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30 years of Ukraine's polar research in Antarctica and the Ukrainian Antarctic Journal

Antarctica is a continent in the Southern Hemisphere of our planet. It occupies the central part of the polar region and is surrounded by the waters of the Southern Ocean. It is believed to have been discovered in 1819–1821. In 2023, there are 36 year-round research bases and 33 countries working in the Antarctic (the region includes the continent Antarctica, the Southern Ocean, and islands) (Komisarenko, 2020; COMNAP, <https://www.comnap.aq/>). It is a significant achievement that the Ukrainian Antarctic Akademik Vernadsky station is among them. Let us remember how it came to be and review the current state of Ukraine's research at the station.

On July 3, 1992, Leonid Kravchuk, then the President of Ukraine, issued a Decree On Ukraine's participation in Antarctic research; in September 1992, Verkhovna Rada adopted the Decision N 2609-XII (2609-12) of 17.09.92 On the accession of Ukraine to the Antarctic Treaty of 1959. On October 26, 1993, a corresponding member of the National Academy of Sciences (NAS) of Ukraine, Petro Gozhyk, together with Yury Oskret, founded and headed the Center for Antarctic Research of the NAS of Ukraine (currently the State Institution National Antarctic Scientific Center (SI NASC) of the Ministry of Education and Science of Ukraine) (Komisarenko, 2020).

In 1993, the United Kingdom proposed transferring the Antarctic Research Base Faraday to one of the “non-Antarctic” countries. This proposal attracted the attention of Academician Sergiy Komisarenko, Ukraine's Ambassador to the UK in those times. He organized an active Ukraine and UK campaign about Ukraine's strong intentions to obtain this base. The two sides began communicating; the high British standards of excellence were satisfied. Then, from December 17, 1994, until February 15, 1995, Yu. Oskret, Gennadi Milinevsky, Oleksandr Liushnivsky, and Volodymyr Gerhiiev stayed on the Faraday Base at the invitation of the British side. During their stay, on December 18, the flag of Ukraine was raised alongside the flag of the United Kingdom (Komisarenko, 2020). The challenging task of station transfer was successfully finished on June 20, 1995, in London, in the Locarno Suite of the Foreign Office when the Ukrainian Ambassador S. Komisarenko and the Minister of State (Foreign and Commonwealth Office) David Davis exchanged diplomatic notes on the free-of-charge transfer of the Faraday Base to Ukraine; P. Gozhyk and the Director of the British Antarctic Survey Berry Heywood signed the corresponding treaty about cooperation, according to which the Faraday Base was to be transferred to Ukraine no

later than by March 31, 1996 (Komisarenko, 2020). In the monograph (p. 19, Komisarenko, 2020), there is a photo of participants from the Ukrainian and British sides who were present at this historic ceremony of signing the relevant documents on the transfer of the British station to Ukraine (I note that the one on the far left in this photo is the author of these lines, that is, I was also a participant in this historical ceremony). On November 28, 1995, the Faraday Base accepted five Ukrainian future winterers. That was the beginning of the First Ukrainian Antarctic Expedition. On December 12, 1995, the National Council of Ukraine on Geographic Names approved the name of Akademik Vernadsky for our research station. On February 6, 1996, the UK flag was lowered at the station, and the Ukrainian flag was raised. Akademik Vernadsky, the first Ukrainian Antarctic Station, appeared on the map, and Ukraine became one of the thirty Antarctic States.

Petro Gozhyk immediately headed the development of three State Scientific-Technical Programs for Ukraine's research in Antarctica. The task united specialists of the relevant scientific organizations under different ministries. The main research agenda included oceanography and bioresources, hydrometeorology, physics of the polar geospace and solar-terrestrial connections, geology and geophysics, biology (a systematic investigation into the structure and functions of the Antarctic ecosystems), and medical and physiological studies.

At the same time, Antarctica-focused departments were being set up in the Institutes of the NAS of Ukraine. Thus, in 2004, the Department of Antarctic Geology and Geoecology was set up in the Institute of the Geological Sciences, headed by P. Gozhyk (Mytropolskyi, 2012). The first publications dedicated to research at the Akademik Vernadsky station belong to scientists – participants of the first Antarctic expedition: the base commander of the first expedition and a researcher of Taras Shevchenko Kyiv National University G. Milinevsky (Milinevsky, 1997a, 1997b), a meteorologist of the Odesa Hydrometeorological Institute Vladyslav Timofeev (Timofeev & Gor-

dienko, 1996) and geophysics of the Institute of Geophysics Volodymyr Bakhmutov (Bakhmutov & Milinevsky, 1998; Bakhmutov & Tretiak, 2002).

The printed journal named Bulletin of the Ukrainian Antarctic Center (ISSN 0367-4290) was founded in 1997 by the decision of the Antarctic Scientific and Technical Council of the Ukrainian Antarctic Center. The Ukrainian Antarctic Journal (UAJ) became a successor of the Bulletin in 2003. Scopus Elsevier's abstract and citation database includes the UAJ since 2023. The journal's Executive Editor is a participant in the first Ukrainian Antarctic Expedition (1995–1996), a world-famous polar researcher, and Doctor of physical and mathematical sciences, Professor G. Milinevsky. His expert contribution is extremely valuable, given his personal active participation in the field.

The successful collective work of the Editorial Board, which includes both foreign and Ukrainian specialists, contributes to the growth of the scientific level of publications. To support this, we can look at the issues printed in 2021–2023. They include research papers on the following topics: geology and geophysics, hydrometeorology and oceanography, atmospheric physics, geospace, biology, development and implementation of novel technologies, international cooperation: social-geographic and political and legislative aspects of Antarctic activity. Therefore, the scope of the journal is broad, interesting and corresponds to research fields of the Scientific Committee on Antarctic Research.

In recent years, the journal has published all papers in English, and this is of crucial importance. The Journal provides free support in the preparation of an English-language text. In the first issue of 2021, there were articles co-authored by Ukrainian researchers and scientists from Portugal, the USA, Poland, and Germany; there is a paper by scientists from Turkey. In 2022, there were published papers co-authored with colleagues from China, Australia, Poland, the SAR, the USA, and Finland; there were papers by Polish authors. In 2023, authors from Poland and Germany were

also published, and scientists from Canada were co-authors of the publications.

All of this is evidence of the researchers' successful operation of the Akademik Vernadsky station, yielding well-known and cited publications in the Ukrainian Antarctic Journal, some of which are created together with foreign specialists.

UAJ is publicly available online as well as in print and is an open access journal, ensuring visibility of all publications and thus citations (<http://uaj.uac.gov.ua>).

References

Bakhmutov, V. G., & Milinevsky, G. P. (1998). Ukrainian station Akademik Vernadsky: A geophysical observatory in the Antarctic continent. *Geophysical Journal*, 17(6), 939–944.

Bakhmutov, V. G., & Tretiak, A. N. (2002). Results of paleomagnetic research of the Mesozoic – Early Cenozoic rocks of the Western Antarctica (the Argentine Islands Archipelago region). *Geofizicheskii Zhurnal*, 24(4), 28–41. (In Russian)

Komisarenko, S. (2020). *My Antarctica*. LAT&K. (In Ukrainian)

Milinevsky, G. P. (1997a). Total ozone measurements from Ukrainian Antarctic station Vernadsky. *Proceedings of SPIE – The International Society for Optical Engineering*, 3237, 68–71.

Milinevsky, G. P. (1997b). Scientific researches at Ukrainian Antarctic Station Vernadsky. *Radio Physics and Radio Astronomy*, 2(3), 255–266.

Mytropolskyi, O. Yu. (Ed.). (2012). *Petro Fedosiiovych Gozhyk* (p. 11–18). (In Ukrainian)

Timofeev, V. E., & Gordienko, S. Y. (1996). Local circulations in the area of the Ukrainian Antarctic station. *UAC Bulletin*, 1, 66–67. (In Russian)

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30-річчя полярних досліджень України в Антарктиці та Український антарктичний журнал

Реферат. У дописі коротко представлено історію Української антарктичної станції «Академік Вернадський», початок та сучасний стан антарктичних наукових досліджень України в районі Антарктичного півострова. Подається інформація про внесок наукового видання «Український антарктичний журнал» у поширення результатів антарктичних досліджень з району станції «Академік Вернадський».