Syowa National Institute of Polar Research

69°0'25.1"S 39°35'01.5"E

Type: Station

Operational period: Year-round

Location

SYOWA

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

Biodiversity and natural environment

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

History and facilities

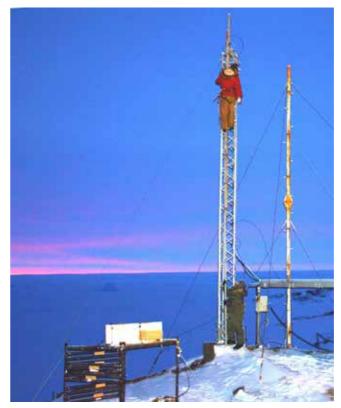
Syowa station was built in 1957 in the International Geophysical Year. Initially, cartographic, astronomical and gravity surveys were undertaken at the station. Now, a range of diverse research is carried out there and in the immediate vicinity of the station. Syowa is a year-round station with capacity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

General research and databases

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

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







Features in the facility area

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

Main science disciplines

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

Area under roof (m ²)	740
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Area scientific laboratories (m²)	133
Type of scientific laboratories: Biology, Chemistry, Geo	logy, Geophysic
Conference room (capacity)	615
Logistic area (m²)	615
Number of beds Showers	13
	Ye Ye
Laundry facilities	
Power supply type	Fossil fu Renewab
Power supply (V)	10
Power supply (hours per day)	
Hydroponics facilities	Ye
Number of staff on station (peak/summer season)	12
Number of scientists on station (peak/summer seasor	1) 5
Number of staff on station (off peak/winter season)	3
Number of scientists on station (off peak/winter season)	
Max number of personnel at a time	13
(staff, scientists and others)	
Specific device/Scientific equipment:	
Scientific services possible:	
Long-term monitoring/observations:	
MEDICAL FACILITIES	Y
Area of medical facility (m ²)	10
Staff with basic medical training or doctor (Summer)	
Staff with basic medical training or doctor (Winter)	
Capability: Dental, Surgery	
Equipment: Anaesthesia, Biochemistry, Diagnostic ultra Diagnostic X-ray, Laboratory diagnostics, Telemedicine	
Distance to hospital (km)	
Closest emergency facility in Antarctica (km)	
Closest emergency facility external (km)	
Medical research capabilities	Y
Medical screening requirements	Y
VEHICLES AT FACILITY	
Sea transportation: Rubber boats	
Land transportation: 4WD cars, snow vehicles, skidoos	
WORKSHOP FACILITIES	
Mechanical, Metal workshop, Wood workshop COMMUNICATIONS	
Computer, E-mail, Fax, Internet, Satellite phone, Teleph	one, VHF
TRANSPORT AND FREIGHT	
Access	Air, Se
Transport to facility: Airplane, Ship	
Number of airstrips Length (m) of longest runway	120

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

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

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Width (m) of longest runway

Number of flight visits per year

Number of ship visits per year

Ship landing facilities: None