



# St. Kliment Ohridski

Bulgarian Antarctic Institute

62°38'44.30"S 60°21'91.40"W

Type: Station

Operational period:  
November–March

## Location

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

## Biodiversity and natural environment

In the region of the Bulgarian base, there are three species of penguins, four of seals and numerous bird species that nest in the surrounding area. Lichens, mosses and other plants grow freely. Those located near the base are surrounded and protected by a fence, and there are sign-posted protected areas.

CLIMATE	
Climate zone	Maritime Antarctica
Permafrost	Continuous
Mean annual wind speed (km/h)	27.5
Max wind speed (km/h)	140
Dominant wind direction	
Sea Ice Break Up	November
Snow free period	None
Total annual precipitation (mm)	
Precipitation type	Snow and Rain
Mean annual temperature (°C)	
Mean temperature in February (°C)	1.3
Mean temperature in July (°C)	-20
ENVIRONMENT	
Region	Antarctic Peninsula
Antarctic Environmental Domain: G – Antarctic Peninsula offshore island geologic	
Antarctic Conservation Biogeographic Region: 3 North-west Antarctic Peninsula	
Altitude of facility (m)	15
Type of surface facility built on	Ice-free ground
Long term monitoring	Yes
Waste management	Yes
Hazard(ous) management	Yes
Fuel spill response capability	Yes



## History and facilities

Following an aborted attempt on Cape Vostok in the northwest end of Alexander Island, two prefabricated huts were assembled on Livingston Island on April 26–29, 1988, by a four-member Bulgarian team logistically supported by the Soviet ship *Mihail Somov*. This refuge was later refurbished and inaugurated as a permanent base on December 11, 1993. Formerly known as Sofia University Refuge, in 1994 the base was named after St. Kliment of Ohrid (840–916 AD), a prominent Bulgarian scholar and bishop, by a Presidential decree. An expansion program was implemented at St. Kliment Ohridski in 1996–98, including construction of a new house, built with materials shipped from Argentina with the logistic support of the Spanish Antarctic Program. The house total area of 80 m<sup>2</sup> allows for two sleeping rooms, a bathroom, a scientific laboratory, living room and a kitchenette. Between 2007–2010 were built two new houses (materials from Argentina) having four more bedrooms, a medical office and two scientific laboratories (geological and biological). Thus the total capacity of the base was expanded to twenty-two persons, providing better conditions for work and living, as well as possibilities for a winter stay, if necessary. An average of twenty people work at St. Kliment Ohridski during the austral summer, usually from late November or early December until early March.

## General research and databases

Various scientists – ecologists, biologists, geomorphologists, seismologists, geologists, geodesists – work around the base. In the past five years Bulgarian scientists have been working with the scientists from Spain and Portugal, in a project called "Permafrost and Climate Change in the Maritime Antarctic" (PERMANTAR), exploring the frozen soils.

## Features in the facility area

Bird colonies, Bluff, Coast, Ice cap or glacier, Lake, Rock, Sea, Snow.

## Main science disciplines

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



FACILITIES INFRASTRUCTURE	
Area under roof (m <sup>2</sup> )	221
Area scientific laboratories (m <sup>2</sup> )	20
Type of scientific laboratories: Biology, Geology, Geophysics	
Conference room (capacity)	20
Logistic area (m <sup>2</sup> )	60
Number of beds	22
Showers	Yes
Laundry facilities	Yes
Power supply type	Fossil fuel, Renewable
Power supply (V)	220
Power supply (hours per day)	24
Hydroponics facilities	No
Number of staff on station (peak/summer season)	6
Number of scientists on station (peak/summer season)	16
Number of staff on station (off peak/winter season)	
Number of scientists on station (off peak/winter season)	
Max number of personnel at a time (staff, scientists and others)	22
Specific device/Scientific equipment:	
Scientific services possible:	
Long-term monitoring/observations:	
MEDICAL FACILITIES	
Area of medical facility (m <sup>2</sup> )	12
Staff with basic medical training or doctor (Summer)	1
Staff with basic medical training or doctor (Winter)	
Capability: Basic	
Equipment: CPR, defibrillator, cardiograph	
Distance to hospital (km)	1100
Closest emergency facility in Antarctica (km)	120
Closest emergency facility external (km)	1100
Medical research capabilities	Yes
Medical screening requirements	Yes
VEHICLES AT FACILITY	
Sea transportation: Two Zodiac boats	
Land transportation: Three skidoos	
WORKSHOP FACILITIES	
Mechanical, Wood workshop	
COMMUNICATIONS	
Computer, E-mail, Printer, Satellite phone	
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	Yes
Number of ship visits per year	5
Period of ship visits per year: January, February, March, November, December	
Ship landing facilities: None	