

СЕКЦИЯ 12. АРКТИКА И ЕЕ ОСВОЕНИЕ
(ДОКЛАДЫ НА АНГЛИЙСКОМ И НЕМЕЦКОМ ЯЗЫКАХ)

RUSSIAN EXPLORATION OF ARCTIC: FROM HISTORY TO MODERNITY

Ju. Andreeva

Scientific advisor assistant professor O.Latsevich

Industrial University of Tyumen, Tyumen, Russia

The Arctic is the Northern polar region of Earth. This area has always attracted travellers and researchers who have overcome great difficulties, but penetrated to the North and opened a new Arctic Islands and archipelagos.

Russian discoverers have sailed to the Arctic Ocean and along its shores in the mid-15th century. A group of sailors with the merchant Fedot Popov and ataman Semyon Dezhnev walked around the Chukchi Peninsula and reached the Pacific Ocean in 1648.

1733-1742 - the Great Northern expedition worked in the waters of the Arctic ocean. It combined several expeditions and performed a lot of research in the Northern territory of Siberia from the mouth of the Pechora and Vaygach Island to Chukotka, under the leadership of Vitus Bering. For the first time the shores of the Arctic Ocean, island of Honshu, the Kuril Islands were marked on the map.

Semyon Chelyuskin devoted to the study of North-Eastern lands of Russia all his life, he served in detachments of the famous researchers of Vasily Pronchishchev, Khariton Laptev. 1741-1742. Great traveler traveled and described the Northern coast of the Taimyr Peninsula, where he found the most Northern point of mainland Asia, which called Cape Chelyuskin, in 1843.

Ferdinand Wrangel and Fyodor Matyushkin explored and mapped the mainland coast from the mouth of the Kolyma River to Kolyuchinskaya bay.

Stepan Makarov opened a new stage in the study and exploration of the Arctic ocean. According to his idea the world's first powerful icebreaker "Ermak" was built for scientific research of the oceans to the highest latitudes.

The "hydrographic expedition of the Arctic ocean" 1910-1915 on the icebreakers "Taimyr" and "Vaygach" was successful; it completed a detailed hydrographic inventory from Dezhnev's Cape to the mouth of the Lena, and built navaid.

1913 the expedition was asked to continue hydrographic inventory to the Taimyr Peninsula and make the navigation through the Northern sea route to Murmansk on favorable terms. But Cape Chelyuskin was covered with ice.

Arctic Ocean remained not understood, despite a number of expeditions in the early twentieth century, many of which have made major geographical discoveries.

The study and practical exploration of the Northern sea route had great national importance in Soviet times. 10 March 1921, Lenin signed a decree on the establishment of the Floating marine research Institute (Arikainen, 1984). This Institute has explored the Arctic Ocean with its seas and mouths of rivers, Islands and adjacent coasts of the RSFSR. 19 polar radio meteorological stations were constructed on the coast and Islands of the Arctic Ocean in 1923-1933.

In 1929, the famous polar researcher Vladimir Vize advanced the idea of the first polar drifting scientific stations. In those years Arctic basin with an area of 5-6 million square kilometers still remained as an unexplored area. And only in 1937 the idea of exploring the Arctic Ocean with drifting ice has become a reality.

Soon Russia became the leader in the development and exploration of the North Pole.

From 1991 to 2001 in the Arctic was not a single Russian drifting stations (the Soviet station "North pole 31" closed in July 1991), not a single scientist who would be involved in on-site collecting the necessary scientific data. The economic situation in Russia forced to suspend more than a half-century cycle of observations from the drifting

ice of the Arctic. Experimental new drifting station "North pole" was temporarily opened in 2001.

More than a dozen of international expeditions are currently working in the Arctic with Russia's participation.

Interest in participating in the active development of the Arctic zone is showing more and more States. This is due to global climate change, opening new opportunities to establish regular shipping in the Arctic Ocean, as well as greater access to natural resources in this vast region.

References

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RESEARCH METHODS OF SPACE OBJECTS AND THE CONTRIBUTION OF TOMSK SCIENTISTS INTO THE DEVELOPMENT OF TECHNOLOGY

A. V. Nazarenko

Research advisor N.S. Kemerova

National Research Tomsk Polytechnic University, Tomsk, Russia

Arctic geosynclinal mobile belt of the Earth's crust, framing the vug of the Arctic Ocean, is a poorly studied object of the Earth. According to Victor Efimovich Hann, a scientist and structure geologist, there was a Hyperborean continental platform during the Pre-Mesozoic period, which constitutes the base of the Arctic Ocean at present. This Hyperborean segment, in the estimation of scientists, occurred in the North of Novosibirsk Islands, Wrangel Island, Alaska, Canadian Arctic Islands and in the east of the submarine Lomonosov's ridge. This speculation at the present time has a lot of followers, as Arctic has been researched in last decades using actual space methods of survey (fig.1).

Mother space vehicles are technical means, which are placed in orbit with special transport rockets for researching the interplanetary environment and planets of the solar system in automatic mode. In terms of solving problems and engineer aspects these vehicles are divided into the following types: artificial Earth satellites, interplanetary stations, inhabited spacecrafts, long-term orbital stations.

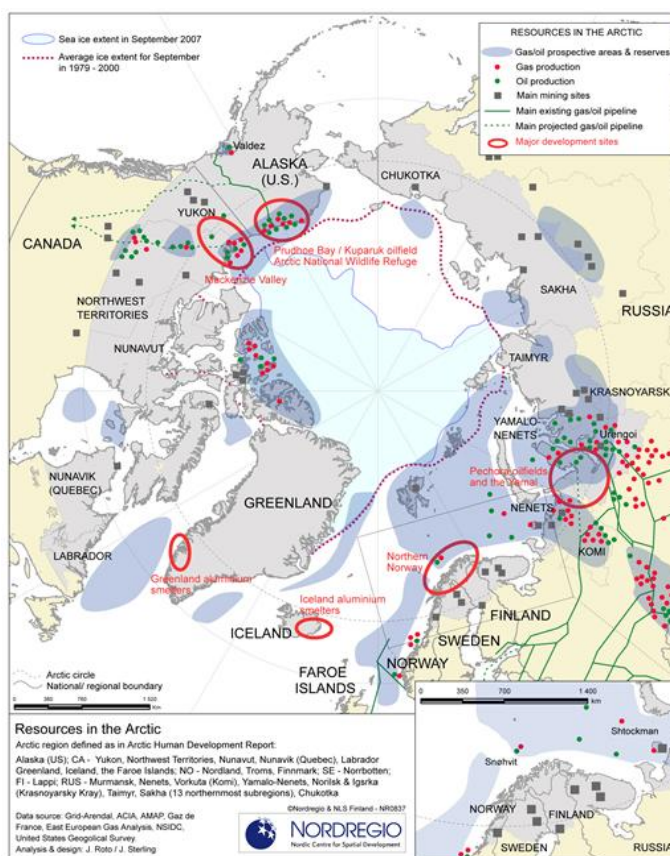


Fig.1 «Overview of the Arctic»