

## International collaboration site: Ice Station Cape Baranova

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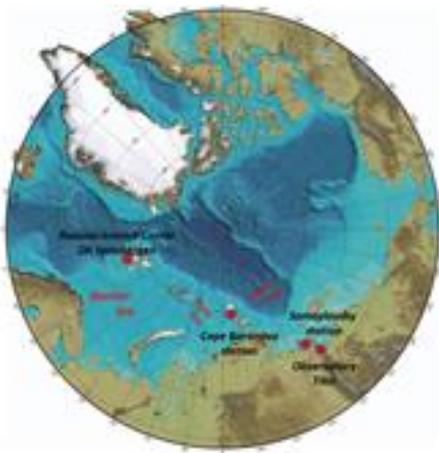
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The “Ice Base Cape Baranova” station also known as “Prima”, located on the Bolshevik Island (Severnaya Zemlja, 79.3N , 101.8E, 30 m a.s.l) in the Siberian arctic area, was reopened in 2013. To the north is the Arctic Ocean and to the east Laptev Sea and to the west Shokalski strait leading to the Kara Sea. The station is operated by Arctic and Antarctic Research Institute, St Petersburg.

The site is characterized by long polar night from 22 October to 22 February and polar day from April 22 to August 22. The climate is representative of the Arctic Ocean. The air temperature in the summer (June-August) is from 0° to 4°C. In winter (October-April) the temperature range is from -5° to -45° C. Station area is characterized by sustained winds of predominantly southerly direction at an average speed of 10-15 m/s. During the transition period, the wind speed can reach 50 m/s. Soil in the vicinity of the station is mostly composed from rocky shale. The depth of summer thawing does not exceed 30 - 40 cm.

Main goals of establishment of "Ice Base Cape Baranova" is to identify the causes and consequences of climate change in the Arctic with special attention to the comprehensive studies of interrelated components of the Arctic climate system: -surface heat and radiation balance; -cloudiness and aerosol components of the atmosphere; -processes of gas and mass transfer; -chemical composition of atmosphere and hydrosphere; -melting of permafrost; -study of drifting snow; fast and lake ice; -characteristics of hydrological regime of the Shokalski Strait and western Laptev Sea; and -dynamics of glaciers.

In this presentation, the instrumentation and the latest pictures of the station are introduced.



Left: Location of the stations



Middle: The picture of Bolshevik Island



Right: Map of Severnaya Zemlya