



November 10, 2021

The 4th Polish Research Antarctic Expedition (PARE) set off to the A.B. Dobrowolski Station

The Polish Antarctic Station named after Antoni Bolesław Dobrowolski is the oldest Polish research facility in the Antarctic. The station buildings were built in 1957 by the Soviet Union and handed over to Poland (together with the equipment) as the Oasis Station in December 1958. Polish Academy of Sciences took over the Station in January 1959. On January 23 the Oasis Station was renamed after Antoni B. Dobrowolski, and in 1991 it was handed over to the Institute of Geophysics of the Polish Academy of Sciences (IG PAS) in order to carry out its statutory activities.

Due to its climatic, geomorphological, and geological characteristics, the Bungee Oasis is a unique place on Earth, often treated as a Martian analogue. The mysteriousness of the Bungee Oasis genesis, the proximity to the South Magnetic Pole, the direct access to the Proterozoic substrate of the continent, and the possibility of conducting research in an uncontaminated natural environment make the Bungee Oasis one of the most scientifically attractive places in Antarctica.

As emphasized by Professor Marek Lewandowski, head of the Department of Polar and Marine Research IG PAS, initiator and manager of the revitalization project of the A.B. Dobrowolski Station, as well as head of the 4th Polish Research Antarctic Expedition: Due to the inhospitable nature of this place, we are ultimately planning to set up year-round, autonomous (in terms of energy supply) and automatic geophysical (seismic, magnetic) stations, which will allow us to study the deep structures of the Earth and the process of generation of the Earth's magnetic field. We also plan to set up an antenna to study the ionosphere, the state of which, as well as the image of the magnetosphere, will allow better forecasting of space weather, which, as it seems, is not without influence on climate changes.

Professor Lewandowski also notes that the demanding environmental conditions of the Bungee Oasis provide great opportunities to test innovative sources of energy for scientific equipment, as well as telecommunications techniques for the transmission of measurement data: The Oasis is therefore an excellent testing platform for cooperation between science and companies developing technologies for building renewable energy sources and transmission systems.

The PARE team to the A.B. Dobrowolski Station, which departed November 10 from the port of Bremerhaven:

Prof. Monika A. Kusiak - geologist, isotope geochemist, IG PAS

Prof. Marek Lewandowski - geophysicist, geologist, paleomagnetist, expedition leader, IG PAS

Prof. Wojciech Miloch - physicist, ionospheric physicist, UiO

Dr. Adam Nawrot - geographer, geomorphologist, IG PAS

The Station revitalization program is being carried out with funding for the maintenance of scientific and research equipment, a research station, and special IT infrastructure SPUB and SPUBI A.B. Dobrowolski Polish Antarctic Station, Bungee Oasis, East Antarctica.