

Bellingshausen

Arctic and Antarctic Research Institute / Russian Antarctic Expedition

62° 12'00"S 58°58'00"W

Type: Station

Operational period: Year-round

Location

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

Biodiversity and natural environment

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

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



History and facilities

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

General research and databases

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

Features in the facility area

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

Main science disciplines

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



Photos: Arctic and Antarctic Research Institute – Russian Antarctic Expedition

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

Druzhnaya IV

Arctic and Antarctic Research Institute / Russian Antarctic Expedition

69°44'00"S 73°43'00"E

Type: Station

Operational period:
October–March

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



Location

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

Biodiversity and natural environment

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

History and facilities

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

General research and databases

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

Features in the facility area

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

Main science disciplines

Environmental sciences, Geodesy, Geology, Geophysics.

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



Leningradskaya

Arctic and Antarctic Research Institute / Russian Antarctic Expedition

69°30'00"S 159°23'00"E

Type: Station

Operational period:
October–March

Location

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

Biodiversity and natural environment

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

History and facilities

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

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



General research and databases

Automated meteorological and geodetic stations are operated at Russkaya base.

Features in the facility area

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

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

Main science disciplines

Environmental sciences, Geodesy.

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



Photos: Arctic and Antarctic Research Institute – Russian Antarctic Expedition



Mirny

Arctic and Antarctic Research Institute / Russian Antarctic Expedition

66°31'00"S 93°01'00"E

Type: Station

Operational period: Year-round

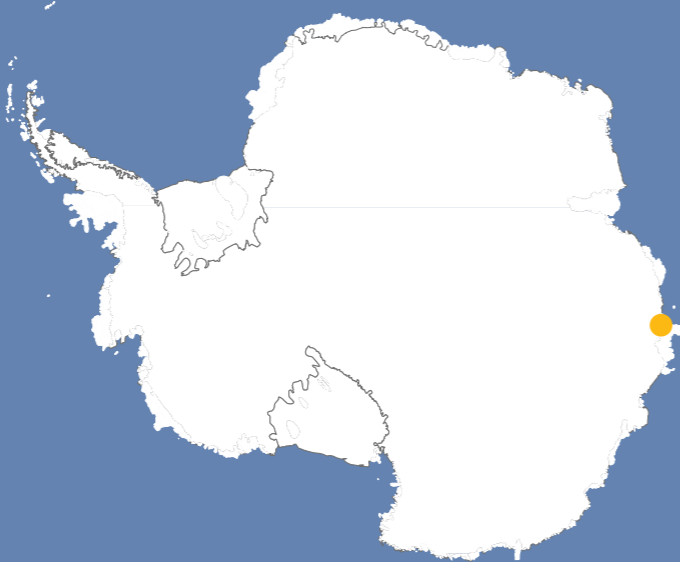
Location

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

Biodiversity and natural environment

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

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



History and facilities

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

General research and databases

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

Features in the facility area

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

Main science disciplines

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



Photos: Arctic and Antarctic Research Institute – Russian Antarctic Expedition



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

Molodezhnaya

Arctic and Antarctic Research Institute / Russian Antarctic Expedition

67°40'00"S 45°51'00"E

Type: Station

Operational period:
December – March

Location

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

Biodiversity and natural environment

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

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



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

History and facilities

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

General research and databases

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

Features in the facility area

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

Main science disciplines

Environmental sciences, Geodesy, Pollution.

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



Photos: Arctic and Antarctic Research Institute – Russian Antarctic Expedition

Novolazarevskaya

Arctic and Antarctic Research Institute / Russian Antarctic Expedition

70°46'00"S 11°50'00"E

Type: Station

Operational period: Year-round

Location

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

Biodiversity and natural environment

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

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



Photos: Arctic and Antarctic Research Institute – Russian Antarctic Expedition

History and facilities

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

General research and databases

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

Features in the facility area

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

Main science disciplines

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

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

Oazis

Arctic and Antarctic Research Institute / Russian Antarctic Expedition

66°16'00"S 100°44'00"E

Type: Station

Operational period:
October–March

Location

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

Biodiversity and natural environment

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

History and facilities

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

General research and databases

Automated meteorological station is operated at Oazis base.

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



Photos: Antarctic Research Institute - Russian Antarctic Expedition

Features in the facility area

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

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



Main science disciplines

Environmental sciences, Geodesy, Geology, Microbiology.

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



Progress

Arctic and Antarctic Research Institute / Russian Antarctic Expedition

69°23'00"S 76°23'00"E

Type: Station

Operational period: Year-round

Location

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

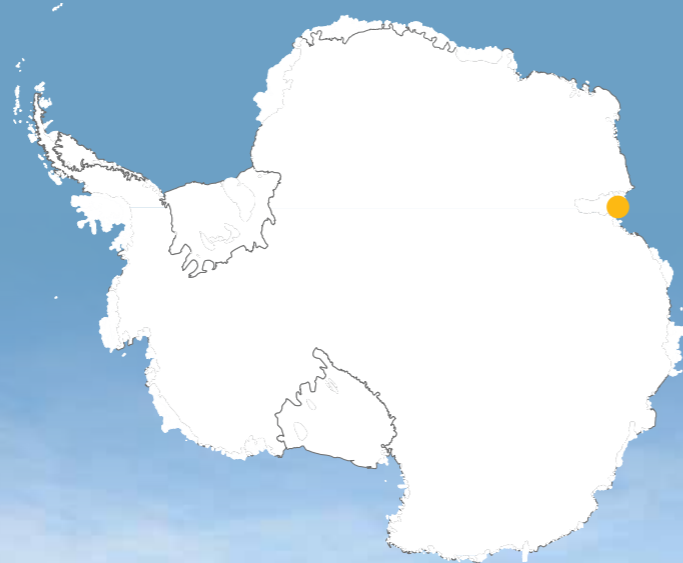
Biodiversity and natural environment

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

History and facilities

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

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



Photos: Arctic and Antarctic Research Institute – Russian Antarctic Expedition

General research and databases

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

Features in the facility area

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

Main science disciplines

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

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

Russkaya

Arctic and Antarctic Research Institute / Russian Antarctic Expedition

74°45'00"S 136°40'00"W

Type: Station

Operational period:
October–March

Location

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

Biodiversity and natural environment

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

History and facilities

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

General research and databases

Automated meteorological and geodetic stations are operated at Russkaya base.

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



Features in the facility area

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

Main science disciplines

Environmental sciences, Geodesy, Geology.

FACILITIES INFRASTRUCTURE

Area under roof (m ²)	800
Area scientific laboratories (m ²)	0
Type of scientific laboratories: None	
Conference room (capacity)	
Logistic area (m ²)	
Number of beds	10
Showers	No
Laundry facilities	No
Power supply type	Fossil fuel
Power supply (V)	220
Power supply (hours per day)	
Hydroponics facilities	No
Number of staff on station (peak/summer season)	10
Number of scientists on station (peak/summer season)	
Number of staff on station (off peak/winter season)	
Number of scientists on station (off peak/winter season)	
Max number of personnel at a time (staff, scientists and others)	10
Specific device/Scientific equipment:	
Scientific services possible:	
Long-term monitoring/observations:	

MEDICAL FACILITIES

Area of medical facility (m ²)	25
Staff with basic medical training or doctor (Summer)	0
Staff with basic medical training or doctor (Winter)	
Capability: Basic	
Equipment: None	
Distance to hospital (km)	
Closest emergency facility in Antarctica (km)	
Closest emergency facility external (km)	
Medical research capabilities	
Medical screening requirements	

VEHICLES AT FACILITY

Sea transportation:	
Land transportation:	

WORKSHOP FACILITIES

Mechanical	
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COMMUNICATIONS

Satellite phone	
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TRANSPORT AND FREIGHT

Access	Sea
Transport to facility: Helicopter, Ship	
Number of airstrips	0
Length (m) of longest runway	
Width (m) of longest runway	
Number of flight visits per year	0
Period of flight visits per year:	
Helipad	No
Number of ship visits per year	1
Period of ship visits per year: January, February, March, December	
Ship landing facilities: None	



Photos: Arctic and Antarctic Research Institute – Russian Antarctic Expedition



Vostok

Arctic and Antarctic Research Institute / Russian Antarctic Expedition

78°28'00"S 106°48'00"E

Type: Station

Operational period: Year-round

Location

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

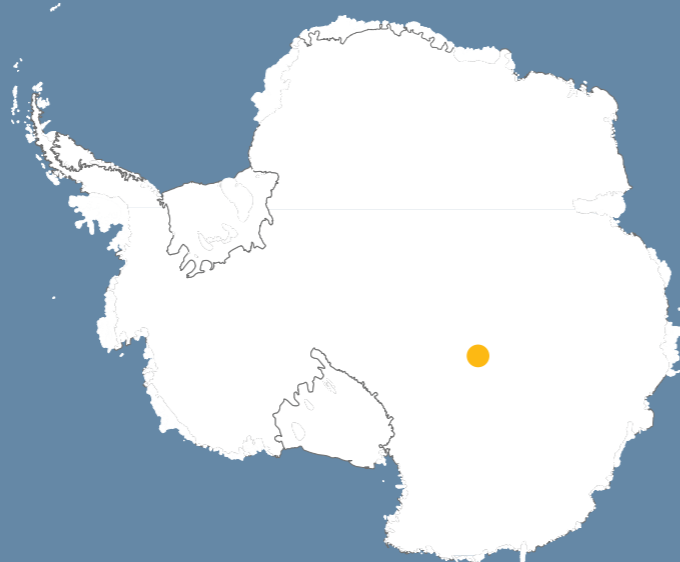
Biodiversity and natural environment

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

History and facilities

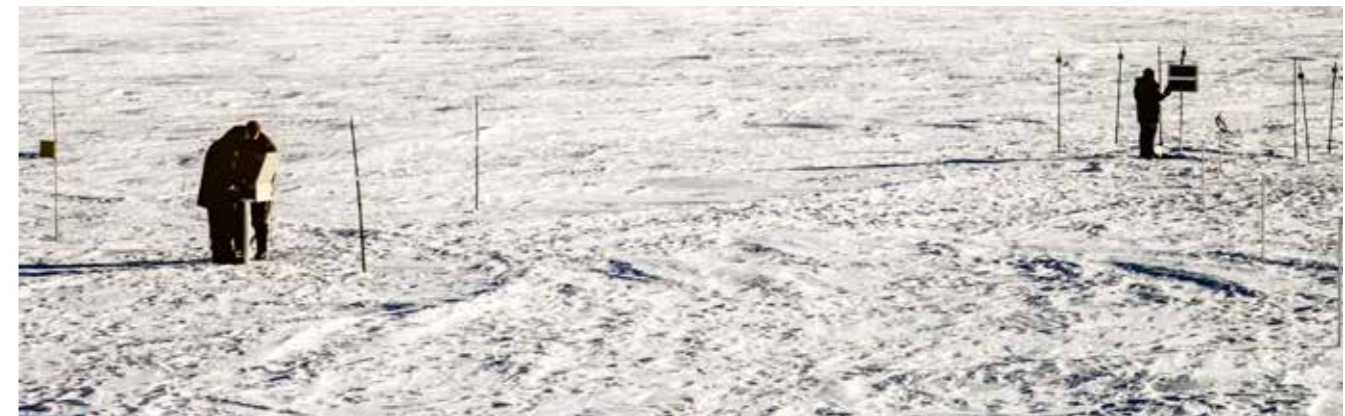
Vostok station was opened on December 16, 1957. The inland research station Vostok is one of the major base stations of Russia in Antarctica. The station infrastructure is represented by four capital structures with the design DES power of 270 kW and the oil tank capacity of 200 tons.

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



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

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



General research and databases

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

Features in the facility area

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

Main science disciplines

Climate change, Environmental sciences, Geophysics, Glaciology.



Photos: Arctic and Antarctic Research Institute – Russian Antarctic Expedition