
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 Re	gion: 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,

# Main science disciplines

Environmental sciences, Geodesy, Geology.

FACILITIES INFRASTRUCTURE	000
Area under roof (m²)	800
Area scientific laboratories (m²)	C
Type of scientific laboratories: None	
Conference room (capacity)	
Logistic area (m²)	
Number of beds	10
Showers	No
Laundry facilities	No
Power supply type	Fossil fue
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	10
(staff, scientists and others)	
Specific device/Scientific equipment:	
Scientific services possible:	
Long-term monitoring/observations:	
MEDICAL FACILITIES	Yes
Area of medical facility (m²)	25
Staff with basic medical training or doctor (Summer)	(
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	Sou
	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	No
Number of ship visits per year	1
Period of ship visits per year: January, February, March, D	December
Ship landing facilities: None	











Type: Station

Operational period: Year-round

#### Location

# 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 of the shield with marks of more than 2000-3000 m belongs to the climatic area of inland Antarctica. The geographical location regime and atmospheric circulation govern the general climate

# History and facilities

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 (m <sup>2</sup> )	600
Area scientific laboratories (m²)	
Type of scientific laboratories: Deep drilling, Geophysics	
Conference room (capacity)	
Logistic area (m²)	
Number of beds	30
Showers	N
Laundry facilities	Ye
Power supply type	Fossil fue
Power supply (V)	220
Power supply (hours per day)	
Hydroponics facilities	N
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)	1
Number of scientists on station (off peak/winter season)	
Max number of personnel at a time (staff, scientists and others)	3
Specific device/Scientific equipment:	
Scientific services possible:	
Long-term monitoring/observations:	
MEDICAL FACILITIES	Ye
Area of medical facility (m <sup>2</sup> )	2
Staff with basic medical training or doctor (Summer)	
Staff with basic medical training or doctor (Winter)	

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, VHF	
TRANSPORT AND FREIGHT	
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, November, December	October,
Helipad	No
Number of ship visits per year	C
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; upperair 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.





# 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

## Biodiversity and natural environment

# History and facilities

SANAE IV completed and occupied in 1997, site moved from ice longer lifespan. Overwinter station in Antarctica occupied since 1959.

#### General research and databases

geomorphology.

CLIMATE		
Climate zone	Inland Antarctic	
Permafrost	Continuou	
Mean annual wind speed (km/h)	38.	
Max wind speed (km/h)	223.	
Dominant wind direction		
Sea Ice Break Up	January, Februar	
	November, December	
Snow free period	Non	
Total annual precipitation (mm)		
Precipitation type	Sno	
Mean annual temperature (°C)	-16.	
Mean temperature in February (°C)	-10.	
Mean temperature in July (°C)	-23.	
ENVIRONMENT		
Region	Continental Antarctic	
Antarctic Environmental Domain: T – Inland continental geologic		
Antarctic Conservation Biogeographic Region	on: 6 Dronning Maud Land	
Altitude of facility (m)	85	
Type of surface facility built on	Rock outcro	
Long term monitoring	Ye	
Waste management	Ye	
Hazard(ous) management	Ye	
Fuel spill response capability	Ye	



# 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.







#### **FACILITIES INFRASTRUCTURE** Area under roof (m<sup>2</sup>) 4000 Area scientific laboratories (m2) 500 Type of scientific laboratories: Biology, Chemistry, Geology, Geophysics 12 Conference room (capacity) 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) Hydroponics facilities Number of staff on station (peak/summer season) 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)

**SOUTH AFRICA** 

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	Ü
MEDICAL FACILITIES	Yes
Area of medical facility (m²)	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, Denta machine	I
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: None	
Land transportation: Bulldozers, tractor, skidoos	
WORKSHOP FACILITIES Mechanical, Metal workshop, Wood workshop	

#### COMMUNICATIONS Computer, E-mail, Fax, Internet, Telephone, VHF

TRANSPORT AND FREIGHT	
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	ber
Helipad	Yes
Number of ship visits per year	1
Period of ship visits per year: January, February, Decemb	er
Ship landing facilities: Ice shelf	



62°58'40"S 60°00'30"W

Type: Station

Operational period: November-March

#### Location

CASTILL

DE

GABRIEL

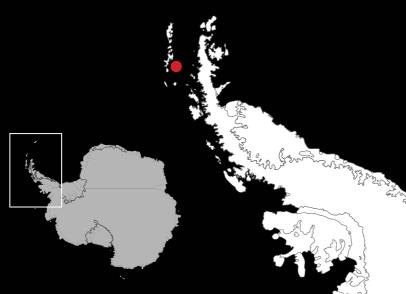
Located on Deception Island, South Shetland Islands it is a summer station opened, normally, from November to March.

# 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 (m²)	142
Type of scientific laboratories: Biology, Chemistry, Scientific diving.	
Conference room (capacity)	36
Logistic area (m²)	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 F	ood 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

Staff with basic medical training or doctor (Summer)

Staff with basic medical training or doctor (Winter)	
Capability	Basic, Denta
Equipment: Anesthesia, Biochemistry, Diagnostic ultrasc Telemedicine.	ound,
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**

**MEDICAL FACILITIES** 

Area of medical facility (m2)

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,

lelephone, 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	
Object to a disconficiality of Makeley I.	





# 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

extremely sensitive to human impact. Is the largest ice-free area in the South Shetland Islands.

# History and facilities

the greatest concentration of 19th century historical sites in increasing interest in the area, the camp is still operative but 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	









# 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.

FACILITIES INFRASTRUCTURE	
Area under roof (m <sup>2</sup> )	3
Area scientific laboratories (m²)	1
Type of scientific laboratories: None	
Conference room (capacity)	
Logistic area (m²)	1
Number of beds	
Showers	N
Laundry facilities	N
Power supply type	Fossil fue
Power supply (V)	22
Power supply (hours per day)	2
Hydroponics facilities	N
Number of staff on station (peak/summer season)	
Number of scientists on station (peak/summer season)	1
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	1
(staff, scientists and others)	
Specific device/Scientific equipment: None	
Scientific services possible: None	
Long-term monitoring/observations:	
MEDICAL FACILITIES	N
Area of medical facility (m²)	
Staff with basic medical training or doctor (Summer)	
Staff with basic medical training or doctor (Winter)	
Capability: Basic	
Equipment: None	
Distance to hospital (km)	99
Closest emergency facility in Antarctica (km)	3
Closest emergency facility external (km)	10
Medical research capabilities	N
Medical screening requirements	N
VEHICLES AT FACILITY	
Sea transportation: None	
Land transportation: None	
WORKSHOP FACILITIES	
COMMUNICATIONS VHF	
TRANSPORT AND FREIGHT	
Access	Air, Se
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: January, February, March, December	November,
Helipad	N
Number of ship visits per year	
Period of ship visits per year: January, February, March, N December	November,
Ship landing facilities: None	
1 0	

FACILITIES INFRASTRUCTURE



# Juan Carlos I Comité Polar Español

62°39'48.3"S 60°23'17.3"W

**Type:** Station

Operational period: November-March

#### Location

S

C

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 criptogamic 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





FACILITIES INFRASTRUCTURE	
Area under roof (m <sup>2</sup> )	173
Area scientific laboratories (m²)	22
Type of scientific laboratories: Biology, Chemistry, Electro Geophysics	nic, Geology,
Conference room (capacity)	2
Logistic area (m²)	121
Number of beds	5
Showers	Ye
Laundry facilities	Ye
Power supply type	Fossil fue Renewabl
Power supply (V)	22
Power supply (hours per day)	2
Hydroponics facilities	N
Number of staff on station (peak/summer season)	1
Number of scientists on station (peak/summer season)	1
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	5
(staff, scientists and others)	an bankalalah
Specific device/Scientific equipment: Microscopes, balan glass items, fume hood, centrifuge, refrigerators, pumps, Scientific services possible: Biological, chemical and elec	pH meter.
laboratories.	
Long-term monitoring/observations: Geodesy,	
glaciology, hydrology, meteorology MEDICAL FACILITIES	Ye
Area of medical facility (m <sup>2</sup> )	1
Staff with basic medical training or doctor (Summer)	
Staff with basic medical training or doctor (Winter)	
Capability:	
Equipment: Aeromedical equipment, Anaesthesia, Bioche	mistry,
Haematology, Mountain medicine related equipment	•
Distance to hospital (km)	99
Closest emergency facility in Antarctica (km)	10
Closest emergency facility external (km)	10
Medical research capabilities	N
Medical screening requirements	N
VEHICLES AT FACILITY	
Sea transportation: Four Zodiac rubber boats Land transportation: Three telehandlers, one tracked utilit	ty machine,
two quad bikes, five snowmobiles	
WORKSHOP FACILITIES ICTS, Mechanical, Metal workshop, Wood workshop	
COMMUNICATIONS E-mail, Internet, Printer, Satellite phone, Scanner, Telepho	no VHE
TRANSPORT AND FREIGHT	IIG, VI II
Access	Se
Transport to facility: Helicopter, Ship	36
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: January, February	
Helipad	
Number of ship visits per year	D
Period of ship visits per year: January, February, November	i, December

Ship landing facilities

# 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

# History and facilities

Both Wasa and Aboa were built at the same time, no previous

#### General research and databases

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



# Features in the facility area

EACH ITIES IN

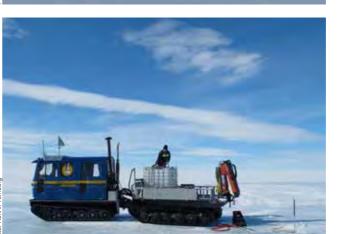
FACILITIES INFRASTRUCTURE	
Area under roof (m <sup>2</sup> )	130
Area scientific laboratories (m²)	0
Type of scientific laboratories: None	
Conference room (capacity)	
Logistic area (m²)	50
Number of beds	12
Showers	Yes
Laundry facilities	Yes
Power supply type	Fossil fuel, Renewable
Power supply (V)	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:	
MEDICAL FACILITIES	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)	

# Main science disciplines

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

FRASTRUCTURE		Capability: None	
f (m <sup>2</sup> )	130	Equipment: Diagnostic ultrasound	
laboratories (m²)	0	Distance to hospital (km)	
ic laboratories: None		Closest emergency facility in Antarctica (km)	
om (capacity)		Closest emergency facility external (km)	
n <sup>2</sup> )	50	Medical research capabilities	No
S	12	Medical screening requirements	No
	Yes	VEHICLES AT FACILITY	
es	Yes	Sea transportation: None	
уре	Fossil fuel,	Land transportation: Snowmobiles, Haglund, 4WD	
	Renewable	WORKSHOP FACILITIES	
V)	230	Mechanical, Metal workshop, Wood workshop	
hours per day)	24	COMMUNICATIONS	
cilities	No	E-mail, Satellite phone, VHF	
f on station (peak/summer season)	5	TRANSPORT AND FREIGHT	
entists on station (peak/summer season)	8	Access	Air
f on station (off peak/winter season)		Transport to facility: Airplane	
entists on station	0	Number of airstrips	1
er season)		Length (m) of longest runway	
personnel at a time	20	Width (m) of longest runway	
s and others)		Number of flight visits per year	
/Scientific equipment:		Period of flight visits per year: January, February, December	r
ces possible:		Helipad	Yes
itoring/observations:		Number of ship visits per year	0
CILITIES	No	Period of ship visits per year:	
I facility (m <sup>2</sup> )	0	Ship landing facilities:	
medical training or doctor (Summer)	1	, s	
medical training or doctor (Winter)			









**UKRAINE** 

National Antarctic Scientific Center of Ukraine

65°14'44.7"S 64°15'26.9"W

Type: Station

Operational period: Year-round

#### Location

VERNADSKY

Vernadsky station is located at Marina Point Galindez Island, Argentine Islands Archipelago, Kiev Peninsula, Antarctic Peninsula. The Antarctic Specially Protected Area (ASPA) 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 - Antarcisland geologic	ctic Peninsula offshore
Antarctic Conservation Biogeographic Region Peninsula	on: 3 North-west Antarctic
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 (m2) Type of scientific laboratories: Balloon shed, Biology, Fluxgate, Geophysics, Scientific diving, Variometer Conference room (capacity) Logistic area (m<sup>2</sup>) Number of beds Showers Laundry facilities Power supply type Power supply (V) Power supply (hours per day) Hydroponics facilities Number of staff on station (peak/summer season) 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)

Specific device/Scientific equipment: Meteorological equipment and recording devices (mobile meteorological complex), marine and hydrometeorological equipment (mechanical and automatic mareographs, oximeter, bathometer, bottom sampler, manual coring winch), biological

Scientific services possible: Meteorological parameters, sea level measuration, sea water saltiness, 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, lonosphere 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, hydrometeorological research, geophysical research of the Earth lithosphere, research of the West Antarctic biosphere, medical and physiological research.

MEDICAL FACILITIES	Yes
Area of medical facility (m²)	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 transfus medicine, Diagnostic X-ray, Haematology, Laboratory of Electrocardiograph, Electroencephalograph, Reflotron laboratory)	liagnostics,
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 inflatat	ole boats
Land transportation: Skidoos	
WORKSHOP FACILITIES	
CTS, Metal workshop, Wood workshop	
COMMUNICATIONS	
E-mail, Satellite phone, VHF TRANSPORT AND FREIGHT	
Access	Sea
	368
Transport to facility: Ship Number of airstrips	0
Length (m) of longest runway	U
Width (m) of longest runway	C
Number of flight visits per year	C
Period of flight visits per year:	No
Helipad	40
Number of ship visits per year	40
Period of ship visits per year: January, February, March	Docombor

# 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

HALLEY VI

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

# 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

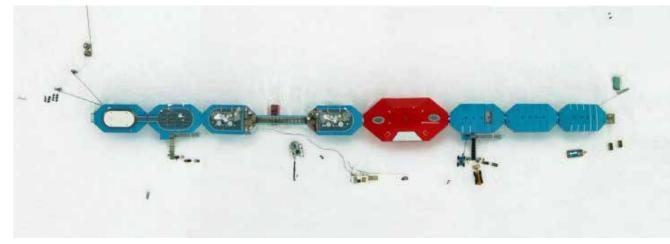
Station on Brunt ice shelf, established in 1956, with Halley VI in operation since 2012. In February 2017, Halley VI was closed for the winter, station will reopen for summer season 2017/2018. Station comprised of main Halley VI platform, garage building, stores building and summer accommodation building.

#### 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	lce-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 (m²)	200
Type of scientific laboratories: Chemistry, Geophysics.	
Conference room (capacity)	52
Logistic area (m²)	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:	
MEDICAL FACILITIES	Yes
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	

Features in the facility area
Clear air zone, Ice shelf, Snow.

# Main science disciplines

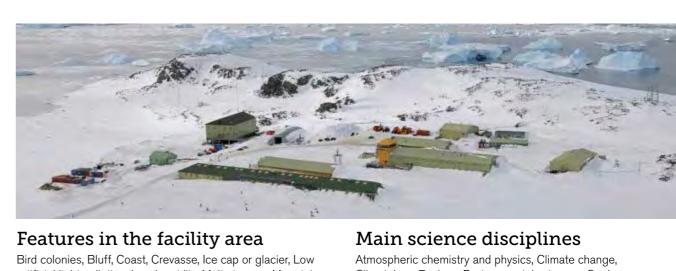
Atmospheric chemistry and physics, Climate change, Environmental sciences, Geophysics, Upper atmospheric

Equipment: Blood transfusion medicine, Diagnostic X-ra	y, Endoscopy,
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, Scan VHF	ner, Telephone,
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, December	November,
Helipad	No
i lelipad	
Number of ship visits per year	2
	_



CLIMATE

# UNITED KINGDOM



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 (m²)	450
Type of scientific laboratories: Biology, Chemistry, Scientific diving.	
Conference room (capacity)	
Logistic area (m²)	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:	
MEDICAL FACILITIES	Yes
Area of medical facility (m²)	31
Staff with basic medical training or doctor (Summer)	100
Staff with basic medical training or doctor (Winter)	22
Capability: Basic, Dental	

Climatology, Ecology, Environmental sciences, Geology, Geophysics, Glaciology, Mapping, Marine biology, Microbiology,

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 (co	

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

Tolophone VIIIE	ocarrier,
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, November, December	October,
Helipad	No
Number of ship visits per year	6
Period of ship visits per year: January, February, March, A December	April,
Ship landing facilities: Pier/Jetty	

sh Antarctic Survey
Protos: British Antarctic

67°34′00″S 68°07′59″W

Type: Station

Operational period: Year-round

Rotnera British Antarctic Survey

Location

ROTHERA

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.

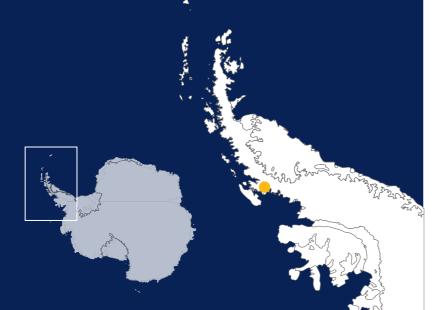
# History and facilities

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.

CLIMAIE	
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 island geologic	Peninsula offshore
Antarctic Conservation Biogeographic Region: Antarctic Peninsula	4 Central South
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



# Mechanical, Wood workshop

COMMUNICATIONS

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

# TRANSPORT AND FREIGHT 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: None Number of ship visits per year

Period of ship visits per year: March, November, December Ship landing facilities: Pier/Jetty, Beach landing for rubber inflatable



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.

# 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,

# Main science disciplines

Climate change, Limnology, Microbiology, Sedimentology, Soil

Area under roof (m²) Area scientific laboratories (m²) Type of scientific laboratories: Analytical, Biology, Rough Conference room (capacity) Logistic area (m²) Number of beds	
Type of scientific laboratories: Analytical, Biology, Rough Conference room (capacity) Logistic area (m²)	
Conference room (capacity) Logistic area (m²)	,
Logistic area (m²)	I
0	
Number of hode	
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 hoven, analytical glassware, magnetic stirrers	ood, ashing
Scientific services possible:	
Long-term monitoring/observations:	
MEDICAL FACILITIES	Yes
Area of medical facility (m²)	8
Staff with basic medical training or doctor (Summer)	
Staff with basic medical training or doctor (Winter)	



site of an old whaling station.

#### Yes Waste management Hazard(ous) management Yes Fuel spill response capability History and facilities Scientific research started on Signy Island in 1947 when a threeman team occupied a site in Factory Cove above the old whaling station. A new hut (Tønsberg House) was built in 1955 on the

Ice-free ground

Maritime Antarctica

January, November, December

February, March, April

Snow and Rain

-2.2

1.4

-7.7

Yes

Discontinuous



Antarctic Conservation Biogeographic Region: 2 South Orkney Islands

science, Terrestrial biology.

wetter areas.

SIGN

Signy

Type: Station

Location

October-March

environment

Operational period:

Biodiversity and natural

60°42'29.8"S 45°35'43.4"W

Signy research station is located on the South Orkney Islands.

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

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

east and west coasts are generally ice-free during summer. The

**British Antarctic Survey** 

CLIMATE

Permafrost

Climate zone

Mean annual wind speed (km/h)

Total annual precipitation (mm)

Mean annual temperature (°C)

Mean temperature in July (°C)

Antarctic Environmental Domain:

Type of surface facility built on

Mean temperature in February (°C)

Max wind speed (km/h)

Dominant wind direction

Sea Ice Break Up

Snow free period

Precipitation type

**ENVIRONMENT** 

Altitude of facility (m)

Long term monitoring

Region

# **UNITED STATES**

POLI

SOUTH

AMUNDSEN-SCOTT



90°S 0°E

Type: Station

Operational period: Year-round

Location

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

# Biodiversity and natural environment

Antarctica's nearly featureless ice sheet, which is about 2,700 m (9,000 feet) thick at that location. The station, which is 850nautical 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 energy cosmic neutrinos from deep space), aeronomy and 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 Anta	rctic 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 1748 Area scientific laboratories (m<sup>2</sup>) Type of scientific laboratories: Astrophysics, Geophysics. Conference room (capacity) Logistic area (m<sup>2</sup>) 2102 Number of beds Showers Laundry facilities Power supply type Power supply (V) Power supply (hours per day) Hydroponics facilities Number of staff on station (peak/summer season) 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) Specific device/Scientific equipment: Scientific services possible: Long-term monitoring/observations: MEDICAL FACILITIES Area of medical facility (m2) Staff with basic medical training or doctor (Summer)

# Features in the facility area

Clear air zone, Ice cap or glacier.

O 133 D :	
Capability: Basic	
Equipment: Altitude medicine, Diagnostic ultrasound, Dia Telemedicine	agnostic X-ray,
Distance to hospital (km)	
Closest emergency facility in Antarctica (km)	
Closest emergency facility external (km)	
Medical research capabilities	Ye
Medical screening requirements	Ye
VEHICLES AT FACILITY	
Sea transportation:	
Land transportation:	
WORKSHOP FACILITIES	
ICTS, Mechanical, Metal workshop, Wood workshop	
1010, Weenamea, Wetar Werkenep, Weed Werkenep	
COMMUNICATIONS	
COMMUNICATIONS Computer, E-mail, Internet, Satellite phone, Telephone, V	HF
COMMUNICATIONS Computer, E-mail, Internet, Satellite phone, Telephone, V TRANSPORT AND FREIGHT	
COMMUNICATIONS Computer, E-mail, Internet, Satellite phone, Telephone, V TRANSPORT AND FREIGHT Access	
COMMUNICATIONS Computer, E-mail, Internet, Satellite phone, Telephone, V TRANSPORT AND FREIGHT Access Transport to facility: Airplane	Ai
COMMUNICATIONS Computer, E-mail, Internet, Satellite phone, Telephone, V TRANSPORT AND FREIGHT Access Transport to facility: Airplane Number of airstrips	А
COMMUNICATIONS Computer, E-mail, Internet, Satellite phone, Telephone, V TRANSPORT AND FREIGHT Access Transport to facility: Airplane Number of airstrips Length (m) of longest runway	
COMMUNICATIONS Computer, E-mail, Internet, Satellite phone, Telephone, V TRANSPORT AND FREIGHT Access Transport to facility: Airplane Number of airstrips Length (m) of longest runway Width (m) of longest runway	А
COMMUNICATIONS Computer, E-mail, Internet, Satellite phone, Telephone, V TRANSPORT AND FREIGHT Access Transport to facility: Airplane Number of airstrips Length (m) of longest runway Width (m) of longest runway Number of flight visits per year	А
COMMUNICATIONS Computer, E-mail, Internet, Satellite phone, Telephone, V TRANSPORT AND FREIGHT Access Transport to facility: Airplane Number of airstrips Length (m) of longest runway	А
COMMUNICATIONS Computer, E-mail, Internet, Satellite phone, Telephone, V TRANSPORT AND FREIGHT Access Transport to facility: Airplane 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:	А
COMMUNICATIONS Computer, E-mail, Internet, Satellite phone, Telephone, V TRANSPORT AND FREIGHT Access Transport to facility: Airplane Number of airstrips Length (m) of longest runway Width (m) of longest runway Number of flight visits per year	A
COMMUNICATIONS Computer, E-mail, Internet, Satellite phone, Telephone, V TRANSPORT AND FREIGHT Access Transport to facility: Airplane 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	А

## 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

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, eighty-five or so buildings range in size from a small radio shack

#### 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 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)	-6
Mean temperature in July (°C)	-25
ENVIRONMENT	
Region	Continental Antarctica
Antarctic Environmental Domain: S – McN geologic	furdo - South Victoria Land
Antarctic Conservation Biogeographic Reg	gion: 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









# 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.

# **UNITED STATES**

Area under roof (m <sup>2</sup> )	3275
Area scientific laboratories (m²)	543
Type of scientific laboratories: Biology, Chemistry, Geolog	av. GIS.
Scientific diving.	5),,
Conference room (capacity)	
Logistic area (m²)	778
Number of beds	120
Showers	Ye
Laundry facilities	Ye
Power supply type	Fossil fu
Power supply (V)	12
Power supply (hours per day)	
Hydroponics facilities	N
Number of staff on station (peak/summer season)	80
Number of scientists on station (peak/summer season)	20
Number of staff on station (off peak/winter season)	15
Number of scientists on station	10
(off peak/winter season)	
Max number of personnel at a time	120
(staff, scientists and others)	
Specific device/Scientific equipment:	
Scientific services possible:	
Long-term monitoring/observations:	
MEDICAL FACILITIES	Y
Area of medical facility (m <sup>2</sup> )	45
Staff with basic medical training or doctor (Summer)	
Staff with basic medical training or doctor (Winter)	
Capability: Basic	
Equipment: Aeromedical equipment, Altitude medicine, C ultrasound, Diagnostic X-ray, Hyperbaric Recompression Telemedicine.	•
Distance to hospital (km)	
Closest emergency facility in Antarctica (km)	
0 1 1 1 1 1 1	
Closest emergency facility external (km)	
	Y
Medical research capabilities	
Medical research capabilities Medical screening requirements	
Medical research capabilities Medical screening requirements VEHICLES AT FACILITY	
Medical research capabilities Medical screening requirements VEHICLES AT FACILITY Sea transportation:	
Medical research capabilities Medical screening requirements VEHICLES AT FACILITY Sea transportation: Land transportation:	
Medical research capabilities Medical screening requirements VEHICLES AT FACILITY Sea transportation: Land transportation: WORKSHOP FACILITIES ICTS, Mechanical, Metal workshop, Plexiglas workshop,	
Medical research capabilities Medical screening requirements VEHICLES AT FACILITY Sea transportation: Land transportation: WORKSHOP FACILITIES ICTS, Mechanical, Metal workshop, Plexiglas workshop, Wood workshop.	
Medical research capabilities Medical screening requirements VEHICLES AT FACILITY Sea transportation: Land transportation: WORKSHOP FACILITIES ICTS, Mechanical, Metal workshop, Plexiglas workshop, Wood workshop. COMMUNICATIONS	
Medical research capabilities Medical screening requirements 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	
Medical research capabilities Medical screening requirements 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	Y
Medical research capabilities Medical screening requirements 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	Y
Medical research capabilities Medical screening requirements 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 Transport to facility: Airplane, Ship	Y
Medical research capabilities Medical screening requirements 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 Transport to facility: Airplane, Ship Number of airstrips	Y
Medical research capabilities Medical screening requirements 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 Transport to facility: Airplane, Ship Number of airstrips Length (m) of longest runway	Y
Medical research capabilities Medical screening requirements 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 Transport to facility: Airplane, Ship Number of airstrips Length (m) of longest runway Width (m) of longest runway	Y
Medical research capabilities Medical screening requirements 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 Transport to facility: Airplane, Ship Number of airstrips Length (m) of longest runway Width (m) of longest runway Number of flight visits per year	Y
Medical research capabilities Medical screening requirements 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 Transport to facility: Airplane, 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:	Yi Air, Se
Transport to facility: Airplane, 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	Y
Medical research capabilities Medical screening requirements 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 Transport to facility: Airplane, 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:	Air, Se







# Features in the facility area

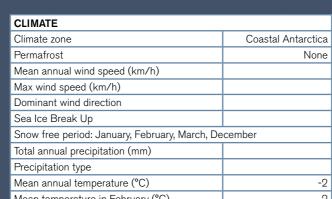
Coast, Hill, Ice cap or glacier, Ice shelf, Permanent snowpatches, Rock, Sea, Sea ice, Shoreline, Snow.

# Main science disciplines

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

FACILITIES INFRASTRUCTURE	
Area under roof (m²)	219
Area scientific laboratories (m²)	65
Type of scientific laboratories: Biology, Chemistry, Scient	ific diving
Conference room (capacity)	
Logistic area (m <sup>2</sup> )	24
Number of beds	4
Showers	Ye
Laundry facilities	Ye
Power supply type	Fossil fu
Power supply (V)	12
Power supply (hours per day)	
Hydroponics facilities	N
Number of staff on station (peak/summer season)	2
Number of scientists on station (peak/summer season)	2
Number of staff on station (off peak/winter season)	1
Number of scientists on station	
(off peak/winter season)	
Max number of personnel at a time	4
(staff, scientists and others) Specific device/Scientific equipment:	
Scientific services possible:	
·	
Long-term monitoring/observations:  MEDICAL FACILITIES	Vo
	Ye
Area of medical facility (m²)	5
Staff with basic medical training or doctor (Summer)	
Staff with basic medical training or doctor (Winter)	
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	Ye
Medical screening requirements	Ye
VEHICLES AT FACILITY	
Sea transportation:	
Land transportation:	
WORKSHOP FACILITIES	
Mechanical, Metal workshop, Wood workshop	
COMMUNICATIONS	
Computer, E-mail, Internet, Telephone, VHF	
TRANSPORT AND FREIGHT	0
Access	Se
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	N
Number of ship visits per year	
Period of ship visits per year:	
Chin landing facilities	





Palmer United States Antarctic Program

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

64°46'45.6"S 64°3'20.0"W

Operational period: Year-round

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

# History and facilities

Biodiversity and natural

**Type:** Station

environment

Location

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

#### 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, D	ecember
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 Alexander Island main ice fields	Peninsula and
Antarctic Conservation Biogeographic Region Peninsula	: 3 North-west Antarctic
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



Ship landing facilities:



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

#### General research and databases

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 - Antalisland geologic	rctic Peninsula offshore
Antarctic Conservation Biogeographic Reg Peninsula	ion: 3 North-west Antarctic
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.

Area under roof (m <sup>2</sup> )	1700
Area scientific laboratories (m²)	85
Type of scientific laboratories: Biology, Chemistry	
Conference room (capacity)	30
Logistic area (m²)	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	1
(off peak/winter season)	
Max number of personnel at a time (staff, scientists and others)	60
Specific device/Scientific equipment: Burners, fridges at Equipment is provided by the scientific staff of each acti their stay.	
Scientific services possible:	
Long-term monitoring/observations: CPE Glacier run -	off.
MEDICAL FACILITIES	Yes
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-li, Mk-V).	/lk-lii And
Land Transportation: Two All-Terrain Carriers, Two Quad Skidoo, One 4Wd Truck With Telescopic Handler.	Bikes, One
WORKSHOP FACILITIES	
ICTS, Mechanical, Metal workshop	
COMMUNICATIONS	
Computer, E-mail, Fax, Internet, Printer, Satellite phone, S Telephone, VHF	Scanner,
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, December	April, May,
Helipad	Yes
Number of ship visits per year	1
Period of ship visits per year: January, February	
Ship landing facilities: None	





**Type:** Station

Operational period: October-March

#### Location

ELICHIRIBEHETY

RUPERTO

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

# Biodiversity and natural environment

Protected Area (ASPA) 148 Mount Flora, Hope Bay, Antarctic

# 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 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 – Anta geologic	rctic Peninsula northern
Antarctic Conservation Biogeographic Reg Peninsula	ion: 1 North-east Antarctic
Altitude of facility (m)	2.8
Type of surface facility built on	
Long term monitoring	
Waste management	No
Hazard(ous) management	No
	No



FACILITIES INFRASTRUCTURE	
Area under roof (m <sup>2</sup> )	244
Area scientific laboratories (m²)	33
Type of scientific laboratories: Dry Lab, Geophysics.	
Conference room (capacity)	
Logistic area (m²)	67
Number of beds	3
Showers	Yes
Laundry facilities	Yes
Power supply type	Fossil fue
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)	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)	3
Specific device/Scientific equipment: Scientific services possible:	
Long-term monitoring/observations:	
MEDICAL FACILITIES	No
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: 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	o, 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.





# FURTHER INFORMATION

# For further information on the Antarctic Stations & COMNAP Member National Antarctic Programs, please visit www.comnpa.aq or any of these websites.

Australia www.aad.gov.au

Argentina www.dna.gov.ar

Belgium www.belspo.be

Brazil www.mar.mil.br/secirm/inglles/proantar.html

Bulgaria www.bai-bg.net

Chile www.inach.cl

China www.caa.gov.cn www.pric.org.cn

Czech Republic www.sci.muni.cz/CARI/

Ecuador www.inae.gob.ec

Finland www.antarctica.fi/in-english

France www.institut-polaire.fr

Germany www.awi.de/en

India www.ncaor.gov.in

Italy www.pnra.it

Japan www.nipr.ac.jp/english

Netherlands www.nwo.nl/npp

New Zealand www.antarcticanz.govt.nz

Norway www.npolar.no/en/

Peru www.rree.gob.pe

Poland www.pkpolar.pl

Republic of Belarus www.hasb.gov.by

Republic of Korea www.kopri.re.kr

Russian Federation www.aari.ru www.raexp.ru

South Africa www.sanap.ac.za

Spain www.idi.mineco.gob.es

Sweden www.polar.se/en

Ukraine www.uac.gov.au/en

United Kingdom www.antarctica.ac.uk

United States of America www.usap.gov

Uruguay www.iau.gub.uy