

European Polar Infrastructure Catalogue

EU-PolarNet

EUROPEAN POLAR BOARD

European Polar Infrastructure Catalogue



- Stations
- Camps
- Laboratories
- Shelters
- Vessels
- Aircraft

EU-PolarNet is funded by the European Commission's Horizon 2020 programme. Grant agreement number 652641.

ISBN 978-94-93050-00-6

Eurofleets

INTERACT

COMNAP
Council of Managers of National Antarctic Programs

www.europeanpolarboard.org

European Polar Infrastructure Catalogue

European Polar Infrastructure Catalogue 2019

The catalogue is available in PDF from the European Polar Board website:

www.europeanpolarboard.org/polar-catalogue

Acknowledgements

Data in the catalogue was provided by the Council of Managers of National Antarctic Programs (COMNAP), the International Network for Terrestrial Research and Monitoring in the Arctic (INTERACT), the Forum of Arctic Research Operators (FARO), EUROFLEETS2, and individual infrastructure managers and operators.

The European Polar Board (EPB) and EU-PolarNet thank all infrastructure managers and operators who kindly provided data, feedback, edits and photographs for the catalogue.

The European Polar Infrastructure Catalogue was compiled by Joseph Nolan (EPB) and coordinated by Yves Frenot (Institut Polaire Francais Paul Emile Victor (IPEV)) and Gonçalo Vieira (Institute of Geography and Spatial Planning (IGOT), University of Lisbon) as co-leads of task 3.1 of EU-PolarNet. Other contributors to the development of the database and maps were Luis Encalada (IGOT), Carla Mora (IGOT), Pedro Freitas (IGOT) and Renuka Badhe (EPB). Graphic design, layout and data input work for the European Polar Infrastructure Catalogue was completed by Blue Lobster (www.bluelobster.co.uk).

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Cover photo - Juan Carlos I station (Credit: Felipe)

Photo 1 - Mario Zucchelli Station pan (Credit: Nicklen)

FOREWORD

The polar regions are unique realms of planet Earth, they fascinate us with their remoteness, harsh and beautiful landscapes, and their highly adapted wildlife. They are sentinels of climate change and impacts related to human activity, but they are also exemplars for peaceful international cooperation in Earth system research and nature protection. Europe has a long tradition and a very strong reputation for world-class scientific research in the polar regions. This research is enabled and supported by **significant and substantial scientific infrastructures**, facilities and platforms operated by many European nations and their international partners in both the Arctic and the Antarctic. Beyond the current coordination and cooperation between European polar operators there is an even greater potential for these facilities to be used more coherently and effectively to deliver the highest quality European research. We recognize a significant opportunity to link much more productively with other nations in the wider international polar science community, including those without infrastructure or facilities and with businesses that operate infrastructures in the polar regions, such as shipping. This will allow implementation of mechanisms for **joint programming of infrastructure**, particularly of polar ships to allow bigger and more complex science projects to be undertaken.

The EU-PolarNet consortium comprises most of the **infrastructures** of the **European Union in the Arctic and in the Antarctic**, such as research vessels, stations, aircrafts, and distributed observatories including autonomous instrumentation. These polar research infrastructures are powerful assets for supporting a vast range of scientific research and represent significant investments made by individual nations, yet shared access and interoperability can still be substantially improved. EU-PolarNet therefore aims at initiating a **European Network of Polar Operations** that will develop a management system for trans-national access to these infrastructures. These will be made available to the whole European research community, their international partners and other users engaged in the polar regions to deliver the highest quality in research. Achieving these objectives starts with a comprehensive, exhaustive and updated mapping of European polar research infrastructures to serve as a basis of the future EU-PolarNet work and planning.

The present catalogue constitutes the most advanced and updated inventory of European polar research infrastructures in the Arctic and Antarctic provided by European countries. It presents an integrative vision of the scientific capacities of these infrastructures and assets, including their role in the environmental monitoring of the polar regions.

Such a compilation of data would not have been possible without the invaluable contribution of the following partners:

- The International Network for Terrestrial Research and Monitoring in the Arctic (INTERACT), an infrastructure project under the auspices of SCANNET, a circum-Arctic network of currently 77 terrestrial field stations in northern Europe, Russia, US, Canada, Greenland, Iceland, the Faroe Islands and Scotland, as well as stations in northern alpine areas (http://www.eu-interact.org/). INTERACT is funded by the EU.
- The Council of Managers of National Antarctic Programs (COMNAP), the international association that brings together those organisations that have responsibility for delivering and supporting scientific research in the Antarctic Treaty Area on behalf of their respective governments (https://www.comnap.aq). COMNAP consists of 30 National Antarctic Program Members, 13 of which have infrastructures included in this catalogue.
- EUROFLEETS, a Research Infrastructures project under the 7th Framework Programme of the European Commission (http://www.eurofleets.eu), aimed at consolidating the coordination of a pan-European distributed research fleet infrastructure with a common strategic vision and promoting access to European marine research vessels and equipment.
- The member organisations of the EU-PolarNet consortium which operate polar research aircrafts in the Arctic and Antarctic: the Alfred Wegener Institute (Germany) and the British Antarctic Survey (United Kingdom).

We are very grateful to these partners and colleagues for their contribution, as well as to Dr Yves Frenot (IPEV) and Dr Gonçalo Vieira (IGOT-UL), the two co-leaders of the EU-PolarNet Task 3.1 “Polar Platforms: research ships, stations, aircraft”, for this informative and important catalogue. We thank all EU-PolarNet members, operators or managers who provided in time data and information in order to make possible, for the first time, this impressive catalogue of the European polar research infrastructures.





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INTRODUCTION

The European Polar Board

The European Polar Board (EPB) is an independent organisation that focuses on major strategic priorities in both the Arctic and Antarctic regions. Current EPB membership includes research institutes, funding agencies, scientific academies, and polar operators from across Europe. Established in 1995, the EPB was an Expert Board of the European Science Foundation formed to provide strategic advice on Arctic and Antarctic issues.

The EPB envisions a Europe with a strong and cohesive polar research community, wherein decisions affecting or affected by the polar regions are informed by independent, accurate, and timely advice from the EPB.

The EPB has a mission to improve European coordination of Arctic and Antarctic research by optimising the use of European research infrastructure. We promote multilateral collaborations between our Members and provide a single contact point for the global polar research community. We advance the collective knowledge of polar issues, particularly in the context of European societal relevance.

The Polar Infrastructure Catalogue

All EPB Members are involved in the EU-PolarNet project and participate in its activities. In this context, Task 3.1 of the project, dedicated to “Polar Platforms: research ships, stations, aircraft”, is of highest importance for the objectives and mission of EPB. Collecting all the data on European polar research infrastructure presented a unique tool to improve the use of these infrastructures and to fulfil our commitments in terms of European cooperation in science and science support in the Polar regions. Additionally, the ultimate role of EPB will be to ensure the legacy of the EU-PolarNet project, including taking responsibility for the infrastructure database and its regular updating.

We have identified **a total of 64 European polar facilities, 32 in the Antarctic and 32 in the Arctic**:

- **16 facilities on the Antarctic Peninsula and sub-Antarctic Islands**
  - 6 year-round stations
  - 5 seasonal stations
  - 3 seasonal camps
  - 2 seasonal laboratories
- **16 facilities in Continental Antarctica**
  - 5 year-round stations
  - 6 seasonal stations
  - 2 seasonal camps
  - 3 seasonal shelters
- **32 facilities in the Arctic**
  - 25 year-round stations
  - 7 seasonal stations

These facilities are operated by:
Belgium, Bulgaria, Czech Republic, Faroe Islands, Finland, France, Germany, Greenland, Iceland, Italy, Netherlands, Norway, Poland, Spain, Sweden, and United Kingdom.

Regarding the polar research vessels, the catalogue includes 16 vessels from 12 countries that regularly operate in both the Arctic and in the Antarctic.

Finally, the catalogue briefly describes the aircraft fleets deployed by the Alfred Wegener Institute and the British Antarctic Survey in the polar regions.



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Table 1 – European facilities on the Antarctic Peninsula and sub-Antarctic Islands

Facility name	Operating / Partner country	Type	Operational period	Opening year	Latitude / Longitude	Altitude (m)
St. Kliment Ohridski	Bulgaria	Station	Nov-Mar	1988	62° 38'S, 060° 21'W	15
Johann Gregor Mendel	Czech Republic	Station	Dec-Mar	2006	63° 48'S, 057° 52'W	10
Alfred-Faure	France	Station	Year-Round	1962	46° 25'S, 051° 51'E	146
Martin-de-Viviès	France	Station	Year-Round	1950	37° 47'S, 077° 34'E	27
Port-aux-Français	France	Station	Year-Round	1949	49° 21'S, 070° 13'E	20
German Antarctic Receiving Station (GARS) O'Higgs	Germany	Station	Year-Round	1991	63° 19'S, 057° 54'W	17
Henryk Arctowski	Poland	Station	Year-Round	1977	62° 09'S, 058° 28'W	2
Gabriel de Castilla	Spain	Station	Nov-Mar	1990	62° 58'S, 060° 40'W	15
Juan Carlos I	Spain	Station	Nov-Mar	1988	62° 39'S, 060° 23'W	12
Rothera	United Kingdom	Station	Year-Round	1975	67° 34'S, 068° 07'W	16
Signy	United Kingdom	Station	Oct-Mar	1947	60° 42'S, 045° 35'W	5
International Field Camp Peninsula Byers	Spain	Camp	Dec-Feb	2001	62° 39'S, 061° 05'W	10
Fossil Bluff	United Kingdom	Camp	Oct-Mar	1961	71° 19'S, 068° 17'W	92
Sky Blu	United Kingdom	Camp	Oct-Mar	1997	74° 51'S, 071° 35'W	1400
Dallmann	Germany, Argentina	Laboratory	Oct-Mar	1994	62° 14'S, 058° 40'W	10
Dirck Gerritsz	Netherlands	Laboratory	Oct-Mar	2012	67° 34'S, 068° 07'W	16

Table 2 – European facilities in Continental Antarctica

Facility name	Operating / Partner country	Type	Operational period	Opening year	Latitude / Longitude	Altitude (m)
Princess Elisabeth Antarctica	Belgium	Station	Nov-Feb	2009	71° 56'S, 023° 20'E	1382
Aboa	Finland	Station	Dec-Feb	1989	73° 03'S, 013° 25'W	400
Concordia	France, Italy	Station	Year-Round	2005	75° 05'S, 123° 19'E	3233
Dumont d'Urville	France	Station	Year-Round	1956	66° 39'S, 140° 00'E	42
Gondwana	Germany	Station	Oct-Mar	1983	74° 38'S, 164° 13'E	20
Kohnen	Germany	Station	Oct-Mar	2001	75° 00'S, 000° 04'E	2892
Neumayer-Station III	Germany	Station	Year-Round	1981	70° 41'S, 008° 16'W	43
Mario Zucchelli Station	Italy	Station	Oct-Feb	1986	74° 41'S, 164° 07'E	15
Troll	Norway	Station	Year-Round	1990	72° 01'S, 002° 31'E	1275
Wasa	Sweden	Station	Dec-Feb	1989	73° 03'S, 013° 25'W	440
Halley VI	United Kingdom	Station	Year-Round	1956	75° 34'S, 025° 28'W	37
Cap Prud'homme	France, Italy	Camp	Nov-Feb	1994	66° 41'S, 139° 54'E	10
Mid Point	Italy	Camp	Nov-Mar	1998	75° 32'S, 145° 49'E	2520
Browning Pass	Italy	Shelter	Jan-Feb	1997	74° 37'S, 163° 54'E	63
Enigma Lake	Italy	Shelter	Dec-Feb	2005	74° 43'S, 164° 16'E	250
Tor	Norway	Shelter	Nov-Feb	1993	71° 53'S, 005° 09'E	1625

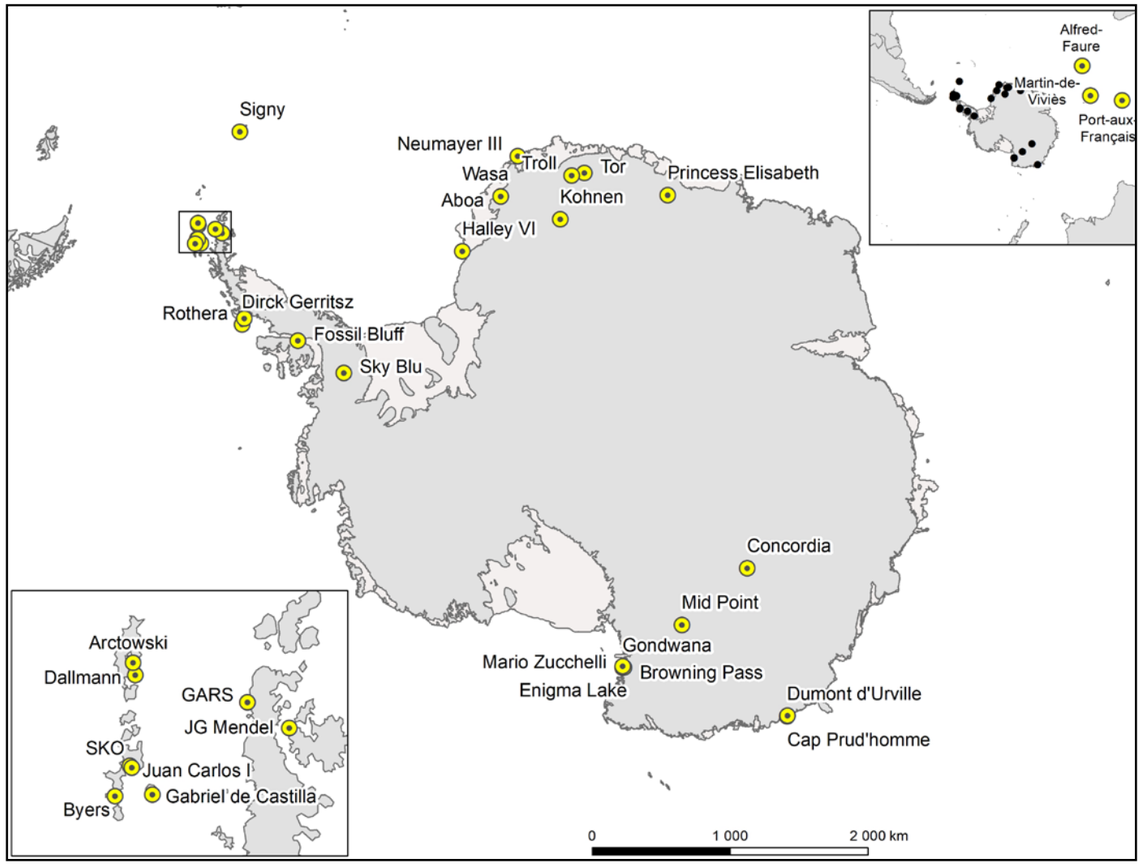


Figure 1 – Map of the Antarctic facilities included in the European Polar Infrastructure Catalogue.

Table 3 – European facilities in the Arctic

Facility name	Operating / Partner country	Type	Operational period	Opening year	Latitude / Longitude	Altitude (m)
Czech Arctic Research Station of Josef Svoboda	Czech Republic	Station	Mar-Oct	2007	78° 13'N, 015° 39'E	2
Faroe Islands Nature Investigation	Faroe Islands	Station	Year-Round	1999	62° 04'N, 006° 58'W	725
Kilpisjärvi Biological Station	Finland	Station	Year-Round	1964	69° 03'N, 020° 50'E	480
Kevo Subarctic Research Station	Finland	Station	Year-Round	1958	69° 45'N, 027° 01'E	80
Värriö Subarctic Research Station	Finland	Station	Year-Round	1967	67° 44'N, 029° 36'E	388
Pallas Research Station	Finland	Station	Year-Round	1991	67° 58'N, 024° 07'E	565
Sodankylä Research Station	Finland	Station	Year-Round	1949	67° 22'N, 026° 39'E	179
Kolari Field Site	Finland	Station	Year-Round	1964	67° 21'N, 023° 49'E	221
Oulanka Research Station	Finland	Station	Year-Round	1966	66° 22'N, 029° 19'E	165
Kainuu Fisheries Research Station	Finland	Station	Year-Round	1935	64° 24'N, 027° 30'E	135
Hyytiälä Forest Research Station	Finland	Station	Year-Round	1995	61° 51'N, 024° 17'E	180
AWIPEV	France	Station	Year-Round	2003	78° 55'N, 011° 55'E	20
Sudurnes Science and Learning Center	Iceland	Station	Year-Round	2012	64° 02'N, 022° 42'W	3
Litla-Skard	Iceland	Station	Year-Round	1996	64° 43'N, 021° 37'W	115
Rif Field Station	Iceland	Station	Year-Round	2014	66° 27'N, 015° 57'W	1
CNR Arctic Station Dirigibile Italia	Italy	Station	Mar-Oct	1997	78° 55'N, 011° 56'E	10
Netherlands Arctic Station	Netherlands	Station	Jun-Aug	1995	78° 55'N, 011° 56'E	10
Sverdrup Research Station	Norway	Station	Year-Round	1968	78° 55'N, 011° 56'E	5
Finse Alpine Research Centre	Norway	Station	Year-Round	1965	60° 36'N, 007° 30'E	1215
NIBIO Svanhovd Research Station	Norway	Station	Year-Round	1934	69° 27'N, 030° 03'E	35
Polish Polar Station Hornsund	Poland	Station	Year-Round	1957	77° 00'N, 015° 33'E	9
Svartberget Research Station	Sweden	Station	Year-Round	1923	64° 14'N, 019° 45'E	230
Abisko Scientific Research Station	Sweden	Station	Year-Round	1911	68° 21'N, 018° 49'E	385
Tarfala Research Station	Sweden	Station	Mar-Sep	1946	67° 55'N, 018° 35'E	1130
UK Arctic Research Station	United Kingdom	Station	Mar-Sep	1991	78° 55'N, 011° 56'E	0
Arctic Station	Greenland	Station	Year-Round	1906	69° 15'N, 053° 34'W	20
Greenland Institute of Natural Resources	Greenland	Station	Year-Round	1995	64° 11'N, 051° 41'W	50
Villum Research Station	Greenland	Station	Year-Round	1990	81° 36'N, 016° 39'W	30
Summit Station	Greenland	Station	Year-Round	1989	72° 34'N, 038° 27'W	3210
Sermilik Research Station	Greenland	Station	May-Sep	1970	65° 40'N, 037° 54'W	15
EGRIP Field Station	Greenland	Station	Seasonal	2015	75° 38'N, 036° 00'W	2708
Zackenberg Research Station	Greenland	Station	Seasonal	1995	74° 28'N, 020° 34'W	38

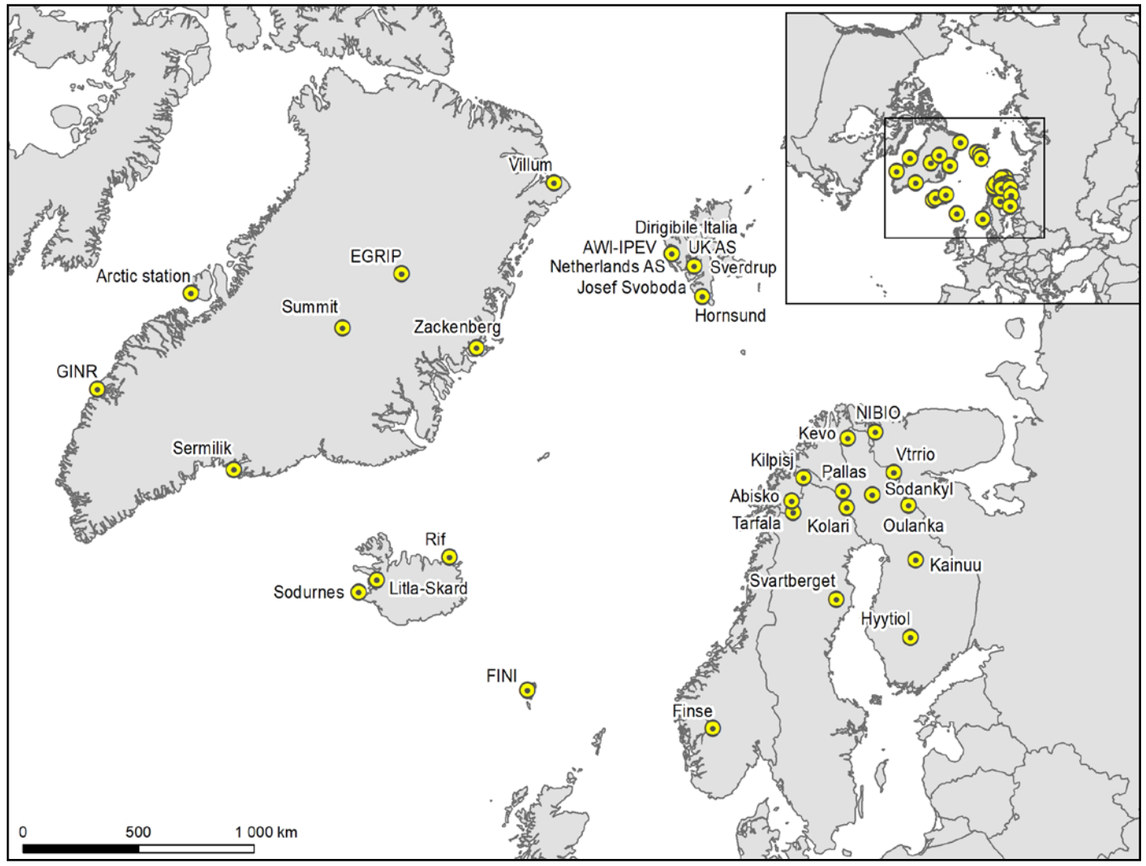


Figure 2 – Map of the Arctic facilities included in the European Polar Infrastructure Catalogue.

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Värriö Subarctic Research Station (SMEAR I) 35
AWIPEV Arctic Research Base 37
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Mario Zucchelli Station 105
Troll 107
Henryk Arctowski 109
Gabriel de Castilla 111
Juan Carlos I 113
Wasa 115
Halley VI 117
Rothera 119
Signy 121

Photo 1 - Crozet Island, Baie du Marin (Credit: IPEV)"

Czech Arctic Research Station of Josef Svoboda



78° 13’ 23” N, 15° 39’ 32” E, Altitude 2m — Arctic

Czech Republic

Josef Svoboda Station
University of South Bohemia
in České Budějovice
CENTRE FOR POLAR ECOLOGY

The Czech Arctic Research Station of Josef Svoboda is owned by the University of South Bohemia in the Czech Republic.

The Czech research facilities in Svalbard consist of a research base in Longyearbyen called “Payer’s house” and a field camp in the central part of Svalbard in Billefjorden (called Nostoc houses). Field activities are mainly taking place in Petuniabukta in the northernmost part of Billefjorden.

The sites are accessible by foot or rubber boat. For longer distances the 15m moto-sailer (for up to 10 persons, four overnight) is available.



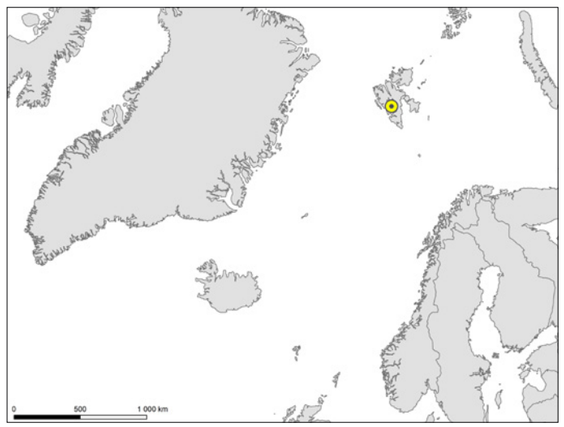


Climate

Climate zone	High Arctic
Total annual precipitation (mm)	270
Precipitation type	Snow Rain Other
Permafrost	None Sporadic Continuous Discontinuous
Snow free period	June - September
Temperature	
Mean annual temperature (°C)	-6
Mean temperature January (°C)	-5
Mean temperature July (°C)	8
Observation period start	1st September 2011
Observation period end	31st March 2016

Access

Air	Sea	Land



http://polar.prf.jcu.cz/josef-svoboda-research-station

Facility information

Status	Open Closed
Facility type	Station Laboratory Camp
Area under roof (m²)	120
Opening year	2007
Operational period	March - October
Staff at peak	4
Scientist at peak	4

Lab types

Biology	Chemistry
Geology	Geophysics
Scientific diving	None

GIS

Communications

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

Medical facilities

Facilities	Yes / No
Staff medically trained	Non-medical trained person Nurse Medical doctor
Staff with basic medical training in summer	0
Staff with basic medical training in winter	0
Medical screening required	

Transportation to facility

Airplane	Helicopter
Ship	Skidoo
Walking	4WD
Car	

Photos

1 - Crozet Baie du Marin - IPEV

2 - Czech Arctic Station Flowtracker (Credit: Jan Kavan)

3 - Payers House (Credit: Centre for Polar Ecology)

4 - M/S Clione (Credit: Centre for Polar Ecology)

Scientific disciplines

Anthropology	Human biology
Archaeology	Hydrology
Astrophysics	Isotopic chemistry
Atmospheric sciences	Limnology
Climate change	Mapping
Climatology	Marine biology
Ecology	Medical research
Environmental sciences	Medicine
Fishery	Microbiology
Geocryology	Oceanography
Geodesy	Paleontology
Geology	Pollution
Geomorphology	Sedimentology
Geophysics & seismology	Sociology / Social science
GIS	Soil science
Glaciology	Terrestrial biology

Other disciplines

Biology, Botany, Entomology, Parasitology, Palaeoecology, Paleolimnology, Zoology.

Specific devices

Climate stations, GPS, basic laboratory equipment, different surveying equipment, diving equipment, coring device, OTC, etc.

Long-term monitoring

Temperature, Precipitation, Solar radiation, Pollen deposition, Glacier monitoring, Plant traits.



Faroe Islands Nature Investigation (FINI)



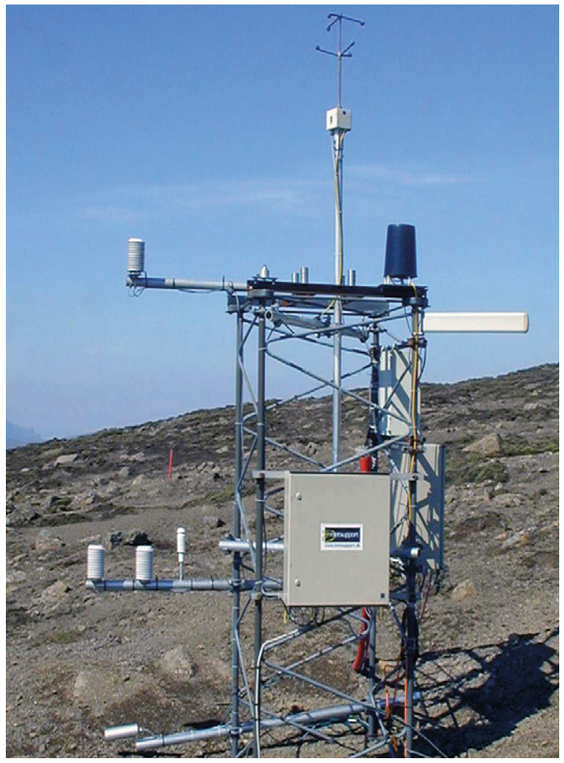
62° 04’ 00” N, 06° 58’ 00” W, Altitude 725m

Sub-Arctic

Faroe Islands

The Faroe Islands Nature Investigation (FINI) belongs to Jarðfeingi (Faroese Geological Survey) and partners.

FINI comprises a growing number of monitoring sites placed on public and private land in the Faroe Islands. The 18 islands form a self-governing country under the sovereignty of the Kingdom of Denmark. The total area is approximately 1400 km2 and has a population of almost 50000 people (2010). The monitoring sites are placed on mountain slopes and summits that are accessible within an hour hike from the road and within an hour drive by car from the capital Tórshavn.

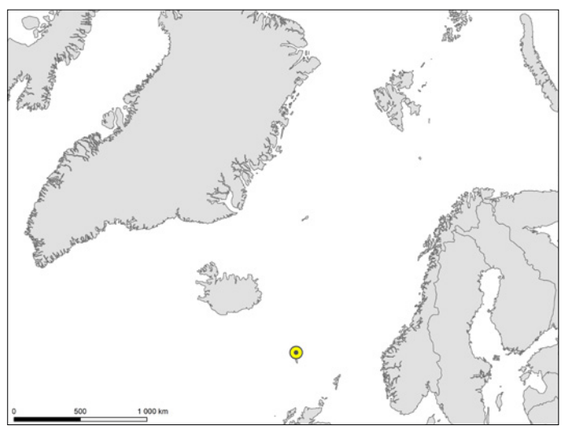


Climate

Climate zone	Sub-Arctic
Total annual precipitation (mm)	1284
Precipitation type	Snow Rain Other
Permafrost	None Sporadic Continuous Discontinuous
Snow free period	July August September
Temperature	
Mean annual temperature (°C)	1.71
Mean temperature January (°C)	
Mean temperature July (°C)	8
Observation period start	1st October 1999
Observation period end	

Access

Air	**Sea**	Land



Facility information

Status	Open Closed
Facility type	Station Laboratory Camp
Area under roof (m²)	100
Opening year	1999
Operational period	Year-Round
Staff at peak	1
Scientist at peak	10

Lab types

Biology	Chemistry
Geology	Geophysics
Scientific diving	None

Other: GIS

Communications

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

Medical facilities

Facilities	Yes / No
Staff medically trained	Non-medical trained person Nurse Medical doctor
Staff with basic medical training in summer	0
Staff with basic medical training in winter	0
Medical screening required	Yes / No

Transportation to facility

Airplane	Helicopter
Ship	Skidoo
Walking	4WD
Car	Other

Photos

1 - FINI Settlement (Credit: Lis Mortensen)

2 - FINI Sornfelli measuring station (Credit: Lis Mortensen)

3 - FINI Lighthouse on island (Credit: Lis Mortensen)

Scientific disciplines

Anthropology	Human biology
Archaeology	Hydrology
Astrophysics	Isotopic chemistry
Atmospheric sciences	Limnology
Climate change	Mapping
Climatology	Marine biology
Ecology	Medical research
Environmental sciences	Medicine
Fishery	Microbiology
Geocryology	Oceanography
Geodesy	Paleontology
Geology	Pollution
Geomorphology	Sedimentology
Geophysics & seismology	Sociology / Social science
GIS	Soil science
Glaciology	Terrestrial biology

Scientific services

Logistical scientific services.

Long-term monitoring

Climate/weather, greenhouse gases, phenology.



Station

Hyytiälä Forest Research Station (SMEAR II)



61° 51’ 00” N, 24° 17’ 00” E, Altitude 180m — Sub-Arctic

Finland

The Hyytiälä Forest Research Station is managed by University of Helsinki, Department of Forest Sciences and the SMEAR II station (Station for Measuring Ecosystem Atmosphere Relations) by Department of Physics.

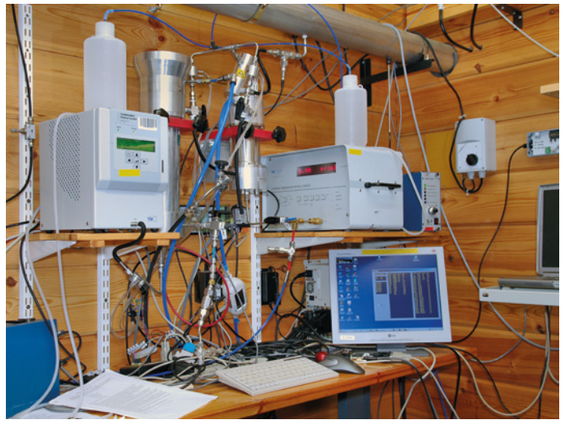
The area is a boreal mixed-coniferous forest with several small lakes and wetlands. The overall altitude is about 180 m a.s.l. Most forests in the vicinity are state owned and managed with normal forestry practices in cooperation with the station. Several protected mire ecosystems are located in Siikaneva, 10 km southwest of the station. Nearest population centre and industry, is located in Juupajoki, 10 km away. The nearest larger city, Tampere (c. 200000 inhabitants), is located about 60 km from the research station.

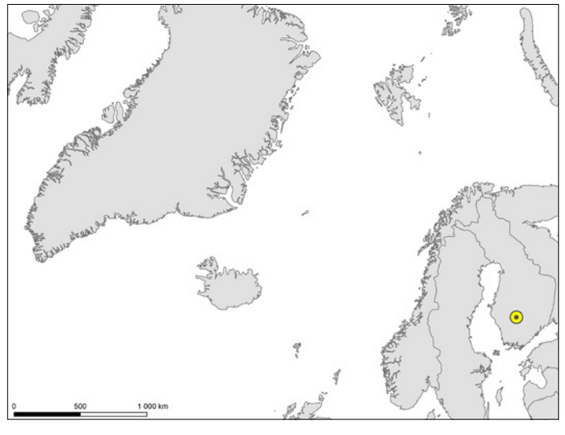
Climate

Climate zone	High Arctic
Total annual precipitation (mm)	697
Precipitation type	Snow Rain Other
Permafrost	None Sporadic Continuous Discontinuous
Snow free period	April - November
Temperature	
Mean annual temperature (°C)	3.5
Mean temperature January (°C)	-7.2
Mean temperature July (°C)	16
Observation period start	
Observation period end	

Access

Air — Sea — **Land**





www.atm.helsinki.fi/SMEAR/index.php/smear-ii

Facility information

Status	Open Closed
Facility type	Station Laboratory Camp
Area under roof (m²)	5733
Opening year	1995
Operational period	Year-Round
Staff at peak	25
Scientist at peak	25

Lab types

Biology	Chemistry
Geology	Geophysics
Scientific diving	None

Communications

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

Medical facilities

Facilities	Yes / No
Staff medically trained	Non-medical trained person Nurse Medical doctor
Staff with basic medical training in summer	0
Staff with basic medical training in winter	0
Medical screening required	

Transportation to facility

Airplane	Helicopter
Ship	Skidoo
Walking	4WD
Car	Other

Photos

1 - Hyytiälä_Hyytiälä Forestry Field Station (Credit: Juho Aalto)

2 - Hyytiälä_SmearII aerosol measurement devices (Credit: Juho Aalto)

3 - Hyytiälä SmearII measurement tower II (Credit: Juho Aalto)

Scientific disciplines

Anthropology	Human biology
Archaeology	Hydrology
Astrophysics	Isotopic chemistry
Atmospheric sciences	Limnology
Climate change	Mapping
Climatology	Marine biology
Ecology	Medical research
Environmental sciences	Medicine
Fishery	Microbiology
Geocryology	Oceanography
Geodesy	Paleontology
Geology	Pollution
Geomorphology	Sedimentology
Geophysics & seismology	Sociology / Social science
GIS	Soil science
Glaciology	Terrestrial biology

Other disciplines

Ecosystem services, land-use change.

Specific devices

Advanced laboratory equipment.

Scientific services

Technical support, lab assistance, open access to all data.





Kainuu Fisheries Research Station

64° 24’ 00” N, 27° 30’ 00” E, Altitude 135m | Sub-Arctic

Finland

Kainuu Fisheries Research Station belongs to the Natural Resources Institute Finland (Luke).

The Kainuu Fisheries Research Station is located c. 320 km south of the Arctic Circle, 135 km east of Oulu, 55 km west of Kajaani (nearest town) and c. 120 km west from the Russian border. The station lies in the commune of Paltamo, Finland (64°24’ N, 27°30’ E) and is situated on the bank of the River Varisjoki which flows into the Lake Oulujärvi. Distance to the nearest neighbouring Interact research station (Oulanka) by car is 303 km.



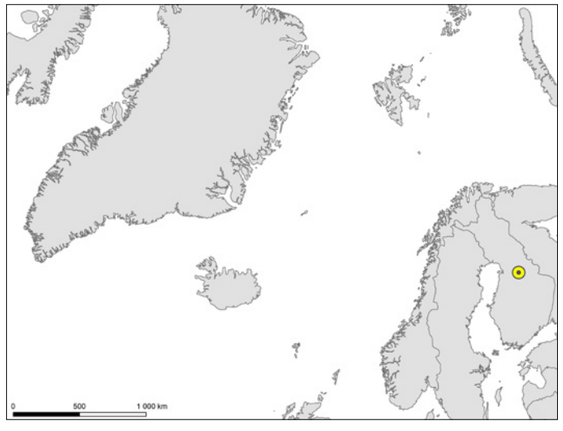


Climate

Climate zone	Sub-Arctic
Total annual precipitation (mm)	625
Precipitation type	Snow Rain Other
Permafrost	None Sporadic Continuous Discontinuous
Snow free period	June - October
Temperature	
Mean annual temperature (°C)	1.8
Mean temperature January (°C)	-10.8
Mean temperature July (°C)	15.3
Observation period start	
Observation period end	

Access

Air	Sea	**Land**



www.kfrs.fi

Facility information

Status	Open Closed
Facility type	Station Laboratory Camp
Area under roof (m²)	3143
Opening year	1935
Operational period	Year-Round
Staff at peak	10
Scientist at peak	5

Lab types

Biology	Chemistry
Geology	Geophysics
Scientific diving	None

Seminatural streams and ponds.

Communications

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

Medical facilities

Facilities	Yes / No
Staff medically trained	Non-medical trained person Nurse Medical doctor
Staff with basic medical training in summer	0
Staff with basic medical training in winter	0
Medical screening required	Yes / No

Transportation to facility

Airplane	Helicopter
Ship	Skidoo
Walking	4WD
Car	Other

Photos

1 - KainuuKFRS Aerial view of station (Credit: Marco Blixt)

2 - KainuuKFRS Accommodation building (Credit: Pekka Hyvärinen)

3 - KainuuKFRS searching radio tagged trout from Lake Oulujärvi (Credit: Anssi Vainikka)

4 - KainuuKFRS Aerial view of station (Credit: Marco Blixt)

5 - KainuuKFRS Kivesvaara hill 10 km from KFRS (Credit: Petra Rodewald)

Scientific disciplines

Anthropology	Human biology
Archaeology	Hydrology
Astrophysics	Isotopic chemistry
Atmospheric sciences	Limnology
Climate change	Mapping
Climatology	Marine biology
Ecology	Medical research
Environmental sciences	Medicine
Fishery	Microbiology
Geocryology	Oceanography
Geodesy	Paleontology
Geology	Pollution
Geomorphology	Sedimentology
Geophysics & seismology	Sociology / Social science
GIS	Soil science
Glaciology	Terrestrial biology

Specific devices

Basic laboratory equipment.

Scientific services

Technical support available.

Long-term monitoring

Stationary PIT-telemetry devices







Kevo Subarctic Research Station

69° 45’ 00” N, 27° 01’ 00” E, Altitude 80m | Sub-Arctic

Finland

The Kevo Subarctic Research Station is managed by the Kevo Subarctic Research Institute which is based at the University of Turku.

Kevo Subarctic Research Station is located in Utsjoki at the northernmost tip of Finland only about hundred kilometres from the coast of the Arctic Ocean (69°45’ N, 27°01’ E) right next to Kevo Strict Nature Reserve (712 km2). It lies about 60 km north of the continuous pine forest line and belongs to the subarctic Mountain Birch Forest Zone close to both the local pine tree line and the birch tree line at the forest-tundra ecotone.



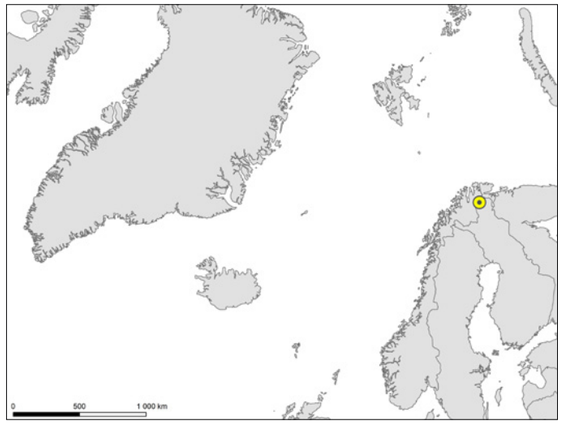


Climate

Climate zone	Sub-Arctic
Total annual precipitation (mm)	415
Precipitation type	Snow Rain Other
Permafrost	None Sporadic Continuous Discontinuous
Snow free period	June - October
Temperature	
Mean annual temperature (°C)	-1.4
Mean temperature January (°C)	-14.5
Mean temperature July (°C)	13
Observation period start	1st January 1962
Observation period end	31st December 2017

Access

Air	Sea	**Land**



www.utu.fi/kevo

Facility information

Status	Open Closed
Facility type	Station Laboratory Camp
Area under roof (m²)	2550
Opening year	1958
Operational period	Year-Round
Staff at peak	12
Scientist at peak	1

Lab types

Biology	Chemistry
Geology	Geophysics
Scientific diving	None

Communications

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

Medical facilities

Facilities	Yes / No
Staff medically trained	Non-medical trained person Nurse Medical doctor
Staff with basic medical training in summer	7
Staff with basic medical training in winter	4
Medical screening required	Yes / No

Transportation to facility

Airplane	Helicopter
Ship	Skidoo
Walking	4WD
Car	Other

Photos

1 - KEVO Utsjoki river valley (Credit: Otso Suominen)

2 - KEVO Botanical field work (Credit: Elina Vainio)

3 - KEVO Lake fieldwork, fish net (Credit: Elina Vainio)

Scientific disciplines

Anthropology	Human biology
Archaeology	Hydrology
Astrophysics	Isotopic chemistry
Atmospheric sciences	Limnology
Climate change	Mapping
Climatology	Marine biology
Ecology	Medical research
Environmental sciences	Medicine
Fishery	Microbiology
Geocryology	Oceanography
Geodesy	Paleontology
Geology	Pollution
Geomorphology	Sedimentology
Geophysics & seismology	Sociology / Social science
GIS	Soil science
Glaciology	Terrestrial biology

Other disciplines

Bacteriology, Biochemistry, Biogeography, Biology, Botany, Ecosystem modelling, Entomology and parasitology, Evolutionary biology, Genetics, Geochemistry, Humanities, Meteorology, Natural resource management, Paleobiology, Paleoclimatology, Paleoecology, Population monitoring, Zoology, Land use.

Specific devices

Basic laboratory equipment.

Scientific services

Sampling for remote users, field work assistance.

Long-term monitoring

Weather and hydrology (1962-), seismography (1961-), plant phenology (1968-), aerial pollen (1976), lepidoptera (1972-), rodent (1981-), bird (1982-), herbivorous insect (1986-), and bat (2015-) populations



Kilpisjärvi Biological Station

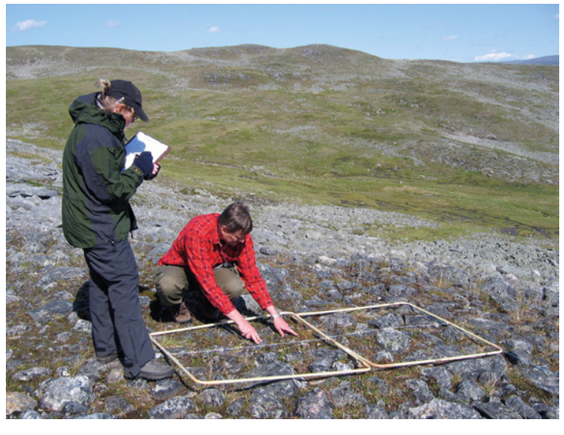
69° 03’ 00” N, 20° 50’ 00” E, Altitude 480m — Sub-Arctic

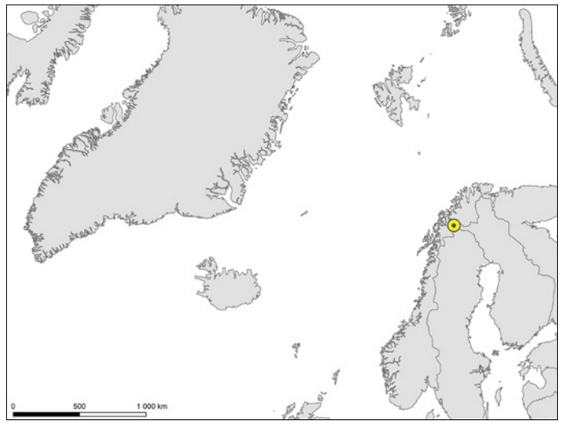
Finland

The Kilpisjärvi Biological Station belongs to the University of Helsinki (Faculty of Biological and Environmental Sciences).

The station is situated in the community of Enontekiö in the northwestern part of Finnish Lapland (69°03’ N, 20°50’ E) on the shore of Lake Kilpisjärvi at 475 m a.s.l. close to Sweden and Norway.







Climate

Climate zone	Sub-Arctic
Total annual precipitation (mm)	447
Precipitation type	Snow Rain Other
Permafrost	None Sporadic Continuous Discontinuous
Snow free period	June - September
Temperature	
Mean annual temperature (°C)	-2.23
Mean temperature January (°C)	
Mean temperature July (°C)	11
Observation period start	
Observation period end	

Access

Air — Sea — **Land**

Facility information

Status	Open Closed
Facility type	Station Laboratory Camp
Area under roof (m²)	1760
Opening year	1964
Operational period	Year-Round
Staff at peak	10
Scientist at peak	3

Lab types

Biology	Chemistry
Geology	Geophysics
Scientific diving	None

Communications

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

Medical facilities

Facilities	Yes / No
Staff medically trained	Non-medical trained person Nurse Medical doctor
Staff with basic medical training in summer	0
Staff with basic medical training in winter	0
Medical screening required	Yes / No

Transportation to facility

Airplane	Helicopter
Ship	Skidoo
Walking	4WD
Car	

Photos

1 - Kilpisjärvi Kilpisjärvi village overview (Credit: Rauni Partanen)

2 - Kilpisjärvi Station in winter (Credit: Oula Kalttopää)

3 - Kilpisjärvi Botanical field work (Credit: Lauri Järvinen)

4 - Kilpisjärvi Reindeer on the road (Credit: Antero Järvinen)

Scientific disciplines

Anthropology	Human biology
Archaeology	Hydrology
Astrophysics	Isotopic chemistry
Atmospheric sciences	Limnology
Climate change	Mapping
Climatology	Marine biology
Ecology	Medical research
Environmental sciences	Medicine
Fishery	Microbiology
Geocryology	Oceanography
Geodesy	Paleontology
Geology	Pollution
Geomorphology	Sedimentology
Geophysics & seismology	Sociology / Social science
GIS	Soil science
Glaciology	Terrestrial biology

Other disciplines

Paleoecology, Palelimnology, Land use, Community based monitoring, Citizen Science.

Long-term monitoring

Plants, birds, small rodents.



www.helsinki.fi/kilpis



Kolari Field Site

67° 21’ 00” N, 23° 49’ 00” E, Altitude 221m | Sub-Arctic

Finland

The Kolari Field Site belongs to the Natural Resources Institute Finland.

The Kolari Reseach Unit is located in northwest Finland at 67° N, close to the Swedish border. The surrounding area consists of northern boreal taiga forests and swamps, as well as mountains up to 700 m a.s.l. Kolari village is approximately 4 km, and the Muonio River is approximately 300 meters away from the station. The Pallas-Ylläs National Park is located 30 km from station. With almost half a million annual visitors, it is Finland’s best known national park.



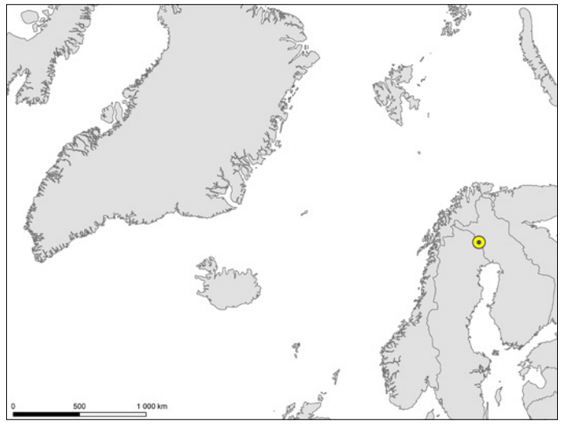


Climate

Climate zone	Sub-Arctic
Total annual precipitation (mm)	552
Precipitation type	Snow Rain Other
Permafrost	None Sporadic Continuous Discontinuous
Snow free period	June - October
Temperature	
Mean annual temperature (°C)	0.8
Mean temperature January (°C)	
Mean temperature July (°C)	15.4
Observation period start	
Observation period end	

Access

Air	Sea	Land



www.luke.fi/en

Facility information

Status	Open Closed
Facility type	Station Laboratory Camp
Area under roof (m²)	550
Opening year	1964
Operational period	Year-Round
Staff at peak	0
Scientist at peak	0

Lab types

Biology	Chemistry
Geology	Geophysics
Scientific diving	None

Communications

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

Medical facilities

Facilities	Yes / No
Staff medically trained	Non-medical trained person Nurse Medical doctor
Staff with basic medical training in summer	0
Staff with basic medical training in winter	0
Medical screening required	

Transportation to facility

Airplane	Helicopter
Ship	Skidoo
Walking	4WD
Car	Other

Photos

1 - Kolari Kolari Research Station (Credit: Mikko Jokinen)

2 - Kolari Field work (Credit: Erkki Oksanen)

3 - Kolari ATV in landscape (Credit: Hannu Herva)

4 - Kolari Botanical field work - group (Credit: Heikki Kauhanen)

5 - Kolari Winter landscape (Credit: Mikko Jokinen)

Scientific disciplines

Anthropology	Human biology
Archaeology	Hydrology
Astrophysics	Isotopic chemistry
Atmospheric sciences	Limnology
Climate change	Mapping
Climatology	Marine biology
Ecology	Medical research
Environmental sciences	Medicine
Fishery	Microbiology
Geocryology	Oceanography
Geodesy	Paleontology
Geology	Pollution
Geomorphology	Sedimentology
Geophysics & seismology	Sociology / Social science
GIS	Soil science
Glaciology	Terrestrial biology

Other disciplines

Community based monitoring, Citizen Science, Ecosystem services, Land usage.

Specific devices

Light table, 2 heat closets, 5 exsiccator, 4 microscopes, 4 scales, ultrasonic washer, fume chamber.





Station



Oulanka Research Station

66° 22’ 00” N, 29° 19’ 00” E, Altitude 165m — Sub-Arctic

Finland

UNIVERSITY OF OULU

Oulanka Research Station was founded in 1966. It is part of the Infrastructure Platform of University of Oulu and is a regional unit of the university in Kuusamo, Finland.

Oulanka Research Station is situated in the river valley of Oulanka within the Oulanka National Park (66°22’ N, 29°19’ E, 167 m a.s.l.). The station is located c. 25 km south of the Arctic Circle, 13 km west of the Russian border, about 280 km northeast of Oulu, and 55 km north of Kuusamo.



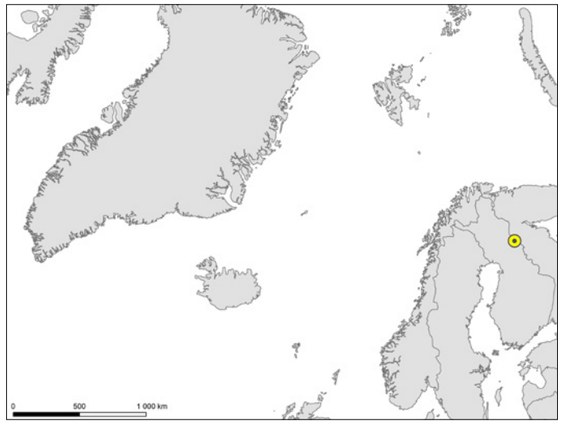


Climate

Climate zone	Sub-Arctic
Total annual precipitation (mm)	540
Precipitation type	Snow Rain Other
Permafrost	None Sporadic Continuous Discontinuous
Snow free period	June - September
Temperature	
Mean annual temperature (°C)	-0.4
Mean temperature January (°C)	-14.8
Mean temperature July (°C)	14.9
Observation period start	
Observation period end	

Access

Air	Sea	**Land**



www.oulu.fi/oulankaresearchstation/

Facility information

Status	Open Closed
Facility type	Station Laboratory Camp
Area under roof (m²)	1674
Opening year	1966
Operational period	Year-Round
Staff at peak	8
Scientist at peak	15

Lab types

Biology	Chemistry
Geology	Geophysics
Scientific diving	None

Microscope imaging laboratory facilities.

Communications

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

Medical facilities

Facilities	Yes / No
Staff medically trained	Non-medical trained person Nurse Medical doctor
Staff with basic medical training in summer	0
Staff with basic medical training in winter	0
Medical screening required	Yes / No

Transportation to facility

Airplane	Helicopter
Ship	Skidoo
Walking	4WD
Car	Ski
Other	

Photos

1 - Oulanka Research Station (Credit: Pirkko Siikamäki)

2 - Oulanka Autumn trees and lake (Credit: Pirkko Siikamäki)

3 - Oulanka Student lab (Credit: Pirkko Siikamäki)

4 - Oulanka Electro-fishing (Credit: Pirkko SiikamÑki)

Scientific disciplines

Anthropology	Human biology
Archaeology	Hydrology
Astrophysics	Isotopic chemistry
Atmospheric sciences	Limnology
Climate change	Mapping
Climatology	Marine biology
Ecology	Medical research
Environmental sciences	Medicine
Fishery	Microbiology
Geocryology	Oceanography
Geodesy	Paleontology
Geology	Pollution
Geomorphology	Sedimentology
Geophysics & seismology	Sociology / Social science
GIS	Soil science
Glaciology	Terrestrial biology

Other disciplines

Paleoecology, Paleolimnology, Land use change.

Specific devices

Advanced weather station, differential GPS, basic laboratory equipment, different surveying equipment, state-of-the-art microscope systems (stereo, light, plankton, polarizing, phase contrast, fluorescence, Z-stacking, real-time video, imaging system), highly equipped analysis lab, EMEP-station (FMI owned)

Scientific services

Tech support, some field support, access to time-series biological and phys.chem data, analysis lab access/assistance.





Pallas Research Station

67° 58’ 00” N, 24° 07’ 00” E, Altitude 565m | Sub-Arctic

Finland

FINNISH METEOROLOGICAL INSTITUTE

The Pallas-Sodankylä Research Station consist of a clean air research station in Pallas and a research station in Sodankylä, those stations forms comprehensive infrastructure for atmospheric and ecosystems research. The Pallas facility is owned by the Finnish Meteorological Institute (FMI).

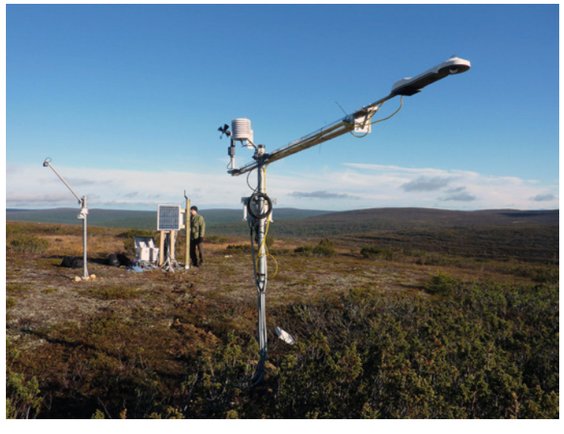
Pallas main station is located in western Lapland (67°58’ N, 24°07’ E) in Pallas fell. There are five measuring stations at the Pallas area: an automatic weather stations (AWS), Laukukero (68°04’N, 24°02’E, 765 m above sea level), and four stations measuring air composition. The main station, Sammaltunturi (67°58’N, 24°07’E, WMO index number 05821), is on a top of a fjeld (an Arctic hill), at the height of 565 m above sea level (a.s.l.), and ca. 300 m above the surrounding area. Matorova (68°00’N, 24°14’E) lies about six kilometres ENE of Sammaltunturi at of 340 m a.s.l. Kenättärova station (67°59’N, 24°15’E, 347 m a.s.l.) is situated 1.4 km south of the Matorova station. It lies with spruce forest, and is used to measure greenhouse gas fluxes. The newest station, Lompolojänkkä (68°00’N, 24°13’E, 269 m a.s.l.), is measuring green house gas fluxes in an aapa mire. The Laukukero and Sammaltunturi stations are within the Pallas-Yllästunturi National Park, inside the northern boreal forest.

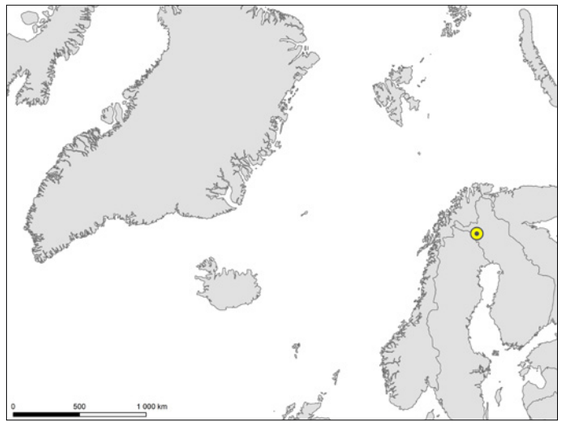
Climate

Climate zone	Sub-Arctic
Total annual precipitation (mm)	527
Precipitation type	Snow Rain Other
Permafrost	None Sporadic Continuous Discontinuous
Snow free period	June - October
Temperature	
Mean annual temperature (°C)	-0.6
Mean temperature January (°C)	-10.4
Mean temperature July (°C)	12.3
Observation period start	1st January 1996
Observation period end	31st December 2015

Access

Air	Sea	**Land**





Station

Facility information

Status	Open Closed
Facility type	Station Laboratory Camp
Area under roof (m²)	120
Opening year	1991
Operational period	Year-Round
Staff at peak	0
Scientist at peak	0

Lab types

Biology	Chemistry
Geology	Geophysics
Scientific diving	None

Communications

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

Medical facilities

Facilities	Yes / No
Staff medically trained	Non-medical trained person Nurse Medical doctor
Staff with basic medical training in summer	0
Staff with basic medical training in winter	0
Medical screening required	Yes / No

Transportation to facility

Airplane	Helicopter
Ship	Skidoo
Walking	4WD
Car	Ski
Other	

Photos

1 - Pallas Sodankylä Station building (Credit: Riika Ylitalo)

2 - Pallas Sodankylä Measuring station in landscape (Credit: Juho Vehviläinen)

3 - Pallas Sodankylä Station and measuring site (Credit: Rigel Kivi)

4 - Pallas Sodankylä Measuring station - winter (Credit: Riika Ylitalo)

Scientific disciplines

Anthropology	Human biology
Archaeology	Hydrology
Astrophysics	Isotopic chemistry
Atmospheric sciences	Limnology
Climate change	Mapping
Climatology	Marine biology
Ecology	Medical research
Environmental sciences	Medicine
Fishery	Microbiology
Geocryology	Oceanography
Geodesy	Paleontology
Geology	Pollution
Geomorphology	Sedimentology
Geophysics & seismology	Sociology / Social science
GIS	Soil science
Glaciology	Terrestrial biology

Scientific services

Technical support.

Long-term monitoring

Ground weather observations, Air chemistry observations.





Sodankylä Research Station



67° 22’ 00” N, 26° 39’ 00” E, Altitude 179m — Sub-Arctic

Finland

FINNISH METEOROLOGICAL INSTITUTE

Sodankylä Research Station in Sodankylä is hosted and owned by the Finnish Meteorological Institute.

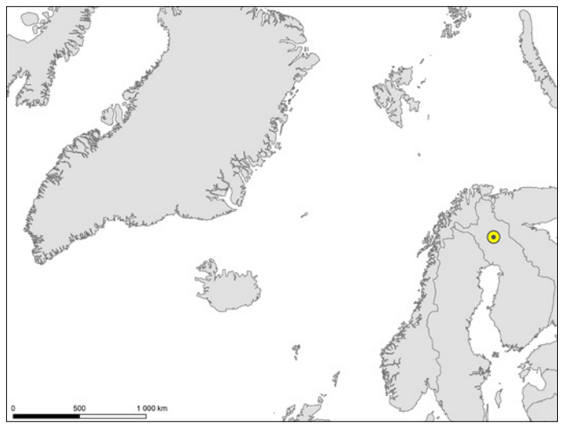
The Sodankylä facility (67°22’ N, 26°39’ E) is located in central Lapland within the boreal forest region. The station is not part of any national park, but the area (c. 2 km2) is dedicated to atmospheric, atmosphere-biosphere interaction, hydrological and geophysical research with in situ observations for satellite calibration and validation including distributed networks, and therefore has limited public access. The area is surrounded by forest and swamps owned by the Finnish government.

Climate

Climate zone	Sub-Arctic
Total annual precipitation (mm)	527
Precipitation type	Snow Rain Other
Permafrost	None Sporadic Continuous Discontinuous
Snow free period	June - September
Temperature	
Mean annual temperature (°C)	-0.4
Mean temperature January (°C)	-13.5
Mean temperature July (°C)	14.5
Observation period start	1st January 1981
Observation period end	31st December 2010

Access

Air	Sea	**Land**



http://fmiarc.fmi.fi

Facility information

Status	Open Closed
Facility type	Station Laboratory Camp
Area under roof (m²)	1500
Opening year	1949
Operational period	Year-Round
Staff at peak	30
Scientist at peak	15

Lab types

Biology	Chemistry
Geology	Geophysics
Scientific diving	None

Other

Communications

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

Medical facilities

Facilities	Yes / No
Staff medically trained	Non-medical trained person Nurse Medical doctor
Staff with basic medical training in summer	0
Staff with basic medical training in winter	0
Medical screening required	

Transportation to facility

Airplane	Helicopter
Ship	Skidoo
Walking	4WD
Car	Other

Photos

1 - Sodankylä (Credit: Unknown)

Scientific disciplines

Anthropology	Human biology
Archaeology	Hydrology
Astrophysics	Isotopic chemistry
Atmospheric sciences	Limnology
Climate change	Mapping
Climatology	Marine biology
Ecology	Medical research
Environmental sciences	Medicine
Fishery	Microbiology
Geocryology	Oceanography
Geodesy	Paleontology
Geology	Pollution
Geomorphology	Sedimentology
Geophysics & seismology	Sociology / Social science
GIS	Soil science
Glaciology	Terrestrial biology

Other disciplines

Paleolimnology, Land use change.

Specific devices

Advanced solar instruments, including FTS, satellite receivers, radiometers, lidars.

Scientific services

Technical support.

Long-term monitoring

Ground weather observations (Temperature, air pressure, humidity, wind, precipitation, clouds, visibility, snow depth), Soundings, Solar radiation observations, Soil and snow observations, Microwave observations, Air chemistry observations, Satellite reception.



Värriö Subarctic Research Station (SMEAR I)

67° 44’ 00” N, 29° 36’ 00” E, Altitude 388m | Sub-Arctic

Finland

Värriö Subarctic Research Station is managed by University of Helsinki, Institute for Atmospheric and Earth System Research INAR.

The area is a subarctic pine forest with several mountains and ridges reaching 500–600 m a.s.l. The station is located in the Värriö Strict Nature Reserve, and thus access without permission is forbidden. Small lakes, wetlands, and rivers are located around the station, which lies on the south facing slope of a small hill. Nearest population centres and industry are 100 km away.





Climate

Climate zone	Sub-Arctic
Total annual precipitation (mm)	600
Precipitation type	Snow Rain Other
Permafrost	None Sporadic Continuous Discontinuous
Snow free period	June July August
Temperature	
Mean annual temperature (°C)	-0.4
Mean temperature January (°C)	-11.7
Mean temperature July (°C)	13.3
Observation period start	1st August 1974
Observation period end	31st July 2018

Access

Air	Sea	**Land**



www.atm.helsinki.fi/varrio/fi

Facility information

Status	Open Closed
Facility type	Station Laboratory Camp
Area under roof (m²)	297
Opening year	1967
Operational period	Year-Round
Staff at peak	2
Scientist at peak	2

Lab types

Biology	Chemistry
Geology	Geophysics
Scientific diving	None

Communications

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

Medical facilities

Facilities	Yes / No
Staff medically trained	Non-medical trained person Nurse Medical doctor
Staff with basic medical training in summer	0
Staff with basic medical training in winter	0
Medical screening required	Yes / No

Transportation to facility

Airplane	Helicopter
Ship	Skidoo
Walking	4WD
Car	Other

Photos

1 - Värriö Subarctic Research Station - Accomodation building (Credit: Olli Peltola)

2 - Värriö Subarctic Research Station - SMEAR I shed from tower (Credit: Aleksi Mikola)

3 - Värriö Subarctic Research Station - Soil sampling (Credit: Olli Peltola)

Scientific disciplines

Anthropology	Human biology
Archaeology	Hydrology
Astrophysics	Isotopic chemistry
Atmospheric sciences	Limnology
Climate change	Mapping
Climatology	Marine biology
Ecology	Medical research
Environmental sciences	Medicine
Fishery	Microbiology
Geocryology	Oceanography
Geodesy	Paleontology
Geology	Pollution
Geomorphology	Sedimentology
Geophysics & seismology	Sociology / Social science
GIS	Soil science
Glaciology	Terrestrial biology

Other disciplines

Paleoecology, Paleolimnology.

Specific devices

Very basic lab equipment, field equipment.

Scientific services

Technical support, support for field work, open access to all data.

Long-term monitoring

A full range of measurements on atmospheric and ecosystem processes (photosynthesis, respiration, transpiration) at SMEAR I station, additionally systematic bird nests, transects for migrating birds, precipitation gauges, phenology observations etc.

AWIPEV Arctic Research Base



78° 55’ 24” N, 11° 55’ 15” E, Altitude 20m — Arctic

France / Germany

AWIPEV Arctic Research Base at Ny-Ålesund / Spitsbergen is owned by the German Alfred Wegener Institute (AWI) and the French Polar Institute Paul Emile Victor (IPEV) which operate their research stations as the joint French-German Arctic Research Base. This base includes the former Koldewey Station and Rabot Station as well as the Base Jean Corbel, situated at 5km southeast of Ny-Ålesund.

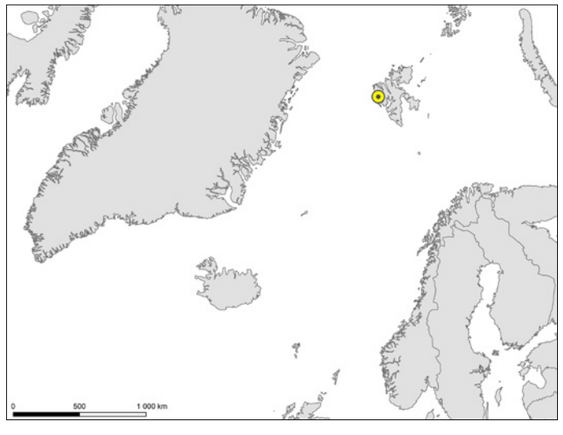
AWIPEV Arctic Research Base is located in the research village of Ny-Ålesund situated on the southern shore of Kongsfjorden on the island of Spitsbergen. The village hosts more than 10 national research stations which share facilities run by the Kings Bay company.

Climate

Climate zone	High Arctic
Total annual precipitation (mm)	400
Precipitation type	Snow Rain Other
Permafrost	None Sporadic Continuous Discontinuous
Snow free period	June July August September
Temperature	
Mean annual temperature (°C)	-3.3
Mean temperature January (°C)	-7.4
Mean temperature July (°C)	6.1
Observation period start	1st January 2006
Observation period end	31st December 2015

Access

Air **Sea** Land



www.awipev.eu

Facility information

Status	Open Closed
Facility type	Station Laboratory Camp
Area under roof (m²)	1220
Opening year	2003
Operational period	Year-round
Staff at peak	6
Scientist at peak	24

Lab types

Biology	Chemistry
Geology	Geophysics
Scientific diving	None

Corbel base 150m² at 5Km from the village

Communications

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

Medical facilities

Facilities	Yes / No
Staff medically trained	Non-medical trained person Nurse Medical doctor
Staff with basic medical training in summer	1
Staff with basic medical training in winter	0
Medical screening required	Yes / No

Transportation to facility

Airplane	Helicopter
Ship	Skidoo
Walking	4WD

Photos

1 - (Credit: K Baer)

Scientific disciplines

Anthropology	Human biology
Archaeology	Hydrology
Astrophysics	Isotopic chemistry
Atmospheric chemistry & physics	Limnology
Climate change	Mapping
Climatology	Marine biology
Ecology	Medicine
Environmental sciences	Microbiology
Fishery	Oceanography
Geocryology	Paleoecology
Geodesy	Paleolimnology
Geology	Pollution
Geomorphology	Sedimentology
Geophysics & seismology	Sociology / Social science
GIS	Soil science
Glaciology	Terrestrial biology
Medical research	

Other disciplines

Ecosystem functioning, terrestrial biodversity.

Specific devices

http://www.awipev.eu/resources/scientific-resources/

- Basic laboratory equipment (glassware, beakers, pipette, syringe, balance.),
- Lab fume hood,
- Sink (wet lab),
- Refrigerator 150L / +5°C,
- Freezer 200L / -20°C,
- Freezer 35L / -80°C,
- Incubator/sterilizer UNB 200 Memmert 32L

Scientific services

- Maintenance of automated measurement systems,
- Long-term monitoring of environmental variables, including critical climate change parameters including provision of access,
- Support for visitors.

Long-term monitoring

See http://www.awipev.eu/awipev-observatories/ including for example:

- Atmosphere observatory,
- Lovenbreen Glacier Monitoring,
- Under Water Fjord observatory, incl. Ferry Box system,
- Permafrost observatory.



Arctic Station

69° 15’ 00” N, 53° 34’ 00” W, Altitude 20m

Arctic

Greenland

ARCTIC STATION

Owner of the Arctic Station in Greenland is the Faculty of Science at the University of Copenhagen, Denmark.

The Arctic Station is located on the south coast of the Disko Island in central West Greenland (69°15’ N, 53°34’ W). It is facing the Disko Bay/Davis Strait and is characterised by a low arctic, coastal climate. Some of the world’s largest icebergs drift by the Arctic Station.



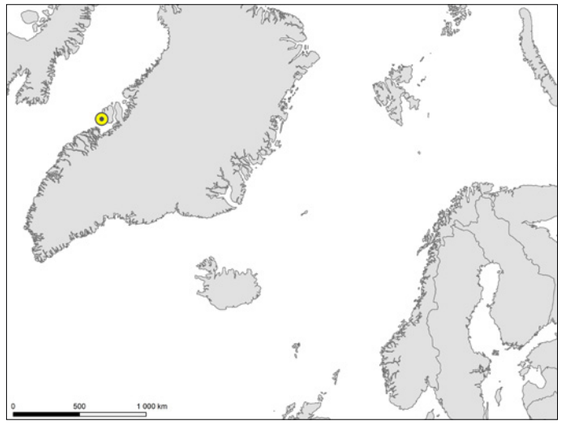


Climate

Climate zone	Low Arctic
Total annual precipitation (mm)	436
Precipitation type	Snow Rain Other
Permafrost	None Sporadic Continuous Discontinuous
Snow free period	June - October
Temperature	
Mean annual temperature (°C)	-2.9
Mean temperature January (°C)	-10.5
Mean temperature July (°C)	8.0
Observation period start	1991
Observation period end	2018

Access

Air	**Sea**	Land



http://arktiskstation.ku.dk/english

Facility information

Status	Open Closed
Facility type	Station Laboratory Camp
Area under roof (m²)	955
Opening year	1906
Operational period	Year-Round
Staff at peak	3
Scientist at peak	26

Lab types

Biology	Chemistry
Geology	Geophysics
Scientific diving	None

Other

Communications

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

Medical facilities

Facilities	Yes / No
Staff medically trained	Non-medical trained person Nurse Medical doctor
Staff with basic medical training in summer	1-2
Staff with basic medical training in winter	1-2
Medical screening required	Yes / No

Transportation to facility

Airplane	Helicopter
Ship	Skidoo
Walking	4WD
Car	Other

Photos

1 - Arctic station - winter (Credit: Bo Elberling)

2 - Arctic Station Geology - lava hexagons (Credit: Louise Berg)

3 - Arctic Station Hot springs (Credit: Louise Berg)

Scientific disciplines

Anthropology	Human biology
Archaeology	Hydrology
Astrophysics	Isotopic chemistry
Atmospheric sciences	Limnology
Climate change	Mapping
Climatology	Marine biology
Ecology	Medical research
Environmental sciences	Medicine
Fishery	Microbiology
Geocryology	Oceanography
Geodesy	Paleontology
Geology	Pollution
Geomorphology	Sedimentology
Geophysics & seismology	Sociology / Social science
GIS	Soil science
Glaciology	Terrestrial biology

Other disciplines

Paleoecology, Paleolimnology,

Specific devices

Please contact station for full list.

Scientific services

Technical and logistical support, access to extensive baseline data.

EGRIP Field Station



75° 38’ 00” N, 36° 00’ 00” W, Altitude 2708m

Arctic

Greenland

EGRIP (East Greenland Ice Core Project) Field Station owned by Centre for Ice and Climate, Niels Bohr Institute, University of Copenhagen, Denmark.

The station is located on the North East Greenland Ice Sheet (75°38’ N, 36°00’ W, 2704 m a.s.l.) within the North East Greenland National Park. The scientific reference area is a 50 by 50 km square with the station in the centre. The station is on the centre axis of the North East Greenland Ice Stream (NEGIS), 480 km from Danmarkshavn, 690 km from Ittoqqortoormiit and 350 km NNE of Summit Station. Due to its location in the ice stream, the station moves 50 m NNE per year.

Climate

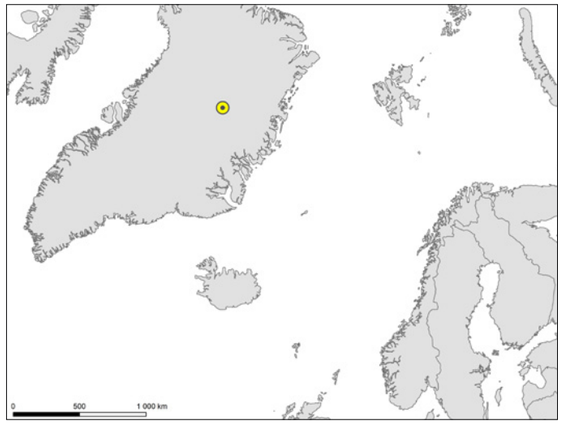
Climate zone	High Arctic
Total annual precipitation (mm)	100
Precipitation type	Snow Rain Other
Permafrost	None Sporadic Continuous Discontinuous
Snow free period	None
Temperature	
Mean annual temperature (°C)	-29
Mean temperature January (°C)	
Mean temperature July (°C)	-10
Observation period start	1st May 2013
Observation period end	16th June 2016

Access

Air	Sea	Land







www.iceandclimate.nbi.ku.dk

Facility information

Status	Open Closed
Facility type	Station Laboratory Camp
Area under roof (m²)	750
Opening year	2015
Operational period	May - August
Staff at peak	5
Scientist at peak	20

Lab types

Biology	Chemistry
Geology	Geophysics
Scientific diving	None

Other: Ice core processing laboratory

Communications

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

Medical facilities

Facilities	Yes / No
Staff medically trained	Non-medical trained person Nurse Medical doctor
Staff with basic medical training in summer	1
Staff with basic medical training in winter	0
Medical screening required	Yes / No

Transportation to facility

Airplane	Helicopter
Ship	Skidoo
Walking	4WD
Car	Other

Photos

1 - EGRIP - Arrival of EGRIP (Credit: Dorthe Dahl-Jensen)

2 - EGRIP - CAMP (Credit: Jørgen Peder Steffensen)

3 - EGRIP - Skiway (Credit: Jørgen Peder Steffensen)

4 - EGRIP - 150606 Garage outside (Credit: Jørgen Peder Steffensen)

Scientific disciplines

Anthropology	Human biology
Archaeology	Hydrology
Astrophysics	Isotopic chemistry
Atmospheric sciences	Limnology
Climate change	Mapping
Climatology	Marine biology
Ecology	Medical research
Environmental sciences	Medicine
Fishery	Microbiology
Geocryology	Oceanography
Geodesy	Paleontology
Geology	Pollution
Geomorphology	Sedimentology
Geophysics & seismology	Sociology / Social science
GIS	Soil science
Glaciology	Terrestrial biology

Other disciplines

Paleoecology

Specific devices

Ice core processing equipment.

Scientific services

Processing, packing and shipment of snow and ice samples.

Long-term monitoring

Automatic weatherstation, seismometer, snow height, snow density, surface velocity, ice flow pattern (GPS strain net).





Greenland Institute of Natural Resources (GINR)

64° 11’ 00” N, 51° 41’ 00” W, Altitude 50m | Arctic

Station

Greenland

The Greenland Institute of Natural Resources is owned by the Government of Greenland.

GINR with its main buildings, laboratories, and living quarters is located in Nuuk, Greenland (64°11’ N, 51°41’ W). A field station is located in Kobbefjord (64°08’ N, 51°23’ W), c. 20 km SE Nuuk.





Climate

Climate zone	Low Arctic
Total annual precipitation (mm)	782
Precipitation type	Snow Rain Other
Permafrost	None Sporadic Continuous Discontinuous
Snow free period	May - October
Temperature	
Mean annual temperature (°C)	-0.05
Mean temperature January (°C)	-7.14
Mean temperature July (°C)	10.64
Observation period start	1st May 2007
Observation period end	31st December 2017

Access

Air	Sea	Land



www.natur.gl, www.g-e-m.dk

Facility information

Status	Open Closed
Facility type	Station Laboratory Camp
Area under roof (m²)	5170
Opening year	1995
Operational period	Year-Round
Staff at peak	60
Scientist at peak	35

Lab types

Biology	Chemistry
Geology	Geophysics
Scientific diving	None

GIS

Communications

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

Medical facilities

Facilities	Yes / No
Staff medically trained	Non-medical trained person Nurse Medical doctor
Staff with basic medical training in summer	0
Staff with basic medical training in winter	0
Medical screening required	Yes / No

Transportation to facility

Airplane	Helicopter
Ship	Skidoo
Walking	4WD
Car	Other

Photos

1 - GINR Main institution in Nuuk (Credit: Carsten Egevang)

2 - GINR NuukBasic fieldstation (Credit: Henrik Lund)

3 - GINR Diapensia lapponica in Kobbefjord (Credit: Katrine Raundrup)

4 - GINR Fieldwork (Credit: Bula Larsen)

Scientific disciplines

Anthropology	Human biology
Archaeology	Hydrology
Astrophysics	Isotopic chemistry
Atmospheric sciences	Limnology
Climate change	Mapping
Climatology	Marine biology
Ecology	Medical research
Environmental sciences	Medicine
Fishery	Microbiology
Geocryology	Oceanography
Geodesy	Paleontology
Geology	Pollution
Geomorphology	Sedimentology
Geophysics & seismology	Sociology / Social science
GIS	Soil science
Glaciology	Terrestrial biology

Other disciplines

Paleolimnology

Specific devices

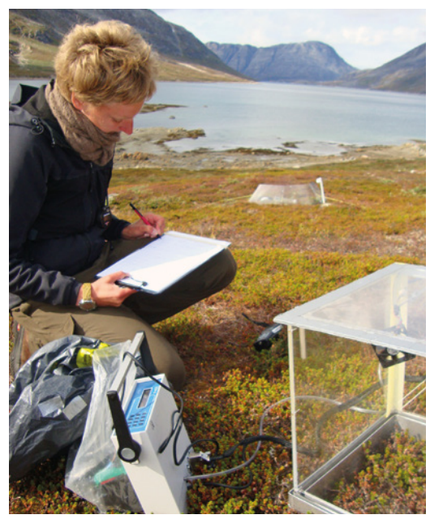
Advanced laboratory equipment (only in Nuuk).

Scientific services

Free access to extensive ecosystem baseline data via Greenland Ecosystem Monitoring (www.g-e-m.dk).

Long-term monitoring

Data freely available via www.g-e-m.dk





Sermilik Research Station

65° 40’ 51” N, 37° 54’ 58” W, Altitude 15m — Sub-Arctic

Greenland

The Sermilik Research Station is operated by the Department of Geosciences and Natural Resource Management, University of Copenhagen. The station is owned by the Faculty of Science, University of Copenhagen.

The station is located at 65°40.85 N and 37°55.0’ W in southeast Greenland, about 20 km north of the small town Tasiilaq (old name: Ammassalik). The station is situated on the shore of the Sermilik Fjord on the west side of Ammassalik Island adjacent to the Mittivakkat Glacier, a local small ice cap.

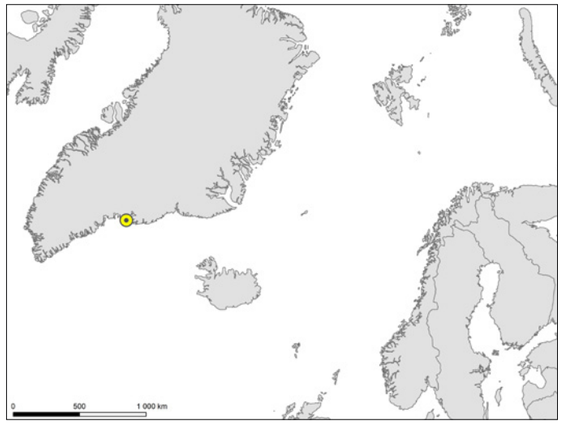


Climate

Climate zone	High Arctic
Total annual precipitation (mm)	984
Precipitation type	Snow Rain Other
Permafrost	None Sporadic Continuous Discontinuous
Snow free period	July - August
Temperature	
Mean annual temperature (°C)	-1.7
Mean temperature January (°C)	-7.5
Mean temperature July (°C)	6.4
Observation period start	
Observation period end	

Access

Air	Sea	Land



www.ign.ku.dk/english/about/field-stations/sermilik-station/

Facility information

Status	Open Closed
Facility type	Station Laboratory Camp
Area under roof (m²)	100
Opening year	1970
Operational period	May - September
Staff at peak	2
Scientist at peak	0

Lab types

Biology	Chemistry
Geology	Geophysics
Scientific diving	None

Communications

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

Medical facilities

Facilities	Yes / No
Staff medically trained	Non-medical trained person Nurse Medical doctor
Staff with basic medical training in summer	0
Staff with basic medical training in winter	0
Medical screening required	Yes / No

Transportation to facility

Airplane	Helicopter
Ship	Skidoo
Walking	4WD
Ski	Other

Photos

1 - Sermilik Station in summer (Credit: Lea Hansen)

2 - Sermilik Field work sedimentation (Credit: Lea Hansen)

3 - 3. Sermilik Polar bear (Credit: Yoann Drocourt)

Scientific disciplines

Anthropology	Human biology
Archaeology	Hydrology
Astrophysics	Isotopic chemistry
Atmospheric sciences	Limnology
Climate change	Mapping
Climatology	Marine biology
Ecology	Medical research
Environmental sciences	Medicine
Fishery	Microbiology
Geocryology	Oceanography
Geodesy	Paleontology
Geology	Pollution
Geomorphology	Sedimentology
Geophysics & seismology	Sociology / Social science
GIS	Soil science
Glaciology	Terrestrial biology

Other disciplines

Paleoecology, Paleolimnology.

Specific devices

Climate stations.

Scientific services

Database.

Long-term monitoring

Climate stations.



Station



Summit Station

72° 34’ 00” N, 38° 27’ 00” W, Altitude 3210m

Arctic

Greenland

Summit Station is funded by the US National Science Foundation (NSF) and operated by CH2M Polar Services (CPS) with guidance from the Science Coordination Office (SCO).

Summit Station (72°34’ N, 38°27’ W), is a research platform located near the summit of the Greenland ice sheet at an altitude of 3210 m a.s.l. It is located within Greenland’s North-East National Park which protects the inland ice and glaciers issuing therefrom as well as adjoining coastal land areas.

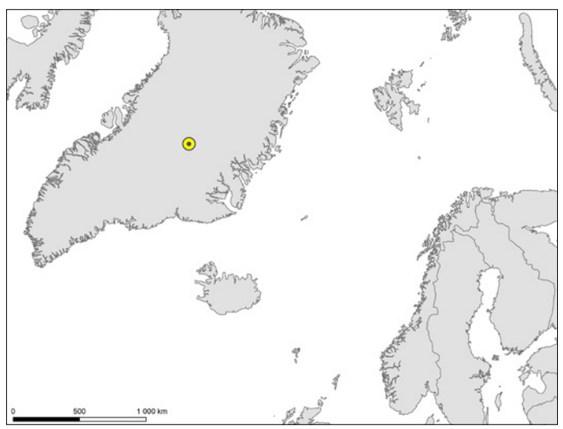


Climate

Climate zone	High Arctic
Total annual precipitation (mm)	200
Precipitation type	Snow Rain Other
Permafrost	None Sporadic Continuous Discontinuous
Snow free period	None
Temperature	
Mean annual temperature (°C)	-31
Mean temperature January (°C)	-43
Mean temperature July (°C)	-13
Observation period start	
Observation period end	

Access

Air	Sea	Land



www.geosummit.org, www.summitcamp.org

Facility information

Status	Open Closed
Facility type	Station Laboratory Camp
Area under roof (m²)	758
Opening year	1989
Operational period	Year-Round
Staff at peak	15
Scientist at peak	35

Lab types

Biology	Chemistry
Geology	Geophysics
Scientific diving	None

GIS

Communications

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

Medical facilities

Facilities	Yes / No
Staff medically trained	Non-medical trained person Nurse Medical doctor
Staff with basic medical training in summer	5
Staff with basic medical training in winter	3
Medical screening required	Yes / No

Transportation to facility

Airplane	Helicopter
Ship	Skidoo
Walking	4WD
Car	

Photos

1 - Summit Station (Credit: Ed Stockard)

2 - Summit Ozonesonde (Credit: Jessy Jenkins)

3 - Summit Technician Snow Sampling - (Credit: Matt Okraszewski)

Scientific disciplines

Anthropology	Human biology
Archaeology	Hydrology
Astrophysics	Isotopic chemistry
Atmospheric sciences	Limnology
Climate change	Mapping
Climatology	Marine biology
Ecology	Medical research
Environmental sciences	Medicine
Fishery	Microbiology
Geocryology	Oceanography
Geodesy	Paleontology
Geology	Pollution
Geomorphology	Sedimentology
Geophysics & seismology	Sociology / Social science
GIS	Soil science
Glaciology	Terrestrial biology

Other disciplines

Paleoecology

Specific devices

Instrumentation includes aerosol and trace gas sampling, cloud radar, lidars, sodar and radiometers, broadband and UV solar radiometers, interferometer, ceilometer, anemometers, temperature and humidity sensors, barometers, aethelometer, ozonesonde, seism

Scientific services

Two year-round science technicians staffed by NSF.

Long-term monitoring

Surface Ozone, Meteorology, CFC-11, CFC-113, CFC-12, Carbon Tetrachloride, Halon-1211, Methyl Chloroform, Nitrous Oxide, Sulfur Hexafluoride, C13/C12 in Carbon Dioxide, Carbon Dioxide, Methane, O18/O16 in Carbon Dioxide, Ozone, Ethane, i-butane, i-pentane, n-butane, n-pentane, propane, monthly snow.





Villum Research Station (VRS)

81° 36’ 00” N, 16° 39’ 00” W, Altitude 30m — Arctic

Greenland

Villum Research Station (VRS) is owned by the Government of Greenland and operated by Aarhus University, Denmark.

VRS is located on Princess Ingeborgs Peninsula (c. 20 ×15 km2 lowland plain) at the military facility, Station Nord, in North Greenland (81°36’ N, 16°39 W). The station is situated within the National Park of North and Northeast Greenland, the largest national park in the World. The military station has an average elevation of 30 m a.s.l. with a gentle slope to the coast. A 2 km gravel/ice runway, which is kept open year round, is the only gateway to Station Nord. The station acts as a gateway to the northern part of the National Park of North and Northeast Greenland.



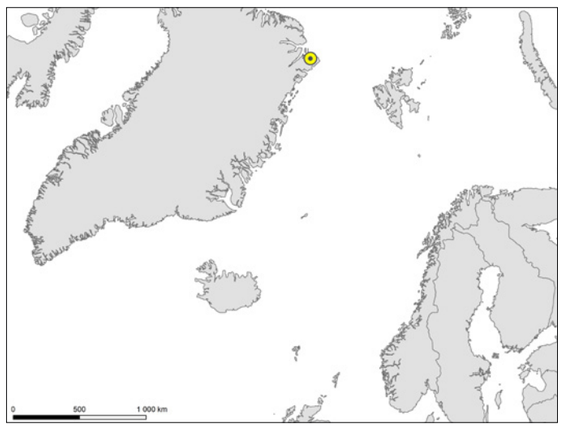


Climate

Climate zone	High Arctic
Total annual precipitation (mm)	188
Precipitation type	Snow Rain Other
Permafrost	None Sporadic Continuous Discontinuous
Snow free period	July - August
Temperature	
Mean annual temperature (°C)	-16.9
Mean temperature January (°C)	-30.1
Mean temperature July (°C)	3.4
Observation period start	1st January 1961
Observation period end	31st December 1990

Access

Air	Sea	Land



www.villumresearchstation.dk

Facility information

Status	Open Closed
Facility type	Station Laboratory Camp
Area under roof (m²)	600
Opening year	1990
Operational period	Year-Round
Staff at peak	2
Scientist at peak	20

Lab types

Biology	Chemistry
Geology	Geophysics
Scientific diving	None

Other: Cleaner laboratory, Mobile laboratory, microbiological, Air measurement lab. (gasses and aerosols).

Communications

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

Medical facilities

Facilities	Yes / No
Staff medically trained	Non-medical trained person Nurse Medical doctor
Staff with basic medical training in summer	1
Staff with basic medical training in winter	1
Medical screening required	Yes / No

Transportation to facility

Airplane	Helicopter
Ship	Skidoo
Walking	4WD
Car	Other

Photos

1 - Villum St Nord Main building (Credit: Stephan Bernberg)

2 - Villum St Nord Measuring hut and towers (Credit: Stephan Bernberg)

3 - Villum St Nord Lab-space (Credit: Stephan Bernberg)

Scientific disciplines

Anthropology	Human biology
Archaeology	Hydrology
Astrophysics	Isotopic chemistry
Atmospheric sciences	Limnology
Climate change	Mapping
Climatology	Marine biology
Ecology	Medical research
Environmental sciences	Medicine
Fishery	Microbiology
Geocryology	Oceanography
Geodesy	Paleontology
Geology	Pollution
Geomorphology	Sedimentology
Geophysics & seismology	Sociology / Social science
GIS	Soil science
Glaciology	Terrestrial biology

Other disciplines

Paleoecology

Specific devices

5 laboratories: Air measurements, clean room, microbio, chemistry and biology/geology lab, and workshop (not certified).

Scientific services

Free access to climate, meteorological, and air pollution data and a mapping of biological mapping from ground based observations, air plane remote sensing and satellite images.

Long-term monitoring

Climate / weather, greenhouse gases, phenology, permafrost, atmospheric pollutants.



Zackenberg Research Station

74° 28’ 00” N, 20° 34’ 00” W, Altitude 38m | Arctic

Greenland

ZERO
ZACKENBERG ECOLOGICAL RESEARCH OPERATIONS

Zackenberg Research Station is owned by the Government of Greenland. Aarhus University (Denmark) is responsible for running the station.

Zackenberg Research Station is located in Young Sund – Tyroler-fjord complex in Northeast Greenland. The station is situated in the southern part of the National Park of North and East Greenland, the largest national park in the world (approximately 1 million km2). The nearest settlement is the military outpost Daneborg (with a marine research facility) 25 km southeast of the station. The nearest town is Ittoqqortoormiit, 450 km south of the station.



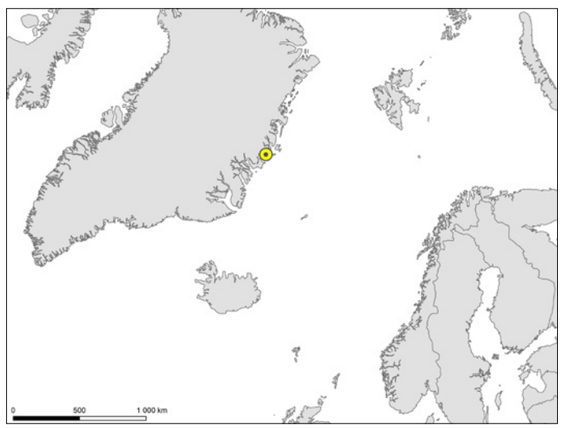


Climate

Climate zone	High Arctic
Total annual precipitation (mm)	260
Precipitation type	Snow Rain Other
Permafrost	None Sporadic Continuous Discontinuous
Snow free period	June - August
Temperature	
Mean annual temperature (°C)	-9.2
Mean temperature January (°C)	
Mean temperature July (°C)	-14.3
Observation period start	1st April
Observation period end	1st November

Access

Air	Sea	Land



www.zackenberg.dk, www.g-e-m.dk

Facility information

Status	Open Closed
Facility type	Station Laboratory Camp
Area under roof (m²)	940
Opening year	1995
Operational period	March - October
Staff at peak	5
Scientist at peak	24

Lab types

Biology	Chemistry
Geology	Geophysics
Scientific diving	None

Other. A dry lab and a wet lab.

Communications

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

Medical facilities

Facilities	Yes / No
Staff medically trained	Non-medical trained person Nurse Medical doctor
Staff with basic medical training in summer	0
Staff with basic medical training in winter	0
Medical screening required	Yes / No

Transportation to facility

Airplane	Helicopter
Ship	Skidoo
Walking	4WD
Car	Other

Photos

1 - Zackenberg Living quarters (Credit: Henrik Spanggård Munch)

2 - Zackenberg Musk ox at shelter (Credit: Henrik Spanggård Munch)

3 - Zackenberg Walrus (Credit: Henrik Spanggård Munch)

4 - Zackenberg Field work in Tundra (Credit: Henning Thing)

5 - Zackenberg Stream in Zackenberg Valley (Credit: Mikkel Tamstorf)

Scientific disciplines

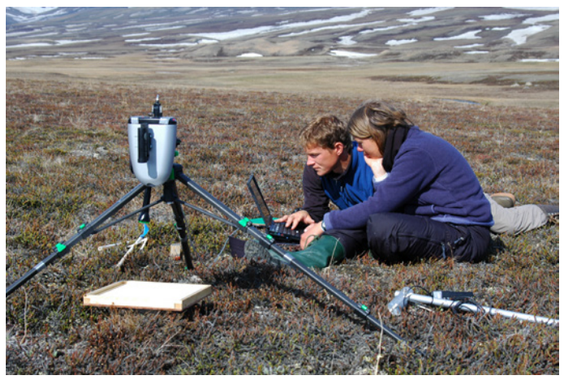
Anthropology	Human biology
Archaeology	Hydrology
Astrophysics	Isotopic chemistry
Atmospheric sciences	Limnology
Climate change	Mapping
Climatology	Marine biology
Ecology	Medical research
Environmental sciences	Medicine
Fishery	Microbiology
Geocryology	Oceanography
Geodesy	Paleontology
Geology	Pollution
Geomorphology	Sedimentology
Geophysics & seismology	Sociology / Social science
GIS	Soil science
Glaciology	Terrestrial biology

Other disciplines

Paleoecology, Paleolimnology.

Specific devices

Advanced climate stations, differential GPS, basic laboratory equipment, different surveying equipment, microscopes.







Litla-Skard

64° 43’ 00” N, 21° 37’ 00” W, Altitude 115m — Sub-Arctic

Iceland

Litla-Skard is a monitoring site operated jointly by the Agricultural University of Iceland, the Icelandic Institute of Natural History, the Icelandic Meteorological Office, the Environmental & Food Agency of Iceland, and the Iceland Forest Service.

The Litla-Skard long-term monitoring site is located in the lowlands of western Iceland (64°43’ N, 21°37’ W), about 38 km from the shore-line and 100 km north of Reykjavik.



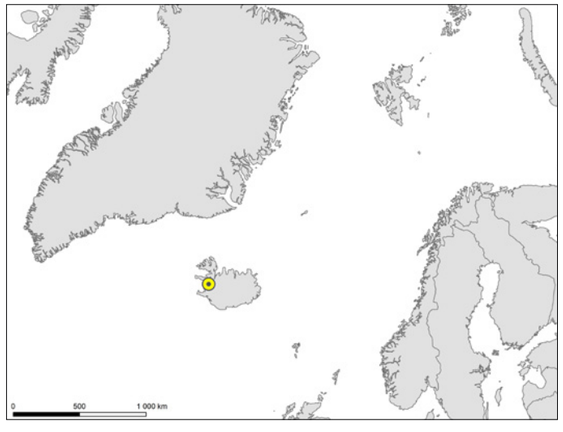


Climate

Climate zone	Sub Arctic
Total annual precipitation (mm)	740
Precipitation type	Snow Rain Other
Permafrost	None Sporadic Continuous Discontinuous
Snow free period	May - October
Temperature	
Mean annual temperature (°C)	3.1
Mean temperature January (°C)	
Mean temperature July (°C)	10.8
Observation period start	1st January 2001
Observation period end	

Access

Air	Sea	**Land**



www.ust.is/litla_skard

Facility information

Status	Open Closed
Facility type	Station Laboratory Camp
Area under roof (m²)	0
Opening year	1996
Operational period	Year-Round
Staff at peak	1
Scientist at peak	3

Lab types

Biology	Chemistry
Geology	Geophysics
Scientific diving	None

No facilities at site, accommodation at nearby university.

Communications

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

Medical facilities

Facilities	Yes / No
Staff medically trained	Non-medical trained person Nurse Medical doctor
Staff with basic medical training in summer	0
Staff with basic medical training in winter	0
Medical screening required	Yes / No

Transportation to facility

Airplane	Helicopter
Ship	Skidoo
Walking	4WD
Car	Other

Photos

1 - Villum St Nord Main building (Credit: Stephan Bernberg)

2 - Villum St Nord Measuring hut and towers (Credit: Stephan Bernberg)

3 - Villum St Nord Lab-space (Credit: Stephan Bernberg)

Scientific disciplines

Anthropology	Human biology
Archaeology	Hydrology
Astrophysics	Isotopic chemistry
Atmospheric sciences	Limnology
Climate change	Mapping
Climatology	Marine biology
Ecology	Medical research
Environmental sciences	Medicine
Fishery	Microbiology
Geocryology	Oceanography
Geodesy	Paleontology
Geology	Pollution
Geomorphology	Sedimentology
Geophysics & seismology	Sociology / Social science
GIS	Soil science
Glaciology	Terrestrial biology

Specific devices

Climate station.

Scientific services

Free access to baseline data.

Long-term monitoring

Climate / weather, greehouse gases, phenology, permafrost, atmospheric pollutants.

Station



Rif Field Station

66° 27’ 00” N, 15° 57’ 00” W, Altitude 1m | Sub-Arctic

Iceland

Rannsóknastöðin RIF

The Rif Field Station is a non-profit organisation named after the peninsula of Rif, in the northernmost part of Iceland.

The station is located in Raufarhöfn, a small fishing village on the northeast coast of the Melrakkaslétta peninsula in Northeast Iceland. The peninsula is the northernmost lowland area in Iceland, only 3 km south of the Arctic Circle. The northern part of the peninsula is an important area for conservation, especially as a habitat for many bird species. The area has no protection status according to the Nature Conservation Act, but is listed as an internationally Important Bird Area (IBA) by BirdLife International. Most of the area is privately owned but some of the abandoned farms are owned by the Government of Iceland.



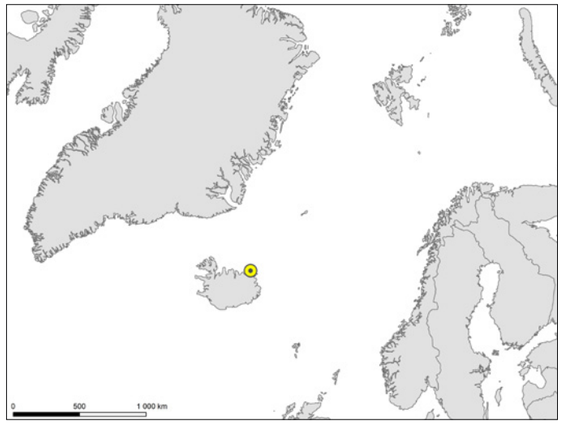


Climate

Climate zone	Sub-Arctic
Total annual precipitation (mm)	650
Precipitation type	Snow Rain Other
Permafrost	None Sporadic Continuous Discontinuous
Snow free period	May - October
Temperature	
Mean annual temperature (°C)	3.4
Mean temperature January (°C)	
Mean temperature July (°C)	9.1
Observation period start	
Observation period end	

Access

Air	Sea	**Land**



www.rifresearch.is

Facility information

Status	Open Closed
Facility type	Station Laboratory Camp
Area under roof (m²)	66
Opening year	2014
Operational period	Year-Round
Staff at peak	1
Scientist at peak	0

Lab types

Biology	Chemistry
Geology	Geophysics
Scientific diving	None

Possibility of accommodating larger groups.

Communications

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

Medical facilities

Facilities	Yes / No
Staff medically trained	Non-medical trained person Nurse Medical doctor
Staff with basic medical training in summer	0
Staff with basic medical training in winter	0
Medical screening required	

Transportation to facility

Airplane	Helicopter
Ship	Skidoo
Walking	4WD
Car	Other

Photos

1 - RIF Main building (Credit: Yann Kolbeinsson)

2 - RIF Raufarhofn Village (Credit: Yann Kolbeinsson)

3 - RIF Common eider (Credit: Yann Kolbeinsson)

4 - RIF Shorebird migration (Credit: Yann Kolbeinsson)

5 - RIF Rif Farm at coast (Credit: Yann Kolbeinsson)

Scientific disciplines

Anthropology	Human biology
Archaeology	Hydrology
Astrophysics	Isotopic chemistry
Atmospheric sciences	Limnology
Climate change	Mapping
Climatology	Marine biology
Ecology	Medical research
Environmental sciences	Medicine
Fishery	Microbiology
Geocryology	Oceanography
Geodesy	Paleontology
Geology	Pollution
Geomorphology	Sedimentology
Geophysics & seismology	Sociology / Social science
GIS	Soil science
Glaciology	Terrestrial biology

Other disciplines

Ecosystem services.







Sudurnes Science and Learning Center

64° 02’ 00” N, 22° 42’ 00” W, Altitude 3m | Sub-Arctic

Iceland

ÞEKKINGARSETUR SUÐURNESJA
Sudurnes Science and Learning Center
HÁSKÓLI ÍSLANDS
NÁTTÚRUSTOFA SUÐVESTURLANDS

Sudurnes Science and Learning Center is a non-profit organisation, partly financed and accredited by the Ministry of Education, Science, and Culture in Iceland.

The Center is located in the town of Sandgerdi, by the harbour, (64°02’ N, 22°42’W) on the western coast of the Reykjanes Peninsula, about 50 km west of the capital, Reykjavik. It is in close proximity to coastal areas of high natural value, listed in the Icelandic Nature Conservation Registry, and Important Bird Areas identified by BirdLife International.

The Southwest Iceland Nature Research Centre and the University of Iceland´s Research Centre in Sudurnes are part of the station, which offers high quality research facilities and accommodation for researchers.

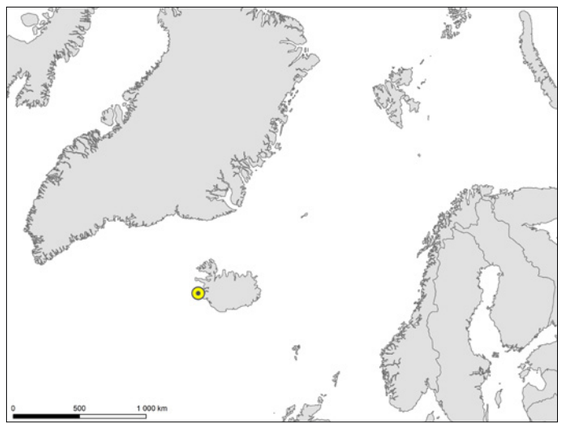


Climate

Climate zone	Sub-Arctic
Total annual precipitation (mm)	1092
Precipitation type	Snow Rain Other
Permafrost	None Sporadic Continuous Discontinuous
Snow free period	April - October
Temperature	
Mean annual temperature (°C)	4.7
Mean temperature January (°C)	1
Mean temperature July (°C)	10
Observation period start	
Observation period end	

Access

Air	Sea	Land



www.thekkingarsetur.is

Facility information

Status	Open Closed
Facility type	Station Laboratory Camp
Area under roof (m²)	1470
Opening year	2012
Operational period	Year-Round
Staff at peak	10
Scientist at peak	6

Lab types

Biology	Chemistry
Geology	Geophysics
Scientific diving	None

Other: Wet laboratories

Communications

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

Medical facilities

Facilities	Yes / No
Staff medically trained	Non-medical trained person Nurse Medical doctor
Staff with basic medical training in summer	0
Staff with basic medical training in winter	0
Medical screening required	Yes / No

Transportation to facility

Airplane	Helicopter
Ship	Skidoo
Walking	4WD
Car	Other

Photos

1 - Sudurnes Lab course (Credits: Reynir Sveinsson)

2 - Sudurnes Puffin (Credit: Sölvi Rúnar Vignisson)

3 - Sudurnes Aerial view of station (Credit: Reynir Sveinsson)

4 - Sudurnes Birds on birdcliff (Credit: Sölvi Rúnar Vignisson)

Scientific disciplines

Anthropology	Human biology
Archaeology	Hydrology
Astrophysics	Isotopic chemistry
Atmospheric sciences	Limnology
Climate change	Mapping
Climatology	Marine biology
Ecology	Medical research
Environmental sciences	Medicine
Fishery	Microbiology
Geocryology	Oceanography
Geodesy	Paleontology
Geology	Pollution
Geomorphology	Sedimentology
Geophysics & seismology	Sociology / Social science
GIS	Soil science
Glaciology	Terrestrial biology

Other disciplines

Animal tracking, Biogeography, Biology, Genetics, Population monitoring, Toxicology, Zoology, Ecotoxicology, Ornithology.

Specific devices

Basic lab and fieldwork equipment incl. a microscope, 10 binocular microscopes (stereoscopes), respirometers, coulter counter, drying oven, fume hood, centrifuge, sieves, sieve shaker, 30 feet research vessel (contact the station for details).







CNR Arctic Station Dirigibile Italia

78° 55’ 00” N, 11° 56’ 00” E, Altitude 10m — Arctic

Italy

CNR Arctic Station Dirigibile Italia is the Italian scientific station in Svalbard. It is funded and managed by the National Research Council of Italy (CNR).

The station is located in Ny-Ålesund, on the shores of Kongsfjorden, on the west coast of Spitzbergen, the largest island of the Svalbard archipelago. Ny-Ålesund was a mining village until 1963. During the 1990’s it transformed into a multidisciplinary science settlement, and today stations from 10 different nations host researchers from up to 20 different countries. The area around the village is geographically diverse, including the fjord with several islands, a plateau, alluvial plains, mountains with large glaciers and extensive moraine systems, glacial rivers, coastal lagoons, and a small lake. The area further includes ornithological reserves and a nature reserve with regulated access.

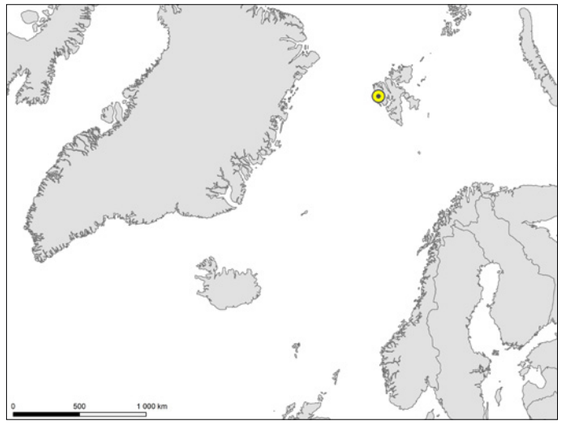


Climate

Climate zone	High Arctic
Total annual precipitation (mm)	385
Precipitation type	Snow Rain Other
Permafrost	None Sporadic Continuous Discontinuous
Snow free period	June - October
Temperature	
Mean annual temperature (°C)	-6.3
Mean temperature January (°C)	-14.1
Mean temperature July (°C)	4.7
Observation period start	1st July 1974
Observation period end	

Access

Air	Sea	Land



www.dta.cnr.it

Facility information

Status	Open Closed
Facility type	Station Laboratory Camp
Area under roof (m²)	330
Opening year	1997
Operational period	Year-Round
Staff at peak	1
Scientist at peak	6

Lab types

Biology	Chemistry
Geology	Geophysics
Scientific diving	None

Electronics.

Communications

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

Medical facilities

Facilities	Yes / No
Staff medically trained	Non-medical trained person Nurse Medical doctor
Staff with basic medical training in summer	0
Staff with basic medical training in winter	0
Medical screening required	Yes / No

Transportation to facility

Airplane	Helicopter
Ship	Skidoo
Walking	4WD

Photos

1 - Dirigibile Italia Station winter (Credit: Emiliano Liberatori)

2 - Tethered balloon system for aerosol profiles (Credit: Mauro Mazzola)

Scientific disciplines

Anthropology	Human biology
Archaeology	Hydrology
Astrophysics	Isotopic chemistry
Atmospheric sciences	Limnology
Climate change	Mapping
Climatology	Marine biology
Ecology	Medical research
Environmental sciences	Medicine
Fishery	Microbiology
Geocryology	Oceanography
Geodesy	Paleontology
Geology	Pollution
Geomorphology	Sedimentology
Geophysics & seismology	Sociology / Social science
GIS	Soil science
Glaciology	Terrestrial biology

Other disciplines

Paleoclimatology.

Specific devices

Fume hood, drying oven, laminar flow cabinet, ultrapure water, ultrasonic bath, shaker, heater/stirrer, balance, freezer, refrigerator.

Long-term monitoring

Vertical profiles of meteorological parameters and turbulent characteristics (up to 34 m); boundary layer dynamics (turbulence, wind profiles); Solar and IR radiation; UV fluxes and ozone columnar content; CO2 fluxes; snow depth, coverage, spectral reflectivity; aerosol physical, optical and chemical parameters at surface; aerosol profiles in the troposphere; oceanographic physical parameters (T, salinity, vertical profile of currents); time-series of particle fluxes and composition in the fjord (in a single site); regularly-repeated survey of oceanographic parameters in the Kongsfjorden (CTD measurements); permafrost temperature profile up 50 m deep and on a CALM grid; regular observations of vegetation characteristics and gas fluxes on the CALM grid and other sites in Brogger Peninsula; hydrological measurements; aurora observations; ionospheric scintillation.



Netherlands Arctic Station

78° 55’ 00” N, 11° 56’ 00” E, Altitude 10m | Arctic

Netherlands

university of groningen

NETHERLANDS ARCTIC STATION

The Netherlands Arctic Station is owned and run by the Arctic Centre of the University of Groningen.

The Netherlands Arctic Station is situated in Kongsfjorden on the island of Spitsbergen and is part of an international research community in the former mining town of Ny-Ålesund, Svalbard. In this town, more than 10 nations have their own station while using shared facilities for meals and recreation. The whole local community is focussed on science and maintenance of infrastructure. Several stations have independent terrestrial research programmes and the Netherlands Arctic Station is the smallest of all.



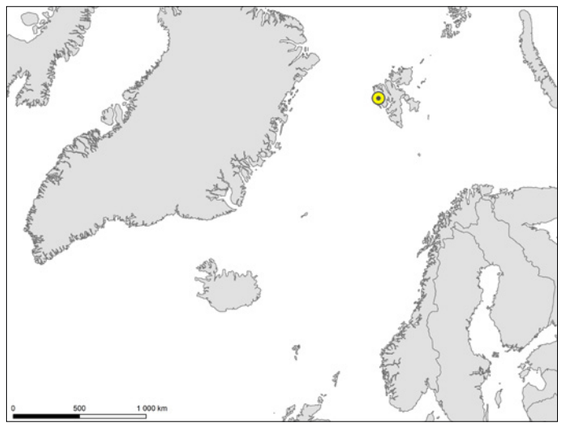


Climate

Climate zone	High Arctic
Total annual precipitation (mm)	400
Precipitation type	Snow Rain Other
Permafrost	None Sporadic Continuous Discontinuous
Snow free period	June-November
Temperature	
Mean annual temperature (°C)	-6
Mean temperature January (°C)	-13.9
Mean temperature July (°C)	4.9
Observation period start	1st July 1974
Observation period end	

Access

Air	Sea	Land



www.arcticstation.nl

Facility information

Status	Open Closed
Facility type	Station Laboratory Camp
Area under roof (m²)	114
Opening year	1995
Operational period	June - August
Staff at peak	1
Scientist at peak	6

Lab types

Biology	Chemistry
Geology	Geophysics
Scientific diving	None

All types of laboratories and facilities are for rent outside the station.

Communications

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

Medical facilities

Facilities	Yes / No
Staff medically trained	Non-medical trained person Nurse Medical doctor
Staff with basic medical training in summer	0
Staff with basic medical training in winter	0
Medical screening required	Yes / No

Transportation to facility

Airplane	Helicopter
Ship	Skidoo
Walking	4WD
Car	

Photos

1 - Reindeer and station (Credit: Maarten Loonen)

2 - Barnacle Geese herding (Credit: Maarten Loonen)

3 - Fox and youngs at station (Credit: Maarten Loonen)

4 - Station and landscape (Credit: Maarten Loonen)

5 - Barnacle goose chicks (Credit: Maarten Loonen)

Scientific disciplines

Anthropology	Human biology
Archaeology	Hydrology
Astrophysics	Isotopic chemistry
Atmospheric sciences	Limnology
Climate change	Mapping
Climatology	Marine biology
Ecology	Medical research
Environmental sciences	Medicine
Fishery	Microbiology
Geocryology	Oceanography
Geodesy	Paleontology
Geology	Pollution
Geomorphology	Sedimentology
Geophysics & seismology	Sociology / Social science
GIS	Soil science
Glaciology	Terrestrial biology

Other disciplines

Biology, Botany, Evolutionary biology, Human impacts, Population monitoring, Zoology, Ecosystem services, Land-use change.

Specific devices

Very basic, blood sampling, species collection.

Scientific services

Advice, safety and access as long as it all fits within the research programme at the station.







Finse Alpine Research Centre

60° 36’ 00” N, 07° 30’ 00” E, Altitude 1215m | Arctic

Norway

Finse Alpine Research Centre is owned by the Faculty of Mathematics and Natural Sciences of the University of Oslo, Norway.

The Alpine Research Center is located 1.5 km east of the Finse railway station on the northwestern corner of the Hardangervidda mountain plateau in south central Norway (60°36’ N, 7°30’ E). The closest town is Geilo, about 50 km to the east. Finse lies in the low alpine zone at 1200 meters a.s.l. and about 250 meters above the tree line. The snow-free period is normally between mid-July and October. The station is located just outside Hallingskarvet National Park to the north and east and Skaupsjøen-Hardangerjøkulen landscape protection area to the south and west. The Hardangerjøkulen glacier is 4 km south of the station.



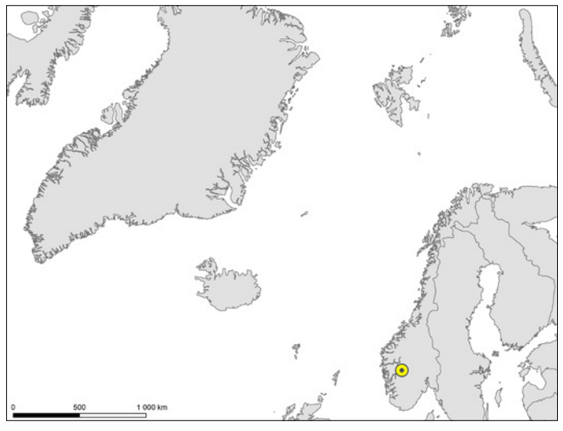


Climate

Climate zone	Sub-Arctic
Total annual precipitation (mm)	2694
Precipitation type	Snow Rain Other
Permafrost	None Sporadic Continuous Discontinuous
Snow free period	July August September
Temperature	
Mean annual temperature (°C)	-1.3
Mean temperature January (°C)	-8.6
Mean temperature July (°C)	8.6
Observation period start	15th November 1993
Observation period end	14th November 2015

Access

Air | Sea | **Land**



www.uio.no

Facility information

Status	Open Closed
Facility type	Station Laboratory Camp
Area under roof (m²)	700
Opening year	1965
Operational period	Year-Round
Staff at peak	2
Scientist at peak	15

Lab types

Biology	Chemistry
Geology	Geophysics
Scientific diving	None

Mini aquarium.

Communications

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

Medical facilities

Facilities	Yes / No
Staff medically trained	Non-medical trained person Nurse Medical doctor
Staff with basic medical training in summer	
Staff with basic medical training in winter	
Medical screening required	Yes / No

Transportation to facility

Airplane	Helicopter
Ship	Skidoo
Walking	4WD
Ski	Other

Photos

1 - Finse Station buildings (Credit: Erika Leslie)

2 - Finse Lake measurements (Credit: Erika Leslie)

3 - Finse sledge pull (Credit: Erika Leslie)

4 - Finse briefing (Credit: Erika Leslie)

Scientific disciplines

Anthropology	Human biology
Archaeology	Hydrology
Astrophysics	Isotopic chemistry
Atmospheric sciences	Limnology
Climate change	Mapping
Climatology	Marine biology
Ecology	Medical research
Environmental sciences	Medicine
Fishery	Microbiology
Geocryology	Oceanography
Geodesy	Paleontology
Geology	Pollution
Geomorphology	Sedimentology
Geophysics & seismology	Sociology / Social science
GIS	Soil science
Glaciology	Terrestrial biology

Other disciplines

Paleoecology, Paleolimnology. Community based monitoring, Citizen Science, Ecosystem services,Land-use change, Mapping.

Specific devices

Snow mobile, Microscopes, Equipped labs, Incubators (climate chambers).

Scientific services

Hiring of field/lab assistance. Transport to/from train station.

Long-term monitoring

Small rodent surveys, Snow coverage.





NIBIO Svanhovd Research Station

69° 27’ 00” N, 30° 03’ 00” E, Altitude 35m | Sub-Arctic

Norway

NIBIO
NORWEGIAN INSTITUTE OF BIOECONOMY RESEARCH

The Svanhovd Research Station belongs to the Norwegian Institute of Bioeconomy Research (NIBIO)

NIBIO Svanhovd is located in the Pasvik area in NE Norway (69°27’ N, 30°03’ E), approximately 40 km south of the fjords of the Barents Sea, 400 km north of the Arctic Circle, and in close vicinity to Russia and Finland. NIBIO Svanhovd is situated in Svanvik, a small village in the Pasvik Valley. It is located at the western shore of the Pasvik River that originates from the huge Lake Inari in Finland and flows northwards into the Barents Sea and defines the border between Norway and Russia.



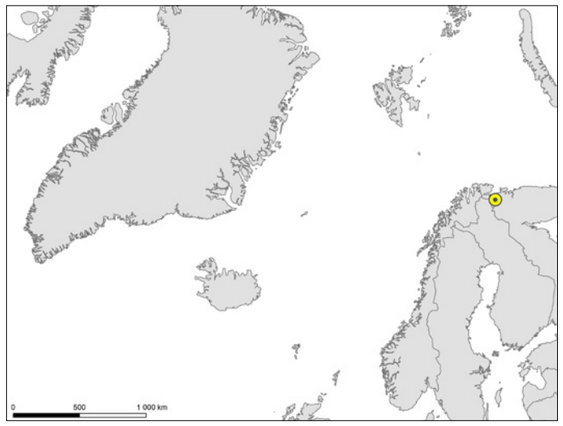


Climate

Climate zone	Sub-Arctic
Total annual precipitation (mm)	435
Precipitation type	Snow Rain Other
Permafrost	None Sporadic Continuous Discontinuous
Snow free period	May - October
Temperature	
Mean annual temperature (°C)	-0.6
Mean temperature January (°C)	-11.5
Mean temperature July (°C)	13.7
Observation period start	
Observation period end	

Access

Air	Sea	**Land**



www.nibio.no

Facility information

Status	Open Closed
Facility type	Station Laboratory Camp
Area under roof (m²)	2500
Opening year	1934
Operational period	Year-Round
Staff at peak	25
Scientist at peak	1400

Lab types

Biology	Chemistry
Geology	Geophysics
Scientific diving	None

DNA; field.

Communications

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

Medical facilities

Facilities	Yes / No
Staff medically trained	Non-medical trained person Nurse Medical doctor
Staff with basic medical training in summer	
Staff with basic medical training in winter	0
Medical screening required	

Transportation to facility

Airplane	Helicopter
Ship	Skidoo
Walking	4WD
Car	Other

Photos

1 - NIBIO Svanhovd Ovre Pasvik National Park Visitor Center (Credit: Espen Aarnes)

2 – NIBIO Svanhovd Measuring station (Credit: Kirsten Elger)

3 - NIBIOSvanhovd Bird watching (Credit: Tor-Arne Bjørn)

4 - NIBIO Svanhovd Aerial view of station and Nikel plant in Russia (Credit: Ragnar Våga Pedersen)

Scientific disciplines

Anthropology	Human biology
Archaeology	Hydrology
Astrophysics	Isotopic chemistry
Atmospheric sciences	Limnology
Climate change	Mapping
Climatology	Marine biology
Ecology	Medical research
Environmental sciences	Medicine
Fishery	Microbiology
Geocryology	Oceanography
Geodesy	Paleontology
Geology	Pollution
Geomorphology	Sedimentology
Geophysics & seismology	Sociology / Social science
GIS	Soil science
Glaciology	Terrestrial biology

Other disciplines

Community based monitoring, Citizen Science, ecosystem services.

Specific devices

Microbiological, chemical-physical and DNA-analysis (brown bear), simple field labs, weather and radioactivity station.

Scientific services

Baseline climate and phenology data etc.





Ny-Ålesund Research Station – Sverdrup base

78° 55’ 00” N, 11° 56’ 00” E, Altitude 5m | Arctic

Station

Norway

Norwegian Polar Institute

Ny-Ålesund Research Station is located on the northern side of Brøgger Peninsula at the southern shore of Kongsfjorden, in Svalbard, Norway. Ny-Ålesund Research Station hosts projects and programmes from many Norwegian and foreign institutions. The Sverdrup Base hosts Norwegian researchers and researchers from countries with no own institute present.
The Norwegian Polar Institute performs Norway`s host role in Ny-Ålesund and is responsible for implementation and daily follow-up of the research strategy locally. In addition, the Norwegian Polar Institute is the point of contact in Ny-Ålesund for scientific research and associated activities.
The infrastructure in Ny-Ålesund is run by the state company Kings Bay AS.
The nearest civilian settlement is Longyearbyen, 100 km south of Ny-Ålesund.



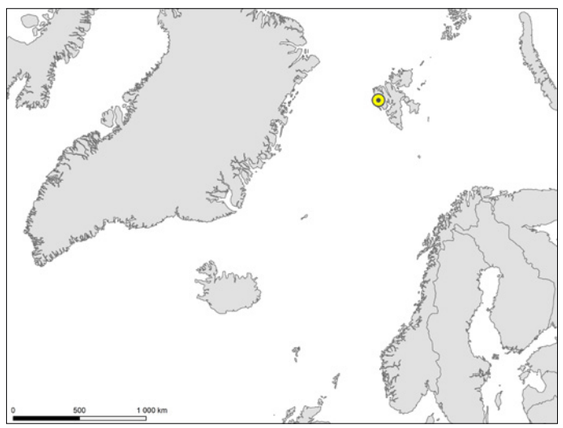


Climate

Climate zone	High Arctic
Total annual precipitation (mm)	370
Precipitation type	Snow Rain Other
Permafrost	None Sporadic Continuous Discontinuous
Snow free period	July
Temperature	
Mean annual temperature (°C)	-6.3
Mean temperature January (°C)	
Mean temperature July (°C)	4.9
Observation period start	1st January 1961
Observation period end	1st January 1990

Access

Air	Sea	Land



http://sverdrup.npolar.no

Facility information

Status	Open Closed
Facility type	Station Laboratory Camp
Area under roof (m²)	585
Opening year	1968
Operational period	Year-Round
Staff at peak	6
Scientist at peak	30

Lab types

Biology	Chemistry
Geology	Geophysics
Scientific diving	None

Marine laboratory, Atmosphere laboratory.

Communications

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

Medical facilities

Facilities	Yes / No
Staff medically trained	Non-medical trained person Nurse Medical doctor
Staff with basic medical training in summer	1
Staff with basic medical training in winter	0
Medical screening required	Yes / No

Transportation to facility

Airplane	Helicopter
Ship	Skidoo
Walking	4WD

Photos

1 - Sverdrup Sverdrup Station (Credit: Max Koenig)

2 - Sverdrup Landscape (Credit: Max Koenig)

3 - Sverdrup Reindeer (Credit: Max Koenig)

4 - Sverdrup Rapelling snow-wall (Credit: Max Koenig)

Scientific disciplines

Anthropology	Human biology
Archaeology	Hydrology
Astrophysics	Isotopic chemistry
Atmospheric sciences	Limnology
Climate change	Mapping
Climatology	Marine biology
Ecology	Medical research
Environmental sciences	Medicine
Fishery	Microbiology
Geocryology	Oceanography
Geodesy	Paleontology
Geology	Pollution
Geomorphology	Sedimentology
Geophysics & seismology	Sociology / Social science
GIS	Soil science
Glaciology	Terrestrial biology

Other disciplines

Ecosystem modelling, Terrestrial biology – Ecosystem function, Community based monitoring.

Specific devices

Instruments for atmospheric, radiation, meteorological, and hydrologic measurements, and others.

Scientific services

Monitoring long term measurements, logistical support, support for researchers.

Long-term monitoring

Glaciology, Atmospheric science, Marine Systems, Terrestrial Ecology.





Polish Polar Station Hornsund

77° 00’ 00” N, 15° 33’ 00” E, Altitude 9m — Arctic

Poland

The Polish Polar Station in Hornsund is operated by the Institute of Geophysics, Polish Academy of Sciences.

The station is situated on the northern shore of the Hornsund Fjord in the South Spitsbergen National Park, Svalbard.



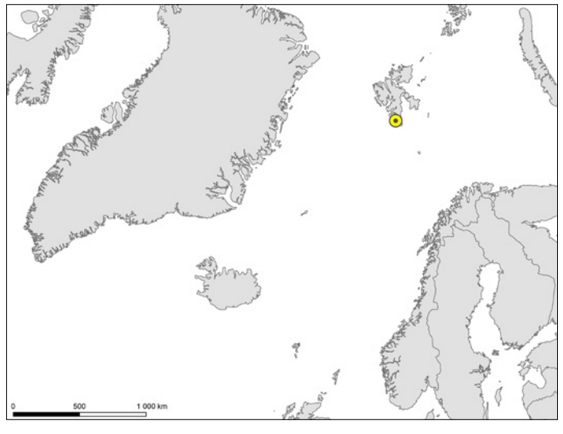


Climate

Climate zone	High Arctic
Total annual precipitation (mm)	453
Precipitation type	Snow Rain Other
Permafrost	None Sporadic Continuous Discontinuous
Snow free period	July August
Temperature	
Mean annual temperature (°C)	-4
Mean temperature January (°C)	-10.2
Mean temperature July (°C)	4.5
Observation period start	
Observation period end	

Access

Air	Sea	Land



www.hornsund.pl

Facility information

Status	Open Closed
Facility type	Station Laboratory Camp
Area under roof (m²)	1550
Opening year	1957
Operational period	Year-Round
Staff at peak	16
Scientist at peak	20

Lab types

Biology	Chemistry
Geology	Geophysics
Scientific diving	None

Communications

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

Medical facilities

Facilities	Yes / No
Staff medically trained	Non-medical trained person Nurse Medical doctor
Staff with basic medical training in summer	1
Staff with basic medical training in winter	1
Medical screening required	Yes / No

Transportation to facility

Airplane	Helicopter
Ship	Skidoo
Walking	4WD

Photos

1 - Hornsund Station building and rainbow - (Credit: Liliana Keslinka-Nawrot)

2 - (Credit: Witek Kaszkin)

3 - Hornsund Lab - (Credit: Adam Nawrot)

4 - (Credit: Witek Kaszkin)

Scientific disciplines

Anthropology	Human biology
Archaeology	Hydrology
Astrophysics	Isotopic chemistry
Atmospheric sciences	Limnology
Climate change	Mapping
Climatology	Marine biology
Ecology	Medical research
Environmental sciences	Medicine
Fishery	Microbiology
Geocryology	Oceanography
Geodesy	Paleontology
Geology	Pollution
Geomorphology	Sedimentology
Geophysics & seismology	Sociology / Social science
GIS	Soil science
Glaciology	Terrestrial biology

Specific devices

Standard chemical laboratory equipment, Liquid Ion chromatography, Differential GPS, Geodetic surveying equipment, Automatic Weather Station, Seismometers, Flux gate.

Scientific services

Technical support, chemical analyses.

Long-term monitoring

Glacier mass balance, Meteorology, Seismology, Earth magnetism, Hydrology, Oceanography, Atmospheric physics.





Abisko Scientific Research Station

68° 21’ 00” N, 18° 49’ 00” E, Altitude 385m — Sub-Arctic

Sweden

ÞEKKINGARSETUR SUÐURNESJA
Suðurnes Science and Learning Center

The Abisko Scientific Research Station is owned by the Swedish Polar Research Secretariat.

The station is located about 200 km north of the Arctic Circle and approximately 385 m a.s.l., on the south shore of the lake Torneträsk. It is situated in a 46-hectare nature reserve bordering the Abisko National Park, which covers 75 km2. The station is located in birch forest and the nearby area offers a great variety in topography, geomorphology, geology, and climate, as well as flora and fauna. The highest mountain in the area reaches 1991 m a.s.l.



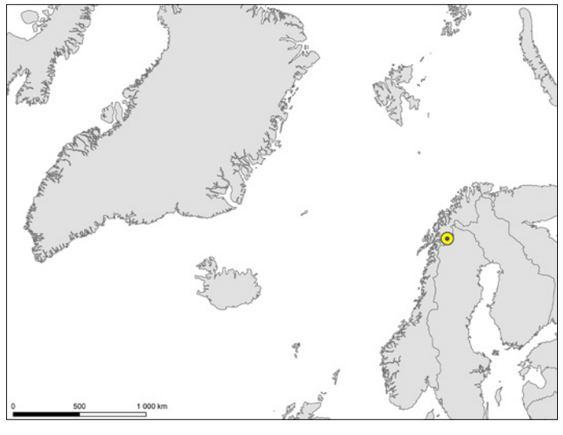


Climate

Climate zone	Sub-Arctic
Total annual precipitation (mm)	350
Precipitation type	Snow Rain Other
Permafrost	None Sporadic Continuous Discontinuous
Snow free period	June - September
Temperature	
Mean annual temperature (°C)	-0.6
Mean temperature January (°C)	
Mean temperature July (°C)	11
Observation period start	
Observation period end	

Access

Air	Sea	**Land**



www.polar.se/abisko

Facility information

Status	Open Closed
Facility type	Station Laboratory Camp
Area under roof (m²)	5000
Opening year	1912
Operational period	Year-Round
Staff at peak	14
Scientist at peak	70

Lab types

Biology	Chemistry
Geology	Geophysics
Scientific diving	None

Other

Communications

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

Medical facilities

Facilities	Yes / No
Staff medically trained	Non-medical trained person Nurse Medical doctor
Staff with basic medical training in summer	10
Staff with basic medical training in winter	10
Medical screening required	Yes / No

Transportation to facility

Airplane	Helicopter
Ship	Skidoo
Walking	4WD
Car	Other

Photos

1 - Abikso (Credit: Unknown)

2 - Abisko Botanical field work (Credit: Nils Åke Andersson)

3 - Abisko Research shelter at sub-site (Credit: Nils Åke Andersson)

4 - Abisko Aerial view of station (Credit: Nils Åke Andersson)

Scientific disciplines

Anthropology	Human biology
Archaeology	Hydrology
Astrophysics	Isotopic chemistry
Atmospheric sciences	Limnology
Climate change	Mapping
Climatology	Marine biology
Ecology	Medical research
Environmental sciences	Medicine
Fishery	Microbiology
Geocryology	Oceanography
Geodesy	Paleontology
Geology	Pollution
Geomorphology	Sedimentology
Geophysics & seismology	Sociology / Social science
GIS	Soil science
Glaciology	Terrestrial biology

Other disciplines

Paleolimnology.

Specific devices

Yes (basic lab and field work equipment - contact the station for details).

Scientific services

Technical and field-work support, sampling, etc. year-round by technicians.

Long-term monitoring

Climate/weather, greenhouse gases, phenology.





Svartberget Research Station

64° 14’ 00” N, 19° 45’ 00” E, Altitude 230m — Sub-Arctic

Sweden

Svartberget Reseach Station belongs to the Faculty of Forest Sciences, Swedish University of Agricultural Sciences (SLU).

The research station is located in the northwestern part of Sweden in the province of Västerbotten. The station is surrounded by a 2500 ha research area including forests, mires, lakes, and waterways. Since 1923, the area has been used for research only. Mixed coniferous forest dominates the experimental site and the bedrock consists almost entirely of gneiss. The dominating type of soil is moraine of various thickness. SLU and the Faculty of Forest Sciences have the mandate from the Government of Sweden to take national responsibility for forestry related research. To do this, SLU has four field stations, including Svartberget, all being manned throughout the year. The research station at Svartberget is located near Vindeln, 60 km west of Umeå, close to the Vindel River, which is a protected national river, free of hydro-power dams.

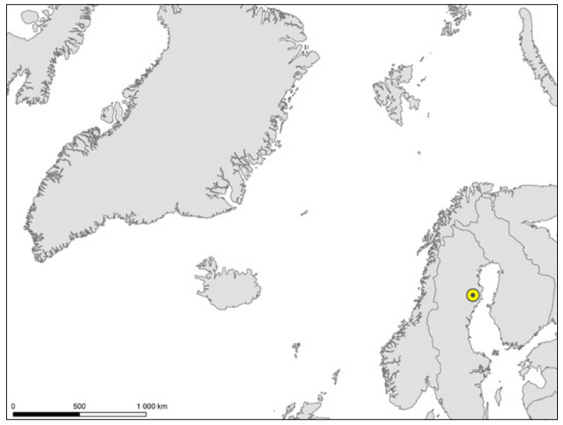
Climate

Climate zone	Sub-Arctic
Total annual precipitation (mm)	614
Precipitation type	Snow Rain Other
Permafrost	None Sporadic Continuous Discontinuous
Snow free period	May - October
Temperature	
Mean annual temperature (°C)	1.8
Mean temperature January (°C)	-11
Mean temperature July (°C)	14.6
Observation period start	1st January 1980
Observation period end	

Access

Air	Sea	**Land**





www.slu.se

Facility information

Status	Open Closed
Facility type	Station Laboratory Camp
Area under roof (m²)	400
Opening year	1923
Operational period	Year-Round
Staff at peak	15
Scientist at peak	0

Lab types

Biology	Chemistry
Geology	Geophysics
Scientific diving	None

Other

Communications

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

Medical facilities

Facilities	Yes / No
Staff medically trained	Non-medical trained person Nurse Medical doctor
Staff with basic medical training in summer	0
Staff with basic medical training in winter	0
Medical screening required	

Transportation to facility

Airplane	Helicopter
Ship	Skidoo
Walking	4WD
Car	Other

Photos

1 - Svartberget Krycklan - The Svartberget research station (Credit: Ulla Nylander)

2 - Svartberget Krycklan - The research area Degerö Stormyr (Credit: Tomas Lundmark)

3 - Svartberget Krycklan - Krycklan Catchment (Credit: Peder Blomkvist)

Scientific disciplines

Anthropology	Human biology
Archaeology	Hydrology
Astrophysics	Isotopic chemistry
Atmospheric sciences	Limnology
Climate change	Mapping
Climatology	Marine biology
Ecology	Medical research
Environmental sciences	Medicine
Fishery	Microbiology
Geocryology	Oceanography
Geodesy	Paleontology
Geology	Pollution
Geomorphology	Sedimentology
Geophysics & seismology	Sociology / Social science
GIS	Soil science
Glaciology	Terrestrial biology

Other disciplines

Ecosystem services.

Specific devices

Basic lab and field work equipment.

Scientific services

Technical and field-work support, sampling, etc. year-round by technicians, free access to data (local climate).





Tarfala Research Station

67° 55’ 00” N, 18° 35’ 00” E, Altitude 1130m — Sub-Arctic

Station

Sweden

Stockholm University

W Research Station is run by the Department of Physical Geography, Stockholm University, Sweden.

Tarfala Research Station is located at 1130 m a.s.l. in the high-alpine Kebnekaise Mountains, northern Sweden. The catchment reaches from 700 to 2100 m a.s.l. and includes several small glaciers of which Storglaciären is extensively studied. The nearest settlement is the Sami village Nikkaluokta, 25 km southeast of the station. There is a mountain tourist station 7 km, and a tourist hut 1 km from Tarfala.



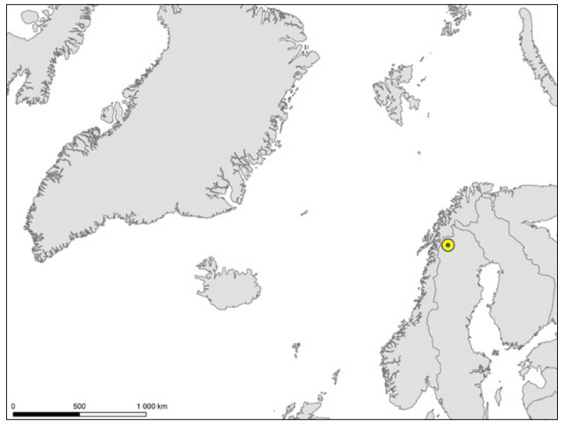


Climate

Climate zone	Sub-Arctic
Total annual precipitation (mm)	1000
Precipitation type	Snow Rain Other
Permafrost	None Sporadic Continuous Discontinuous
Snow free period	July August September
Temperature	
Mean annual temperature (°C)	-3.3
Mean temperature January (°C)	-10.4
Mean temperature July (°C)	8.5
Observation period start	
Observation period end	

Access

Air	Sea	Land



www.ink.su.se/english/tarfala-research-station

Facility information

Status	Open Closed
Facility type	Station Laboratory Camp
Area under roof (m²)	500
Opening year	1946
Operational period	March - September
Staff at peak	10
Scientist at peak	0

Lab types

Biology	Chemistry
Geology	Geophysics
Scientific diving	None

Communications

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

Medical facilities

Facilities	Yes / No
Staff medically trained	Non-medical trained person Nurse Medical doctor
Staff with basic medical training in summer	1
Staff with basic medical training in winter	1
Medical screening required	Yes / No

Transportation to facility

Airplane	Helicopter
Ship	Skidoo
Walking	4WD
Ski	

Photos

1 - Tarfala Valley in summer (Credit: Ninis Rosquist)

2 - Tarfala Coffee in the spring sun (Credit: Ninis Rosquist)

3 - Tarfala Glacier (Credit: Ninis Rosquist)

4 - Tarfala Permafrost drilling (Credit: Ninis Rosquist)

Scientific disciplines

Anthropology	Human biology
Archaeology	Hydrology
Astrophysics	Isotopic chemistry
Atmospheric sciences	Limnology
Climate change	Mapping
Climatology	Marine biology
Ecology	Medical research
Environmental sciences	Medicine
Fishery	Microbiology
Geocryology	Oceanography
Geodesy	Paleontology
Geology	Pollution
Geomorphology	Sedimentology
Geophysics & seismology	Sociology / Social science
GIS	Soil science
Glaciology	Terrestrial biology

Other disciplines

Paleoecology, Ecosystem services.

Specific devices

AWS, dGPS, GPS, georadar, ice and snow sampling kits, laboratory equipment e.g. oven, centrifuge, microsope.





UK Arctic Research Station

78° 55’ 00” N, 11° 56’ 00” E, Altitude 0m | Arctic

United Kingdom

British Antarctic Survey
NATURAL ENVIRONMENT RESEARCH COUNCIL

British Antarctic Survey

Ny-Ålesund, 78°55’ N, 11°56’ E is situated on the southern shore of Kongsfjord on the west coast of Spitsbergen, the largest island in the Svalbard archipelago.



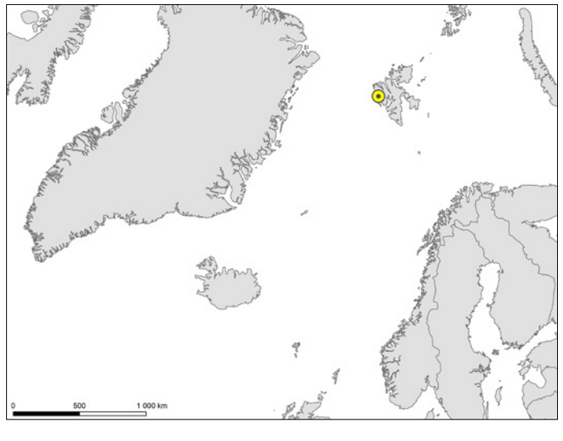


Climate

Climate zone	High Arctic
Total annual precipitation (mm)	500
Precipitation type	Snow Rain Other
Permafrost	None Sporadic Continuous Discontinuous
Snow free period	June July August
Temperature	
Mean annual temperature (°C)	-6
Mean temperature January (°C)	
Mean temperature July (°C)	4.9
Observation period start	
Observation period end	

Access

Air	**Sea**	Land



www.arctic.ac.uk

Facility information

Status	Open Closed
Facility type	Station Laboratory Camp
Area under roof (m²)	442
Opening year	1991
Operational period	Seasonal
Staff at peak	1
Scientist at peak	25

Lab types

Biology	Chemistry
Geology	Geophysics
Scientific diving	None

Communications

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

Medical facilities

Facilities	Yes / No
Staff medically trained	Non-medical trained person Nurse Medical doctor
Staff with basic medical training in summer	1
Staff with basic medical training in winter	0
Medical screening required	Yes / No

A doctor in Longyearbyen provides medical support for Ny-Ålesund. The distance between the two settlements is 60 nautical miles.

Transportation to facility

Airplane	Helicopter
Ship	Skidoo
Walking	4WD
Ski	

Photos

1 - UK Arctic Station Ny-Ålesund (Credit: Linda Bakken)

2 - UK Arctic Station Station building (Credit: Nick Cox)

3 - UK Arctic Station Landscape-fiord and mountains (Credit:Nick Cox)

4 - UK Arctic Station Ny-èlesund and Kongsfjord (Credit: Linda Bakken)

Scientific disciplines

Anthropology	Human biology
Archaeology	Hydrology
Astrophysics	Isotopic chemistry
Atmospheric sciences	Limnology
Climate change	Mapping
Climatology	Marine biology
Ecology	Medical research
Environmental sciences	Medicine
Fishery	Microbiology
Geocryology	Oceanography
Geodesy	Paleontology
Geology	Pollution
Geomorphology	Sedimentology
Geophysics & seismology	Sociology / Social science
GIS	Soil science
Glaciology	Terrestrial biology

Other disciplines

Animal tracking, Bacteriology, Biochemistry, Biogeography, Biology, Biophysics, Botany, Cell and molecular biology, Developmental biology, Earth and atmospheric sciences, Ecosystem modelling, Entomology and parasitology, Environmental policy, Evolutionary biology, Geochemistry, Human impacts, Information sciences, Inorganic chemistry, Meteorology, Organic chemistry, Paleobiology, Paleoclimatology, Paleoecology, Paleolimnology, Sedimentology, Systems biology, Toxicology, Zoology, Ecosystem function, Land-use change.

Specific devices

Drying ovens, freezers, fridges, centrifuge, fume cupboard, microscopes, balances etc.



Princess Elisabeth Antarctica



71° 56’ 59” S, 23° 20’ 49” E, Altitude 1382m — Antarctic

Belgium

Princess Elisabeth Antarctica (PEA)

Belgian Polar Secretariat

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

The station’s natural environment is that of a high plateau (25 km) with a continental Antarctic climate. The station sits in the vicinity of a mountain range and a Petrel colony.

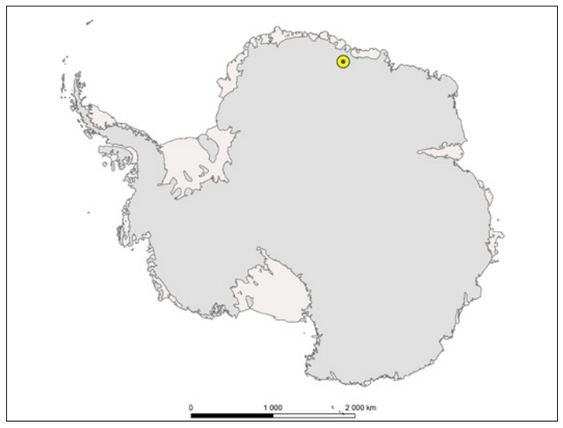


Climate

Climate zone	Inland Antarctica
Total annual precipitation (mm)	50
Precipitation type	Snow Rain Other
Permafrost	None Sporadic Continuous Discontinuous
Snow free period	None
Temperature	
Mean annual temperature (°C)	-18
Mean temperature January (°C)	-9.1
Mean temperature July (°C)	-24.9
Observation period start	1st February 2009
Observation period end	15th April 2016

Access

Air	Sea	Land



Facility information

Status	Open Closed
Facility type	Station Laboratory Camp
Area under roof (m²)	1800
Opening year	2009
Operational period	Seasonal
Staff at peak	12
Scientist at peak	10

Lab types

Biology	Chemistry
Geology	Geophysics
Scientific diving	None

Meteorology; Atmospheric observatory

Communications

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

Medical facilities

Facilities	Yes / No
Staff medically trained	Non-medical trained person Nurse Medical doctor
Staff with basic medical training in summer	2
Staff with basic medical training in winter	0
Medical screening required	Yes / No

Transportation to facility

Airplane	Helicopter
Ship	Skidoo
Walking	4WD

Photos

1 - Station Princess Elisabeth 2 (Credit: Chiara Montanari, Janvier 2016)

2 - Station PE, Sciences, ACME project, Antarctiq Bvba (Credit: Janvier 2016)

3 - Station PE, scientific shelter, Chiara Montanari (Credit: Janvier)

Scientific disciplines

Anthropology	Human biology
Archaeology	Hydrology
Astrophysics	Isotopic chemistry
Atmospheric sciences	Limnology
Climate change	Mapping
Climatology	Marine biology
Ecology	Medical research
Environmental sciences	Medicine
Fishery	Microbiology
Geocryology	Oceanography
Geodesy	Paleontology
Geology	Pollution
Geomorphology	Sedimentology
Geophysics & seismology	Sociology / Social science
GIS	Soil science
Glaciology	Terrestrial biology

Other disciplines

Information sciences, Sustainable and communication technologies, Computer sciences.

Specific devices

Aethalometer, Nephelometer, Laser Aerosol Spectrometer, TSI CPC, TEOM-FDMS, CCNc + PSU, BREWER, Radiosondes, Weather Balloons, pyrometer, Ceilometer, MRR, AWS (3), iWS (2), CIMEL, MAX-DOAS, UV-Pyranometer.

Scientific services

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, Advice.

Long-term monitoring

Atmospheric and geophysics observatory.





St. Kliment Ohridski

62° 38’ 26” S, 60° 21’ 55” W, Altitude 15m — Antarctic

Bulgaria

St. Kliment Ohridiski, Bulgarian Antarctic Institute

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



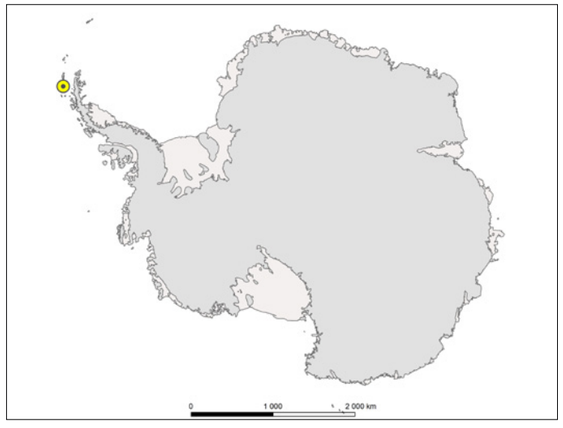


Climate

Climate zone	Maritime Antarctica
Total annual precipitation (mm)	
Precipitation type	Snow Rain Other
Permafrost	None Sporadic Continuous Discontinuous
Snow free period	None
Temperature	
Mean annual temperature (°C)	
Mean temperature January (°C)	9
Mean temperature July (°C)	-5.4
Observation period start	January 2010
Observation period end	December 2012

Access

Air **Sea** Land



www.bai-bg.net/bulgarian-base.html

Facility information

Status	Open Closed
Facility type	Station Laboratory Camp
Area under roof (m²)	221
Opening year	1988
Operational period	Seasonal
Staff at peak	6
Scientist at peak	16

Lab types

Biology	Chemistry
Geology	Geophysics
Scientific diving	None

Communications

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

Medical facilities

Facilities	Yes / No
Staff medically trained	Non-medical trained person Nurse Medical doctor
Staff with basic medical training in summer	1
Staff with basic medical training in winter	0
Medical screening required	Yes / No

Transportation to facility

Airplane	Helicopter
Ship	Skidoo
Walking	4WD

Photos

1 - Bulgarian Antarctic Base (Credit: Christo Pimpirev)

2 - The Chapel Ioan Rilski (Credit: Christo Pimpirev)

3 - Bulgarian Antarctic Base (Credit: Christo Pimpirev)

4 - Bulgarian Antarctic Base (Credit: Christo Pimpirev)

5 - Bulgarian Antarctic Base (Credit: Niki Davidov)

Scientific disciplines

Anthropology	Human biology
Archaeology	Hydrology
Astrophysics	Isotopic chemistry
Atmospheric sciences	Limnology
Climate change	Mapping
Climatology	Marine biology
Ecology	Medical research
Environmental sciences	Medicine
Fishery	Microbiology
Geocryology	Oceanography
Geodesy	Paleontology
Geology	Pollution
Geomorphology	Sedimentology
Geophysics & seismology	Sociology / Social science
GIS	Soil science
Glaciology	Terrestrial biology

Other disciplines

Meteorology, Topography, Seismology.







Johann Gregor Mendel

63° 48’ 02” S, 57° 52’ 57” W, Altitude 10m

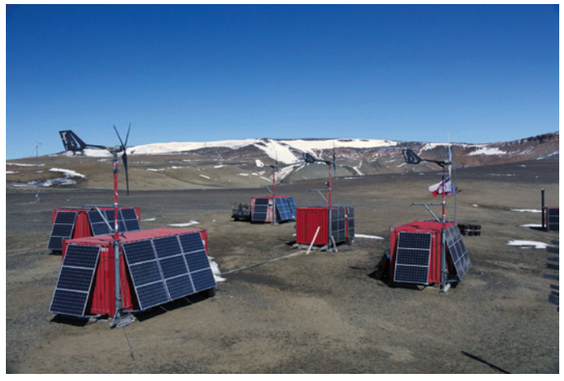
Antarctic

Station

Czech Republic

Johann Gregor Mendel Czech Antarctic Station, Masaryk University

Johann Gregor Mendel Czech Antarctic 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.





Climate

Climate zone	Coastal Antarctica
Total annual precipitation (mm)	
Precipitation type	Snow Rain Other
Permafrost	None Sporadic Continuous Discontinuous
Snow free period	December January February March
Temperature	
Mean annual temperature (°C)	-6.8
Mean temperature January (°C)	0.9
Mean temperature July (°C)	-14.1
Observation period start	14th February 2004
Observation period end	8th February 2016

Access

Air	**Sea**	Land



www.sci.muni.cz/CARI/

Facility information

Status	Open Closed
Facility type	Station Laboratory Camp
Area under roof (m²)	288
Opening year	2006
Operational period	Seasonal
Staff at peak	4
Scientist at peak	16

Lab types

Biology	Chemistry
Geology	Geophysics
Scientific diving	None

Geography, Climatology.

Communications

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

Medical facilities

Facilities	Yes / No
Staff medically trained	Non-medical trained person Nurse Medical doctor
Staff with basic medical training in summer	3
Staff with basic medical training in winter	0
Medical screening required	Yes / No

Transportation to facility

Airplane	Helicopter
Ship	Skidoo
Walking	4WD

Photos

1 - Mendel station (Credit: Laska)

2 - Mendel renewable energy (Credit: Ciz)

3 - Mendel zodiacs (Credit: Kapler)

4 - Mendel flora (Credit: Kapler)

Scientific disciplines

Anthropology	Human biology
Archaeology	Hydrology
Astrophysics	Isotopic chemistry
Atmospheric sciences	Limnology
Climate change	Mapping
Climatology	Marine biology
Ecology	Medical research
Environmental sciences	Medicine
Fishery	Microbiology
Geocryology	Oceanography
Geodesy	Paleontology
Geology	Pollution
Geomorphology	Sedimentology
Geophysics & seismology	Sociology / Social science
GIS	Soil science
Glaciology	Terrestrial biology

Other disciplines

Botany, parasitology, plant stress physiology, ornithology.

Specific devices

Meteorological data collecting

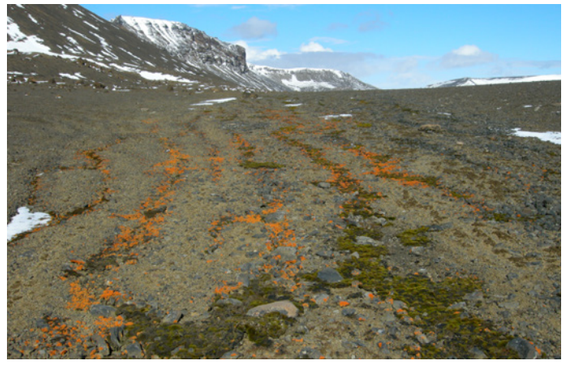
Meteorological stations for micro and macro climatological analysis. Full support to researchers:- Accommodation, meals, two laboratories, technical workshop, cabotage (rubber boats), support to the field camps.

Scientific services

Meteorological data collecting – Meteorological stations for micro and macro climatological analysis.

Long-term monitoring

Continuous measurements of atmospheric pressure, temperature, relative air humidity, global and solar radiation, wind speed and its direction, individual parts of UV radiation.



Aboa



73° 03’ 00” S, 13° 25’ 00” W, Altitude 400m — Antarctic

Finland

FINNARP

Aboa, Finnish Antarctic Research Program (FINNARP) at the Finnish Meteorological Institute.

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

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.



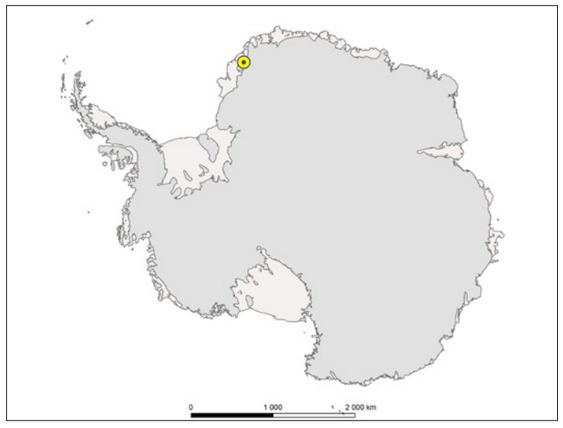


Climate

Climate zone	Inland Antarctica
Total annual precipitation (mm)	
Precipitation type	Snow Rain Other
Permafrost	None Sporadic Continuous Discontinuous
Snow free period	None
Temperature	
Mean annual temperature (°C)	-15.3
Mean temperature January (°C)	
Mean temperature July (°C)	-21.9
Observation period start	1st January 1989
Observation period end	1st January 2001

Access

Air	Sea	Land



www.antarctica.fi/aboa-research-station

Facility information

Status	Open Closed
Facility type	Station Laboratory Camp
Area under roof (m²)	200
Opening year	1988
Operational period	Seasonal
Staff at peak	5
Scientist at peak	8

Lab types

Biology	Chemistry
Geology	Geophysics
Scientific diving	None

Gravity

Communications

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

Medical facilities

Facilities	Yes / No
Staff medically trained	Non-medical trained person Nurse Medical doctor
Staff with basic medical training in summer	
Staff with basic medical training in winter	
Medical screening required	Yes / No

Transportation to facility

Airplane	Helicopter
Ship	Skidoo
Walking	4WD

Photos

1 - Aboa station (Credit: FINNARP)

2 - Scientists (Credit: FINNARP)

3 - Scientist at work (Credit: FINNARP)

4 - Scientist (Credit: FINNARP)

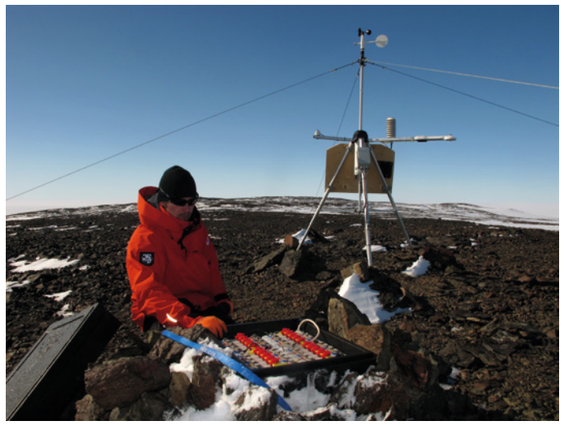
5 - Drinking water collection (Credit: FINNARP)

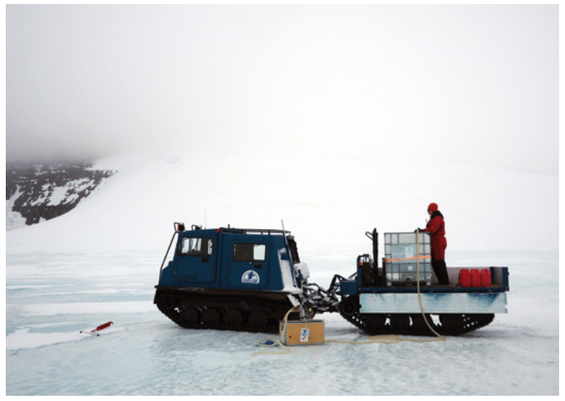
Scientific disciplines

Anthropology	Human biology
Archaeology	Hydrology
Astrophysics	Isotopic chemistry
Atmospheric sciences	Limnology
Climate change	Mapping
Climatology	Marine biology
Ecology	Medical research
Environmental sciences	Medicine
Fishery	Microbiology
Geocryology	Oceanography
Geodesy	Paleontology
Geology	Pollution
Geomorphology	Sedimentology
Geophysics & seismology	Sociology / Social science
GIS	Soil science
Glaciology	Terrestrial biology

Specific devices

AWS, Seismometer, GPS.





Station

Alfred-Faure



46° 25’ 48” S, 51° 51’ 40” E, Altitude 146m | Sub-Antarctic

France

Alfred-Faure Station, (Crozet Archipelago) is owned and managed by the Terres Australes et Antarctiques Françaises (TAAF). Scientific activities are supported and implemented by the French Polar Institute Paul-Emile Victor (IPEV).

Alfred-Faure is a permanent French scientific station on Île de la Possession, one of the islands of the Sub-Antarctic Crozet Archipelago in the South Indian Ocean. It is located at the eastern end of the island on a plateau 143 m a.s.l. Three huts are distributed in the field as support facilities for scientists. In 2006, all the islands of the archipelago were listed as natural reserve. Access to several sites of Ile de la Possession is consequently submitted to permits.



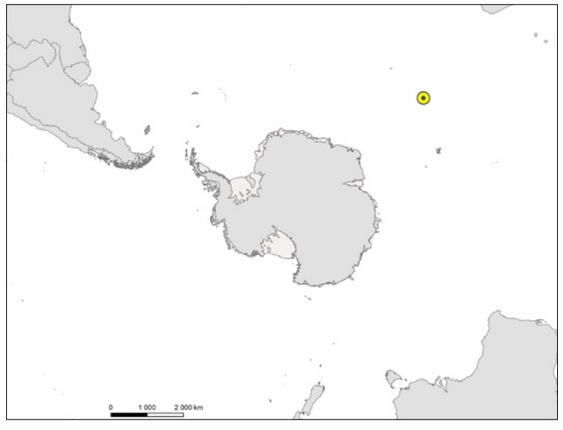


Climate

Climate zone	Sub-Antarctic
Total annual precipitation (mm)	2369
Precipitation type	Snow Rain Other
Permafrost	None Sporadic Continuous Discontinuous
Snow free period	Year-Round
Temperature	
Mean annual temperature (°C)	5.5
Mean temperature January (°C)	7.9
Mean temperature July (°C)	3.7
Observation period start	1st January 1974
Observation period end	31st December 2015

Access

Air | **Sea** | Land



www.institut-polaire.fr/ipev-en/infrastructures-2/stations/subantarctic-islands/

Facility information

Status	Open Closed
Facility type	Station Laboratory Camp
Area under roof (m²)	5461
Opening year	1962
Operational period	Year-Round
Staff at peak	17
Scientist at peak	28

Lab types

Biology	Chemistry
Geology	Geophysics
Scientific diving	None

Communications

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

Medical facilities

Facilities	Yes / No
Staff medically trained	Non-medical trained person Nurse Medical doctor
Staff with basic medical training in summer	1
Staff with basic medical training in winter	1
Medical screening required	Yes / No

Transportation to facility

Airplane	Helicopter
Ship	Skidoo
Walking	4WD

Photos

1 - Crozet Base Alfred Faure (Credit: IPEV)

2 - Crozet Fur seal and King Penguins (Credit: Gildas Lemonnier)

3 - Crozet Geophysics shelter (Credit: Nina Marchand)

4 - Crozet Baie du Marin (Credit: IPEV)

5 - Crozet Ornithologists in King Penguin rookery (Credit: David Beune)

Scientific disciplines

Anthropology	Human biology
Archaeology	Hydrology
Astrophysics	Isotopic chemistry
Atmospheric sciences	Limnology
Climate change	Mapping
Climatology	Marine biology
Ecology	Medical research
Environmental sciences	Medicine
Fishery	Microbiology
Geocryology	Oceanography
Geodesy	Paleontology
Geology	Pollution
Geomorphology	Sedimentology
Geophysics & seismology	Sociology / Social science
GIS	Soil science
Glaciology	Terrestrial biology

Specific devices

Basic equipment of laboratories: precision scales, microscopes, stove, distilled water etc, surgery room.

Long-term monitoring

Earth magnetism (INTERMAGNET Network), Seismology (GEOSCOPE Network), Sea level (GLOSS Network), Birds and mammal population dynamics, Invertebrate fauna, Plant populations, Non-native species (Plants, Invertebrates).





Concordia



75° 05’ 59’ S, 123° 19’ 57’’ E, Altitude 3233m — Antarctic

France / Italy

Concordia station is jointly funded, staffed and operated by Italy’s Programma Nazionale di Ricerche in Antartide (PNRA) and the French Polar Institute Paul-Emile Victor (IPEV).

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



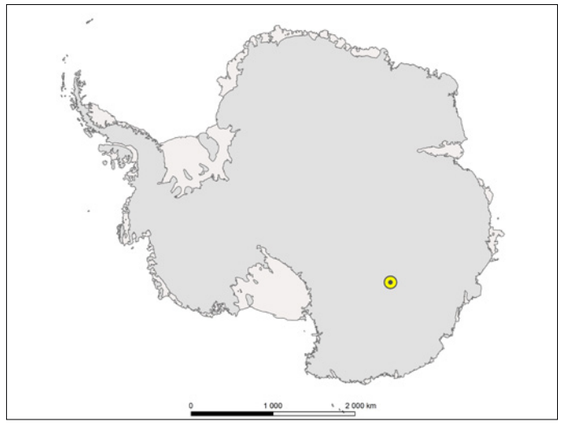


Climate

Climate zone	Inland Antarctica
Total annual precipitation (mm)	
Precipitation type	Snow Rain Other
Permafrost	None Sporadic Continuous Discontinuous
Snow free period	None
Temperature	
Mean annual temperature (°C)	-52.1
Mean temperature January (°C)	-31.5
Mean temperature July (°C)	-64.2
Observation period start	27th January 2005
Observation period end	29th January 2016

Access

Air	Sea	**Land**



http://www.institut-polaire.fr/ipev-en/infrastructures-2/stations/concordia/

Station

Facility information

Status	Open Closed
Facility type	Station Laboratory Camp
Area under roof (m²)	3605
Opening year	2005
Operational period	Year-round
Staff at peak	35
Scientist at peak	35

Lab types

Biology	Chemistry
Geology	Geophysics
Scientific diving	Other

Astronomy

Communications

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

Medical facilities

Facilities	Yes / No
Staff medically trained	Non-medical trained person Nurse Medical doctor
Staff with basic medical training in summer	2
Staff with basic medical training in winter	2
Medical screening required	Yes / No

Transportation to facility

Airplane	Helicopter
Ship	Skidoo
Walking	4WD

Snow-groomers.

Photos

1 - Concordia external

2 - Concordia Summer Camp (Credit: Serge Drapeau)

3 - Concordia Work outside (Credit: Jerome Chapellaz)

Scientific disciplines

Anthropology	Human biology
Archaeology	Hydrology
Astrophysics	Isotopic chemistry
Atmospheric sciences	Limnology
Climate change	Mapping
Climatology	Marine biology
Ecology	Medical research
Environmental sciences	Medicine
Fishery	Microbiology
Geocryology	Oceanography
Geodesy	Paleontology
Geology	Pollution
Geomorphology	Sedimentology
Geophysics & seismology	Sociology / Social science
GIS	Soil science
Glaciology	Terrestrial biology

Other disciplines

Astronomy, Planetary science, Earth observation, Engineering, Paleoclimatology, Meteorite research.

Specific devices

No basic scientific equipment. Each project should bring its own necessary scientific equipment.

Scientific services

A scientific engineer (electronician) is appointed in winter for monitoring and maintenance of automated programs.

Long-term monitoring

Earth magnetism (INTERMAGNET Network), Seismology (GEOSCOPE Network), Stratospheric ozone, SuperDARN (Super Dual Auroral Radar Network), Glacier mass balance (GLACIOCLIM Observatory), Baseline Surface Radiation Network (BSRN), meteorology (incl. Radio-sounding).



Dumont d'Urville

66° 40' 00" S, 140° 00' 00" E, Altitude 42m — Antarctic

Station

France

Dumont d'Urville Station is part of the Terres Australes et Antarctiques Françaises (TAAF) and is managed by the French Polar Institute Paul-Emile Victor (IPEV)

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 of l'Astrolabe, close to the station, produces large icebergs which have a strong impact on the bottom of the sea floor and its biodiversity. The Bernard, Lamarck, Rostand, Le Mauguen islands and the Bon Docteur Nunatak of the archipelago constitute the Antarctic Specially Protected Area 120 which includes also the Emperor penguin breeding colony on sea ice in winter.



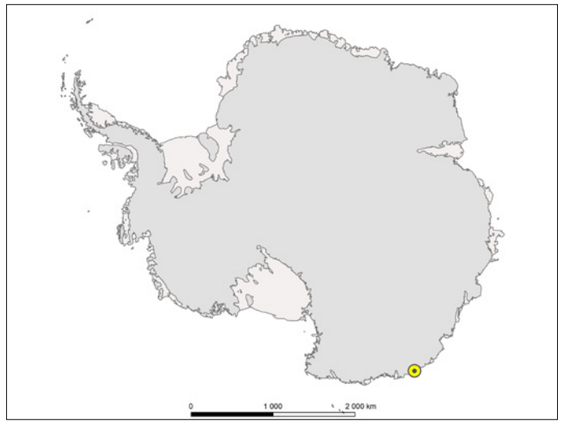


Climate

Climate zone	Coastal Antarctica
Total annual precipitation (mm)	
Precipitation type	Snow Rain Other
Permafrost	None Sporadic Continuous Discontinuous
Snow free period	None
Temperature	
Mean annual temperature (°C)	-10.8
Mean temperature January (°C)	-0.9
Mean temperature July (°C)	-16.7
Observation period start	1st January 1981
Observation period end	31st December 2010

Access

Air	**Sea**	Land



www.institut-polaire.fr/ipev-en/support-for-science/antarctica/dumont-durville/

Facility information

Status	Open Closed
Facility type	Station Laboratory Camp
Area under roof (m²)	4815
Opening year	1956
Operational period	Year-Round
Staff at peak	44
Scientist at peak	46

Lab types

Biology	Chemistry
Geology	Geophysics
Scientific diving	None

Communications

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

Medical facilities

Facilities	Yes / No
Staff medically trained	Non-medical trained person Nurse Medical doctor
Staff with basic medical training in summer	1
Staff with basic medical training in winter	1
Medical screening required	Yes / No

Transportation to facility

Airplane	Helicopter
Ship	Skidoo
Walking	4WD

Photos

1 - Base (Credit: Katell Pierre)

2 - Robot and Emperor penguins (Credit: Francoise Amelineau)

3 - Base (Credit: INFRAPOL)

4 - Astrolabe (Credit: Philippe Apelt)

Scientific disciplines

Anthropology	Human biology
Archaeology	Hydrology
Astrophysics	Isotopic chemistry
Atmospheric sciences	Limnology
Climate change	Mapping
Climatology	Marine biology
Ecology	Medical research
Environmental sciences	Medicine
Fishery	Microbiology
Geocryology	Oceanography
Geodesy	Paleontology
Geology	Pollution
Geomorphology	Sedimentology
Geophysics & seismology	Sociology / Social science
GIS	Soil science
Glaciology	Terrestrial biology

Specific devices

Basic equipment (precision scales, microscopes, stove, distilled water etc.), surgery room, diving facilities.

Long-term monitoring

Earth magnetism (INTERMAGNET Network), Seismology (GEOSCOPE Network), Sea level (GLOSS Network), Stratospheric ozone (NDACC network), Glacier mass balance (GLACIOCLIM Observatory), Atmospheric sulfur cycle, Nucleon component of the cosmic radiation, Birds and mammal population dynamics.





Martin-de-Viviès

37° 47’ 53” S, 77° 34’ 18” E, Altitude 27m

Sub-Antarctic

France

Martin-de-Viviès (Saint-Paul and Amsterdam Islands) is owned and managed by the Terres Australes et Antarctiques Françaises (TAAF). Scientific activities are supported and implemented by the French Polar Institute Paul-Emile Victor (IPEV) along with other scientific partners (Météo France).

Martin de Viviès is a permanent French scientific station on Amsterdam Island, in the South Indian Ocean. This island is entirely volcanic in origin and its shape, roughly circular, is a cone of 50 km² culminating at 881 m a.s.l. (Mont de la Dives). The station is located at the Northern part of the island, at few meters a.s.l. Several huts are distributed in the field as support facilities for scientists or visitors. In 2006, the island was listed as natural reserve which has been extended in 2016 to a Natural Marine Reserve in the Eclusive Economic Zone (EEZ) of Saint-Paul and Amsterdam islands. Access to some sites of Amsterdam Island is consequently submitted to permits.

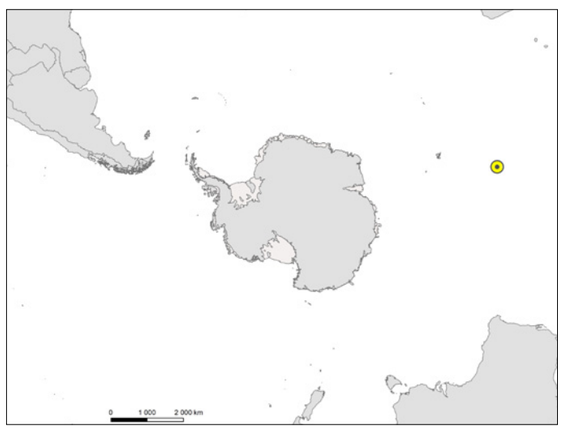
Climate

Climate zone	Sub-Antarctic
Total annual precipitation (mm)	1100
Precipitation type	Snow Rain Other
Permafrost	None Sporadic Continuous Discontinuous
Snow free period	Year-Round
Temperature	
Mean annual temperature (°C)	14
Mean temperature January (°C)	17.1
Mean temperature July (°C)	11.4
Observation period start	1st January 1951
Observation period end	31st December 2015

Access

Air **Sea** Land





www.institut-polaire.fr/ipev-en/infrastructures-2/stations/subantarctic-islands/

Facility information

Status	Open Closed
Facility type	Station Laboratory Camp
Area under roof (m²)	4294
Opening year	1950
Operational period	Year-Round
Staff at peak	35
Scientist at peak	14

Lab types

Biology	Chemistry
Geology	Geophysics
Scientific diving	None

Communications

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

Medical facilities

Facilities	Yes / No
Staff medically trained	Non-medical trained person Nurse Medical doctor
Staff with basic medical training in summer	1
Staff with basic medical training in winter	1
Medical screening required	Yes / No

Transportation to facility

Airplane	Helicopter
Ship	Skidoo
Walking	4WD

Photos

1 - Martin-de-Viviès (Credit: Unknown)

2 - Martin-de-Viviès (Credit: Unknown)

Scientific disciplines

Anthropology	Human biology
Archaeology	Hydrology
Astrophysics	Isotopic chemistry
Atmospheric sciences	Limnology
Climate change	Mapping
Climatology	Marine biology
Ecology	Medical research
Environmental sciences	Medicine
Fishery	Microbiology
Geocryology	Oceanography
Geodesy	Paleontology
Geology	Pollution
Geomorphology	Sedimentology
Geophysics & seismology	Sociology / Social science
GIS	Soil science
Glaciology	Terrestrial biology

Specific devices

Basic equipment of laboratories (precision scales, microscopes, stove, distilled water etc.).

Long-term monitoring

Earth magnetism (INTERMAGNET Network), Seismology (GEOSCOPE Network), Sea level (GLOSS Network), CO2 (ICOS network) and tropospheric chemistry, Aerosols and atmospheric tracers, Birds and mammal population dynamics, Invertebrate fauna, Plant populations, Non-native species.



Port-aux-Français

49° 21’ 00” S, 70° 13’ 10” E, Altitude 20m

Sub-Antarctic

France

Port-aux-Français (Kerguelen Islands) is owned and managed by the Terres Australes et Antarctiques Françaises (TAAF). Scientific activities are supported and implemented by the French Polar Institute Paul-Emile Victor (IPEV) along with other scientific partners (CNRS, Météo France etc.).

Port-aux-Français is a permanent French scientific station on Kerguelen Islands, a Subantarctic Archipelago in the South Indian Ocean. Also known as the Desolation Islands, the archipelago consists of 300 islands, islets, and reefs which lie between 48° to 50°S and 68° to 70°E, covering an area of 7,215 km² (2,786 mi²). Port-aux-Français is located at the eastern part of the archipelago in the Golfe du Morbihan, at few meters a.s.l. Several huts are distributed in the field as support facilities for scientists. In 2006, all the islands of the archipelago were listed as natural reserve which has been extended in 2016 to a Natural Marine Reserve in the Exclusive Economic Zone (EEZ) of Kerguelen. Access to some sites of Kerguelen Islands is consequently submitted to permits.



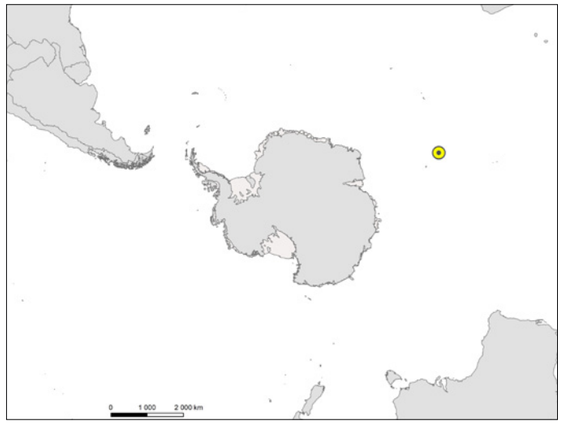


Climate

Climate zone	Sub-Antarctic
Total annual precipitation (mm)	753.1
Precipitation type	Snow Rain Other
Permafrost	None Sporadic Continuous Discontinuous
Snow free period	Year-Round
Temperature	
Mean annual temperature (°C)	4.9
Mean temperature January (°C)	7.9
Mean temperature July (°C)	2.1
Observation period start	1st January 1951
Observation period end	31st December 2015

Access

Air	**Sea**	Land



www.institut-polaire.fr/ipev-en/infrastructures-2/stations/subantarctic-islands/

Facility information

Status	Open Closed
Facility type	Station Laboratory Camp
Area under roof (m²)	18170
Opening year	1949
Operational period	Year-Round
Staff at peak	90
Scientist at peak	45

Lab types

Biology	Chemistry
Geology	Geophysics
Scientific diving	None

Marine laboratory, Microbiology.

Communications

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

Medical facilities

Facilities	Yes / No
Staff medically trained	Non-medical trained person Nurse Medical doctor
Staff with basic medical training in summer	2
Staff with basic medical training in winter	2
Medical screening required	Yes / No

Transportation to facility

Airplane	Helicopter
Ship	Skidoo
Walking	4WD

Photos

1 - Port-aux-Français (Credit: Unknown)

2 - Port-aux-Français (Credit: Unknown)

3 - Hot springs (Credit: Sylvie Geiger)

4 - Weather Station Armor (Credit: Nina Marchand)

Scientific disciplines

Anthropology	Human biology
Archaeology	Hydrology
Astrophysics	Isotopic chemistry
Atmospheric sciences	Limnology
Climate change	Mapping
Climatology	Marine biology
Ecology	Medical research
Environmental sciences	Medicine
Fishery	Microbiology
Geocryology	Oceanography
Geodesy	Paleontology
Geology	Pollution
Geomorphology	Sedimentology
Geophysics & seismology	Sociology / Social science
GIS	Soil science
Glaciology	Terrestrial biology

Other disciplines

Paleoecology.

Specific devices

Basic equipment of laboratories (precision scales, microscopes, stove, distilled water etc.), Marine laboratory.

Long-term monitoring

Earth magnetism (INTERMAGNET Network), Seismology (GEOSCOPE Network), Sea level (GLOSS Network), Nucleon component of the cosmic radiation, SuperDARN (Super Dual Auroral Radar Network), Birds and mammal population dynamics, Invertebrate fauna, Plant populations, Non-native species (plants, invertebra



German Antarctic Receiving Station (GARS) O'Higgins



63° 19' 16" S, 57° 54' 02" W, Altitude 17m

Antarctic

Germany

GARS-O'Higgins, German Aerospace Center (DLR)

The German Antarctic Receiving Station (GARS) O'Higgins is a dual purpose facility for Earth observation and geodesy operated year-round. The station is located very close to the Chilean Antarctic Base General Bernardo O'Higgins, on the island Isabel Riquelme at the northern tip of the Antarctic Peninsula. GARS O'Higgins serves as a satellite ground station for payload data reception and telecommanding of remote sensing satellites as well as a geodetic observatory for global reference systems, global change and astrometry. The station is owned and managed by the German Aerospace Centre (DLR). It is jointly operated by DLR and the Federal Agency for Cartography and Geodesy (BKG) in cooperation with Chile.

The satellite ground station O'Higgins (OHG) is part of the global ground station network of DLR and provides near real time (NRT) service related to sea ice monitoring.

For space geodesy and astrometry the radio antenna O'Higgins significantly improves coverage over the southern hemisphere and plays an essential role within the global Very Long Baseline Interferometry (VLBI) network. In particular the determination of the Earth Orientation Parameters (EOP) and the sky coverage of the International Celestial Reference Frame (ICRF) benefit from the location at a high southern latitude. Further, the resolution of VLBI images of active galactic nuclei (AGN), cosmic radio sources defining the ICRF, improves significantly when O'Higgins is included in the network. The various geodetic instrumentation and the long time series at O'Higgins allow a reliable determination of crustal motions.

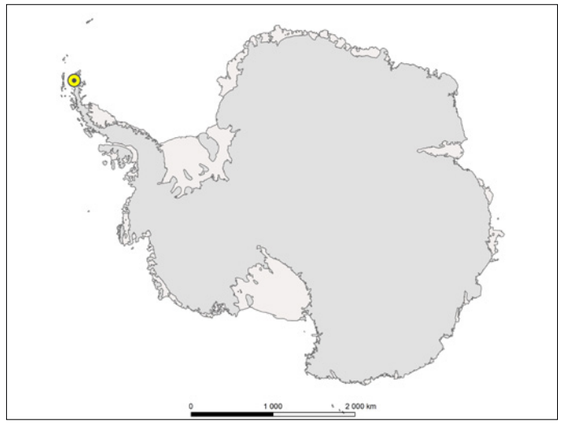


Climate

Climate zone	Coastal Antarctica
Total annual precipitation (mm)	
Precipitation type	Snow Rain Other
Permafrost	None Sporadic Continuous Discontinuous
Snow free period	January February December
Temperature	
Mean annual temperature (°C)	-3.9
Mean temperature January (°C)	1
Mean temperature July (°C)	-9
Observation period start	1st January 1963
Observation period end	31st December 1999

Access

Air	**Sea**	Land



www.dlr.de/gars

Facility information

Status	Open Closed
Facility type	Station Laboratory Camp
Area under roof (m²)	500
Opening year	1991
Operational period	Year-Round
Staff at peak	10
Scientist at peak	8

Lab types

Biology	Chemistry
Geology	Geophysics
Scientific diving	None

Offices, Electronic lab.

Communications

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

Medical facilities

Facilities	Yes / No
Staff medically trained	Non-medical trained person Nurse Medical doctor
Staff with basic medical training in summer	
Staff with basic medical training in winter	
Medical screening required	Yes / No

Two nurses on neighboring Chilean station O'Higgins (year-round)

Transportation to facility

Airplane	Helicopter
Ship	Skidoo
Walking	4WD

Photos

1 - GARS GAL (Credit: DLR (CC-BY 3.0))

2 - Antenne Antarktisstation (Credit: DLR (CC-BY 3.0))

3 - GARS GAL (Credit - DLR (CC-BY 3.0))

Scientific disciplines

Anthropology	Human biology
Archaeology	Hydrology
Astrophysics	Isotopic chemistry
Atmospheric sciences	Limnology
Climate change	Mapping
Climatology	Marine biology
Ecology	Medical research
Environmental sciences	Medicine
Fishery	Microbiology
Geocryology	Oceanography
Geodesy	Paleontology
Geology	Pollution
Geomorphology	Sedimentology
Geophysics & seismology	Sociology / Social science
GIS	Soil science
Glaciology	Terrestrial biology

Other disciplines

Remote Sensing, NRT Sea Ice Monitoring.

Specific devices

9m satellite tracking antenna and radio telescope, satellite data processing facility,
GNSS reference stations, corner reflectors, meteorological instruments

Note: tide gauges are not anymore available on site.

Scientific services

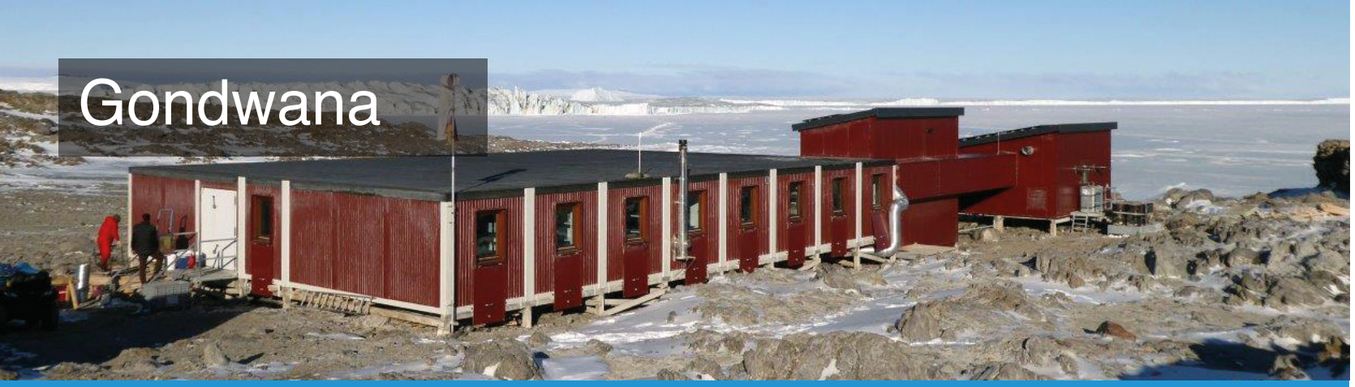
Near-real time (NRT) service for sea ice monitoring and data reception for Earth observation missions.

Long-term monitoring

VLBI measurements, GNSS measurements (in addition), determination of the earth orientation parameters, observation of crustal motions of the northern Antarctic peninsula, Long term time series of EO data over Antarctic Peninsula and the Antarctic in general.



Gondwana

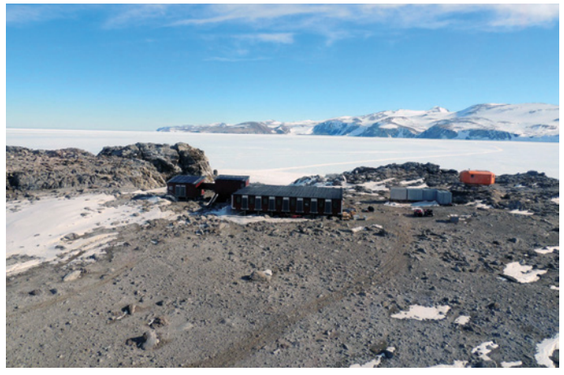


74° 38’ 13” S, 164° 13’ 27” E, Altitude 20m — Antarctic

Germany

Federal Institute for Geosciences and Natural Resources (BGR).

Gondwana Station is located on a small peninsula at Gerlache Inlet, in the Terra Nova Bay area. It was erected in 1983 as a bivouac hut, then converted into a summer station in 1989. A major renovation and modernisation was carried out in the 2015-16 Antarctic season. The Terra Nova Bay is part of the Ross Sea and is surrounded by the Campbell Glacier Tongue and the Drygalski Ice Tongue along the coast of Victoria Land. The Terra Nova Bay is designated as an Antarctic Specially Protected Area (ASPA 116).



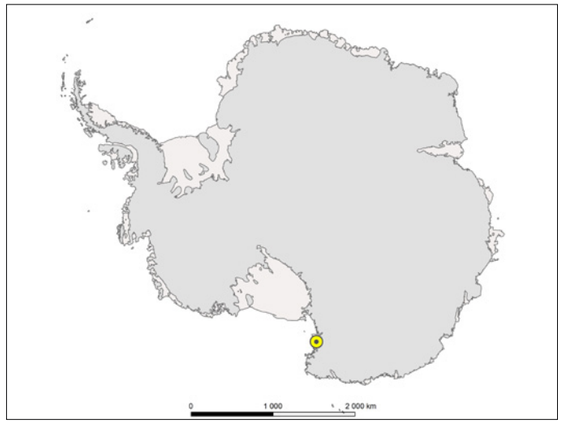


Climate

Climate zone	Coastal Antarctica
Total annual precipitation (mm)	
Precipitation type	Snow Rain Other
Permafrost	None Sporadic Continuous Discontinuous
Snow free period	January February
Temperature	
Mean annual temperature (°C)	-14
Mean temperature January (°C)	-1.6
Mean temperature July (°C)	-19.8
Observation period start	1st January 1987
Observation period end	31st December 1991

Access

Air	**Sea**	Land



http://www.bgr.bund.de/EN/

Facility information

Status	Open Closed
Facility type	Station Laboratory Camp
Area under roof (m²)	236
Opening year	1983
Operational period	Summer only.
Staff at peak	10
Scientist at peak	10

Lab types

Biology	Chemistry
Geology	Geophysics
Scientific diving	None

Communications

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

Medical facilities

Facilities	Yes / No
Staff medically trained	Non-medical trained person Nurse Medical doctor
Staff with basic medical training in summer	
Staff with basic medical training in winter	
Medical screening required	Yes / No

Transportation to facility

Airplane	Helicopter
Ship	Skidoo
Walking	4WD

Scientific disciplines

Anthropology	Human biology
Archaeology	Hydrology
Astrophysics	Isotopic chemistry
Atmospheric sciences	Limnology
Climate change	Mapping
Climatology	Marine biology
Ecology	Medical research
Environmental sciences	Medicine
Fishery	Microbiology
Geocryology	Oceanography
Geodesy	Paleontology
Geology	Pollution
Geomorphology	Sedimentology
Geophysics & seismology	Sociology / Social science
GIS	Soil science
Glaciology	Terrestrial biology

Station

Photos

1 - Gondwana Station (Credit: A. Läufer/BGR)

2 - Gondwana Station (Credit: A. Läufer/BGR)

3 - Gondwana Station from the air (Credit: A. Läufer/BGR)



Kohnen

75° 00’ 06” S, 0° 04’ 04” E, Altitude 2892m

Antarctic

Germany

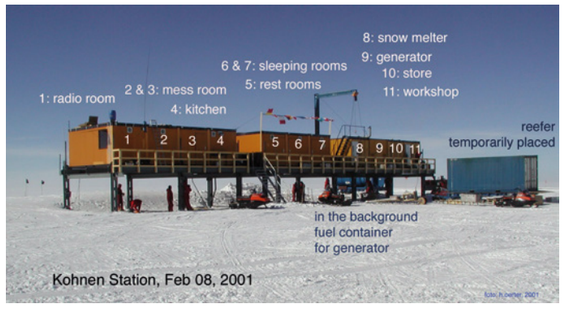
ALFRED-WEGENER-INSTITUT
HELMHOLTZ-ZENTRUM FÜR POLAR- UND MEERESFORSCHUNG

Kohnen, Alfred Wegener Institute (AWI)

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

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



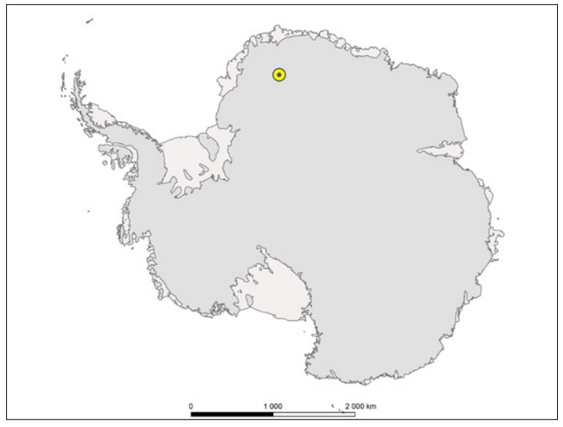


Climate

Climate zone	Inland Antarctica
Total annual precipitation (mm)	
Precipitation type	Snow Rain Other
Permafrost	None Sporadic Continuous Discontinuous
Snow free period	None
Temperature	
Mean annual temperature (°C)	-42.2
Mean temperature January (°C)	-26
Mean temperature July (°C)	-52.3
Observation period start	1st January 1998
Observation period end	31st December 2004

Access

Air	Sea	Land



www.awi.de/en/expedition/stations/kohnen-station.html

Facility information

Status	Open Closed
Facility type	Station Laboratory Camp
Area under roof (m²)	160
Opening year	2001
Operational period	Seasonal
Staff at peak	4
Scientist at peak	24

Lab types

Biology	Chemistry
Geology	Geophysics
Scientific diving	None

Communications

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

Medical facilities

Facilities	Yes / No
Staff medically trained	Non-medical trained person Nurse Medical doctor
Staff with basic medical training in summer	
Staff with basic medical training in winter	
Medical screening required	Yes / No

Transportation to facility

Airplane	Helicopter
Ship	Skidoo
Walking	4WD

Scientific disciplines

Anthropology	Human biology
Archaeology	Hydrology
Astrophysics	Isotopic chemistry
Atmospheric sciences	Limnology
Climate change	Mapping
Climatology	Marine biology
Ecology	Medical research
Environmental sciences	Medicine
Fishery	Microbiology
Geocryology	Oceanography
Geodesy	Paleontology
Geology	Pollution
Geomorphology	Sedimentology
Geophysics & seismology	Sociology / Social science
GIS	Soil science
Glaciology	Terrestrial biology

Photos

1 - Kohnen drilltrench (Credit: AWI)

2 - Kohnen drilltrench (Credit: AWI)

3 - Kohnen station (Credit: AWI)

Neumayer-Station III



70° 41’ 00” S, 08° 16’ 00” W, Altitude 43m

Antarctic

Germany

ALFRED-WEGENER-INSTITUT
HELMHOLTZ-ZENTRUM FÜR POLAR- UND MEERESFORSCHUNG

Neumayer III, Alfred Wegener Institute (AWI)

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

The coastal environment favours the biodiversity in the vicinity of Neumayer-Station III. An 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.



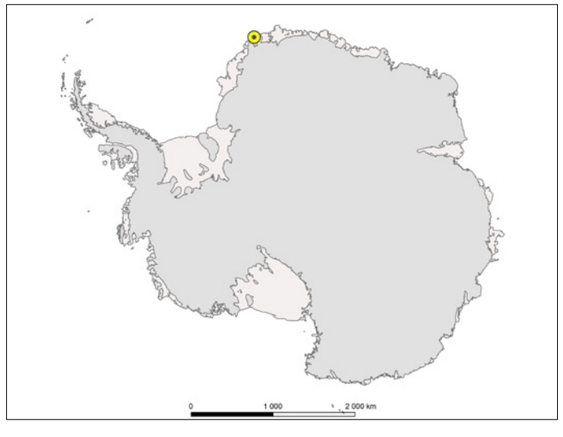


Climate

Climate zone	Coastal Antarctica
Total annual precipitation (mm)	
Precipitation type	Snow Rain Other
Permafrost	None Sporadic Continuous Discontinuous
Snow free period	January February March December
Temperature	
Mean annual temperature (°C)	-16
Mean temperature January (°C)	-4.1
Mean temperature July (°C)	-24.9
Observation period start	1st January 1981
Observation period end	31st December 2015

Access

Air	Sea	Land



www.awi.de/en/expedition/stations/neumayer-station-iii.html

Facility information

Status	Open Closed
Facility type	Station Laboratory Camp
Area under roof (m²)	4890
Opening year	1981
Operational period	Year-Round
Staff at peak	20
Scientist at peak	40

Lab types

Biology	Chemistry
Geology	Geophysics
Scientific diving	None

Meteorology, Offices

Communications

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

Medical facilities

Facilities	Yes / No
Staff medically trained	Non-medical trained person Nurse Medical doctor
Staff with basic medical training in summer	3
Staff with basic medical training in winter	3
Medical screening required	Yes / No

Transportation to facility

Airplane	Helicopter
Ship	Skidoo
Walking	4WD
Ski	

Photos

1 - NeumayerIII Station (Credit: S Christmann)

2 - NeumayerIII Geophysics (Credit: T Steuer)

3 - NeumayerIII air chemistry (Credit: T Steuer)

4 - NeumayerIII hallway (Credit: S Christmann)

Scientific disciplines

Anthropology	Human biology
Archaeology	Hydrology
Astrophysics	Isotopic chemistry
Atmospheric sciences	Limnology
Climate change	Mapping
Climatology	Marine biology
Ecology	Medical research
Environmental sciences	Medicine
Fishery	Microbiology
Geocryology	Oceanography
Geodesy	Paleontology
Geology	Pollution
Geomorphology	Sedimentology
Geophysics & seismology	Sociology / Social science
GIS	Soil science
Glaciology	Terrestrial biology

Other disciplines

Meteorology.

Specific devices

Meteorological equipment, air-chemistry lab, GPS, hydrophones beneath the ice shelf, camera for observing penguin colony.

Long-term monitoring

Meteorological observations, air-chemistry, geophysics.





Mario Zucchelli Station

74° 41’ 42” S, 164° 07’ 23” E, Altitude 15m — Antarctic

Italy

Mario Zucchelli Station, ENEA

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.

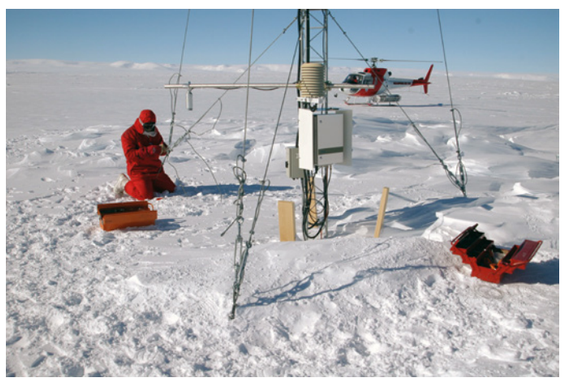
MZS is located in the Northern Foothills, an ice-marginal, high latitude periglacial environment covered only by local glaciers and snowfields. The area, characterized by Adélie and Emperor penguin colonies and Skua colonies (at Edmonson Point, Cape Washington, Adelie Cove and Inexpressible Island), hosts some marine and terrestrial protected areas (ASPAs 161, 118 and 173). The fauna comprises also other species of seabirds (Snow and Wilson’s Storm petrel), seals (Leopard and Weddell) and whales (Killer, Antarctic minke and Arnoux’s beaked). 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
Total annual precipitation (mm)	
Precipitation type	Snow Rain Other
Permafrost	None Sporadic Continuous Discontinuous
Snow free period	January December
Temperature	
Mean annual temperature (°C)	-14
Mean temperature January (°C)	-1
Mean temperature July (°C)	-22
Observation period start	1st January 1987
Observation period end	28th January 2016

Access

Air	**Sea**	Land





Facility information

Status	Open Closed
Facility type	Station Laboratory Camp
Area under roof (m²)	7500
Opening year	1986
Operational period	Seasonal
Staff at peak	80
Scientist at peak	40

Lab types

Biology	Chemistry
Geology	Geophysics
Scientific diving	None

Glaciology; Geomagnetism; Gravimetry; Seismology; Climate; Astrophysic; Ionosphere; Geodesy

Communications

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

Medical facilities

Facilities	Yes / No
Staff medically trained	Non-medical trained person Nurse Medical doctor
Staff with basic medical training in summer	3
Staff with basic medical training in winter	0
Medical screening required	Yes / No

Transportation to facility

Airplane	Helicopter
Ship	Skidoo
Walking	4WD

Snow-groomers.

Photos

1 - MZS aerial (Credit: Nicklen)

2 - MZS meteo (Credit: PNRA)

3 - MZS scuba (Credit: PNRA)

Scientific disciplines

Anthropology	Human biology
Archaeology	Hydrology
Astrophysics	Isotopic chemistry
Atmospheric sciences	Limnology
Climate change	Mapping
Climatology	Marine biology
Ecology	Medical research
Environmental sciences	Medicine
Fishery	Microbiology
Geocryology	Oceanography
Geodesy	Paleontology
Geology	Pollution
Geomorphology	Sedimentology
Geophysics & seismology	Sociology / Social science
GIS	Soil science
Glaciology	Terrestrial biology

Other disciplines

Paleobiology.

Specific devices

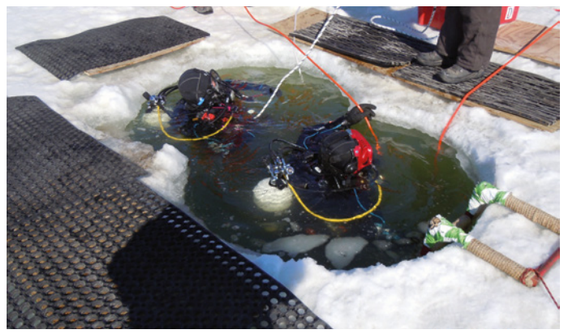
The station has several research facilities that include helicopters, boats (a 15 m oceanographic vessel and six rubber-dinghies) and terrestrial cross-country vehicles (mainly as support of scientific activities in remote areas), common laboratories.

Scientific services

Along with helicopter and airplane services for remote field research, in MZS during the summer campaign 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

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.



www.italiantartide.it/stazione-mario-zucchelli/



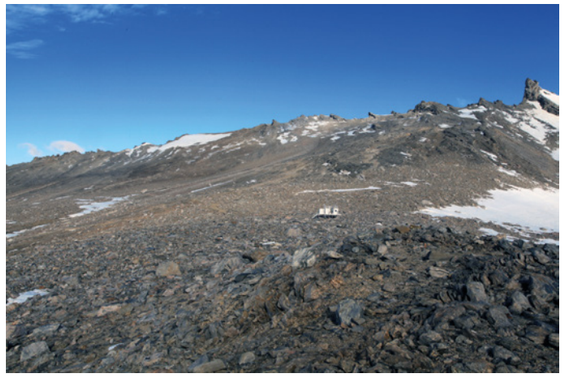
Troll

72° 00’ 43” S, 02° 31’ 59” E, Altitude 1275m — Antarctic

Norway

Troll, Norwegian Polar Institute.

Troll is around 235 km from the coast, at Jutulsessen in Dronning Maud Land, a central area for Norwegian research in Antarctica. Located at 72° 01´ S, 2° 32´ E, Troll Station stands on bare ground 1270 m above sea level on the Jutulsessen nunatak, entirely surrounded by the vast Antarctic ice cap, unlike most research stations in Antarctica, which are placed on snow.



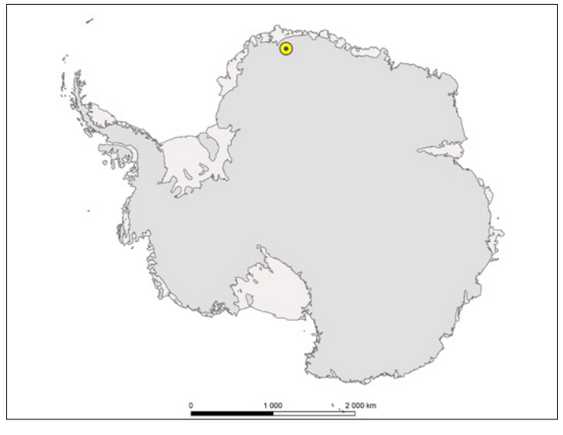


Climate

Climate zone	Inland Antarctica
Total annual precipitation (mm)	
Precipitation type	Snow Rain Other
Permafrost	None Sporadic Continuous Discontinuous
Snow free period	None
Temperature	
Mean annual temperature (°C)	-18
Mean temperature January (°C)	-6.5
Mean temperature July (°C)	-24.8
Observation period start	1st January 2005
Observation period end	31st January 2016

Access

Air	Sea	**Land**



www.npolar.no/en/about-us/stations-vessels/troll/

Facility information

Status	Open Closed
Facility type	Station Laboratory Camp
Area under roof (m²)	1500
Opening year	1990
Operational period	Year-Round
Staff at peak	35
Scientist at peak	10

Lab types

Biology	Chemistry
Geology	Geophysics
Scientific diving	None

Communications

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

Medical facilities

Facilities	Yes / No
Staff medically trained	Non-medical trained person Nurse Medical doctor
Staff with basic medical training in summer	2
Staff with basic medical training in winter	1
Medical screening required	Yes / No

Transportation to facility

Airplane	Helicopter
Ship	Skidoo
Walking	4WD

Photos

1 - Troll Station (Credit: Unknown)

2 - NILU Clean Air facility at Troll Station (Credit: Sven LIdstrom)

3 - Troll Station from the West (Credit: Unknown)

4 - 737 at Troll Airfield (Credit: Sven Lidstrom)

Scientific disciplines

Anthropology	Human biology
Archaeology	Hydrology
Astrophysics	Isotopic chemistry
Atmospheric sciences	Limnology
Climate change	Mapping
Climatology	Marine biology
Ecology	Medical research
Environmental sciences	Medicine
Fishery	Microbiology
Geocryology	Oceanography
Geodesy	Paleontology
Geology	Pollution
Geomorphology	Sedimentology
Geophysics & seismology	Sociology / Social science
GIS	Soil science
Glaciology	Terrestrial biology

Specific devices

Upon request by users.

Scientific services

Upon request by users.

Long-term monitoring

Weather station, climate data. Clear air facility with sampling.





Henryk Arctowski

62° 09’ 35” S, 58° 28’ 24” W, Altitude 2m

Antarctic

Station

Poland

The Henryk Arctowski Polish Antarctic Station. Institute of Biochemistry and Biophysics Polish Academy of Sciences.

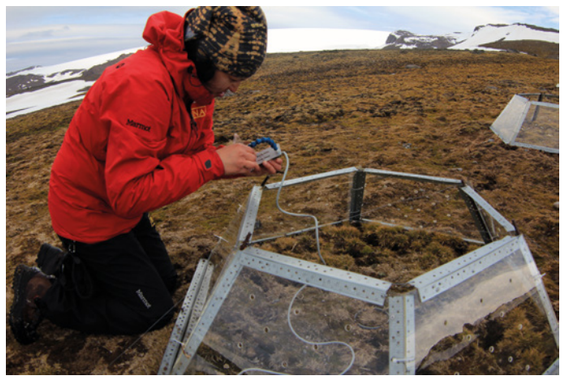
The Henryk Arctowski Polish Antarctic station is located on the western shore of Admiralty Bay on King George Island (South Shetland Islands, Antarctic Peninsula) in an ice-free oasis of more than 4.2 km². The area is restricted by Ezcurra Inlet and the central part of the Admiralty Bay in the north 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.

Climate

Climate zone	Maritime Antarctica
Total annual precipitation (mm)	505.7
Precipitation type	Snow Rain Other
Permafrost	None Sporadic Continuous Discontinuous
Snow free period	January February December
Temperature	
Mean annual temperature (°C)	-1.6
Mean temperature January (°C)	2.5
Mean temperature July (°C)	-6.6
Observation period start	1st April 1977
Observation period end	12th December 1998

Access

Air	**Sea**	Land





www.arctowski.pl/

Facility information

Status	Open Closed
Facility type	Station Laboratory Camp
Area under roof (m²)	1800
Opening year	1977
Operational period	Year-Round
Staff at peak	14
Scientist at peak	26

Lab types

Biology	Chemistry
Geology	Geophysics
Scientific diving	None

Communications

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

Medical facilities

Facilities	Yes / No
Staff medically trained	Paramedic
Staff with basic medical training in summer	1
Staff with basic medical training in winter	1
Medical screening required	Yes / No

Transportation to facility

Airplane	Helicopter
Ship	Skidoo
Walking	4WD

Scientific disciplines

Anthropology	Human biology
Archaeology	Hydrology
Astrophysics	Isotopic chemistry
Atmospheric sciences	Limnology
Climate change	Mapping
Climatology	Marine biology
Ecology	Medical research
Environmental sciences	Medicine
Fishery	Microbiology
Geocryology	Oceanography
Geodesy	Paleontology
Geology	Pollution
Geomorphology	Sedimentology
Geophysics & seismology	Sociology / Social science
GIS	Soil science
Glaciology	Terrestrial biology



Photos

1 - Arctowski overlook (Credit: Latusek)

2 - Arctowski scientists at work (Credit: Latusek)

3 - Arctowski scientist a twork (Credit: Latusek)



Gabriel de Castilla

62° 58’ 40” S, 60° 40’ 00” W, Altitude 15m

Antarctic

Station

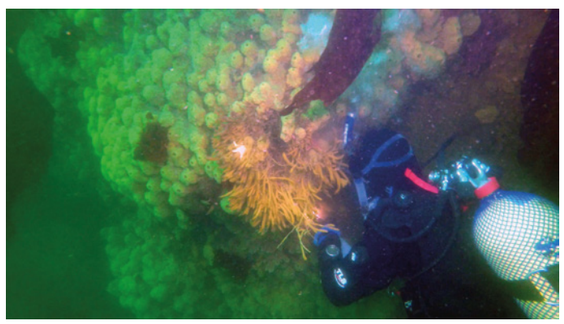
Spain

Spanish Antarctic Base Gabriel de Castilla, Ejercito de Tierra

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

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 cryptogamic 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
Total annual precipitation (mm)	23.2
Precipitation type	Snow Rain Other
Permafrost	None Sporadic Continuous Discontinuous
Snow free period	January February March
Temperature	
Mean annual temperature (°C)	-0.7
Mean temperature January (°C)	2
Mean temperature July (°C)	-6.9
Observation period start	1st January 2014
Observation period end	31st December 2014

Access

Air	**Sea**	Land



www.ejercito.mde.es/unidades/Antartica/antartica/Localizacion/index.html

Facility information

Status	Open Closed
Facility type	Station Laboratory Camp
Area under roof (m²)	792
Opening year	1990
Operational period	Seasonal
Staff at peak	13
Scientist at peak	20

Lab types

Biology	Chemistry
Geology	Geophysics
Scientific diving	None

Communications

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

Medical facilities

Facilities	Yes / No
Staff medically trained	Non-medical trained person Nurse Medical doctor
Staff with basic medical training in summer	1
Staff with basic medical training in winter	0
Medical screening required	Yes / No

Transportation to facility

Airplane	Helicopter
Ship	Skidoo
Walking	4WD

Photos

1 - Gabriel de Castilla Vista drone (Credit: Gabriel Goyanes)

2 - Gabriel de Castilla Vapour Col (Credit: Moises Los Huertos)

3 - Gabriel de Castilla Sea Bottom (Credit: Javier Cristobo)

Scientific disciplines

Anthropology	Human biology
Archaeology	Hydrology
Astrophysics	Isotopic chemistry
Atmospheric sciences	Limnology
Climate change	Mapping
Climatology	Marine biology
Ecology	Medical research
Environmental sciences	Medicine
Fishery	Microbiology
Geocryology	Oceanography
Geodesy	Paleontology
Geology	Pollution
Geomorphology	Sedimentology
Geophysics & seismology	Sociology / Social science
GIS	Soil science
Glaciology	Terrestrial biology

Other disciplines

Entomology and parasitology, Human impacts, Invasive species.

Specific devices

Environment and Food Safety Lab Equipment, 1 Designation Gas Detector Dräeger Accuro, 1 Ground Sampling Equipment, 1 Multiparameter Photometer Spectroquant Nova 30A, 1 Termostat Lt 200, 3 Pump for Microbiological Testing.

Scientific services

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

Seismic, Meteorological, Permafrost, Geodesy.



Juan Carlos I

62° 39’ 48‘’ S, 60° 23’ 17’’ W, Altitude 12m

Antarctic

Spain

CSIC
Consejo Superior de Investigaciones Científicas

Spanish Antarctic Base Juan Carlos I, Unidad de Tecnología Marina, Consejo Superior de Investigaciones Científicas (CSIC).

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.

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 occurs in the vicinity of the station. The cryptogamic prairies are remarkable. Vascular plants are present in the station vicinity.



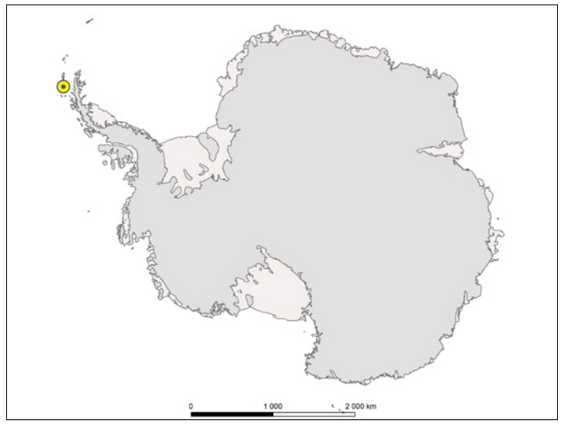


Climate

Climate zone	Maritime Antarctica
Total annual precipitation (mm)	
Precipitation type	Snow Rain Other
Permafrost	None Sporadic Continuous Discontinuous
Snow free period	February
Temperature	
Mean annual temperature (°C)	-1.2
Mean temperature January (°C)	2.4
Mean temperature July (°C)	-5.1
Observation period start	1st January 2014
Observation period end	31st December 2014

Access

Air | **Sea** | Land



www.csic.es/base-antartica-juan-carlos-i

Facility information

Status	Open Closed
Facility type	Station Laboratory Camp
Area under roof (m²)	1375
Opening year	1988
Operational period	Seasonal
Staff at peak	16
Scientist at peak	11

Lab types

Biology	Chemistry
Geology	Geophysics
Scientific diving	None
Electronic	

Communications

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

Medical facilities

Facilities	Yes / No
Staff medically trained	Non-medical trained person Nurse Medical doctor
Staff with basic medical training in summer	1
Staff with basic medical training in winter	0
Medical screening required	Yes / No

Transportation to facility

Airplane	Helicopter
Ship	Skidoo
Walking	4WD

Photos

1 - Juan Carlos I station (Credit: Felipe)

2 - Juan Carlos I Shelters (Credit: Hita)

3 - Juan Carlos I lichens (Credit: Felipe)

4 - Juan Carlos I glaciar (Credit: Hita)

Scientific disciplines

Anthropology	Human biology
Archaeology	Hydrology
Astrophysics	Isotopic chemistry
Atmospheric sciences	Limnology
Climate change	Mapping
Climatology	Marine biology
Ecology	Medical research
Environmental sciences	Medicine
Fishery	Microbiology
Geocryology	Oceanography
Geodesy	Paleontology
Geology	Pollution
Geomorphology	Sedimentology
Geophysics & seismology	Sociology / Social science
GIS	Soil science
Glaciology	Terrestrial biology

Other disciplines

Entomology and parasitology, Human impacts, Invasive species.

Specific devices

Microscopes, Balance, Basic lab glass items, Fume hood, Centrifuge, Refrigerators, Pumps, pH meter.

Scientific services

Biological lab, Chemical lab and Electronic lab.

Long-term monitoring

Meteorology, Hydrology, Glaciology and Geodesy.



Wasa



73° 03’ 00” S, 13° 25’ 00” W, Altitude 440m — Antarctic

Sweden

SWEDISH POLAR RESEARCH SECRETARIAT

Wasa, Swedish Polar Research Secretariat

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 III) is about 500 km.

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



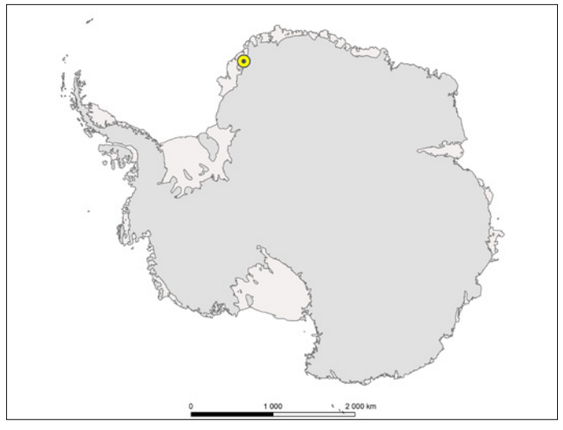


Climate

Climate zone	Inland Antarctica
Total annual precipitation (mm)	
Precipitation type	Snow Rain Other
Permafrost	None Sporadic Continuous Discontinuous
Snow free period	
Temperature	
Mean annual temperature (°C)	-15.3
Mean temperature January (°C)	
Mean temperature July (°C)	-21.9
Observation period start	
Observation period end	

Access

Air	Sea	Land



www.polar.se/en

Facility information

Status	Open Closed
Facility type	Station Laboratory Camp
Area under roof (m²)	130
Opening year	1989
Operational period	Seasonal
Staff at peak	5
Scientist at peak	0

Lab types

Biology	Chemistry
Geology	Geophysics
Scientific diving	None

Communications

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

Medical facilities

Facilities	Yes / No
Staff medically trained	Non-medical trained person Nurse Medical doctor
Staff with basic medical training in summer	1
Staff with basic medical training in winter	0
Medical screening required	Yes / No

Transportation to facility

Airplane	Helicopter
Ship	Skidoo
Walking	4WD

Photos

1 - Wasa (Credit: Unknown)

2 - Wasa (Credit: Unknown)

3 - Wasa (Credit: Unknown)

4 - Wasa (Credit: Unknown)

5 - Wasa (Credit: Unknown)

Scientific disciplines

Anthropology	Human biology
Archaeology	Hydrology
Astrophysics	Isotopic chemistry
Atmospheric sciences	Limnology
Climate change	Mapping
Climatology	Marine biology
Ecology	Medical research
Environmental sciences	Medicine
Fishery	Microbiology
Geocryology	Oceanography
Geodesy	Paleontology
Geology	Pollution
Geomorphology	Sedimentology
Geophysics & seismology	Sociology / Social science
GIS	Soil science
Glaciology	Terrestrial biology

Other disciplines

Please contact Swedish Polar Research Secretariat.

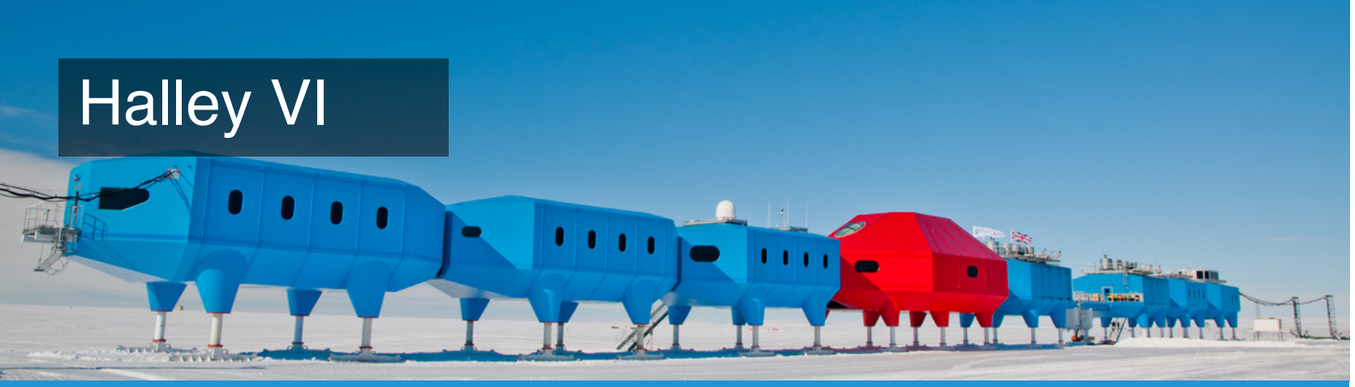
Scientific services

Please contact Swedish Polar Research Secretariat.





Halley VI



75° 34’ 24” S, 25° 28’ 01” W, Altitude 37m

Antarctic

United Kingdom

British Antarctic Survey
NATURAL ENVIRONMENT RESEARCH COUNCIL

Halley VI, British Antarctic Survey (BAS)

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

Due to the unpredictable nature of the Brunt Ice Shelf Halley Station is currently unavailable for visitors at this time.

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.



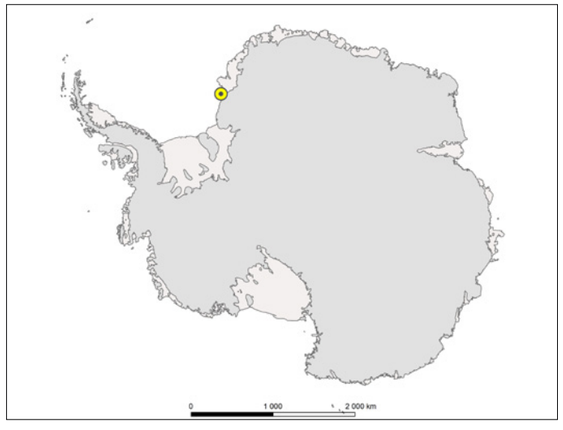


Climate

Climate zone	Inland Antarctica
Total annual precipitation (mm)	
Precipitation type	Snow Rain Other
Permafrost	None Sporadic Continuous Discontinuous
Snow free period	None
Temperature	
Mean annual temperature (°C)	-20
Mean temperature January (°C)	-5
Mean temperature July (°C)	-31
Observation period start	
Observation period end	

Access

Air	**Sea**	Land



www.bas.ac.uk/polar-operations/sites-and-facilities/facility/halley/

Facility information

Status	Open Closed
Facility type	Station Laboratory Camp
Area under roof (m²)	2000
Opening year	1956
Operational period	Seasonal
Staff at peak	52
Scientist at peak	18

Lab types

Biology	Chemistry
Geology	Geophysics
Scientific diving	None

Communications

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

Medical facilities

Facilities	Yes / No
Staff medically trained	Non-medical trained person Nurse Medical doctor
Staff with basic medical training in summer	5
Staff with basic medical training in winter	0
Medical screening required	Yes / No

Transportation to facility

Airplane	Helicopter
Ship	Skidoo
Walking	4WD

Scientific disciplines

Anthropology	Human biology
Archaeology	Hydrology
Astrophysics	Isotopic chemistry
Atmospheric sciences	Limnology
Climate change	Mapping
Climatology	Marine biology
Ecology	Medical research
Environmental sciences	Medicine
Fishery	Microbiology
Geocryology	Oceanography
Geodesy	Paleontology
Geology	Pollution
Geomorphology	Sedimentology
Geophysics & seismology	Sociology / Social science
GIS	Soil science
Glaciology	Terrestrial biology

Other disciplines

Upper atmospheric.

Photos

1 - Winter image of the Halley VI Research Station on the Brunt Ice Shelf in Antarctica (Credit: Antony Dubber)

2 - End elevation (H2 Module) Halley VI Research Station (Credit: Karl Tuplin)

3 - The Halley VI Research Station on the Brunt Ice Shelf in Antarctica over winter (Credit: Antony Dubber)

Rothera



67° 34’ 00” S, 68° 07’ 59” W, Altitude 16m

Antarctic

United Kingdom

British Antarctic Survey
NATURAL ENVIRONMENT RESEARCH COUNCIL

Rothera, British Antarctic Survey (BAS)

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.

Flora mainly limited to lichens. 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.

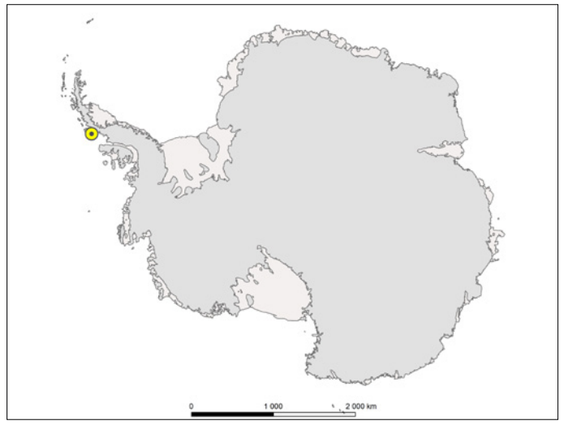
Climate

Climate zone	Coastal Antarctica
Total annual precipitation (mm)	
Precipitation type	Snow Rain Other
Permafrost	None Sporadic Continuous Discontinuous
Snow free period	January February
Temperature	
Mean annual temperature (°C)	-3.7
Mean temperature January (°C)	0.7
Mean temperature July (°C)	-6.7
Observation period start	
Observation period end	

Access

Air	**Sea**	Land





www.bas.ac.uk/polar-operations/sites-and-facilities/facility/rothera/

Facility information

Status	Open Closed
Facility type	Station Laboratory Camp
Area under roof (m²)	7200
Opening year	1975
Operational period	Year-Round
Staff at peak	120
Scientist at peak	40

Lab types

Biology	Chemistry
Geology	Geophysics
Scientific diving	None

Communications

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

Medical facilities

Facilities	Yes / No
Staff medically trained	Non-medical trained person Nurse Medical doctor
Staff with basic medical training in summer	100
Staff with basic medical training in winter	22
Medical screening required	Yes / No

Transportation to facility

Airplane	Helicopter
Ship	Skidoo
Walking	4WD

Scientific disciplines

Anthropology	Human biology
Archaeology	Hydrology
Astrophysics	Isotopic chemistry
Atmospheric sciences	Limnology
Climate change	Mapping
Climatology	Marine biology
Ecology	Medical research
Environmental sciences	Medicine
Fishery	Microbiology
Geocryology	Oceanography
Geodesy	Paleontology
Geology	Pollution
Geomorphology	Sedimentology
Geophysics & seismology	Sociology / Social science
GIS	Soil science
Glaciology	Terrestrial biology

Station

Photos

1 - Aerial view of Rothera Research Station (Credit: Adam Bradley)

2 - Rothera Research Station at night (Credit: Adam Bradley)



Signy

60° 42’ 29” S, 45° 35’ 43” W, Altitude 5m

Sub-Antarctic

United Kingdom

British Antarctic Survey
NATURAL ENVIRONMENT RESEARCH COUNCIL

Signy, British Antarctic Survey (BAS)

Signy research station is located on the South Orkney Islands.

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

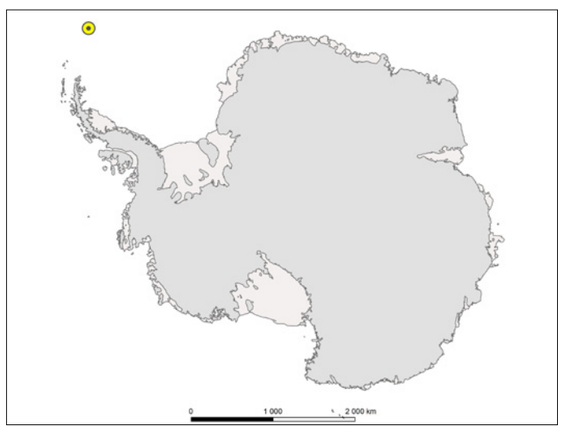
Climate

Climate zone	Maritime Antarctica
Total annual precipitation (mm)	
Precipitation type	Snow Rain Other
Permafrost	None Sporadic Continuous Discontinuous
Snow free period	February March April
Temperature	
Mean annual temperature (°C)	-2.2
Mean temperature January (°C)	1.7
Mean temperature July (°C)	-7.7
Observation period start	
Observation period end	

Access

Air **Sea** Land





www.bas.ac.uk/polar-operations/sites-and-facilities/facility/signy/

Facility information

Status	Open Closed
Facility type	Station Laboratory Camp
Area under roof (m²)	0
Opening year	1947
Operational period	Seasonal
Staff at peak	8
Scientist at peak	6

Lab types

Biology	Chemistry
Geology	Geophysics
Scientific diving	None

Rough laboratory, analytical laboratory.

Communications

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

Medical facilities

Facilities	Yes / No
Staff medically trained	Non-medical trained person Nurse Medical doctor
Staff with basic medical training in summer	
Staff with basic medical training in winter	0
Medical screening required	Yes / No

Transportation to facility

Airplane	Helicopter
Ship	Skidoo
Walking	4WD

Scientific disciplines

Anthropology	Human biology
Archaeology	Hydrology
Astrophysics	Isotopic chemistry
Atmospheric sciences	Limnology
Climate change	Mapping
Climatology	Marine biology
Ecology	Medical research
Environmental sciences	Medicine
Fishery	Microbiology
Geocryology	Oceanography
Geodesy	Paleontology
Geology	Pollution
Geomorphology	Sedimentology
Geophysics & seismology	Sociology / Social science
GIS	Soil science
Glaciology	Terrestrial biology

Specific devices

Autoclave, fume hood, ashing oven, analytical glassware, magnetic stirrers.

Photos

1 - Signy Island Research Station (Credit: Richard Phillips)

2 - Signy Island Research Station (Credit: Richard Phillips)

Camps

Cap Prud'homme 125
Mid Point 127
International Field Camp Peninsula Byers 129
Fossil Bluff 131
Sky Blu 133

Photo 1 - Byers camp (Credit: UTM)

Cap Prud'homme



66° 41' 26" S, 139° 54' 43" E, Altitude 10m — Antarctic

France / Italy

Cap Prud'homme is a French-Italian camp managed by the (French Polar Institute Paul-Emile Victor (IPEV) and the Programma Nazionale di Ricerche in Antartide (PNRA)

The camp was established in the early 1990's on the Antarctic continent, close to the sea and at about 5 km far from Dumont d'Urville station. It is the point of departure of the traverses to Concordia station. There is no ice free area around the station. There is no protected area in the immediate vicinity.

Climate

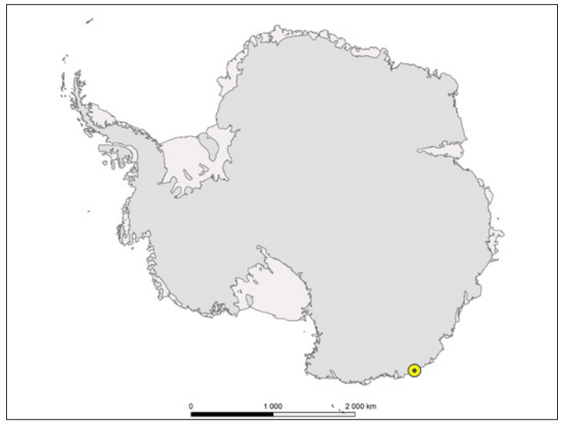
Climate zone	Coastal Antarctica
Total annual precipitation (mm)	
Precipitation type	Snow Rain Other
Permafrost	None Sporadic Continuous Discontinuous
Snow free period	January February
Temperature	
Mean annual temperature (°C)	-12
Mean temperature January (°C)	
Mean temperature July (°C)	-18
Observation period start	
Observation period end	

Access

Air	**Sea**	Land







Facility information

Status	Open Closed
Facility type	Station Laboratory Camp
Area under roof (m²)	830
Opening year	1994
Operational period	November to February
Staff at peak	22
Scientist at peak	8

Lab types

Biology	Chemistry
Geology	Geophysics
Scientific diving	None

Communications

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

Medical facilities

Facilities	Yes / No
Staff medically trained	Non-medical trained person Nurse Medical doctor
Staff with basic medical training in summer	1
Staff with basic medical training in winter	0
Medical screening required	Yes / No

Transportation to facility

Airplane	Helicopter
Ship	Skidoo
Walking	4WD
Other	

Photos

1 - Prud'Homme Base (Credit: Bruno et Marie Cusa)

2 - Prud'homme Base (Credit: Eduardo Daforno)

3 - Prud'homme Base (Credit: Pierre Katell)

4 - Prudhomme Traverse (Credit: François Lepage)

5 - Prud'homme Base (Credit: Pierre Katell)

Scientific disciplines

Anthropology	Human biology
Archaeology	Hydrology
Astrophysics	Isotopic chemistry
Atmospheric sciences	Limnology
Climate change	Mapping
Climatology	Marine biology
Ecology	Medical research
Environmental sciences	Medicine
Fishery	Microbiology
Geocryology	Oceanography
Geodesy	Paleontology
Geology	Pollution
Geomorphology	Sedimentology
Geophysics & seismology	Sociology / Social science
GIS	Soil science
Glaciology	Terrestrial biology

Long-term monitoring

Glacier mass balance (GLACIOCLIM Observatory).





Mid Point



75° 32’ 50” S, 145° 49’ 22” E, Altitude 2520m — Antarctic

Italy

Mid Point, ENEA

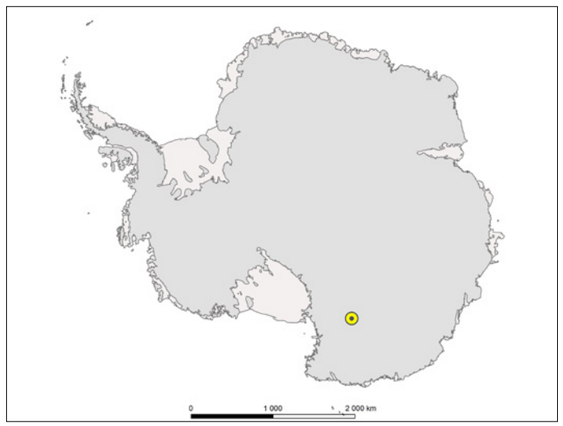
Antarctic Plateau, between Mario Zucchelli Station and Concordia Station.

Climate

Climate zone	Inland Antarctica
Total annual precipitation (mm)	
Precipitation type	Snow Rain Other
Permafrost	None Sporadic Continuous Discontinuous
Snow free period	None
Temperature	
Mean annual temperature (°C)	-42
Mean temperature January (°C)	-26
Mean temperature July (°C)	-56
Observation period start	10th December 1997
Observation period end	28th January 2016

Access

Air	Sea	Land



Facility information

Status	Open Closed
Facility type	Station Laboratory Camp
Area under roof (m²)	40
Opening year	1998
Operational period	November-February
Staff at peak	
Scientist at peak	

Lab types

Biology	Chemistry
Geology	Geophysics
Scientific diving	None

Communications

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

Medical facilities

Facilities	Yes / No
Staff medically trained	Non-medical trained person Nurse Medical doctor
Staff with basic medical training in summer	
Staff with basic medical training in winter	
Medical screening required	Yes / No

Transportation to facility

Airplane	Helicopter
Ship	Skidoo
Walking	4WD

Scientific disciplines

Anthropology	Human biology
Archaeology	Hydrology
Astrophysics	Isotopic chemistry
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Geology	Pollution
Geomorphology	Sedimentology
Geophysics & seismology	Sociology / Social science
GIS	Soil science
Glaciology	Terrestrial biology

Camp

Photos

1 - Mid Point (Credit: Unknown)



International Field Camp Peninsula Byers

62° 39’ 49” S, 61° 05’ 59” W, Altitude 10m — Antarctic

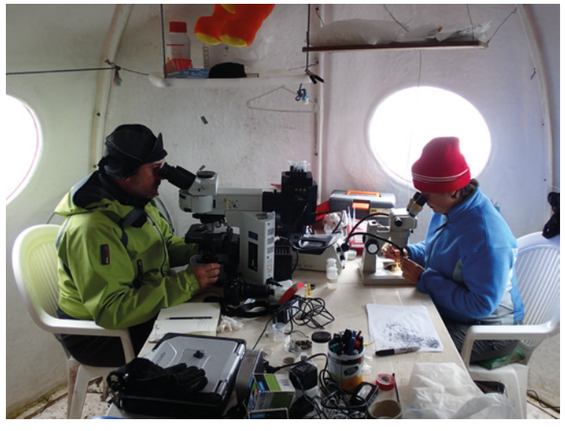
Spain

CSIC
Consejo Superior de Investigaciones Científicas

International Field Camp Peninsula Byers, Unidad de Tecnología Marina, Consejo Superior de Investigaciones Científicas (CSIC).

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



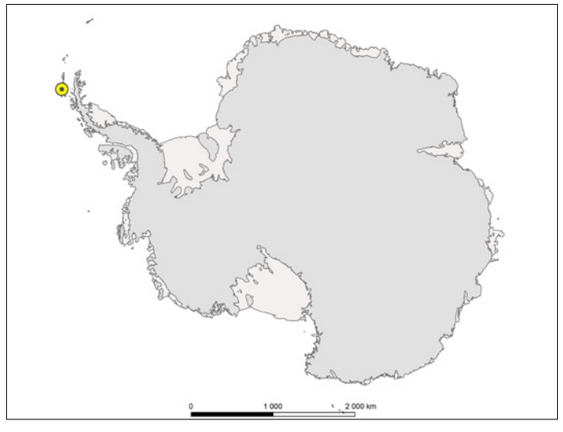


Climate

Climate zone	Inland Antarctica
Total annual precipitation (mm)	800
Precipitation type	Snow Rain Other
Permafrost	None Sporadic Continuous Discontinuous
Snow free period	January February March April
Temperature	
Mean annual temperature (°C)	-2.5
Mean temperature January (°C)	0.9
Mean temperature July (°C)	-6.4
Observation period start	1st January 2014
Observation period end	31st December 2014

Access

Air	**Sea**	Land



www.idi.mineco.gob.es/portal/site/MICINN/CPE

Facility information

Status	Open Closed
Facility type	Station Laboratory Camp
Area under roof (m²)	32
Opening year	2001
Operational period	Seasonal
Staff at peak	2
Scientist at peak	10

Lab types

Biology	Chemistry
Geology	Geophysics
Scientific diving	None

Basic area as general lab.

Communications

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

Medical facilities

Facilities	Yes / No
Staff medically trained	Non-medical trained person Nurse Medical doctor
Staff with basic medical training in summer	2
Staff with basic medical training in winter	0
Medical screening required	Yes / No

Transportation to facility

Airplane	Helicopter
Ship	Skidoo
Walking	4WD

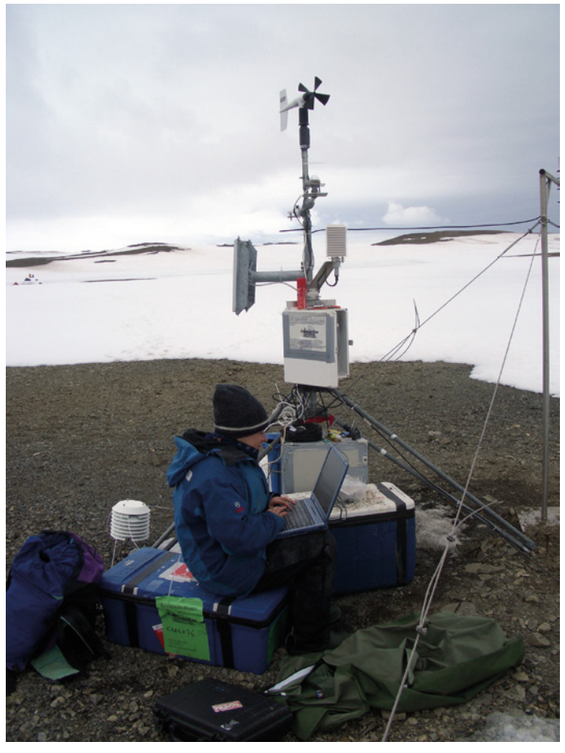
Scientific disciplines

Anthropology	Human biology
Archaeology	Hydrology
Astrophysics	Isotopic chemistry
Atmospheric sciences	Limnology
Climate change	Mapping
Climatology	Marine biology
Ecology	Medical research
Environmental sciences	Medicine
Fishery	Microbiology
Geocryology	Oceanography
Geodesy	Paleontology
Geology	Pollution
Geomorphology	Sedimentology
Geophysics & seismology	Sociology / Social science
GIS	Soil science
Glaciology	Terrestrial biology

Other disciplines

Entomology and parasitology, Human impacts, Invasive species

Camp



Photos

1 - Byers camp overview (Credit: UTM)

2 - Byers camp scientific research (Credit: A. Justel)

3 - Byers camp laboratory (Credit: A. Justel)

4 - Byers camp meteorological station (Credit: A. Justel)

Fossil Bluff



71° 19’ 24” S, 68° 17’ 21” W, Altitude 92m

Antarctic

United Kingdom

British Antarctic Survey
NATURAL ENVIRONMENT RESEARCH COUNCIL

Fossil Bluff, British Antarctic Survey (BAS)

Fossil Bluff lies on the eastern side of Alexander Island about 135 Kms south of the ice front of the King George VI Sound. The hut is on a morraine ridge immediately adjacent to the sound and is periodically surrounded by meltwater pools during the summer months. These pools sometimes drain.

Climate

Climate zone	Inland Antarctica
Total annual precipitation (mm)	
Precipitation type	Snow Rain Other
Permafrost	None Sporadic Continuous Discontinuous
Snow free period	
Temperature	
Mean annual temperature (°C)	
Mean temperature January (°C)	
Mean temperature July (°C)	
Observation period start	
Observation period end	

Access

Air	Sea	Land



Facility information

Status	Open Closed
Facility type	Station Laboratory Camp
Area under roof (m²)	90
Opening year	1961
Operational period	January - March October - December
Staff at peak	2
Scientist at peak	0

Lab types

Biology	Chemistry
Geology	Geophysics
Scientific diving	None

Communications

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

Medical facilities

Facilities	Yes / No
Staff medically trained	Non-medical trained person Nurse Medical doctor
Staff with basic medical training in summer	0
Staff with basic medical training in winter	0
Medical screening required	Yes / No

Transportation to facility

Airplane	Helicopter
Ship	Skidoo
Walking	4WD

Scientific disciplines

Anthropology	Human biology
Archaeology	Hydrology
Astrophysics	Isotopic chemistry
Atmospheric sciences	Limnology
Climate change	Mapping
Climatology	Marine biology
Ecology	Medical research
Environmental sciences	Medicine
Fishery	Microbiology
Geocryology	Oceanography
Geodesy	Paleontology
Geology	Pollution
Geomorphology	Sedimentology
Geophysics & seismology	Sociology / Social science
GIS	Soil science
Glaciology	Terrestrial biology

Scientific services

This is a logistics hub supporting access to scientific field work areas. Scientific activities are rarely supported on site.

Photos

1 -A meterological observation being taken at the Stevenson’s screen at Fo ssil Bluff, Alexander Island (Credit: Pete Bucktrout)

Camp



Sky Blu

74° 51’ 38” S, 71° 35’ 11” W, Altitude 1400m

Antarctic

United Kingdom

British Antarctic Survey
NATURAL ENVIRONMENT RESEARCH COUNCIL

Sky Blu, British Antarctic Survey (BAS)

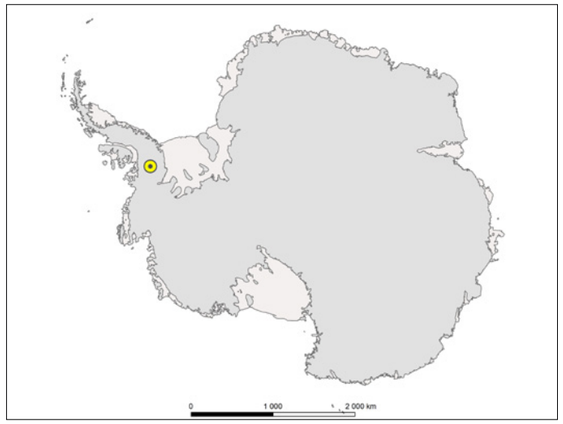
Sky Blu is located in an area of snow free /blue ice near Lanzarote Peak, Ski Hi Nunataks in the southern Antarctic Peninsula.

Climate

Climate zone	Inland Antarctica
Total annual precipitation (mm)	
Precipitation type	Snow Rain Other
Permafrost	None Sporadic Continuous Discontinuous
Snow free period	None
Temperature	
Mean annual temperature (°C)	
Mean temperature January (°C)	
Mean temperature July (°C)	
Observation period start	
Observation period end	

Access

Air	Sea	Land



www.bas.ac.uk/polar-operations/life-in-the-polar-regions/virtual-tours/virtual-trip-to-antarctica/sky-blu/

Facility information

Status	Open Closed
Facility type	Station Laboratory Camp
Area under roof (m²)	45
Opening year	1997
Operational period	October - March
Staff at peak	3
Scientist at peak	0

Lab types

Biology	Chemistry
Geology	Geophysics
Scientific diving	None

Communications

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

Medical facilities

Facilities	Yes / No
Staff medically trained	Non-medical trained person Nurse Medical doctor
Staff with basic medical training in summer	0
Staff with basic medical training in winter	0
Medical screening required	Yes / No

Transportation to facility

Airplane	Helicopter
Ship	Skidoo
Walking	4WD
Other	

Photos

1 - Panorama of the main camp which remains year round at Sky-Hi Nunataks in support of the Sky-Blu runway. It comprises a ‘melon’ hut together with a number of tents, garage, food depot, radio aerial, toilet facility etc. The semi-permanent field camp is occupied during summer months. People live in submarine-like melon huts and sleep in pyramid tents. Sky-Blu is an area of blue ice suitable for use as an ice runway for wheeled aircraft. Sky-Blu became fully operational as a logistics facility in 1997-98 (Credit: Pete Bucktrout)

Scientific disciplines

Anthropology	Human biology
Archaeology	Hydrology
Astrophysics	Isotopic chemistry
Atmospheric sciences	Limnology
Climate change	Mapping
Climatology	Marine biology
Ecology	Medical research
Environmental sciences	Medicine
Fishery	Microbiology
Geocryology	Oceanography
Geodesy	Paleontology
Geology	Pollution
Geomorphology	Sedimentology
Geophysics & seismology	Sociology / Social science
GIS	Soil science
Glaciology	Terrestrial biology

Other disciplines

None.

Specific devices

Automatic weather station transferring data to WMO.

Scientific services

This is a logistics transit hub, very little science activitiy is carried out on site.

Camp

Laboratories

Dallmann 137
Dirck Gerritsz Laboratory..... 139



Photo 1 - Gerritsz Lab (Credit: Vanderkroef)

Dallmann



62° 14’ 25” S, 58° 40’ 00” W, Altitude 10m — Antarctic

Germany

ALFRED-WEGENER-INSTITUT
HELMHOLTZ-ZENTRUM FÜR POLAR- UND MEERESFORSCHUNG

Dallmann Laboratory at Base Carlini, Alfred Wegener Institute (AWI) and Dirección Nacional del Antártico/Instituto Antártico Argentino (DNA/IAA).

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).

Climate

Climate zone	Coastal Antarctica
Total annual precipitation (mm)	
Precipitation type	Snow Rain Other
Permafrost	None Sporadic Continuous Discontinuous
Snow free period	January February December
Temperature	
Mean annual temperature (°C)	-2.4
Mean temperature January (°C)	2
Mean temperature July (°C)	-6
Observation period start	1st January 1991
Observation period end	31st December 2009

Access

Air	**Sea**	Land





www.awi.de/en/expedition/stations/dallmann-laboratory.html

Facility information

Status	Open Closed
Facility type	Station Laboratory Camp
Area under roof (m²)	133
Opening year	1994
Operational period	Seasonal
Staff at peak	2
Scientist at peak	14

Lab types

Biology	Chemistry
Geology	Geophysics
Scientific diving	None

Communications

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

Medical facilities

Facilities	Yes / No
Staff medically trained	Non-medical trained person Nurse Medical doctor
Staff with basic medical training in summer	
Staff with basic medical training in winter	
Medical screening required	Yes / No

Transportation to facility

Airplane	Helicopter
Ship	Skidoo
Walking	4WD

Photos

1 - Dallmann building (Credit: AWI)

2 - Dallmann building (Credit: AWI)

Scientific disciplines

Anthropology	Human biology
Archaeology	Hydrology
Astrophysics	Isotopic chemistry
Atmospheric sciences	Limnology
Climate change	Mapping
Climatology	Marine biology
Ecology	Medical research
Environmental sciences	Medicine
Fishery	Microbiology
Geocryology	Oceanography
Geodesy	Paleontology
Geology	Pollution
Geomorphology	Sedimentology
Geophysics & seismology	Sociology / Social science
GIS	Soil science
Glaciology	Terrestrial biology

Specific devices

Laboratory fully equipped.

Scientific services

Providing Liquid Nitrogen, Running Decompression Chamber.

Long-term monitoring

Yes, by Argentina at Carlini Station.

Laboratory



Dirck Gerritsz Laboratory

67° 34’ 00” S, 68° 07’ 27’ W, Altitude 16m

Antarctic

Netherlands

Dirck Gerritsz Laboratory, Netherlands Organisation for Scientific Research (NWO)

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



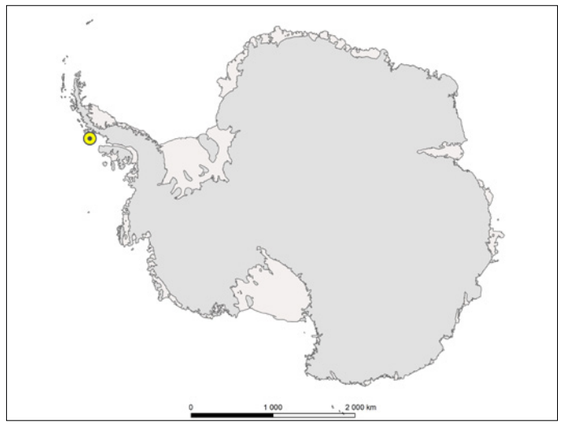


Climate

Climate zone	Coastal Antarctica
Total annual precipitation (mm)	
Precipitation type	Snow Rain Other
Permafrost	None Sporadic Continuous Discontinuous
Snow free period	January February
Temperature	
Mean annual temperature (°C)	-5
Mean temperature January (°C)	0.8
Mean temperature July (°C)	-11.6
Observation period start	
Observation period end	

Access

Air	**Sea**	Land



www.nwo.nl/npp

Facility information

Status	Open Closed
Facility type	Station Laboratory Camp
Area under roof (m²)	48
Opening year	2013
Operational period	Summer only
Staff at peak	2
Scientist at peak	8

Lab types

Biology	Chemistry
Geology	Geophysics
Scientific diving	None

Communications

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

Medical facilities

Facilities	Yes / No
Staff medically trained	Non-medical trained person Nurse Medical doctor
Staff with basic medical training in summer	
Staff with basic medical training in winter	
Medical screening required	

Doctor at Rothera station.

Transportation to facility

Airplane	Helicopter
Ship	Skidoo
Walking	4WD

Scientific disciplines

Anthropology	Human biology
Archaeology	Hydrology
Astrophysics	Isotopic chemistry
Atmospheric sciences	Limnology
Climate change	Mapping
Climatology	Marine biology
Ecology	Medical research
Environmental sciences	Medicine
Fishery	Microbiology
Geocryology	Oceanography
Geodesy	Paleontology
Geology	Pollution
Geomorphology	Sedimentology
Geophysics & seismology	Sociology / Social science
GIS	Soil science
Glaciology	Terrestrial biology

Inorganic chemistry

Photos

1 - Gerritsz Lab (Credit: Vanderkroef)

2 - Lab facilities (Credit: David Blake)

3 - Gerritsz Lab (Credit: Vanderkroef)

Shelters

Browning Pass..... 143
Enigma Lake..... 145
Tor..... 147



Photo 1 - Tor (Credit: Sven Lidstrom)

Browning Pass



74° 37’ 37” S, 163° 54’ 91” E, Altitude 63m

Antarctic

Italy

Browning Pass, ENEA

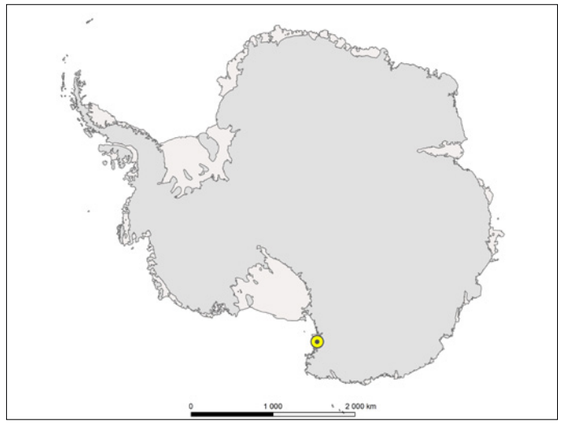
Skiway in the valley Browing Pass. It is located in the back side of the Northern Foothils, Victoria Land. This skiway is pertinent to the Mario Zucchelli Station, from which it is 10 km far away. It is used from the Basler at the end of the season.

Climate

Climate zone	Coastal Antarctica
Total annual precipitation (mm)	
Precipitation type	Snow Rain Other
Permafrost	None Sporadic Continuous Discontinuous
Snow free period	None
Temperature	
Mean annual temperature (°C)	-15
Mean temperature January (°C)	-5
Mean temperature July (°C)	-26
Observation period start	1st November 1997
Observation period end	28th January 2016

Access

Air	Sea	Land



Facility information

Status	Open Closed
Facility type	Station Laboratory Camp Shelter
Area under roof (m²)	30
Opening year	1997
Operational period	January - February
Staff at peak	0
Scientist at peak	0

Lab types

Biology	Chemistry
Geology	Geophysics
Scientific diving	None

Communications

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

Medical facilities

Facilities	Yes / No
Staff medically trained	Non-medical trained person Nurse Medical doctor
Staff with basic medical training in summer	
Staff with basic medical training in winter	
Medical screening required	Yes / No

Transportation to facility

Airplane	Helicopter
Ship	Skidoo
Walking	4WD
Other	

Scientific disciplines

Anthropology	Human biology
Archaeology	Hydrology
Astrophysics	Isotopic chemistry
Atmospheric sciences	Limnology
Climate change	Mapping
Climatology	Marine biology
Ecology	Medical research
Environmental sciences	Medicine
Fishery	Microbiology
Geocryology	Oceanography
Geodesy	Paleontology
Geology	Pollution
Geomorphology	Sedimentology
Geophysics & seismology	Sociology / Social science
GIS	Soil science
Glaciology	Terrestrial biology

Photos

1 - Browning Pass (Credit: Unknown)

Enigma Lake



74° 43’ 15” S, 164° 16’ 63” E, Altitude 250m — Antarctic

Italy

Enigma Lake, ENEA

Skiway by the side of the Enigma Lake, Northern Foothills. This skiway is pertinent to the Mario Zucchelli Station, from which it is 4 km far away.

It is used by the Twin Otter from the middle to the end of the season.

Climate

Climate zone	Coastal Antarctica
Total annual precipitation (mm)	
Precipitation type	Snow Rain Other
Permafrost	None Sporadic Continuous Discontinuous
Snow free period	None
Temperature	
Mean annual temperature (°C)	-15
Mean temperature January (°C)	-3
Mean temperature July (°C)	-23
Observation period start	1st January 1993
Observation period end	28th January 2016

Access

Air	Sea	**Land**



Facility information

Status	Open Closed
Facility type	Station Laboratory Camp Shelter
Area under roof (m²)	15
Opening year	2005
Operational period	January February December
Staff at peak	0
Scientist at peak	0

Lab types

Biology	Chemistry
Geology	Geophysics
Scientific diving	None

Communications

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

Medical facilities

Facilities	Yes / No
Staff medically trained	Non-medical trained person Nurse Medical doctor
Staff with basic medical training in summer	
Staff with basic medical training in winter	
Medical screening required	Yes / No

Transportation to facility

Airplane	Helicopter
Ship	Skidoo
Walking	4WD
Car	

Scientific disciplines

Anthropology	Human biology
Archaeology	Hydrology
Astrophysics	Isotopic chemistry
Atmospheric sciences	Limnology
Climate change	Mapping
Climatology	Marine biology
Ecology	Medical research
Environmental sciences	Medicine
Fishery	Microbiology
Geocryology	Oceanography
Geodesy	Paleontology
Geology	Pollution
Geomorphology	Sedimentology
Geophysics & seismology	Sociology / Social science
GIS	Soil science
Glaciology	Terrestrial biology

Photos

1 - Enigma Lake (Credit: Unknown)

Tor



71° 53’ 37” S, 05° 09’ 59” E, Altitude 1625m

Antarctic

Norway

Tor, Norwegian Polar Institute

It is in the Svarthammaren protected area, Svarthamaren is a nunatak about 100 kilometres east of Troll Station, in Dronning Maud Land.

Climate

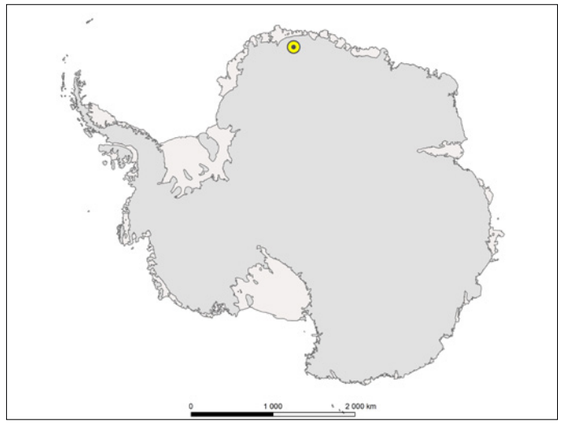
Climate zone	Inland Antarctica
Total annual precipitation (mm)	
Precipitation type	Snow Rain Other
Permafrost	None Sporadic Continuous Discontinuous
Snow free period	
Temperature	
Mean annual temperature (°C)	
Mean temperature January (°C)	
Mean temperature July (°C)	
Observation period start	
Observation period end	

Access

Air	Sea	**Land**







www.npolar.no/en/about-us/stations-vessels/tor/

Facility information

Status	Open Closed
Facility type	Station Laboratory Camp Shelter
Area under roof (m²)	15
Opening year	1993
Operational period	January - February November - December
Staff at peak	2
Scientist at peak	2

Lab types

Biology	Chemistry
Geology	Geophysics
Scientific diving	None

Communications

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

Medical facilities

Facilities	Yes / No
Staff medically trained	Non-medical trained person Nurse Medical doctor
Staff with basic medical training in summer	
Staff with basic medical training in winter	
Medical screening required	Yes / No

Transportation to facility

Airplane	Helicopter
Ship	Skidoo
Walking	4WD
Ski	Other

Photos

1 - Tor (Credit: Sven Lidstrom)

2 - Tor snow petrell inventory work (Credit: Sven Lidstrom)

3 - Snow petrell inventory work at Tor (Credit: Sven Lidstrom)

Scientific disciplines

Anthropology	Human biology
Archaeology	Hydrology
Astrophysics	Isotopic chemistry
Atmospheric sciences	Limnology
Climate change	Mapping
Climatology	Marine biology
Ecology	Medical research
Environmental sciences	Medicine
Fishery	Microbiology
Geocryology	Oceanography
Geodesy	Paleontology
Geology	Pollution
Geomorphology	Sedimentology
Geophysics & seismology	Sociology / Social science
GIS	Soil science
Glaciology	Terrestrial biology

Long-term monitoring

Long-term monitoring of Antarctic petrels.

Vessels

Oden 151
Polarstern 153
Aranda 155
Árni Friðriksson 157
Dana 159
Ernest Shackleton 161
G.O. Sars 163
Helmer Hanssen 165
Hesperides 167
James Clark Ross 169
Maria S Merian 171
OGS-Explora 173
Sanna 175
L'Astrolabe 177
M/S Clione 179
Kronprins Haakon 181

Photo 1 - Kronprins Kaakon (Credit: Øystein Mikelborg, Norwegian Polar institute)



Sweden

SWEDISH POLAR RESEARCH SECRETARIAT

Main information

Construction year	1988
Operator	SMA
Ice class	Polar 20
Operating area	Unrestricted
Supply station	Yes
Major refit	
Length (m)	108

Draft (m)	8.5
GRT (tons)	9438
Helicopter deck	Yes
Hangar	No
Number of helicopters	1

Technical information

People

Crew	23
Scientists + Technicians	50

Labs

Area wetlab (m^2)	50
Area drylab (m^2)	40

Cargo

Dry cargo area (m^3)	4000
Cargo container capacity (TEU)	25

A-Frames

Number	2
Frame / description	20T, 1, 8T

Cranes

Number	
Crane description	

Winches

Number of winches	4
Type of winches	2xCTD, 2xGEO
Length (m)	6000

Moon Pool

Moon pool	Yes

Broadband

Broadband	

Equipment information

Acoustic

Mutlibeam	EM122/EK80
Multibeam / description	Kongsberg
Parametric	Yes
Parametric description	SBP120

Geophysics

Gravity	
Gravity / description	
Magnetism	
Magnetism / description	

Coring

Gravity	
Gravity / description	
Piston	
Piston / description	
Multi	
Multi / description	

Seismic

Navigation	
Navigation / description	
Streamer	
Streamer / description	
Air guns	
Air guns / description	

Sampling

Nets	
Nets / description	
Multinets	
Multinets / description	
Dredge	
Dredge / decription	

Water Column

CTD	Yes
CTD / description	Seabird
Radiometry	
Radiometry / description	
LADCP	
LADCP / description	
ADCP	
ADCP / description	

Oden does not carry all scientific equipment onboard. Samplers and sensors are mobilized for each expedition depending on program. All of the above has been used on Oden.

Photos

1 - Oden (Credit: Ulf Hedman)

Polarstern



Germany

ALFRED-WEGENER-INSTITUT
HELMHOLTZ-ZENTRUM FÜR POLAR- UND MEERESFORSCHUNG

Main information

Construction year	1982
Operator	AWI
Ice class	GL ARC3
Operating area	Arctic, Antarctic
Supply station	Yes
Major refit	2002
Length (m)	118

Draft (m)	11.2
GRT (tons)	12640
Helicopter deck	Yes
Hangar	Yes
Number of helicopters	2x BK117

Technical information

People

Crew	43
Scientists + Technicians	55

Labs

Area wetlab (m^2)	177
Area drylab (m^2)	182

Cargo

Dry cargo area (m^3)	8
Cargo container capacity (TEU)	54

A-Frames

Number	1
Frame / description	A-Frame 30t

Cranes

Number	2
Crane description	15t, 25t

Winches

Number of winches	9
Type of winches	11, 18, 30mm
Length (m)	max. 8000m

Moon Pool

Moon pool	Yes

Broadband

Broadband	512/1014 up/down

Equipment information

Acoustic

Mutlibeam	Hydrosweep DS3
Multibeam / description	Full depth
Parametric	Yes
Parametric description	Parasound P70

Geophysics

Gravity	Yes
Gravity / description	Bodenseew. KSS32
Magnetism	Yes
Magnetism / description	2x Magson MFG23

Coring

Gravity	Yes
Gravity / description	
Piston	Yes
Piston / description	90 or 125mm, 24m
Multi	Yes
Multi / description	

Seismic

Navigation	Yes
Navigation / description	IMU + GPS (2 freq.)
Streamer	On demand
Streamer / description	3000m - 240 ch
Air guns	On demand
Air guns / description	G and GI guns

Sampling

Nets	On demand
Nets / description	Pelagic, benthic
Multinets	Yes
Multinets / description	
Dredge	On demand
Dredge / decription	

Water Column

CTD	Yes
CTD / description	SBE32, 24x 12 liter
Radiometry	Yes, mount on CTD
Radiometry / description	
LADCP	Yes, mount on CTD
LADCP / description	2x RDI WHM300
ADCP	Yes
ADCP / description	RDI OS 150 kHz



Photos

1 - Polarstern (Credit: F Mehrtens)

2 - Polarstern 86 Arktis 2014 Aurora (Credit: S Arndt)

Aranda



Finland

SYKE

Main information

Construction year	1989
Operator	Finnish Env. Insti.
Ice class	A1 Super (PC6)
Operating area	Baltic Sea, Polar seas
Supply station	No
Major refit	2017-2018
Length (m)	66.3

Draft (m)	4.6, 5.0 max
GRT (tons)	1969
Helicopter deck	
Hangar	No
Number of helicopters	0

Technical information

People

Crew	12
Scientists + Technicians	27

Labs

Area wetlab (m^2)	13 + 56
Area drylab (m^2)	19 + 26 + 18 + 22 + 18 + 6 + 30 + 8

Cargo

Dry cargo area (m^3)	2
Cargo container capacity (TEU)	1

A-Frames

Number	
Frame / description	10T/1,5T

Cranes

Number	1
Crane description	3t/8m, 2t/15m.

Winches

Number of winches	10
Type of winches	Ectd x3, slipring x1, hydro. x1, trawl x3, towing/crane x1, SSS x1
Length (m)	> 4000

Moon Pool

Moon pool	Yes, 1200 x 1200 mm

Broadband

Broadband	Yes

Equipment information

Acoustic

Mutlibeam	Yes, 2019
Multibeam / description	Under aquisition
Parametric	No
Parametric description	

Geophysics

Gravity	No
Gravity / description	
Magnetism	No
Magnetism / description	

Coring

Gravity	Yes
Gravity / description	
Piston	Yes
Piston / description	
Multi	Yes
Multi / description	Gemax

Seismic

Navigation	No
Navigation / description	
Streamer	No
Streamer / description	
Air guns	No
Air guns / description	

Sampling

Nets	Yes
Nets / description	WP-2 all sizes, phytoplankton nets all.
Multinets	Yes
Multinets / description	Hydrobios MultiNet Midi, AquaShuttle with PSM, Utow
Dredge	Yes
Dredge / decription	Ockelman

Water Column

CTD	Yes
CTD / description	SeaBird 911
Radiometry	No
Radiometry / description	
LADCP	Yes
LADCP / description	Seahorse
ADCP	Yes
ADCP / description	Seahorse

Photos

1 - RV Aranda (Credit: Unknown)

Árni Friðriksson



Iceland

MARINE & FRESHWATER RESEARCH INSTITUTE

Main information

Construction year	2000
Operator	MFRI
Ice class	1B
Operating area	Arctic
Supply station	No
Major refit	
Length (m)	69.9

Draft (m)	6.8
GRT (tons)	2233
Helicopter deck	No
Hangar	No
Number of helicopters	

Technical information

People

Crew	16
Scientists + Technicians	16

Labs

Area wetlab (m^2)	45
Area drylab (m^2)	16

Cargo

Dry cargo area (m^3)	
Cargo container capacity (TEU)	

A-Frames

Number	
Frame / description	

Cranes

Number	
Crane description	

Winches

Number of winches	3
Type of winches	CTD/Hydr/Zoopk
Length (m)	

Moon Pool

Moon pool	No

Broadband

Broadband	Yes

Equipment information

Acoustic

Mutlibeam	Yes
Multibeam / description	EM 302
Parametric	Yes
Parametric description	EM300

Geophysics

Gravity	
Gravity / description	
Magnetism	
Magnetism / description	

Coring

Gravity	
Gravity / description	
Piston	
Piston / description	
Multi	
Multi / description	

Seismic

Navigation	
Navigation / description	
Streamer	
Streamer / description	
Air guns	
Air guns / description	

Sampling

Nets	
Nets / description	
Multinets	
Multinets / description	
Dredge	
Dredge / decription	

Water Column

CTD	Yes
CTD / description	
Radiometry	
Radiometry / description	
LADCP	
LADCP / description	
ADCP	Yes
ADCP / description	



Photos

1 - Árni Friðriksson (Credit: Svanhildur Egilsdóttir)

2 - Árni Friðriksson (Credit: Svanhildur Egilsdóttir)



Dana

Denmark

DTU

Main information

Construction year	1981
Operator	DTU Aqua
Ice class	Ice - 1A
Operating area	Arctic
Supply station	No
Major refit	
Length (m)	78.42

Draft (m)	5.7
GRT (tons)	2545
Helicopter deck	No
Hangar	No
Number of helicopters	0

Technical information

People

Crew	28
Scientists + Technicians	10

Labs

Area wetlab (m^2)	52
Area drylab (m^2)	118

Cargo

Dry cargo area (m^3)	550
Cargo container capacity (TEU)	

A-Frames

Number	
Frame / description	

Cranes

Number	2
Crane description	30t, 25t

Winches

Number of winches	
Type of winches	
Length (m)	

Moon Pool

Moon pool	No

Broadband

Broadband	Yes

Equipment information

Acoustic

Mutlibeam	No
Multibeam / description	
Parametric	No
Parametric description	

Geophysics

Gravity	No
Gravity / description	
Magnetism	No
Magnetism / description	

Coring

Gravity	
Gravity / description	
Piston	Yes
Piston / description	
Multi	Yes
Multi / description	

Seismic

Navigation	Yes
Navigation / description	
Streamer	Yes
Streamer / description	
Air guns	Yes
Air guns / description	

Sampling

Nets	Yes
Nets / description	
Multinets	Yes
Multinets / description	
Dredge	Yes
Dredge / decription	

Water Column

CTD	Yes
CTD / description	
Radiometry	
Radiometry / description	
LADCP	
LADCP / description	
ADCP	
ADCP / description	

Photos

1 - RV Dana (Credit: Unknown)



Ernest Shackleton

UK

British Antarctic Survey
NATURAL ENVIRONMENT RESEARCH COUNCIL

Main information

Construction year	1995
Operator	BAS
Ice class	DNV; ICE05
Operating area	Antarct. Arctic
Supply station	Yes
Major refit	2002
Length (m)	80

Draft (m)	6.15
GRT (tons)	1800
Helicopter deck	Yes
Hangar	Yes
Number of helicopters	1

Technical information

People

Crew	25
Scientists + Technicians	45

Labs

Area wetlab (m^2)	45
Area drylab (m^2)	45

Cargo

Dry cargo area (m^3)	3000
Cargo container capacity (TEU)	4

A-Frames

Number	
Frame / description	

Cranes

Number	3
Crane description	Stern 10 t, Rov 5 t/10M, Cargo 30 t/20m

Winches

Number of winches	
Type of winches	
Length (m)	

Moon Pool

Moon pool	

Broadband

Broadband	Yes

Equipment information

Acoustic

Mutlibeam	Yes
Multibeam / description	EM12
Parametric	No
Parametric description	

Geophysics

Gravity	
Gravity / description	
Magnetism	No
Magnetism / description	

Coring

Gravity	
Gravity / description	
Piston	
Piston / description	
Multi	
Multi / description	

Seismic

Navigation	
Navigation / description	
Streamer	
Streamer / description	
Air guns	
Air guns / description	

Sampling

Nets	
Nets / description	
Multinets	
Multinets / description	
Dredge	
Dredge / decription	

Water Column

CTD	
CTD / description	
Radiometry	
Radiometry / description	
LADCP	
LADCP / description	
ADCP	
ADCP / description	





Photos

1 - Lowering a Bulldozer from the Ernest Shackleton onto the fast ice during station relief (Credit: Richard Burt)

3 - Ernest Shackleton (Credit: British Antarctic Survey)

2 - Low shelf ice cargo operations at N9, 56 km North-East of Halley Station (Credit: Martin Bell)

G.O. Sars



Norway

Main information

Construction year	2003
Operator	UiB
Ice class	Ice 1C
Operating area	Arctic
Supply station	No
Major refit	
Length (m)	77.5

Draft (m)	5.8
GRT (tons)	1408
Helicopter deck	No
Hangar	No
Number of helicopters	

Technical information

People

Crew	19
Scientists + Technicians	13

Labs

Area wetlab (m^2)	8
Area drylab (m^2)	18

Cargo

Dry cargo area (m^3)	
Cargo container capacity (TEU)	

A-Frames

Number	
Frame / description	

Cranes

Number	1
Crane description	Stern 24t

Winches

Number of winches	5
Type of winches	CTD/Hydr/Dee/ Sei/ Corer /multi 75kN;30 kN, 75kN; 150 T; 75kN
Length (m)	

Moon Pool

Moon pool	No

Broadband

Broadband	

Equipment information

Acoustic

Mutlibeam	Yes
Multibeam / description	EM300/EM1002
Parametric	Yes
Parametric description	TOPAS PS 18

Geophysics

Gravity	
Gravity / description	
Magnetism	No
Magnetism / description	

Coring

Gravity	
Gravity / description	
Piston	Yes
Piston / description	
Multi	Yes
Multi / description	

Seismic

Navigation	Yes
Navigation / description	
Streamer	Yes
Streamer / description	HIGH RES.
Air guns	Yes
Air guns / description	

Sampling

Nets	Yes
Nets / description	
Multinets	Yes
Multinets / description	
Dredge	Yes
Dredge / decription	

Water Column

CTD	Yes
CTD / description	
Radiometry	Yes
Radiometry / description	
LADCP	Yes
LADCP / description	
ADCP	Yes
ADCP / description	

Photos

1 - G.O. Sars (Credit: Unknown)



Helmer Hanssen

Norway

Main information

Construction year	1988
Operator	UiT Norges Arktiske Universitet
Ice class	Dnv 1A
Operating area	Barents sea and Arctic waters
Supply station	
Major refit	1993 & 2018

Length (m)	64
Draft (m)	5.95
GRT (tons)	2052
Helicopter deck	No
Hangar	No
Number of helicopters	

Technical information

People

Crew	11
Scientists + Technicians	29

Labs

Area wetlab (m^2)	30
Area drylab (m^2)	50

Cargo

Dry cargo area (m^3)	500
Cargo container capacity (TEU)	

A-Frames

Number	
Frame / description	

Cranes

Number	2
Crane description	4t/14 m, 2t/9 m

Winches

Number of winches	4
Type of winches	4) Ctd/Hydr/Dreg/Traw 4000;3000;3500;2400
Length (m)	4000

Moon Pool

Moon pool	No

Broadband

Broadband	Yes

Equipment information

Acoustic

Mutlibeam	Yes
Multibeam / description	EM300
Parametric	Yes
Parametric description	SBP

Geophysics

Gravity	
Gravity / description	
Magnetism	
Magnetism / description	

Coring

Gravity	Yes
Gravity / description	
Piston	No
Piston / description	
Multi	Yes
Multi / description	

Seismic

Navigation	
Navigation / description	
Streamer	Yes
Streamer / description	
Air guns	Yes
Air guns / description	

Sampling

Nets	Yes
Nets / description	
Multinets	
Multinets / description	
Dredge	Yes
Dredge / decription	

Water Column

CTD	Yes
CTD / description	
Radiometry	
Radiometry / description	
LADCP	
LADCP / description	
ADCP	Yes
ADCP / description	

Photos

1 - Helmer Hanssen (Credit: Unknown)



Hesperides

Spain

CSIC Consejo Superior de Investigaciones Científicas

UTM Unidad de Tecnología Marina

Main information

Construction year	1991
Operator	Spain Navy/UTM
Ice class	1C
Operating area	Antarct./ Arctic
Supply station	Yes
Major refit	2001
Length (m)	82.5

Draft (m)	4.42
GRT (tons)	2827
Helicopter deck	Yes
Hangar	Yes
Number of helicopters	0

Technical information

People

Crew	60
Scientists + Technicians	37

Labs

Area wetlab (m^2)	72
Area drylab (m^2)	195

Cargo

Dry cargo area (m^3)	393
Cargo container capacity (TEU)	4

A-Frames

Number	
Frame / description	2x A-frame

Cranes

Number	2
Crane description	10t, 4t

Winches

Number of winches	5
Type of winches	Hydraulic
Length (m)	8000

Moon Pool

Moon pool	No

Broadband

Broadband	Yes - VSat

Equipment information

Acoustic

Mutlibeam	Yes
Multibeam / description	EM122/10025
Parametric	Yes
Parametric description	TOPAS PS 18

Geophysics

Gravity	Yes
Gravity / description	BGM-3
Magnetism	Yes
Magnetism / description	SeaSPY300

Coring

Gravity	Yes
Gravity / description	
Piston	Yes
Piston / description	
Multi	Yes
Multi / description	KC Denmark 6 tubes

Seismic

Navigation	Yes
Navigation / description	
Streamer	Yes
Streamer / description	HIGH RES. GeoEEL HR
Air guns	Yes
Air guns / description	Sercel GGUN-II / Bolt Airguns

Sampling

Nets	Yes
Nets / description	
Multinets	Yes
Multinets / description	Hydrobios/MOCNESS
Dredge	Yes
Dredge / decription	

Water Column

CTD	Yes
CTD / description	Seabird 900+
Radiometry	Yes
Radiometry / description	Biospherical PRR-800
LADCP	Yes
LADCP / description	Teledyne LADCP300 kHz
ADCP	Yes
ADCP / description	Teledyne RD Oceansurveyor

Photos

1 - Hesperedes (Credit: Unknown)



James Clark Ross

UK

British Antarctic Survey
NATURAL ENVIRONMENT RESEARCH COUNCIL

Main information

Construction year	1990
Operator	BAS
Ice class	Lloyds IAS
Operating area	Antarctic
Supply station	Yes
Major refit	
Length (m)	99

Draft (m)	6.3
GRT (tons)	5732
Helicopter deck	No
Hangar	No
Number of helicopters	

Technical information

People

Crew	26
Scientists + Technicians	50

Labs

Area wetlab (m^2)	23.5
Area drylab (m^2)	44

Cargo

Dry cargo area (m^3)	1500
Cargo container capacity (TEU)	5

A-Frames

Number	
Frame / description	Aft 20 T; Midship 30 T

Cranes

Number	1
Crane description	Aft 20t; Midship 30t

Winches

Number of winches	2
Type of winches	Hydr/Con 9000;8000
Length (m)	9000

Moon Pool

Moon pool	No

Broadband

Broadband	Yes

Equipment information

Acoustic

Mutlibeam	No
Multibeam / description	
Parametric	Yes
Parametric description	SBP, 3,5 kHz

Geophysics

Gravity	Yes
Gravity / description	
Magnetism	No
Magnetism / description	

Coring

Gravity	
Gravity / description	
Piston	
Piston / description	
Multi	
Multi / description	

Seismic

Navigation	Yes
Navigation / description	
Streamer	Yes
Streamer / description	
Air guns	Yes
Air guns / description	

Sampling

Nets	Yes
Nets / description	
Multinets	No
Multinets / description	
Dredge	Yes
Dredge / decription	

Water Column

CTD	Yes
CTD / description	
Radiometry	Yes
Radiometry / description	
LADCP	No
LADCP / description	
ADCP	Yes
ADCP / description	



Photos

1 - The RRS James Clark Ross along side at a snowy King Edward Point, South Georgia. (Credit: Iain Staniland)

2 - RRS James Clark Ross during the JR240 ICEBell Cruise in the Bellingshausen Sea, ANtarctica. In the foreground can be seen the ‘wor geordie’ used to lift/crane people and equipment onto the ice. (Credit: Pete Bucktrout)



Maria S Merian

Germany

Universität Hamburg
DER FORSCHUNG | DER LEHRE | DER BILDUNG

Main information

Construction year	2005
Operator	University of Hamburg, German Research Fleet Coordination Centre
Ice class	PC7/E3
Operating area	Arctic
Supply station	No
Major refit	

Length (m)	95
Draft (m)	6.5
GRT (tons)	1346
Helicopter deck	No
Hangar	No
Number of helicopters	

Technical information

People

Crew	24
Scientists + Technicians	22

Labs

Area wetlab (m^2)	120
Area drylab (m^2)	270

Cargo

Dry cargo area (m^3)	
Cargo container capacity (TEU)	25

A-Frames

Number	
Frame / description	

Cranes

Number	8
Crane description	1x A-Frame 300kN, 3x Crane 50kN, 2x Aux. Crane 20 kN, 1x Jib-Beam 200kN, 1x Jib-Beam 70kN

Winches

Number of winches	6
Type of winches	Mooring, friction, storage, elec / fibre, single core, serial, multi purp.
Length (m)	7000

Moon Pool

Moon pool	Yes

Broadband

Broadband	Yes

Equipment information

Acoustic

Mutlibeam	Yes
Multibeam / description	EM122/EM712
Parametric	Yes
Parametric description	Parasound PS3

Geophysics

Gravity	Yes
Gravity / description	20m
Magnetism	No
Magnetism / description	

Coring

Gravity	
Gravity / description	
Piston	No
Piston / description	
Multi	Multi corer: No
Multi / description	

Seismic

Navigation	
Navigation / description	
Streamer	
Streamer / description	
Air guns	
Air guns / description	

Sampling

Nets	No
Nets / description	
Multinets	No
Multinets / description	
Dredge	No
Dredge / decription	

Water Column

CTD	Yes
CTD / description	
Radiometry	Yes
Radiometry / description	
LADCP	Yes
LADCP / description	
ADCP	Yes
ADCP / description	75 kHz, 38kHz

Photos

1 - Maria S Merian (Credit: Unknown)



OGS-Explora

Italy

Main information

Construction year	1973
Operator	OGS -Trieste
Ice class	1B
Operating area	Antarct./Arctic
Supply station	No
Major refit	2002, 2016
Length (m)	73

Draft (m)	4.8
GRT (tons)	1408
Helicopter deck	No
Hangar	No
Number of helicopters	

Technical information

People

Crew	17
Scientists + Technicians	24

Labs

Area wetlab (m^2)	25
Area drylab (m^2)	46

Cargo

Dry cargo area (m^3)	615
Cargo container capacity (TEU)	1

A-Frames

Number	
Frame / description	1 A frame stern + 2 lateral frames

Cranes

Number	2
Crane description	Stern 1t, Mid 8t

Winches

Number of winches	1
Type of winches	Various
Length (m)	

Moon Pool

Moon pool	

Broadband

Broadband	Yes

Equipment information

Acoustic

Mutlibeam	Yes
Multibeam / description	SEBAT 8150/8111
Parametric	Yes
Parametric description	CHIRP 6600

Geophysics

Gravity	Yes
Gravity / description	
Magnetism	Yes
Magnetism / description	

Coring

Gravity	Yes
Gravity / description	
Piston	Yes
Piston / description	
Multi	Yes
Multi / description	

Seismic

Navigation	Yes
Navigation / description	PDS2000
Streamer	Yes
Streamer / description	1) 1500 m, 120 channels, 12.5 m channel interval Sercel Seal 428 + acquisition system 2) 300 m , 96 channels, 3.125 m channel interval Geoeel Geometrics + acquisizion system
Air guns	Yes
Air guns / description	Type, capacity: 1 MiniGI 60 cu.in. Type, capacity: 4 GI guns x 210 cu.in each. Type, capacity: 4 G.Guns x 250 cu.in each

Sampling

Nets	
Nets / description	
Multinets	
Multinets / description	
Dredge	
Dredge / decription	

Water Column

CTD	Yes
CTD / description	
Radiometry	Yes
Radiometry / description	
LADCP	
LADCP / description	
ADCP	Yes
ADCP / description	

Photos

1 - OGS-Explora (Credit: Riccardo Jungwirth)

Sanna



Greenland

Main information

Construction year	2012
Operator	GINR
Ice class	1A
Operating area	Arctic
Supply station	No
Major refit	
Length (m)	32.30

Draft (m)	4.8
GRT (tons)	458
Helicopter deck	No
Hangar	No
Number of helicopters	

Technical information

People

Crew	6
Scientists + Technicians	10

Labs

Area wetlab (m^2)	20
Area drylab (m^2)	15

Cargo

Dry cargo area (m^3)	
Cargo container capacity (TEU)	1

A-Frames

Number	1
Frame / description	4T

Cranes

Number	1
Crane description	Aft deck: 1pce 3t/14,5m; 1 pce 6t/7m 3t/12m Forecastle: 1 pce 1,4t/10,2m 1pce 0,5t (towing) Hydrographic deck 3 pce booms 2t.

Winches

Number of winches	7
Type of winches	Hydraulic Length: 3000m Ø20mm steelwire / 3000m ø8,12mm COAX / 3000m Ø6mm Dyneema
Length (m)	2000

Moon Pool

Moon pool	No

Broadband

Broadband	No

Equipment information

Acoustic

Mutlibeam	No
Multibeam / description	
Parametric	No
Parametric description	

Geophysics

Gravity	No
Gravity / description	
Magnetism	No
Magnetism / description	

Coring

Gravity	No
Gravity / description	
Piston	
Piston / description	
Multi	Yes
Multi / description	SeaBat T50-R ‘Extended Depth Range’ from Teledyne Reson

Seismic

Navigation	No
Navigation / description	
Streamer	No
Streamer / description	
Air guns	No
Air guns / description	

Sampling

Nets	Yes
Nets / description	
Multinets	Yes
Multinets / description	
Dredge	Yes
Dredge / decription	

Water Column

CTD	Yes
CTD / description	
Radiometry	
Radiometry / description	
LADCP	
LADCP / description	
ADCP	Yes
ADCP / description	

Photos

1 - Sanna (Credit: GINR)



L'Astrolabe

France

Main information

Construction year	2017
Operator	IPEV / French Navy
Ice class	PC 5
Operating area	Antarctic
Supply station	Yes
Major refit	
Length (m)	72

Draft (m)	5.3
GRT (tons)	1200
Helicopter deck	
Hangar	
Number of helicopters	

Technical information

People

Crew	21
Scientists + Technicians	39

Labs

Area wetlab (m^2)	26
Area drylab (m^2)	13

Cargo

Dry cargo area (m^3)	
Cargo container capacity (TEU)	14

A-Frames

Number	1
Frame / description	8.8m

Cranes

Number	1
Crane description	4t

Winches

Number of winches	
Type of winches	Mobile equipment
Length (m)	

Moon Pool

Moon pool	Yes

Broadband

Broadband	No

Equipment information

Acoustic

Mutlibeam	No
Multibeam / description	
Parametric	No
Parametric description	

Geophysics

Gravity	
Gravity / description	
Magnetism	Yes
Magnetism / description	

Coring

Gravity	
Gravity / description	
Piston	No
Piston / description	
Multi	No
Multi / description	

Seismic

Navigation	No
Navigation / description	
Streamer	No
Streamer / description	
Air guns	No
Air guns / description	

Sampling

Nets	Yes
Nets / description	
Multinets	
Multinets / description	
Dredge	Yes
Dredge / decription	

Water Column

CTD	Yes
CTD / description	
Radiometry	No
Radiometry / description	
LADCP	No
LADCP / description	
ADCP	No
ADCP / description	



Photos

1 - Astrolabe (Credit: PIRIOU-IPEV)

2 - Astrolabe CE 2017-2018 (Credit: Patrice GODON, IPEV)



M/S Clione

Czech Republic

Josef Svoboda Station
University of South Bohemia
in České Budějovice
CLIONE

Main information

Construction year	2015
Operator	CPE
Ice class	
Operating area	Arctic
Supply station	No
Major refit	
Length (m)	15

Draft (m)	2
GRT (tons)	
Helicopter deck	No
Hangar	No
Number of helicopters	

Technical information

People

Crew	2
Scientists + Technicians	10

Labs

Area wetlab (m^2)	
Area drylab (m^2)	

Cargo

Dry cargo area (m^3)	2
Cargo container capacity (TEU)	

A-Frames

Number	
Frame / description	

Cranes

Number	
Crane description	

Winches

Number of winches	
Type of winches	
Length (m)	

Moon Pool

Moon pool	

Broadband

Broadband	

Equipment information

Acoustic

Mutlibeam	No
Multibeam / description	
Parametric	No
Parametric description	

Geophysics

Gravity	
Gravity / description	
Magnetism	
Magnetism / description	

Coring

Gravity	
Gravity / description	
Piston	
Piston / description	
Multi	
Multi / description	

Seismic

Navigation	
Navigation / description	
Streamer	
Streamer / description	
Air guns	
Air guns / description	

Sampling

Nets	
Nets / description	
Multinets	
Multinets / description	
Dredge	
Dredge / decription	

Water Column

CTD	
CTD / description	
Radiometry	
Radiometry / description	
LADCP	
LADCP / description	
ADCP	
ADCP / description	



Photos

1 - M/S Clione (Credit: Centre for Polar Ecology)

2 - M/S Clione (Credit: Centre for Polar Ecology)



Kronprins Haakon

Norway

Main information

Construction year	2018
Operator	IMR
Ice class	PC 3
Operating area	Arctic and Antarctica
Supply station	
Major refit	
Length (m)	100

Draft (m)	8
GRT (tons)	10900
Helicopter deck	Yes
Hangar	Yes
Number of helicopters	2

Technical information

People

Crew	16
Scientists + Technicians	39

Labs

Area wetlab (m^2)	7
Area drylab (m^2)	5

Cargo

Dry cargo area (m^3)	1180
Cargo container capacity (TEU)	20

A-Frames

Number	
Frame / description	

Cranes

Number	5
Crane description	1

Winches

Number of winches	10
Type of winches	wire, coax and fibre optical
Length (m)	

Moon Pool

Moon pool	Yes

Broadband

Broadband	

Equipment information

Acoustic

Mutlibeam	Yes
Multibeam / description	EM710 and EM302
Parametric	Yes
Parametric description	SBP300-6 and Topas PS40

Geophysics

Gravity	
Gravity / description	
Magnetism	
Magnetism / description	

Coring

Gravity	
Gravity / description	
Piston	Yes
Piston / description	Calypso
Multi	Yes
Multi / description	

Seismic

Navigation	Yes
Navigation / description	
Streamer	Yes
Streamer / description	2D and 3D
Air guns	Yes
Air guns / description	

Sampling

Nets	Yes
Nets / description	
Multinets	Yes
Multinets / description	
Dredge	Yes
Dredge / decription	

Water Column

CTD	Yes
CTD / description	
Radiometry	
Radiometry / description	
LADCP	Yes
LADCP / description	
ADCP	Yes
ADCP / description	38 and 150 kHz



Photos

1 - Kronprins Kaakon (Credit: Øystein Mikelborg, Norwegian Polar institute)

2 - Kronprins Kaakon (Credit: Øystein Mikelborg, Norwegian Polar institute)

Aircraft

AWI Fleet 185
BAS Fleet 187



Photo 1 - BAS Fleet

AWI Fleet



AWI operates two research aircraft, the Polar 5 and Polar 6, which are largely identical.

Basler BT-67 (DC-3T)	
Aircraft Registrations	C-GAWI, C-GHGF
Range	3,000 km (Wheel gear only)
Cruise Speed	100 m/s (200 kts, wheel gear only)
Survey Speed	72 m/s (140 kts)
Crew	2 Pilots, 1 aircraft maintenance engineer
Mission scientists (max)	9 (usually 2-6)
Fuel Consumption (planning)	570 l/hour
Max Take Off weight	13,600 kg (30,000 lb)
Survey power available	Up to 450 A / 28 VDC (mission dependent)
Gear	Wheels / combined wheel-skis

Polar 5 and Polar 6, the two polar research aircraft operated by AWI

The personnel involved

- Crew: 2 pilots and 1 - maintenance engineer
- Science support during surveys on site: 2 engineers/technicians
- Science support for integration of new instruments by team of several engineers
- Operator on board during survey flights: max. 6
- PAX on board for transit flights: max. 14

The scientific equipment available on board (AWI owned and external instruments)

- Data acquisition system ADA (central data storage and time reference for stand-alone systems)
- laser scanner/altimeter: Riegl VQ-580, Riegl LMS-Q680i, Riegl LD90, Astech LDM301
- ice penetrating radar systems: ice thickness radar, accumulation radar, snow thickness radar, ultra-wideband depth sounder (24 channel system), microwave ultra-wideband snow radar
- magnetometer: Scintrex CS-3
- Gravity meter: ZLS, GT-2a
- GPS: Novatel, Javad
- Cameras: Nikon SLR, video, GoPro
- Hyper spectral camera: Specim AISA Eagle
- Hygrometer CR2
- Licor 7200 humidity sensor
- Nezerov probe
- Thermeter: PT100
- Radiation thermometer KT19
- 5-hole probe with absolute and relative humidity, AIMMS20, AIMMS30
- Aerosol lidar AMALI
- Methane sensor Los Gatos RMT200
- Radiation sensors: Ocean optics (long & short wave) Kipp&Zonen pyranometer & pygeometer
- Single particle photometer SP2
- Ultra high sensitivity aerosol spectrometer
- Sun photometer
- Drop-sonde launch system AVAPS lite
- PMS cannisters
- EM bird (for mapping sea-ice thickness)
- ALABAMA (MPI Mainz-owned aerosol mass spectrometer)
- ASIRAS (ESA-owned radar altimeter)
- EMIRAD-2 (DTU-Copenhagen owned polarmetric radiometer)
- MACS-Polar (DLR owned aerial camera system)
-

The type of science supported

Monitoring and recording interactions between the Earth's crust, ice- and snow-covered areas, oceans, and the atmosphere:

- Mapping of the Earth's magnetic and gravity field for tectonic studies
- Mapping of ice thickness and internal structures of ice shelves, ice sheets, and glaciers for mass balance studies, input and reference data sets for ice dynamic modelling studies
- Mapping of sea ice thickness, snow thickness on sea ice, and surface morphology/altimetry for calibraction and validation of satellite derived remote sensing data
- Measuring in-situ and remotely of aerosols and trace gases for process studies and input and reference data sets for modelling studies
- Measuring of radiation, temperatures, humidity, and turbulent fluxes for process studies and input and reference data sets for modelling studies of the planetary boundary layer
- Optical remote sensing for mapping biodiversity in the Wadden Sea and land cover disturbances related to permafrost thaw
- Besides scientific operations, the aircrafts are maintaining logistics between different international research stations in the Antarctic, where the AWI is an active member of the international Dronning Maud Land Air Network (DROMLAN).

The AWI strategy in terms of aircraft in polar regions in the next decade

As in the past, in the forthcoming years AWI aircraft will be operating in Antarctica, as well as in the Arctic in each season. The aircraft will be used for scientific expeditions and for logistic tasks in order to support science. The home base of the aircraft is Bremen Airport. The available instrument suite is constantly expanded to meet the requirements by the science community.

BAS Fleet



The British Antarctic Survey operates 5 research aircraft: 4 Twin Otters and a Dash 7.

	Twin Otter	Dash 7
Aircraft Registrations	VP-FAZ, VP-FBB, VP-FBC, VP-FBL	VP-FBQ
Range	1,000 km	>2,000 km
Cruise Speed	65 m/s (130 knots with skis, 150 kt clean)	120 m/s (230 kts)
Survey Speed	60 m/s	110 m/s
Crew	1 Pilot (dependant on role)	2 Pilots
Mission scientists (max)	4	4
Fuel Consumption (planning)	330 l/hour	630 l/hour
Max Take Off weight	6,360 kg (14,000 lb)	21,300 kg (47,000 lb)
Survey power available	300 A (28 V)	300 A (28 V)

The type of science supported

The aircraft have supported research monitoring and recording interactions between the Earth's crust, ice- and snow-covered areas, oceans and the atmosphere. This is both from a logistics perspective in deploying instruments and field camps but also as airborne research platforms.

- Mapping of the Earth's magnetic and gravity field, ice thickness & structure, sea ice thickness, snow thickness on sea ice, surface morphology/altimetry
- Measuring in-situ and remotely aerosols and trace gases
- Measuring temperatures, humidity, wind distribution
- Radiation measurements
- Optical remote sensing

Dash 7

This is a 110 Series aircraft with STOL capabilities that can be operated from both paved and unpaved surfaces.

The aircraft has magnetometer pods on the wing hard points. In addition, there is an instrument port with the dimensions 1.6 x 0.6m. The maximum instrument height is 1.2m including the pressure box associated with the port.

There are fuselage hard points for planar antennas.

Magnetometer	Sintrex CS3 sensors are used due to their high sensitivity, high cycling rates, excellent gradient tolerance, fast response and low susceptibility to the electromagnetic interference.
Altitude and Position	GPS NMEA and one pulse per second (1pps) is distributed to all systems to provide synchronisation of all the data and formation of coherent data sets.
Gravimeter	Aero gravity measurements are acquired with a modified LaCoste and Romberg air/sea gravimeter. Crossover analysis indicates the free-anomaly field is accurate to ~5mGals for wavelengths greater than 10km. A Chekan* airborne gravimeter has also been flown in Antarctica. Various IMAR strap down gravity systems have also been flown.
GPS Positioning	Two GPS logging at 2Hz and 10Hz are used. This provides a true dual redundant system utilising two dissimilar GPS receivers, mitigating against drop-outs due to firmware coding errors. A Leica GPS 500 provides the primary GPS and a Novatel DL-V3 provides the system redundancy.
Radiometers	Eppley PIR and PSP sensors fitted to the roof and underside of the aircraft. Logged at around 10Hz.
Intergraph's Z/I Imaging Digital mapping Camera (DMC)	



Twin Otter

Four aircraft of the DHC 6 300 series with STOL capabilities. They can operate from paved and unpaved surfaces. All four can undertake polar logistics support including to sea-ice camps. They can be equipped with wheel skis and have extended range tanks fitted. Two aircraft are modified to support airborne and remote sensing applications.

Airborne Atmospheric Research Capabilities of the Twin Otter (VP-FAZ)

Instrumentation for Atmospheric Research

Total Temperature	Goodrich Rosemount Probes mounted on the nose. A non-de-iced model 102E4AL and a de-iced model 102AU1AG logged at 0.7Hz.
Altitude and Position	GPS NMEA and one pulse per second (1pps) is distributed to all systems to provide synchronisation of all the data and formation of coherent data sets.
Air Speed	Static and dynamic pressure from the aircraft static ports and heated pitot tube, logged using Honeywell HPA sensors at 5Hz.
Cooled-Mirror Hygrometer	A Buck 1011C cooled mirror hygrometer is fitted. Chamber pressure and mirror temperature are recorded at 1Hz. A Rosemount mounted Vaisala Humicap sensor is also logged.
Radiometers	Eppley PIR and PSP sensors fitted to the roof and underside of the aircraft. Logged at around 10Hz.
Infra-red Thermometer	Heimann model KT19.82 infra-red thermometer mounted in the floor hatch panel. There is a solenoid operated, ambient temperature, black-body calibration target that can be brought into view during flight. Data are recorded at around 10Hz.
Laser Altimeter	A Riegl LD90-3800VHS-FLP Laser Altimeter is fitted in the floor hatch. Returns up to a few hundred metres are possible depending on the surface at repetition frequencies up to 2kHz.
Cameras	Two Sony DV-tape cameras can be used. One downwards-looking mounted in the camera hatch, one forward-looking mounted in the cockpit. A Canon EOS7D with 15mm lens can be triggered to take 18MP images at up to 1 frame/sec.
Laser Scanner	A Riegl Q240 80 degree laser scanner has been used for mapping sea ice.
Radar Altimeters	Data are recorded from the aircraft's two radar altimeters at around 10Hz. These have a range of 1000m with a wider beam compared to the laser altimeter.
Turbulence Probe	A NOAA/ARA BAT 'Best Aircraft Turbulence' probe is fitted on a boom extending forward from the roof of the aircraft. This 9-hole probe records pressures and exposed thermocouple temperatures for measuring turbulence by eddy covariance in conjunction with attitude measurements. Three-axis accelerometer data are also recorded from the BAT probe. Heaters are fitted inside the hemisphere to enable the instrument to be usable even after encountering icing.
GPS Position	Around 5m position accuracy recorded at 10Hz from the JAVAD 4-antenna GPS attitude system. For greater accuracy this is supplemented by a Trimble 5700 survey system using an antenna mounted above the laser altimeter and processed in kinematic mode with a second ground based unit.
GPS Attitude and Reference System	A JAVAD AT4 4-antenna GPS system records heading, pitch and roll at 20Hz and velocites at 10Hz. Antennas are permanently fitted to each wingtip and fore and aft of the fuselage.
Inertial Attitude and Heading Systems	Aircraft attitudes and rate of change are recorded from the aircraft avionics Litef AHRS system. This is converted from ARINC format at 64Hz. There is also an OXTS Inertial+ GPS linked INU available which stores data internally operating at 100Hz.
Wing Hardpoints	Both wings have hardpoints, zivko carbon fibre pylons and cabling to accept PMS footprint instruments.
Cloud Probe	An under-wing pylon mounted Droplet Measurement Technologies CAPS Probe comprises of a 2D imaging probe (25µm-1550µm), aerosol spectrometer (0.5µm-50µm) and liquid water content probe (0.01-3.0g/m3). The probe has a dedicated logging PC and comprehensive instrument de-icing heaters. An under-nose mount for a DMT CDP instrument has also been fitted.
Closed Path water vapour and CO2 sensor	A LICOR LI-7000 closed path infra-red gas analyser is fitted. Sampling is from a Rosemount inlet and readings are triggered at 50Hz.
Aerosol Inlet	A Brechtel Model 1200 Isokinetic Inlet is fitted. >95% efficient for 0.01µm to 6µm.
Condensation Particle Counter	A TSI 3772 CPC is available.
Aerosol Spectrometer	A Grimm model 1.109 portable aerosol spectrometer. 31 channels 0.25µm to 32µm.
Central Logging System	All instruments apart from the CAPS probe are logged to a single rack PC using Labview and associated National Instruments hardware including networked compact Fieldpoint modules in the roof and floor. The logging can be monitored and controlled from the main rack in the cabin as well as a remote touch screen in the co-pilot's seat. CAPS has a dedicated computer. Dual KVM switches allow both the rear operators screen and the cockpit display to switch to either PC.
ASIRAS	ASIRAS is an airborne SAR-altimeter instrument owned by ESA. ASIRAS is essentially a Ku-band altimeter but with a high pulse repetition frequency such that it is phase sensitive and pulse-coherent. The carrier frequency of the radar is 13.5 GHz and the bandwidth is 1 GHz. It returns information on surface snow including over sea ice.

Airborne Geophysics Research Capabilities of the Twin Otter Aircraft (VP-FBL)

GPS Positioning	Two GPS logging at 2Hz and 10Hz are used. This provides a true dual redundant system utilising two dissimilar GPS receivers, mitigating against drop-outs due to firmware coding errors. A Leica GPS 500 provides the primary GPS and a Novatel DL-V3 provides the system redundancy.
GPS NMEA and 1pps distribution	GPS NMEA and one pulse per second (1pps) are distributed to all systems to provide synchronisation of all the data and formation of coherent data sets.
Inertial Measurement Unit (IMU)	Aircraft attitude and inertial information is provided by an IMAR FSAS inertial unit (being a non-ITAR controlled system it can be more readily used in foreign countries). The IMU data is logged to a Novatel Span receiver.
Magnetometer	Sintrex CS3 sensors are used due to their high sensitivity, high cycling rates, excellent gradient tolerance, fast response and low susceptibility to the electromagnetic interference.
AGIS (Airborne Geophysical Information System)	The AGIS data-logging system is used to log the magnetometer data at a frequency of 10Hz with a sensitivity of 1 pico Tesla, radar altimeter data and fluxgate magnetometer is also logged. AGIS also provides pilot guidance information.
Radar Altimeters	Data are recorded from the aircraft's radar altimeter fitted in the tail section at 10Hz. These have a range of around 800-1000m and a wider beam compared to the laser altimeter.
Fluxgate Magnetometer	A Billingsley TFM100G2 fluxgate magnetometer is mounted in the tail of the aircraft. This provides corrections for magnetometer data.
Laser Altimeter	A Riegl LD90-3800VHS-FLP Laser Altimeter is fitted in the floor camera hatch. Returns up to 700m over snow are possible depending on the surface reflections. A repetition frequencies up to 2kHz can be achieved giving an along-track measurement every 3cm with an accuracy up to 5cm.
LiDAR	A Riegl LMS-Q240i provides a near-infrared solution for ice research in Polar regions for ranges up to 650m at 2cm accuracies. An Optech ALTM 3100EA* or Leica ALS50 provides an infrared-based solution suitable for high altitude (1km nominal) wide area (5000+ km2) surveys at 5cm accuracies.
Ice Penetrating Radar	The ice-penetrating radar is a coherent two pulse radar with an output of 4KW radar at 150MHz. The radar is capable of imaging ice to depths of 5km with an along track resolution of 10cm before processing and a depth resolution of 8m.
Gravimeter	Aero gravity measurements are acquired with a modified LaCoste and Romberg air/sea gravimeter. Crossover analysis indicates the free-anomaly field is accurate to ~5mGals for wavelengths greater than 10km. A Chekan* airborne gravimeter has also been flown in Antarctica. Various IMAR strap down gravity systems have also been flown.
AHRS	A secondary aircraft attitude reference is available from the aircrafts Litef LCR92 attitude and heading reference system.
VGA and HD video cameras	A solid state standard or HD Sony video camera can be installed to provide forward looking or downward looking video. This provides standard or high definition video and a forward view for the operator when located in the cabin. These can be time stamped or overlaid with GPS position.
Canon 7D	A downward pointing DSLR in the camera bay provides synchronised high resolution surface imagery.
ASIRAS	ASIRAS is an airborne SAR-altimeter instrument owned by ESA. ASIRAS is essentially a Ku-band altimeter but with a high pulse repetition frequency such that it is phase sensitive and pulse-coherent. The carrier frequency of the radar is 13.5 GHz and the bandwidth is 1 GHz. It returns information on surface snow including over sea ice.
POLARIS	POLARIS is a large antenna enclosure capable of housing a variety of antenna arrays. The current configuration houses four 150MHZ antennas to be used with the PASIN radar system.

Photographic and Remote Sensing Capabilities of both Twin Otter Aircraft (VP-FAZ and VP-FBL)

Specim AISA Fenix	• Spectral range 400-2500nm (VNIR & SWIR) • 620 spectral bands with single optic for both VNIR & SWIR but two spectrometers and two diffraction gratings, one optomised for VNIR, the other for SWIR • 3.5 nm bandwidth in VNIR, 10 nm bandwidth in SWIR. • Field-of-View 32.3o • Spatial resolution @ 1000m (above ground level) is 1.52m • Swath @ 1000m (above ground level) is ~600m (384 spatial pixels) • 12 bit output in VNIR, 16 bit output in SWIR • This instrument can be fitted, but are not owned by BAS
Specim AISA Owl	• Spectral range 7.6-12.5um (LWIR) • 100 spectral bands • 100nm bandwidth (diffraction grating limited) • Field-of-View 24o • Spatial resolution @ 1000m is 1.2m • Swath @ 1000m ~410m (384 spatial pixels) • This instrument can be fitted, but are not owned by BAS
Leica Geosystems ALS50-II LiDAR	• 1064nm wavelength laser • Field-of-View between 45o and 75o (as required) • Oscillating mirror system • Average point density 1.8 points /m2 (nadir) @ 1000m (above ground level) • XY accuracy 0.1m and Z accuracy 0.08m • Pulse rate 150kHz single and multiple pulse in the air. • Maximum scan rate 90Hz • Maximum operating altitude (AGL): 3500m (II 500ft) • Both discrete and full wave-form intensity data available • Comparable LIDARs can be fitted
Intergraph's Z/I Imaging Digital mapping Camera (DMC)	• Eight individual modules • 4 high resolution 7k x 4k panchromatic camera heads • 4 multispectral 3k x 2k camaera heads • Field-of-View 69.3o cross track, 42o along track • Pixel size of 12um x 12um • 15cm GSD @ 550m (140 knts) with 60% overlap • 12 bit output (all cameras) • Turnkey post-processing application software • Operated individually rather than with other instruments

The BAS strategy in term of aircraft in Polar regions in the next decade

We aim to execute a safe, challenging programme of airborne science and logistics and to provide a worldwide capability that gives the environmental science community access to a range of aircraft platforms and instrumentation.