Application of Ukraine for Full Membership

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Summary
See attached application.

Recommendation
The Delegates consider the application of Ukraine to return to Full Membership of SCAR.

Summary Budget 2017 to 2020
No budget implications other than the change in Ukrainian Membership fees.
19 June 2018

Prof. Steven L. Chown
President of the Scientific Committee
on Antarctic Research (SCAR)

Application of Ukraine
for Full Membership

Dear Prof. Chown,

In 2017 Ukraine has celebrated 25 years of accession to the Antarctic Treaty which entered into force for Ukraine on 28 October 1992. All these years, Ukraine has remained committed to the principles of the Treaty and has consistently fulfilled international obligations as a Consultative Party. In particular, in 2001 Ukraine acceded to the Protocol on Environmental Protection to the Antarctic Treaty (including the Protocol itself and its five Annexes) which entered into force for Ukraine on 24 June 2001. In accordance with the Decision of the Government of Ukraine No. 441 On Implementation of the Measures approved by the Antarctic Treaty Consultative Meeting as of 21 June 2017 Ukraine has already approved the Measure 1 (2005) Annex VI Liability arising from environmental emergencies to the Protocol on Environmental Protection to the Antarctic Treaty.

Ukraine is already a well-established member of the SCAR community. It became a SCAR Associate Member on 5 September 1994, followed by the Full Membership on 17 July 2006, after almost ten years of productive management of Vernadsky station (formerly the UK’s Faraday base), which is a unique geophysical observatory and an important reference point for long-term environmental monitoring in the Antarctic region. All this time Ukraine has produced fundamental and applied research on the Antarctic environment at all levels of the geosphere – from lithosphere to upper atmosphere and geospace – within the framework of the State Antarctic Research Program for 2011-2020. The next State Antarctic Research Program for 2020-2030 will correspond to the actual SCAR strategic plan and its scientific priorities.
Unfortunately, due to exceptional circumstances it was decided by the National Committee of SCAR to lower temporarily the Membership level since 1 January 2017. But now the Government of Ukraine strictly supports the national Antarctic program and has allocated the necessary funds to cover all Ukraine’s arrears in SCAR contributions by October 2018. In this connection Ukraine is expressing its intention to return to Full Membership with the contribution level for initial-stage programmes beginning January 2019.

The National Antarctic Scientific Center, Ministry of Education and Science of Ukraine (email: uac@uac.gov.ua; website: www.uac.gov.ua), serves as the National Committee of SCAR for Ukraine, and its Director, Dr Evgen Dykyi is appointed as a Delegate for Ukraine (email: evgen.dykyi@uac.gov.ua).

Ukrainian scientific contributions to the SCAR community are provided in an appendix to this application, as well as the list of selected publications in peer reviewed journals prepared by Ukrainian leading researchers in co-authorship with foreign colleagues.

We will greatly appreciate it if you inform the SCAR Delegates about our intention and consider the application of Ukraine at the upcoming SCAR Delegates’ Meeting, which will be held in Davos in 2018.

Dr Evgen Dykyi

Delegate for Ukraine,
Director
National Antarctic Scientific Center,
Ministry of Education and Science of Ukraine
Ukrainian scientific contribution to the SCAR community

1. The legislative base of Ukraine and directions of the State Program of research in Antarctica

Ukraine has accessed the Antarctic Treaty by the Resolution of Verkhovna Rada (the Supreme Council) of Ukraine No2609-XII as of September 17, 1992. On May 27, 2004 Ukraine has acquired the status of Consultative Party and has received the right to vote in making decisions that are approved by consensus. On February 22, 2001 Ukraine has accessed to the Environmental Protocol to the Antarctic Treaty (Law of Ukraine No2284-III as of February 22, 2001).

Taking into account the nationwide and international importance of comprehensive scientific research in Antarctica, the State institution Ukrainian Antarctic Center was given the status of a National Scientific Center by the Decree of the President (Decree of the President No1524/2004 as of December 23, 2004).

The international achievement of Ukraine was the preparation and holding of the XXXI Consultative Meeting of the Antarctic Treaty in Kiev in June 2008.

In November 2010, a new State Special-purpose Scientific and Technical Program of Research in Antarctica for 2011-2020 was approved. (Decree of the Cabinet of Ministers of Ukraine as of November 03, 2010, No 1002). The State Program objectives are to provide fundamental and applied research in Antarctica, to maintain effectively Akademik Vernadsky Antarctic station, to fulfill commitments of Ukraine in accordance with the Antarctic Treaty, and to evaluate biological and mineral resources in Antarctica based on a scientific approach.

The Program includes subject studies in the following areas: geological and geophysical, meteorological, oceanographic, geospatial, biological, medical and physiological research, and the development and introduction of new technologies.

2. Advantages of Ukrainian Antarctic Vernadsky station

As provided by the Intergovernmental Agreement of July 20, 1995, the United Kingdom has transferred one of its permanent stations – Faraday base – and starting from February 6, 1996 the station was renamed to Akademik Vernadsky.

Vernadsky Station is located on Galindez Island of the Argentine Islands archipelago, the west coast of the Antarctic Peninsula (geographical coordinates: 65°15′ S, 64°16′ W). Today, the station consists of ten buildings of residential and technical purpose, a complex of laboratories with a total area of about 1600 m², and has a reliable life-support system. Provision of the station with fuel, necessary materials and food products is carried out by chartered supply ship once a year during the rotation of members of the expedition, which takes place each year at the end of March.

Work at the station is conducted throughout the year by scientists in key areas of research and includes experts to ensure the life-support system. The number of
personnel at the station is determined by the amount of work planned, and now averages 12, while the station is designed for permanent residence of up to 24 people.

With a year-round cycle of work, the station is well equipped to carry out interdisciplinary research in the field of ionospheric sensing, meteorological and magnetometric observations, studying the ozone layer and the electromagnetic processes in the environment, and seismic acoustic observations.

Compared to other Antarctic stations, Akademik Vernadsky station has **two significant advantages**.

First, measuring devices installed at the station can solve the fundamental problems of modern science in five research areas – electromagnetic, tectonomagnetic, paleomagnetic, geodynamic and glaciological. This allows monitoring of environmental parameters in Antarctica at all levels of the Geosphere - from tectonosphere to Geospace.

In particular, the station has accumulated the longest continuous series of meteorological data in Antarctica starting from 1947; and in the 1980s, after discovery of the effect of the ozone "hole" on the station; its unique research has been launched, making the station one of the ten most important reference ozone stations in Antarctica. In addition, scientific station equipment enables the development of algorithmic and methodological support for monitoring and early warning of natural hazards such as earthquakes and tsunamis.

Such scope of interdisciplinary research provides a holistic understanding of the planetary laws with access to the forecasting of global changes in the environment and their appearance in the polar and tropical latitudes.

Secondly, the station has a unique geographical location on the west coast of the Antarctic Peninsula – in the zone of formation of the ozone "hole" in the immediate vicinity of the Drake Passage, one of the key meteorological active regions of the Earth; as well as in one of the climate "hot spots" of the Southern hemisphere, where there is a long-term warming of the troposphere, the melting of glaciers and, as a consequence, a change in the basic types of Antarctic ecosystems.

The island archipelagos around the station are the natural border of reproductive habitat of many species. In particular, the revealed extreme southern penguin breeding colony is one of the main indicators of population size of Antarctic krill shrimp, which in turn is the basis of the Antarctic ecosystem food chain and a key element of forecasting of fishing capacity of the Southern Ocean.

Around the station within a radius of its accessibility, there is a network of representative scientific sites, where for 15 years monitoring of organism populations is carried out. Taking all this into consideration, the position of the station is a unique natural laboratory for the study of climate change impacts on ecosystem processes and biological diversity of the region.
Thus, the station research complex makes it a unique geophysical observatory and an important reference point for long-term research in the Antarctic region, and also the special location allows the station to study the complex environmental processes and to thoroughly monitor their changes.

3. Opportunities of international research at Vernadsky station

Taking into account the growing scientific interest of the SCAR community, especially Associate Members, in Ukrainian research facilities in Antarctica, Ukraine in the spirit of the existing international cooperation, is ready to provide foreign partners with possibilities to carry out their research at Vernadsky Station both during the whole year and during the summer season (from December to March), providing accommodation services for up to 12 people simultaneously.

Furthermore, the Ukrainian side is ready to provide at Vernadsky Station training courses and summer field camps to improve the skills of scientists. In case of a long-term use of the station, Ukraine is ready to consider different kinds of cooperation with SCAR Members, including the creation of a joint lab on a mutually beneficial basis.

Dr Evgen Dykyi

Delegate for Ukraine,
Director
National Antarctic Scientific Center,
Ministry of Education and Science of Ukraine
The list of selected Ukrainian researchers’ publications in co-authorship with the foreign colleagues, 2008-2018


