

Comprehensive studies of the Arctic natural environment on the Research station "Ice Base "Cape Baranov " in 2014 - 2016 years and plans for future

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Research Station "Ice base "Cape Baranov" of Arctic and Antarctic Research Institute (AARI) was opened in the fall 2013 on the Bolshevik Island, Archipelago Severnaya Zemlia. Presently in the observatory comprehensive studies in practically all areas of Earth Sciences are conducted. During 2014 - 2016 years about 30 scientists and technicians carried out standard and special meteorological, radiation and upper-air observations, including studies of ozone in troposphere and lower stratosphere; investigations of turbulent and radiation energy - mass exchange between surface and atmosphere; measurements of greenhouse gases concentrations, chemical composition of precipitation, aerosol research (including black carbon); investigations of the active soil layer, morphological characteristics and physical - mechanical processes in fast ice; oceanographic and hydrochemical studies in the Shokalski Strait; hydrological studies of small rivers and lakes; glaciological and paleogeographic studies; ecological studies of natural objects in the region of "Ice Base" Cape Baranov".

In 2017 there are plans for organization of greenhouse gases fluxes measurements from tundra (together with Korean Polar Research Institute) and installation of high-resolution ground-based remote sensing systems SODAR, RASS, and ceilometer (together with Trier University, Germany).

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