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Russia's Antarctic Strategy

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GLOBAL POLITICS today are faced with a lot of new challenges and international security threats. Domestic and foreign media outlets daily report new developments regarding tensions in Russia-U.S. interstate relations; sharp confrontation with mutual threats to use nuclear weapons between North Korea, on the one hand, and the United States, South Korea and Japan, on the other; a serious worsening of interstate relations between certain EU member countries, as well as of the stability of this interstate union as such; the successful military operations of the Syrian Armed Forces with support from the Russian Aerospace Forces in antiterrorist operations against ISIS and its allies, and a new political crisis in Ukraine.

Even though these processes are typically regional, many experts and readers get the impression that these sources of instability in international relations have acquired a global nature. At the same time, the political world is not confined to the aforementioned regions. Active political processes are also unfolding in Latin America, Africa, Central and Southeast Asia, the Arctic and the Antarctic, which, as a rule, are outside the scope of interest of our political experts and journalists. The Russian Federation, which has restored its status as a great power that it lost in the 1990s, is duty bound to be involved in the majority of events taking place in the world.

Even though the Antarctic is a geographically remote region, it remains in the sphere of Russian state interests. In May and June 2017, the 40th Antarctic Treaty Consultative Meeting (ATCM) – the main international political forum on the regulation of interstate relations in the southern polar region – took place in Beijing. The day the ATCM opened, its organizers held a public high-level meeting regarding the conservation

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and use of the Antarctic, in the course of which representatives of leading Antarctic powers talked about the status of and prospects for the development of the Antarctic Treaty System (ATS). Representatives of government circles of Russia, China, Poland, the United States, and Argentina, as well as scientific communities of China, Australia, Great Britain and Chile, shared their views on the issue.

At present, 53 states are party to the Antarctic Treaty, representing all continents of the world, over 67% of the world's population and economically, scientifically and technologically the most advanced countries. Most of them are developing their own national Antarctic strategies. Their comparison helps identify the trends in the development of the entire Antarctic Treaty System in the foreseeable future, as well as new challenges and threats to this system.

The Antarctic Community

THE CONCEPT of "strategy" is traditionally defined as a model of long-term large-scale activities to achieve a set goal. Formulating a strategy of activity is an important and relevant task for states pursuing a specific regional Antarctic policy. The development of the system of international relations in specific parts of the world naturally impacts the need to revise national Antarctic strategy depending on changes in the general trends of the Antarctic community's activity.

This community, as an independent intergovernmental association of states interested in studying and developing the sixth continent and the surrounding seas, was established in the mid-1950s during the preparation of the International Geophysical Year (IGY) program. The first attempt to establish such a community was made by the United States back in 1948, when the State Department proposed holding the International Antarctic Conference to develop legal regulations for the southern polar region. Government delegations from Australia, Argentina, Great Britain, New Zealand, Norway, France, and Chile, which had unilaterally declared their territorial claims to the Antarctic, were invited to attend the conference.

The conference organizers proposed using the condominium principle, which had proven its worth in administering the defeated capital of the Third Reich, Berlin, as a legal model for regulating the Antarctic. Because the governments of Argentina, Chile and Norway refused to attend the conference, it did not take place: These countries were clearly

afraid of becoming politically and legally dependent on the United States in pursuing their activities on the sixth continent and the surrounding seas.

The successful implementation of the IGY large-scale research project in 1957 and 1958 made it possible to create the Scientific Committee on Antarctic Research (SCAR) in 1958 and on

December 1, 1959 to sign the Antarctic Treaty that has become a fundamental act of international law in the region. The original signatories to the treaty – Australia, Argentina, Belgium, the UK, New Zealand, Norway, the USSR, the United States, France, Chile, South Africa, and Japan – sent their national research expeditions to the Antarctic as part of the IGY program. The treaty proclaimed the Antarctic an area of international cooperation and scientific research that can be used for peaceful purposes only.

In 1961, the signatories to the treaty began to hold regular consultative conferences on the Antarctic Treaty, adopting recommendations (until 1995), as well as measures, resolutions and decisions (since 1996). Following their ratification by member states, these ATCM documents became an official addition to the main text of the Antarctic Treaty. Thus, the treaty has become a dynamically developing regional act in international law, promptly and effectively responding to new challenges and threats to the international Antarctic community.

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Antarctic Community Development Stages

THE 60-YEAR-PLUS HISTORY of the Antarctic community had three main stages.

The first stage ended in the late 1960s, becoming a scientific-slash-romantic period, when researchers from various countries discovered the majority of geographical objects in the Antarctic and the Southern Ocean, major large-scale processes and phenomena in the ionosphere, the atmosphere, the hydrosphere, the cryosphere, the lithosphere, and the biosphere of the southern polar region.

Between 1959 and 1967, only three states joined the 12 founding members of the Antarctic Treaty (Poland in 1961, Denmark in 1965 and

the Netherlands in 1967). During this period, a network of national year-round scientific research stations and seasonal field bases was created in the Antarctic; expedition vessels were sent to the Antarctic every year; airplanes and helicopters flew to the region as part of national Antarctic programs, and expeditions aboard sleds and tracked vehicles were made to its central parts.

The second stage of activity by the international Antarctic community was from the late 1960s until 1990. It was related to a large-scale energy crisis in most countries and the establishment of exclusive economic zones on the shelf of many littoral states in Europe, North and South America and Africa, traditional commercial fishing areas for many countries. In that context, the majority of states dependent on those factors underscored the need to use Antarctic resources.

This concerned primarily commercial fishing in the Antarctic waters, which became a substantial addition to the whaling activity of certain states. Furthermore, the Antarctic community showed considerable interest in organizing exploration work regarding prospects for developing mineral and hydrocarbon resources in the Antarctic. New forms of Antarctic activity required a substantial expansion in hydrographic, hydro-meteorological, geodetic, cartographic, oceanic, biological, geological, and geo-physical studies in the region, setting up new Antarctic stations and field bases on the coast and the wide-ranging use of aircraft for delivering personnel and cargo, as well as remote air and satellite geo-physical studies of the region.

Ground, snow and ice runways were built in the Antarctic for inter- and intra-continental flights of different classes of aircraft, including heavy transport aircraft with a wheeled chassis. In addition to expedition vessels, specialized scientific research and commercial vessels were sent to the Antarctic to carry out a wide range of studies in the Southern Ocean. This activity was accompanied by appropriate legal regulatory activity. In 1972, the Convention for the Conservation of Antarctic Seals was adopted; in 1980, the Convention on the Conservation of Antarctic Marine Living Resources was adopted; in 1988, the Convention on the Regulation of Antarctic Mineral Resource Activities was finalized and opened for signing but did not enter into force because the Australian and French governments declined to ratify it.

This activity led to the creation of new ATS regulatory bodies: in 1982, the Commission for the Conservation of Antarctic Marine Living Resources headquartered in Hobart, Australia, and in 1989, the Council

of Managers of National Antarctic Program (COMNAP). These bodies began to discuss their current matters at annual meetings.

It should be noted that between 1983 and 1990, issues related to activity in the Antarctic were actively discussed at annual meetings of the UN General Assembly on the initiative of the Group of 77 established by non-signatory states led by Malaysia.

The main topic of discussions brought up by representatives of this group was the need to use Antarctic mineral and hydrocarbon resources as the "common heritage of mankind." In this connection, the non-signatory countries expressed serious concern over the Convention on the Regulation of Antarctic Mineral Resource Activities that the signatories to the Antarctic Treaty began to draft in 1982. The failure to resolve this issue at the UN naturally led the fact that this convention did enter into force. In addition, the Group of 77 constantly brought up the need to expel South Africa, an apartheid country, from the Antarctic Treaty System.

Mineral resource activities in the Antarctic naturally aroused interest in the region, as evidenced by a significant increase in the number of signatories to the Antarctic Treaty. Between 1971 and 1990, the following countries joined it: Brazil and Papua New Guinea (1975), Bulgaria (1978), Ecuador (1987), Germany (1979), Uruguay (1980), Italy and Peru (1981), Spain (1982), China and India (1983), Cuba, Finland and Hungary (1984), Sweden (1987), South Korea (1986), Austria, Ecuador, Greece, and North Korea (1987), Canada (1988), Colombia (1989) and Switzerland (1984). Of this number, 14 parties received consulting status, enabling them to make decisions at the ATCM or to veto such decisions: Poland (1977), Germany (1981), Brazil (1983), India (1983), China (1985), Uruguay (1985), Italy (1987), Spain (1988), Sweden (1988), Peru (1989), South Korea (1989), Finland (1989), the Netherlands (1990), and Ecuador (1990).

In accordance with Article IX (Para. 2) of the 1959 Antarctic Treaty, this status may be granted only to a state that demonstrates its interest by conducting substantial research activity, such as the establishment of a scientific station or the dispatch of a scientific expedition.

The Convention on the Regulation of Antarctic Mineral Resource Activities had a well-developed environmental conservation block that imposed serious restrictions on prospecting and mining operations. Starting in the mid 1980s, environmental NGOs gained ground in many countries, including Greenpeace, the World Wildlife Fund and the

International Union for Conservation of Nature, with some of their national offices receiving the status of political parties, actively impacting the foreign and domestic policy and the economy of many countries signatories to the Antarctic Treaty. As a result, in 1989, the signatories to the treaty began drafting the Protocol on Environmental Protection to the Antarctic Treaty, which was adopted on October 4, 1991 in Madrid, Spain. The protocol designates Antarctica as a natural reserve, devoted to peace and science, and Article 7 prohibits all activities relating to Antarctic mineral resources, except for scientific research. This became a turning point in the Antarctic activity development vector. Since 1991, Antarctic activity has been focused on conservation of the regional environment and the impact of global climatic change on the Antarctic environment.

This was the third period in the 60-year-plus history of the Antarctic community's activity. During this time, the following countries joined the Antarctic Treaty: Guatemala (1991), Ukraine (1992), the Czech Republic and Slovakia (1993), Turkey (2006), Venezuela (1999), Estonia (2001), Belarus (2006), Monaco (2008), Portugal (2010), Malaysia (2011), Pakistan (2012), Kazakhstan and Mongolia (2015). The following countries received consulting status: Bulgaria (1998), Ukraine (2004) and the Czech Republic (2013).

Two new organizations appeared in the Antarctic Treaty System: the Committee for Environmental Protection (CEP) in 1998 (after the Madrid Protocol entered into force) and the Antarctic Treaty Secretariat in 2004. The CEP holds its meetings only within the framework of the ATCM and the Antarctic Treaty Secretariat, which is headquartered in Buenos Aires, Argentina, organizes ATS activity in between ATCM meetings without the power to make any decisions on behalf of the treaty, and provides organizational support for annual ATCM events.

Recognizing the relevance and importance of directing the activity of the Antarctic community, the Russian Federation, during the high-level meeting regarding the conservation and use of the Antarctic on the sidelines of the 40th Antarctic Treaty Consultative Meeting, drew attention to the fact that despite the unquestionable importance of Antarctic environment conservation and the impact of global climate change, it is essential to respond to the existing challenges and threats to the Antarctic Treaty System, which has proved its worth.

Such challenges include certain discrepancies between ATS regulations and analogous documents on the global level. These include the

United Nations Convention on the Law of the Sea (1982), the UN Convention on Biological Diversity (1992) and the United Nations Framework Convention on Climate Change (1992). The existing provisions of the UN Convention on the Law of the Sea made it possible for the states that declared their territorial claims in the Antarctic in the first half of the 20th century (Australia, Argentina, the UK, New Zealand, Norway, France, and Chile) to strengthen their position.

Many of them drafted and even submitted to the Commission on the Limits of the Continental Shelf their national bids to control over the Antarctic continental shelf, since the Antarctic Treaty did not directly address issues related to the jurisdiction of the Antarctic coastal seabed. These bids were rejected, since the Antarctic Treaty “froze” the territorial rights of states in the southern polar region, which gave them no right to expand their state sovereignty in the Antarctic. The proactive position of Antarctic territorialist countries continued to develop through the mechanism of marine protected areas in the Antarctic, the creation of which was provided for under the UN Convention on Biological Diversity (1992).

Furthermore, a serious factor in the instability of the ATS was significant differences in national legal procedures regulating the activity of individuals and legal entities in the southern polar region. For this reason, the development of Antarctic tourism and bioprospecting (the practical use of the genetic resources of living organisms) arouse particular concern, since different consulting parties to the Antarctic Treaty are in an unequal situation regarding this kind of activity. It is likely that the U.S.'s withdrawal from the Paris Climate Pact (2015) may also have a significant impact on the further development of the main areas of the Antarctic community's activity at the third stage.

Russia's Antarctic Strategy

NATURALLY, all parties to the ATS are formulating their own national strategies of activity in this region in keeping with the provisions of the said treaty and their national interests. On April 24, 2008, A.I. Bedritsky, head of the Federal Service for Hydrometeorology and Environmental Monitoring, presented a report to the Russian government, entitled “Ensuring the Russian Federation's Interests in High-Latitude and Polar Regions.” Point 7 of the protocol decision made at that meeting entrusted the Federal Service for Hydrometeorology and Environmental

Monitoring, the Russian Foreign Ministry, the Russian Economic Development Ministry, the Russian Ministry of Natural Resources and Ecology and the Russian Federal Agency for Fishery, in conjunction with federal executive agencies concerned, as well as the Russian Academy of Sciences, with developing a draft strategy for ensuring Russia's presence in the Antarctic through 2025, as well as a plan for its implementation. This document, entitled "A Strategy for the Development of the Russian Federation's Activities in the Antarctic through 2020 and beyond," was approved by the Russian government's Directive No. 1926-r of October 30, 2010. The strategy is based on a comprehensive approach toward ensuring regional state interests, aimed specifically at:

- ensuring national security;
- facilitating economic development by using the region's natural resources;
- enhancing [Russia's] international prestige.

Ensuring the National Security of the Russian Federation

Comprehensive efforts to uphold and develop the Antarctic Treaty System to maintain the Antarctic as a zone of peace, stability and cooperation and to prevent possible sources of international tension

IN RECENT YEARS, certain political leaders abroad have stated the need to change the ATS, claiming that the 1959 Treaty was a product of the Cold War era and has already served its historical purpose. They proposed developing a new international bipolar legal act extending to both the Arctic and the Antarctic as a replacement for the Antarctic Treaty. This approach does not suit the Russian Federation that regards the Arctic and the Antarctic as absolutely independent regions with characteristic geographical, biological, demographic, economic, military-strategic, political, and legal differences. In this context, Russia is working actively to uphold and ensure the essential development of the ATS that has been around for almost 60 years now.

This approach is based on two Russian presidential decrees: Measures to Implement the Foreign Policy Course of the Russian Federation (No. 605, May 7, 2012) and Approving the Foreign Policy Concept of the Russian Federation (No. 640, November 30, 2016), which contain separate provisions regarding the Antarctic. The Marine Doctrine of the Russian Federation, approved by the Russian president on July 26,

2015, singles out the Antarctic as a separate area of the state's marine activity. Russia consistently lays out its position regarding the concept of upholding and developing the ATS in official informational documents that are presented at annual consultative meetings on the Antarctic Treaty.

*Assessing the role and place of the Antarctic
in studying global climate change*

CLIMATE CHANGE on our planet is predetermined by space physics (solar energy, ozonosphere, space radiation), natural (volcanism) and man-made processes. In the Antarctic, where there is no industrial, agricultural or highly developed transport activity or large megalopolises, the factor of human impact on the climate is minimal. Therefore, regular environmental monitoring in this region makes it possible to obtain data on changes in climate characteristics under the influence of purely natural factors that are outside the human impact.

With regard to the Russian Federation, a large part of whose territory is located in the permafrost zone, assessing the impact of natural factors on climate change is highly relevant and important, since climate warming processes can have a significant negative impact on the economy of the Russian regions that are located in the permafrost zone and thus pose a direct threat to Russia's national security. For this reason, ongoing climate monitoring in the Antarctic, as well as the reconstruction of paleoclimatic changes in the world, based on ice core and bottom sediment data, not only help solve general scientific problems, but also substantially contribute to strengthening national security by making a fundamental assessment of possible climate change on the planet as a whole.

*Setting of the ground segment
of Russian space operations*

IN THE 1960S-1980S, spacecraft orbit parameters outside the Soviet territory were monitored by specialized marine research vessels operating in the Atlantic, Indian and Pacific Oceans, as well as at Russian military bases in Cuba, Vietnam, Angola, and Mozambique. In the 1990s, these activities ended completely due to the natural ageing of the space-monitoring sea fleet and the closure of land bases abroad. At the same time, the GLONASS satellite navigation system was developed and put into operation in Russia, significantly increasing the accuracy of determining the

geographical coordinates of various mobile objects both in Russia and beyond.

The U.S.-controlled GPS global positioning satellite system and its use by Russian consumers made our country completely dependent on the foreign owner of this system and, besides, did not meet the necessary accuracy standards in determining geographical coordinates because of the different geoids used in this system. For Russia, with its vast territory from west to east (from Kaliningrad Province to Chukotka), the WGS-84 geoid used in the GPS system does not measure up to the accuracy of the mathematical description of the Russian territory. Developed EU states, as well as China, had similar questions regarding the use of GPS, as a result of which they have already begun to develop their own satellite navigation systems, Galileo and Compass, respectively.

The Federal Space Agency's years-long attempts to come to terms with the governments of countries in the southern hemisphere with regard to establishing stations on their territories to monitor GLONASS orbit parameters produced no results. At the same time, in the 1990s, the United States set up similar GPS stations of its own on Russian territory, but did not allow Russia to install similar facilities on U.S. territory. As a result, Russia was unable to enhance the accuracy of determining geographical coordinates with the help of the GLONASS system without using the Antarctic region.

The location of Russian Antarctic stations is becoming the most important factor in deploying the GLONASS system with the aim of developing the global monitoring network of its orbit parameters. To improve the GLONASS system's efficiency, including the fulfillment of navigation tasks in the interest of air, sea and land transport, as well as for scientific research purposes, special facilities to collect differential correction measurements and GLONASS orbit parameters monitoring data were established at the Bellingshausen, Novolazarevskaya and Progress stations in the Antarctic. In the future, plans call for increasing the number of such monitoring facilities to six. They will be located at other Russian Antarctic stations, including the Russkaya field base in the Pacific sector of the Antarctic. In 2020, the station will begin to operate on a year-round basis.

In the next few years, plans include setting up new-generation stations to monitor GLONASS orbit parameters, as well as deploying a complex to receive a wide range of remote sensing data from satellites.

Russia's Economic Interests in the Antarctic

FOR RUSSIA TODAY, the use of Antarctic resources should be concentrated on the following areas of activity:

1. Assessing Antarctic biological resources by studying and forecasting their reserves for ensuring economically viable fishery;

THIS AREA OF ACTIVITY is designed to restore and develop the positions of the Russian fishing fleet with regard to the 1980 Convention on the Conservation of Antarctic Marine Living Resources that were lost in the 1990s. The USSR was one of the first countries in the world to begin this form of activity in the Antarctic waters in the late 1960s, and before long became one of the leading countries in terms of Antarctic fishing. The development and upgrading of fishing activity in this region is inseparably linked to the need to restore and expand applied biological, oceanographic and technological studies in this region.

The large-scale research projects that were carried out in the 1970s and the 1980s by USSR Fisheries Ministry specialists enabled the effective harvesting of finfish and krill by the domestic fishing fleet. The measures that the international community has been taking in recent years to preserve Antarctic marine biological resources also provide for their rational use.

In this context, the Russian Federation holds a balanced position regarding the establishment of maritime protected areas in the Antarctic. Constructive dialogue between Russian experts and members of the Commission for the Conservation of Antarctic Marine Living Resources made it possible in November 2016 to conclude years-long negotiations and establish a protected area in the Ross Sea. The Commission for the Conservation of Antarctic Marine Living Resources is continuing the discussion regarding the creation of another large protected area in the eastern Antarctic, which was proposed by Australia, France and the European Union. The sponsors of this proposal have yet to put forward alternative solutions making it possible to reach a compromise on this issue.

The steps taken by Russian representatives in the Commission for the Conservation of Antarctic Marine Living Resources not only enabled the domestic fishing fleet to preserve its active presence in the region but also made it possible to continue scientific research projects to ensure the rational use of Antarctic marine living resources.

2. Geophysical exploration of mineral and hydrocarbon resources on the Antarctic continent and in Antarctic seas.

RUSSIA is a recognized world leader in the extraction of natural resources. This activity is a major component of the Russian economy.

Russia needs a reliable assessment of the economic prospects for this kind of activity in order to develop global minerals and hydrocarbons markets in different parts of the world, including the Antarctic. This work can be ensured through ongoing domestic geological and geophysical exploration of the Antarctic in strict compliance with the provisions of the 1991 Madrid Protocol to avoid violations of its Article 7. Currently, Russia is not conducting any geological exploration in the Antarctic to that end. The main areas of geological and geophysical exploration include studying the fundamental patterns of the geological structure, the deep structure and the history of the formation of the Antarctic crust, its continental margin, and the adjacent deep waters of the Southern Ocean.

Traditional geological methods of studying open outcrops and the geophysical methods of studying the subglacial relief, the sedimentary cover of the continent and the ocean floor could be supplemented by the most effective methods of deep stratigraphic drilling on the ice shelf or fast ice in the Antarctic seas, modeled after Andrill, an international project in the Ross Sea that has for many years been run by the United States.

This area of geological and geophysical exploration also makes it possible to assess the prospects for discovering mineral and hydrocarbon resources in this region and for estimating their amounts, which is in full compliance with Russia's national Antarctic strategy.

Strengthening Russia's International Prestige in the Antarctic

THIS TASK will be fulfilled by conducting an array of effective measures strengthening our state's position not only in the regional Antarctic community but also in the entire world community. According to the authors of the Strategy for the Development of the Russian Federation's Activities in the Antarctic through 2020 and beyond, such measures include the following:

***Integrated research projects that make a significant contribution
to world science***

Since Russia began regular activities in the Antarctic under the IGY program, it has secured leading positions in the international scientific research, emerging, alongside the U.S.'s national Antarctic program, as a recognized authority in this area of activity. The discoveries and achievements of Soviet scientists in the geographic, geophysical, glacial, meteorological, geological, oceanic, and biological studies of the Antarctic were praised by our foreign colleagues in the 1960s-1980s. The serious political and economic changes in the USSR that began in the late 1980s not only led to a decline in the scope of scientific research projects but also produced results. Many domestic scientists went to work in other countries while the overall financing for Russian scientific research projects was reduced not only on the sixth continent but also throughout the country.

During that period, special importance was given to areas of research that could ensure the restoration of our country's leading positions in world science, including glacial and paleo-climatic studies of the glacier in the central part of the eastern Antarctic. In the 1990s, the drilling of the fifth deep hole began at the Vostok station to reconstruct paleo-climatic changes based on data obtained from the ice core. The 20-year experience in glacial drilling by our specialists in this part of the Antarctic was taken into account in the drilling process.

As a result, by 1997, this hole at the Vostok station reached a depth of 3,623 meters, which made it possible to identify four full climate change cycles – from the era of global warming to the next ice period, each lasting 100,000 years. This discovery made by domestic experts was widely cited in all major monographs on climate change published in all leading countries in the world. At the same time, in 1994, Russian specialists announced the discovery of a major subglacial water body located beneath the Vostok station with its water mirror equal to Lake Ladoga or Lake Ontario. Such achievements of Russian specialists – much to the surprise of many Western countries – restored our country's place among the leaders of the international Antarctic science.

The subsequent discovery of the DNA molecules of thermophilic bacteria in the lower horizons of the ice core, which are usually found in hot, heavily mineralized water sources on land and in the ocean, became another breakthrough in this field of knowledge. Finally, by 2008, the

parameters of subglacial Lake Vostok (the configuration and extent of its coastline, glacier thickness, water thickness, and the sediment layer in the lake) were studied in detail and mapped, and on February 5, 2012, an environmentally friendly penetration into the water layer of this lake was made at a depth of 3,769 meters.

Along with these achievements, Russian experts carried out a number of fundamental studies on the changeability of the current climate in the Antarctic, the physical, chemical and microbiological structure of the permafrost layer on the continent and the microbial and oceanic biodiversity of the Antarctic.

Putting into operation three stations for the differential correction of the orbits of the GLONASS grouping of satellites at the Bellingshausen, Novolazarevskaya and Progress stations was an important landmark in developing Russian applied projects in the Antarctic. At the same time, Russian scientific achievements are either belittled or continue to be ignored by our Western colleagues.

In assessing the level and scope of scientific research, it is important to take into account not the traditional approach based on digital bibliographic indicators (the number of publications and their citation index that is widely used in the Western community), but real scientific achievements and discoveries that considerably enhance the importance of countries' international positions. Under any circumstances, English-speaking scientists will hold leading positions in terms of the number of publications and the citation index of scientific research papers. In this context, their counterparts in China, South Korea, Japan, Russia and Latin America will be unable to compete with them on an equal footing.

The cases of the world's leading scientific journals such as *Nature* and *Science* declining to publish the original achievements of Russian researchers for various subjective reasons are generally well-known. The name of an American or British scientist appearing among Russian authors radically changes the situation in this regard, and the publication of Russian discoveries acquires an international status. However, this does not mean that the most prominent discoveries in the Antarctic on a par with the aforementioned Russian achievements in recent years have been made in Western countries.

The comprehensive, integrated scientific approach that Russia has been using in this region, which does not set obvious priorities regarding various areas of research in the Antarctic, has helped not only preserve the prestige of domestic research projects, but also gradually enhance it.

In this context, the Russian Federation continues to pay special attention to this area of activity in the Antarctic.

Environmental activity

ENVIRONMENTAL PROTECTION of the Antarctic is another important area of Antarctic activity.

Russia's compliance with the Protocol on Environmental Protection to the Antarctic Treaty is ensured by Federal Law No. 79-FZ of May 24, 1997 on the ratification of the aforementioned protocol, as a result of which this international legal act has become part of Russian law. The adoption of Appendix No. 6 to this protocol, "Liability in the Event of Environmental Emergencies," in 2005 required the development and adoption on June 5, 2012 of Federal Law No. 50-FZ regulating the activities of Russian individuals and legal entities in the Antarctic, as well as Russian Government Resolution No. 544 on licensing Antarctic activities (June 27, 2013). In accordance with these documents, any activity by Russian individuals or legal entities in the Antarctic may be conducted exclusively within the framework of special licenses issued by the Russian Federal Service for Hydrometeorology and Environmental Monitoring in coordination with the Federal Service for Supervision of Natural Resources, the Ministry of Natural Resources and Ecology and the Ministry of Foreign Affairs.

These laws and regulations ensure Russia's full compliance with the protocol's provisions. All elements and components of Russian Antarctic expedition infrastructure, including sea vessels, are equipped with waste disposal systems that can recycle waste from current and past operations, as well as purify household and sewage water. Waste produced as a result of Antarctic expeditionary activity is regularly removed from the region aboard expeditionary vessels for processing or recycling on other continents. The scope of such operations is limited by available financial resources for leasing carrier-based helicopters and can be resolved if an appropriate federal targeted program is adopted.

Russia has declared two specially protected areas in the Antarctic, one jointly with Australia, China and India, and the other run jointly with Australia, China, India, and Romania, as well as eight historical sites and monuments. Management plans for these Antarctic areas are revised on a regular basis, every five years, and are submitted to the State Committee for Environmental Protection for consideration and approval.

Reconstructing and modernizing expedition infrastructure

THE NUMBER of expedition infrastructure facilities and their condition are a major argument in favor of strengthening the country's international prestige in the Antarctic. At present, Russia has five year-round Antarctic stations (Mirny, Vostok, Progress, Novolazarevskaya, and Bellingshauzen) and six seasonal field bases (Molodezhnaya, Druzhnaya 4, Soyuz, Russkaya, Leningradskaya, and Bunger Oasis). All of them were established in the Soviet days and are located along the entire Antarctic perimeter, as well as in inland areas. Thus, the existing network of Russian Antarctic stations and field bases provides unique geopolitical opportunities for our country to conduct practically any kind of research projects and effectively monitor the activities of foreign national expeditions.

The reduction in the number of stations and field bases involves enormous additional spending in order to meet the provisions of the Protocol on Environmental Protection requiring, among other things, that the territory of non-operational expedition facilities be completely cleaned up and reclaimed. This necessitates the modernization and reconstruction of this expeditionary network from both a political and economic perspective.

In addition, the expedition infrastructure includes two scientific research vessels of the Russian Federal Service for Hydrometeorology and Environmental Monitoring – the Akademik Fyodorov and the Akademik Treshnikov; a scientific research vessel of the Russian State Geological Company, the Akademik Alexander Karpinsky; an Il 76TD-90 VD long-haul transport airplane that flies intercontinental flights from Cape Town (South Africa) to an ice airfield on Queen Maud Land, two airplanes with ski landing gear for inland flights and two to four KA-32 carrier-based helicopters. At the Novolazarevskaya station, a runway for Il-76 class heavy transport aircraft with wheel chassis is prepared every summer Antarctic season (November through February). At the Progress, Vostok and Mirny stations, as well as at the Molodezhnaya and Druzhnaya 4 field bases, snow runways are prepared for aircraft with ski landing gear. All runways at the Russian Antarctic stations and seasonal field bases have air navigation certificates, approved by the Russian Federal Air Transport Agency.

Most service and residential buildings at the Russian Antarctic stations and seasonal field bases, which were built in the 1970s and the 1980s, are now in need of reconstruction and modernization, since,

according to foreign expert estimates, the service life of permanent structures under extreme climatic conditions in the Antarctic may not exceed 25 years. The only exception is the Progress station, which was built in 2012. That same year, the Akademik Treshnikov research and expeditionary vessel was put into service. Plans for the reconstruction and modernization of Russian Antarctic stations were developed and provided for under the World Oceans federal targeted program, the concept for which was approved by the Russian government on June 22, 2015. Unfortunately, the program as such has yet to be included in the Russian annual draft federal budget. Plans call for modernizing the Russkaya field base in 2020 and reorganizing it as a year-round Antarctic station. These plans are to a very large extent related to the interest of various organizations affiliated with the Federal Space Agency in establishing a facility for the differential correction of the orbits of the GLONASS grouping of satellites in the Pacific sector of the Antarctic.

In developing this point of the strategy, various options for building new permanent structures in the Antarctic or modernizing and restructuring the existing ones with the use of modern materials and technologies were considered in detail. Analysis of estimated spending on the two options showed that the second was clearly preferable.

In accordance with the requirements of Federal Law No. 50-FZ of June 5, 2012, the parameters and the main areas of activity of the Russian Antarctic expedition are approved by the Russian government's directive every five years. The most recent such directive was issued on January 21, 2013 (No. 28-r). It is due to expire on December 31, 2017, so a similar draft directive for the 2018-2022 period is being currently prepared.

The Strategy for the Development of the Russian Federation's Activities in the Antarctic devotes considerable attention to its normative regulatory basis. Thus, between 1992 and 2017, three federal laws pertaining to the Antarctic were drafted and enacted in Russia, as were two marine doctrines of the Russian Federation, 23 resolutions and six directives of the Russian government, seven orders of the Russian Ministry of Natural Resources and Ecology and the Russian Federal Service for Hydrometeorology and Environmental Monitoring, 12 international agreements on cooperation in the Antarctic with other countries signatories to the Antarctic Treaty (Germany in 1995, Chile in 1995, New Zealand in 2005, Peru in 2005, South Korea in 2007, Uruguay in 2010, Australia in 2012, Ukraine in 2012, the United States in 2012, Belarus in 2013, Turkey in 2014, and China in 2017).

Of the total number of Russian regulatory legal documents regarding the Antarctic, 12 were concerned with the country's activity in the ATS, 24 with the activity of the Russian Antarctic expedition, eight with inter-agency activity in the region, and 12 with international cooperation in the Antarctic.

The status of and the prospects for the development of Russia's regulatory legal basis in the Antarctic were considered at a meeting of the Presidium of the Arctic and Antarctic Council of the Federation Council of the Federal Assembly of Russia on July 13, 2017.

Antarctic Strategies of Other Parties to the Treaty

THE TEXT of the Strategy for the Development of the Russian Federation's Activities in the Antarctic in Russian and in English was distributed among the participants in the 34th Antarctic Treaty Consultative Meeting in 2011 in Buenos Aires, Argentina. This sparked great interest among the leading powers of the Antarctic community and influenced the development of similar national Antarctic strategies. While the three main objectives of formulating a strategic approach remain unchanged, the array of tactical tasks designed to achieve these objectives can vary significantly. Thus, certain states (Australia, Argentina, the UK, New Zealand, Norway, France, and Chile), in the interest of ensuring their national security in the Antarctic, can, by decree, strengthen the role and importance of their previously stated territorial claims in the region and use armed guards to protect areas closed to fishing under the Convention on the Conservation of Antarctic Marine Living Resources. Other signatories to the treaty can, as part of their political objectives, intensify or expand their activity to protect the Antarctic environment by preventing practical research activity in the Antarctic by other parties or the establishment of new stations and seasonal field bases by such parties.

The development of Antarctic tourism and bioprospecting is an important area of activity in achieving economic prosperity goals. Parties to the treaty such as Argentina, Chile, the United States, Australia, and New Zealand attach great importance to the activity of their national tourist agencies in the Southern polar region, preventing the ATCM from making decisions regulating tourism operations.

The use of the genetic resources of Antarctic living organisms, commonly known as "bioprospecting," has become a new form of practical activity in the Antarctic. The adoption of new normative documents reg-

ulating this area of activity is generating a new flurry of activity by the advocates of the “common heritage of mankind” approach toward Antarctic resources in an effort to move the discussion of this issue to the UN, as was the case between 1983 and 1990s with regard to the exploitation of Antarctic mineral resources. It may be recalled that the ATS and its administrative bodies are not part of the UN structure but act independently. All attempts by “nonaligned” countries to revise the Antarctic Treaty and transfer it under the purview of the UN in the 1980s did not meet with success, whereupon even the leader of this group of countries, Malaysia, eventually joined the 1959 Antarctic Treaty.

With a view to strengthening its international prestige, a participating state may seek to expand historical sites and landmarks on the sixth continent and the surrounding islands glorifying the activity of national trailblazers and so on if possible. The most important thing is that the adoption of such national normative regulatory acts should clearly designate the development vector of national Antarctic policy. This is important not only for specific states in substantiating their practical activity in the region but also for the Antarctic community as a whole, which can use the positive experience of its colleagues from other countries or get new participants in the Antarctic Treaty involved such activity.

Thus, Russia's experience in formulating the Strategy for the Development of the Russian Federation's Activities in the Antarctic has begun to be actively used by leading Antarctic powers to develop regulatory documents pertaining to their national Antarctic policy.

Key words: Antarctic Treaty System 1959, Strategy for the Development of the Russian Federation's Activities in the Antarctic, Antarctic community, Russia in the Antarctic.