

Carvajal Chilean Antarctic Program

67°45'37.7"S 68°54'53.4"W

Type: Station

Operational period:
October–March

Location

Lt. Luis Carvajal station is located on Adelaide Island, west of the Antarctic Peninsula, 1,698 km south-east of Punta Arenas, Chile.

Biodiversity and natural environment

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

History and facilities

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

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



Photos: Chilean Antarctic Program

FACILITIES INFRASTRUCTURE

Area under roof (m ²)	770
Area scientific laboratories (m ²)	96
Type of scientific laboratories: Multipurpose laboratory available from 2018	
Conference room (capacity)	30
Logistic area (m ²)	360
Number of beds	46
Showers	Yes
Laundry facilities	Yes
Power supply type	Fossil fuel, Renewable
Power supply (V)	220
Power supply (hours per day)	24
Hydroponics facilities	No
Number of staff on station (peak/summer season)	12
Number of scientists on station (peak/summer season)	34
Number of staff on station (off peak/winter season)	
Number of scientists on station (off peak/winter season)	
Max number of personnel at a time (staff, scientists and others)	46
Specific device/Scientific equipment: Will be available from 2018 thanks to the multipurpose laboratory	
Scientific services possible:	
Long-term monitoring/observations: Antarctic Fur seals	
MEDICAL FACILITIES	
Area of medical facility (m ²)	No

General research and databases

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

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

Features in the facility area

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

Main science disciplines

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

Dr. Guillermo Mann

Chilean Antarctic Program

62°27'00"S 60°47'00"W

Type: Station

Operational period:
October–March

Location

Cape Shirreff, Livingston Island, South Shetland Islands.

Biodiversity and natural environment

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

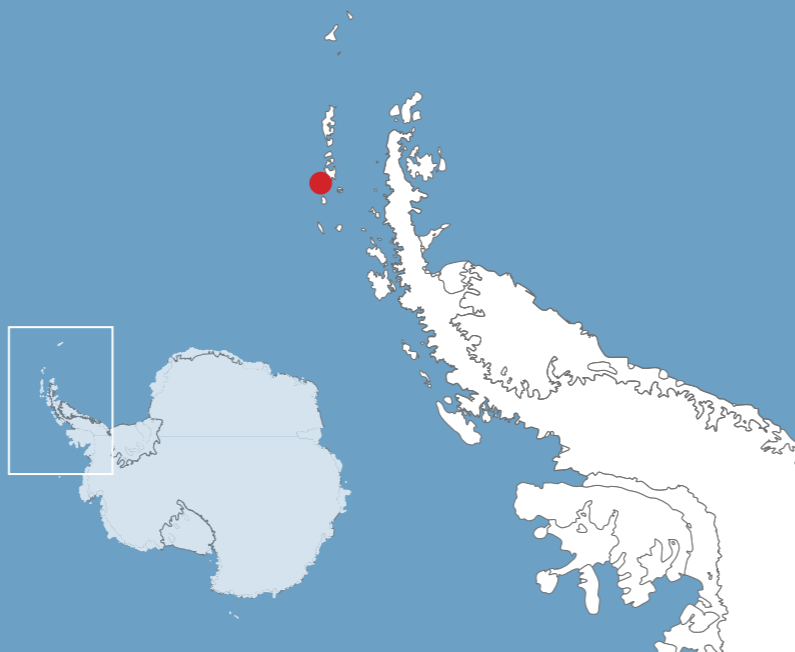
History and facilities

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

General research and databases

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

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



Features in the facility area

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

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

Main science disciplines

Geology, Glaciology, Marine biology, Meteorology.

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



Photo: Instituto Antártico Chileno

Frei

Chilean Antarctic Program

62°12'00"S 58°57'48"W

Type: Station

Operational period:
Year-round

Location

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

Biodiversity and natural environment

An area near to the station, of 1.8 km² in King George Island, was proposed by Chile as a Specially Protected Area for four decades, on the basis of its uniqueness and paleontological richness. In this area, there are outcrops with fossils of a wide range of organisms, including vertebrates and invertebrates and abundant flora with impressions of leaves, stems, pollen grains and spores that date from the Upper Cretaceous to Eocene. The Cretaceous was a crucial time of vegetation change, mainly due to the evolutionary and geographic radiation of angiosperms. During the late Cretaceous, angiosperms infiltrated the pre-existing vegetation progressively, but gymnosperms, ferns and sphenophytes dominated terrestrial plant biomass until the Cenozoic. In addition, the Eocene represents the warmest time since the mass extinction at the end of the Cretaceous. The study of Fildes Peninsula outcrops could answer several important scientific questions.

History and facilities

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

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



Photos: Chilean Antarctic Program

FACILITIES INFRASTRUCTURE

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

General research and databases

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

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

Features in the facility area

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

Main science disciplines

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



Photos: Chilean Antarctic Program

Gabriel González Videla

Chilean Antarctic Program

64°49'25"S 62°51'26"W

Type: Station

Operational period:
December–April

Location

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

Biodiversity and natural environment

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

History and facilities

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

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



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

General research and databases

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

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

Features in the facility area

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

Main science disciplines

Environmental science, Geology, Glaciology, Marine biology.



O'Higgins Chilean Antarctic Program

63°19'15"S 57°53'59"W

Type: Station

Operational period:
Year-round

Location

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

Biodiversity and natural environment

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

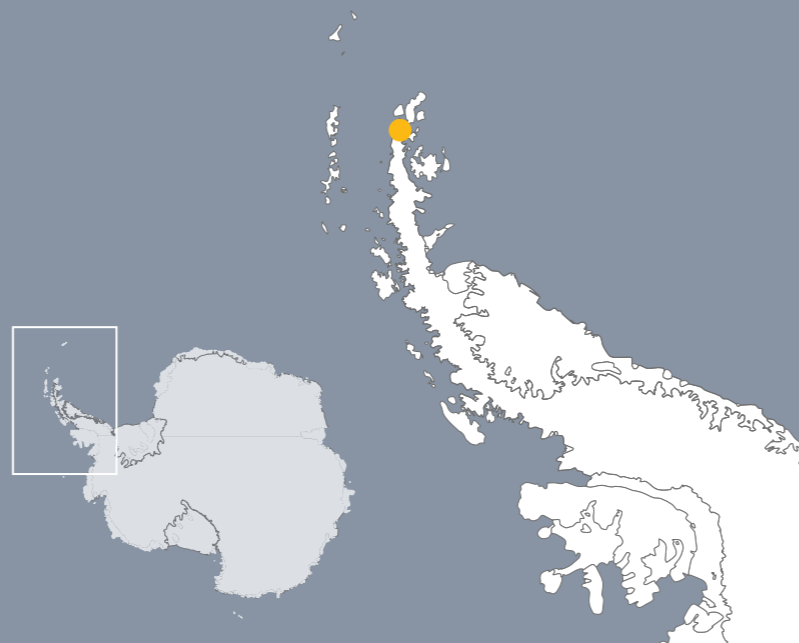
History and facilities

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

General research and databases

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

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



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

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



Features in the facility area

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

Main science disciplines

Geology, Glaciology, Marine biology, Meteorology.



Prat Chilean Antarctic Program

62°28'43"S 59°39'48"W

Type: Station

Operational period:
Year-round

Location

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

Biodiversity and natural environment

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

History and facilities

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

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



Photos: Chilean Antarctic Program

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

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

General research and databases

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

Features in the facility area

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

Main science disciplines

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



Professor Julio Escudero

Chilean Antarctic Program

62°12'57"S 58°57'35"W

Type: Station

Operational period: Year-round

Location

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

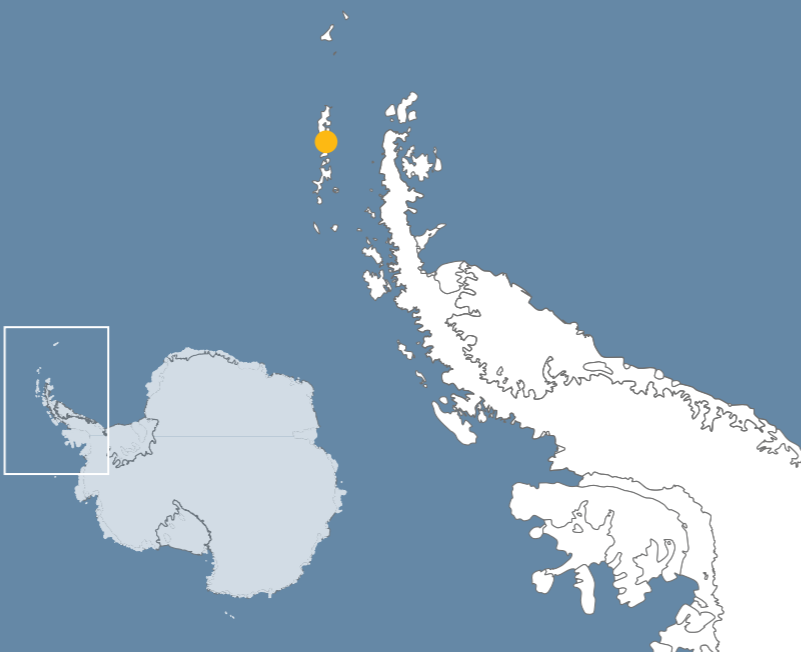
Biodiversity and natural environment

An area near to the station, of 1.8 km² in King George Island, was proposed by Chile as a Special Protection Area, on the basis of its uniqueness and paleontological richness. In this area, there are outcrops with fossils of a wide range of organisms, including vertebrates and invertebrates and abundant flora with impressions of leaves, stems, pollen grains and spores that date from the Upper Cretaceous to Eocene. The Cretaceous was a crucial time of vegetation change, mainly due to the evolutionary and geographic radiation of angiosperms. During the late Cretaceous, angiosperms infiltrated the pre-existing vegetation progressively, but gymnosperms, ferns and sphenophytes dominated terrestrial plant biomass until the Cenozoic. In addition, the Eocene represents the warmest time since the mass extinction at the end of the Cretaceous. The study of Fildes Peninsula outcrops could answer several important scientific questions.

History and facilities

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

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



Photos: Instituto Antártico Chileno

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

General research and databases

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

Features in the facility area

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

Main science disciplines

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

Risopatrón Chilean Antarctic Program

62°22'17"S 59°42'53"W

Type: Station

Operational period:
October–March

Location

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

Biodiversity and natural environment

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

History and facilities

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

General research and databases

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

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



Photos: Chilean Antarctic Program

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

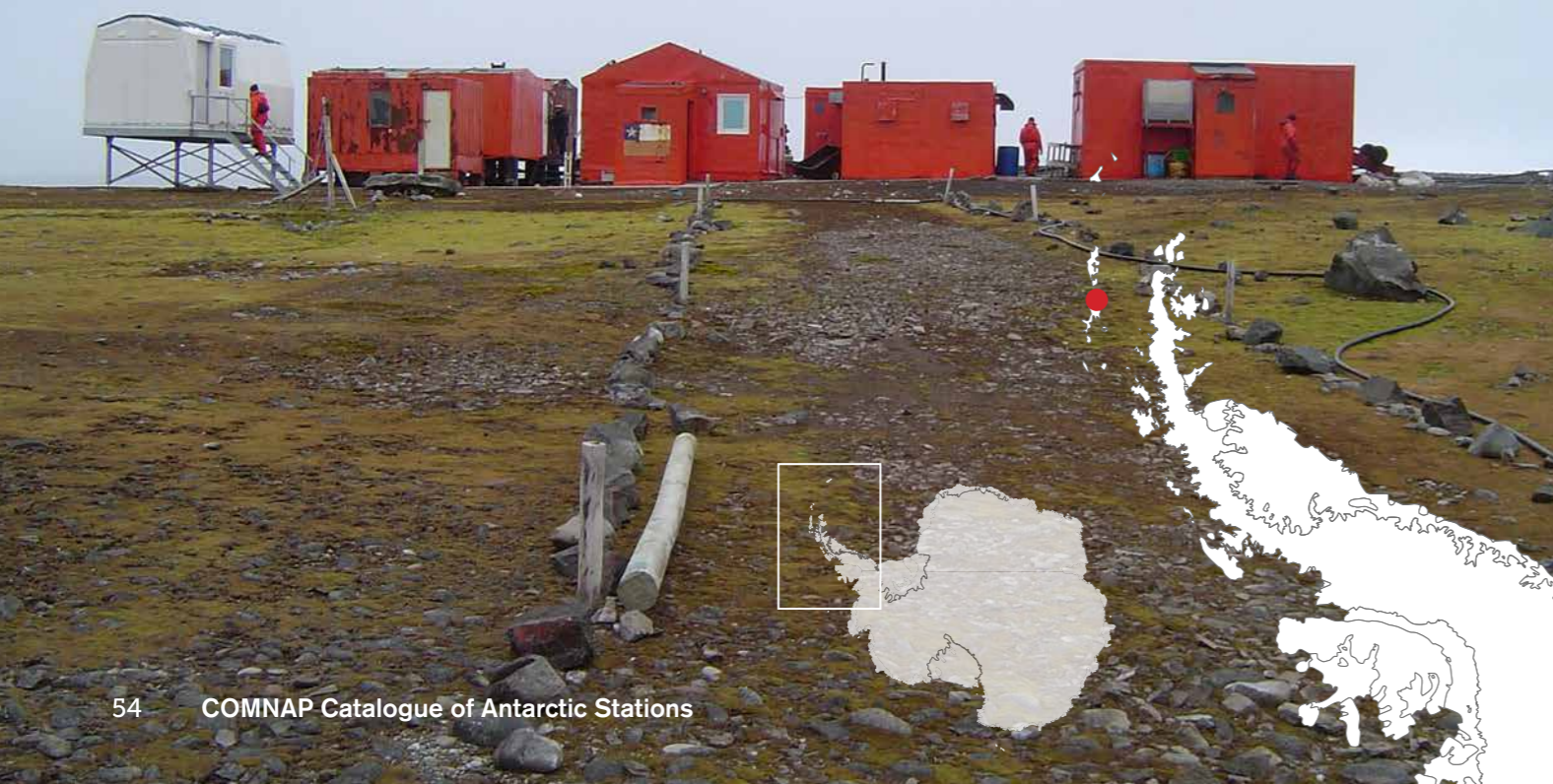
Equipment:	
Distance to hospital (km)	1000
Closest emergency facility in Antarctica (km)	20
Closest emergency facility external (km)	
Medical research capabilities	
Medical screening requirements	
VEHICLES AT FACILITY	
Sea transportation: Zodiac boats	
Land transportation: None	
WORKSHOP FACILITIES	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

Features in the facility area

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

Main science disciplines

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





Yelcho

Chilean Antarctic Program

64°52'55"S 63°35'03"W

Type: Station

Operational period:
October–March

Location

Yelcho station is located on Doumer Island, South Bay.

Biodiversity and natural environment

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

History and facilities

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

General research and databases

Marine studies are conducted at and near Yelcho station.

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



Features in the facility area

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

Main science disciplines

Marine biology, Oceanography.

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