## IN MEMORY OF IVAN EVGENIEVICH FROLOV



4.02.1949 - 17.12.2020

On 17 December 2020, Ivan E. Frolov, researcher, polar explorer, Chief Research Supervisor of the Arctic and Antarctic Research Institute and Editor-in-Chief of our journal, died.

In 1971, Ivan Evgenievich after graduating from the Leningrad Hydrometeorological Institute, began his career at the Arctic and Antarctic Research Institute, where he rose from the position of engineer of the ice regime and forecast department to that of the director of the institute (1992–2017), from September 2017 he was Chief Research Supervisor of the Institute. In 1979, Ivan defended his first doctoral thesis, and in 1998 — his second one. In 2005 he was awarded the academic title of professor, and in 2016 he was elected corresponding member of the Russian Academy of Sciences. His main areas of research interest were marine ice science, polar meteorology, oceanology and climatology. He was a leading expert in the study of the hydrometeorological and ice-hydrological regime of the Arctic Ocean and its seas, took part in more than 30 Arctic and Antarctic expeditions, in 20 of which he was the leader. He published more than 140 research papers in leading Russian and foreign journals, he is also editor and co-author of 6 monographs.

Under his direct supervision, fundamental work was carried out on the creation of the "Global Bank of Digital Data on Sea Ice", methods for calculating and forecasting ice phenomena in the Arctic seas were developed and implemented, the technology for the operation of the "Information bases – models – forecast" complex was created, databases of calculated and field data on sea ice were developed on modern technological carriers, the reference manual "Sea Ice" and the three-volume fundamental work "Scientific Research in the Arctic" were published. Ivan led major research projects within the framework of federal target programs, the most important of which were the Federal Target Program "Ecology and Natural Resources of Russia", the Federal Target Program "Research and Development in Priority Areas of Science and Technology Development", the Federal Target

Program "World Ocean" (subprograms "Research of the World Ocean", "Development and Use of the Arctic"), and others.

In organizing and holding the International Polar Year 2007/08 event, he carried out research and organizational planning of major national projects, coordinating the activities of more than 80 domestic scientific organizations. He was the initiator and organizer of the resumption of the drifting research stations "North Pole" after a long break, and subsequently initiated the design and construction of a drifting research observatory of a new generation — the ice-resistant self-propelled drifting platform "North Pole". In 2019, he headed and successfully carried out the Complex Roshydromet Expedition "Transarktika-2019", which resumed complex scientific research in the Central part of the Arctic Basin.

Heading the Arctic and Antarctic Research Institute from 1992 to 2017, Ivan made a lot of effort to develop the infrastructure of polar research: the research vessel "Akademik Tryoshnikov" was built, the international hydrometeorological observatory Tiksi was created, an observatory was organized at Cape Baranov (Severnaya Zemlya), the research and methodological center "Ladoga" was established. Ivan Evgenievich was editor-in-chief of the journal "Arctic and Antarctic Research", a member of the editorial boards of the journals "Izvestiya Geographic Society", "Ice and Snow", "Arctic: Ecology and Economics". Over the 50-year period of his activity at the institute, Ivan was awarded the Order of the Red Banner of Labor, the Order of Honor, the Medal "For Distinction in Maritime Activity", the Badges "Honorary Polar Explorer", "Honorary Worker of the Navy", "Honorary Worker of the Hydrometeorological Service of Russia", he was a winner of the Prize of the Government of the Russian Federation in the field of science and technology, he was awarded the honorary title "Honored Scientist of the Russian Federation". The AARI team express deep condolences to the family and friends of Ivan Evgenievich.

The loving memory of Ivan Evgenievich and what he did will forever remain in our hearts.

It is highly symbolic that on December 18, the day after Ivan left us, solemn launching of the ice-resistant self-propelled drifting platform "North Pole" took place at the Admiralty Shipyards of St. Petersburg.