



# The Arctic: A Space of Cooperation and Common Security

## INSTITUTE OF WORLD ECONOMY AND INTERNATIONAL RELATIONS RUSSIAN ACADEMY OF SCIENCE

# THE ARCTIC: A SPACE OF COOPERATION AND COMMON SECURITY

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The digest 'The Arctic: A Space of Cooperation and Common Security' has been drafted on the basis of materials of a workshop organized by the Institute of World Economy and International Relations (IMEMO) of the Russian Academy of Sciences as part of the Euroatlantic Security Initiative project. It highlights various aspects of international cooperation and security maintenance in the Arctic area, including the problems of legislative regulation, natural resources, strategic stability and conventional security, navigation, international fishery regulations, etc. This body of collected materials is one more entry in a series of publications promoted by the Institute and the EASI in Russia. The EASI project is the brainchild of the Carnegie Endowment for International Peace and it is implemented by a group of distinguished politicians and experts from Russia, the U.S. and Europe for the purposes of drafting proposals on a new security structure in the Euroatlantic space. The IMEMO is the main project partner in Russia. All the participants in the project view the solution to the current problems in the context of common threats rather than through the prism of relations between Russia and the West. An approach of this kind makes it possible to promulgate the Russian vision of common European security on a broader scale. The EASI project and Russia's active engagement in it have been deemed rational by the President and the Foreign Ministry of the Russian Federation.

#### Introduction

The collected articles are a compilation of the reports read at a conference within the framework of the Euro-Atlantic Security Initiative (EASI) project. They continue the series of publications under the aegis of IMEMO and EASI in Russia.

The EASI project, co-chaired by Senator Sam Nunn, former Russian Foreign Minister and former Security Council Secretary Igor S.Ivanov and former Deputy German Foreign Minister Wolfgang Ischinger, has been implemented for more than a year. Its basic idea is to try to consider the security problems in the Euro-Atlantic space and their possible solutions through the prism of cooperation and equal security for all.

Four working groups were set up within the project to address political, economic, military and strategic security issues. All the four groups independently arrived at the conclusion that the Arctic is the region where all security aspects without exception are closely interwoven. This circumstance suggested that the commission, aside from the keynote report, should come up with a follow-up on the problems of the Arctic.

This region should never become a new arena of international rivalry or a source of new threats to regional or international security. All the problems emerging there should and must be resolved through cooperation, while the region itself should and must evolve as a common cooperation and security space.

The Arctic agenda is quite diverse. It packs overlapping interests of different states in numerous fields of their activities. The conference and the present publication project could not but be inter-disciplinary. It reviews various aspects of international cooperation and security in the Arctic – legal regime, resources, strategic stability, conventional security, navigation, international regulation of fishing, etc.

Taking stock of the problems the Arctic states encounter at present and will encounter in a foreseeable future -- without excessively dramatizing them – was one of the objectives of the conference. As we were working on it, we succeeded in gathering the representatives of various scientific fields at one table in a rare get-together.

While analyzing certain problem fields of cooperation and security in the Arctic, we endeavored to rise above individual issues or interests. Our task at hand was to understand the common interests of Russia and other Arctic states, which would facilitate broad bilateral or multi-party cooperation between them, including within the framework of the existing regional forums, such as the Arctic Council.

The conference showed the fruitfulness of the idea, suggesting that a more voluminous report on the subject might appear in the near future.

#### **Legal Regime of the Arctic**

The legal problems of the Arctic have been drawing more attention recently, mostly because of large mineral resources discovered in the Arctic's marine space.

It again highlighted the issue of whether the general international law should apply to the Arctic's marine space. In other words, the question is whether the Arctic states can claim certain rights on the strength of specific natural conditions of this region.

The domestic literature on international law offers a widespread opinion that the sectoral principle should determine the legal regime of the Arctic space. Canada was the first to test it as its Ministry of Defense issued a map in 1903 with sectoral lines between the meridians 60 degrees and 141 degrees W. longitude converging on the North Pole. The map implied that the islands and land within the designated sector were Canadian territory.

In 1926, the presidium of the USSR's Central Executive Committee adopted the resolution that proclaimed as belonging to the territory of the Union of Soviet Socialist Republics "all lands and islands, both discovered and which may discovered in the future... located in the Northern Arctic Ocean, north of the shores of the Union of Soviet Socialist Republics up to the North Pole between the median 32 degrees 04'35' E. longitude and the meridian 168 degrees 49'30' W. longitude."

It follows from the cited provision that it only applied to islands and land, not to marine space.

Therefore, the USSR and Canada share the same approach to the sectoral principle. But other Arctic states (the USA, Norway and Denmark) have never recognized it in the Arctic. Furthermore, the general international law has no provisions on such a legal notion as sectoral principle.

Until recently, the above states have not issued a single legislative act proclaiming any special rights to marine spaces, with the exception of Canada's environmental pollution acts in 1970-1972.

In 1982, the UN adopted a Convention on the Law of the Sea (UNCLOS). Article 234 of the Convention grants the right to the Arctic states to introduce non-discriminating laws and rules within the 200-mile exclusive economic zone on preventing the pollution of marine environment, while making allowances for the Arctic's marine space specifics.

On the strength of the above Article 234, the USSR's Presidium of the Supreme Soviet adopted in 1984 the decree "On Intensifying Nature Protection in Areas of the Extreme North and Marine Areas Adjacent to the Northern Coast of the USSR." Its operation was limited by the boundaries of the 200-mile economic zone. The decree provided for drawing the rules of navigation along the lanes of the Northern Sea Route. Such rules were published in 1990. Neither Russia nor Canada issued other acts envisioning special rights.

Therefore, the Arctic falls under the general international law, where marine space is basically regulated by the 1982 UN Convention on the Law of the Sea. The signatories to the Convention are Russia, Canada, Norway and Denmark. The USA did not sign it, but it participates in the 1958 Geneva Conventions on the Law of the Sea, including the Convention on the Continental Shelf, whose key provisions are part of the 1982 Convention, except for the exploitation principle.

The 1982 Convention then applies and will apply to marine spaces, at present and in the future, when a possible global warming might melt part of the Arctic's ice cover.

Having adopted standard acts on the legal regime of the marine spaces under their sovereignty and jurisdiction, the Arctic states applied and continue to apply the provisions of the 1982 Convention.

In addition, Russia's submitting an application to determine the space and external border of the continental shelf in the Arctic Ocean confirms the necessity of its compliance with this Convention.

On the strength of estoppel, the Arctic states cannot claim any special rights to the Arctic except for fighting the pollution of marine environment.

Consequently, the delimitation of the continental shelf and its external border, as well as the settlement of disputes, should be based upon the provisions of the 1982 Convention. Its Article 287 envisions selection of a means of settling disputes (the International Tribunal for the Law of the Sea, the International Court of Justice, arbitration tribunal or ad hoc arbitral tribunal).

The global warming that might cause the shrinking of the Arctic's ice cover, will conceivably increase traffic along the Northern Sea Route. Taking into account the fragile ecological condition of the Arctic, the Northern Sea Route should have tougher navigation rules, in the first place with the view of preventing the vessel-caused environmental pollution. The federal law "On Internal Maritime Waters of the Territorial Sea and Adjacent Zone of the Russian Federation," dated July 31, 1998, states that navigation shall be carried out in accordance with the regulations on navigation in the water-courses of the Northern Sea Route, approved by the government of the Russian Federation.

It might be necessary to enhance their legal import, i.e. the rules require endorsement by a federal law. Russia thereby will confirm its special responsibility before the international community for the ecological condition of the Arctic.

#### The Arctic Store of Resources

Russia's priorities include the development of the oil and gas industry on the coast of the Arctic Ocean and the shelf of Arctic seas, in accordance with its energy strategy in the period until 2020. The Yamal peninsula will become a strategic extracting region, as will Russia's northern seas, such as the Barents and Kara Seas.

Despite an increase in the share of alternative and renewable sources of energy in the world energy balance, hydrocarbons will remain the prime energy sources in the future. However, the era of easily accessible and easily extracted oil is coming to an end. After 2020, the world is likely to run out of easily-extracted natural gas. Hence, it has been eyeing the Arctic's reserves of hydrocarbons as a potential store to tap.

The Arctic has amassed the bulk of the World Ocean's hydrocarbon resources: their share reaches 58 percent, versus 19 percent in the Atlantic Ocean, 17 percent in the Indian Ocean and a mere 6 percent in the Pacific Ocean. Russia's Arctic region accounts for some 140 billion tons of oil equivalent of hydrocarbons, of which natural gas makes up 87 percent. The bulk of hydrocarbons (some 70 percent) is found in the Kara and the Barents Seas. According to preliminary estimates, Russia's Arctic shelf contains approximately 100 billion tons of oil equivalent of hydrocarbon resources.

The USSR conducted the most intensive prospecting for Arctic shelf deposits back in the late 1970s. More than 100 potential oil/gas fields were found in the Barents, Pechora and Kara Seas, and 11 fields were discovered, including the unique gas condensate deposits in the Barents and Kara Seas, two large gas fields in the Barents Sea (one of those is the Shtokman field), as well as large oil and oil-gas condensate fields in the Pechora Sea (including the Prirazlomnoye field).

Russia has considerable marine resources and reserves of hydrocarbons that make groundwork for the development of marine oil/gas production and may serve as a large reserve of stabilization, future growth and development of the country's fuel and energy sector.

On the other hand, the raw materials sources of Russia's continental shelf are unattractive to investors due to the unfavorable economic and geographic location of many deposits and promising areas, insufficient proven (explored) reserves, incomplete study of the share of the hydrocarbon potential in aggregate resources, and unregulated legal and normative problems of extraction on the shelf, including delimitation with neighboring states.

A negative factor was a lack of a long-term government strategy in studying and developing the hydrocarbon potential of the continental shelf and retooling the industry.

A vital question is how much the Arctic oil or gas will cost.

According to the existing estimates, projects with an internal rate of return over 10 percent under the existing tax system make up not more than 28 percent and not less than 8.7 percent from the technologically accessible Arctic shelf reserves. The Arctic areas that are most attractive for development (with a rate of return from 20 percent upward) have just around 70 million tons of oil, or less that 1 percent of initial extractable reserves of these seas. The profitability for gas is higher – from 13.5 trillion to 25 trillion cubic meters, or more than 50 percent of the aggregate volume of maritime commercial natural gas resources (according to the estimates of the all-Russian Research Institute of Oil Geology - VNIGNI).

Natural gas prevails in the structure of the Arctic's hydrocarbon reserves, making up some 78 percent of them. U.S. geologists (USGS) estimate that the region amasses some 47 billion cubic

meters of undiscovered natural gas reserves, or 26 percent of the currently proven world reserves of gas. Admittedly, the Arctic is a store of natural gas, not oil.

The USGS estimates that the bulk of reserves is found in the littoral zone of the continental shelf, with more than 70 percent of estimated undiscovered reserves of natural gas in three basins: West Siberia (40 percent), East Barents (19 percent) and Alaska (13 percent). The most promising regions are the Kara and Laptev Seas.

Undoubtedly, the risks to develop oil and gas fields of the Arctic shelf are much higher than in other districts. Aside from the reliable estimate of the reserves and environmental considerations, the crucial factors are the profitability of extraction, adverse weather and climatic conditions of extraction and technologically complicated transportation routes.

A priority is the use of unique technologies and equipment, as well as the availability of the personnel capable of handling this high-tech equipment in the challenging Arctic conditions.

The tremendous investment requirements -- Rosneft and Gazprom alone need 2.5 to 3 trillion dollars until 2050 to develop the Arctic shelf -- defy an accurate estimate of the timeframe for the Arctic breakthrough. There are more questions than answers here, but the future unquestionably looks promising.

#### The Arctic and Strategic Stability

The military-strategic situation in the Arctic and the North Atlantic has a huge impact on strategic stability between Russia and the U.S. (NATO).

The end of the Cold War not only caused a significant shrinkage in the armed forces of all parties present in the region, but also sharply lowered their activity: such as the intensity of combat duty of strategic and multi-purpose submarines (i.e., the percentage of nuclear-powered submarines (NPS) of their total number permanently deployed at sea), the magnitude and frequency of naval exercises, and the intensity of air missions. Russia and NATO countries have actively cooperated (especially in the 1990s) in the safe disposal of discarded Russian nuclear submarines, storage and removal of spent nuclear fuel, elimination of missiles, transportation of nuclear weapons, and the security of nuclear storage facilities.

Nevertheless, the strategic forces of Russia in the new conditions are facing some difficulties, which stem from soaring problems for Russia's national security and, therefore, for strategic stability and disarmament and cooperation by the great powers.

#### 1. Problems of strategic stability

The marine component of Russia's strategic nuclear forces (SNF) has a total of 13 nuclear-powered ballistic missile-carrying submarines and 208 ballistic submarine-launched missiles. Six nuclear-powered ballistic missile submarines Dolphin (667 BDRM project) armed with RSM-54 missiles (each carrying a payload of 4 MIRVs) are in service in the Northern Fleet. As a rule, only one or two of these submarines are constantly on duty at sea. Under the current conditions, even such limited capacity of the Northern Fleet's submarines on duty is theoretically sufficient to ensure strategic stability. However, patrolling by multipurpose nuclear submarines of NATO at the exits of bases and in areas where Russian nuclear submarines are on duty goes on and introduces a great deal of uncertainty to assessing the survivability of Russia's naval strategic forces.

Another issue of strategic stability arises from the newly-acquired and growing capability of U.S. strategic submarines (some British and French ones as well), to deal a counterforce (disarming) strike against the Russian strategic nuclear forces. Should three or four of the six to eight US nuclear submarines (carrying 290-380 warheads) approach the Arctic coast of Russia from the Atlantic, a majority of bases and areas where the ICBMs and nuclear forces as a whole are deployed will be within reach of a nuclear attack. Russia does not possess the same potential in relation to the U.S. This can also be a factor for lower strategic stability and an obstacle to further reductions in strategic and tactical nuclear weapons.

#### 2. Aerospace Threat

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The development of precision weapons and matching information technologies (especially space-related ones) enjoys a key role in the U.S. It is common knowledge that back in the 1990s the United States re-equipped part of its strategic bombers to performing non-nuclear missions. Currently, the U.S. Navy is completing the re-equipment of four Ohio class SSBNs to carry non-nuclear sea-launched cruise missiles (SLCM) of a long-range (over 600 pieces). In all, in the foreseeable future the maximum number of high-precision cruise missiles arming U.S. strategic delivery vehicles and multipurpose submarines may reach 2,900 units<sup>1</sup>.

<sup>&</sup>lt;sup>1</sup> Ye.Myasnikov. Kontrsilovoi potentsial vysokotochnogo oruzhiya // Yadernoye rasprostraneniye: novyie tekhnologii, vooruzheniya I dogovory / Pod red. A. Arbatova, V. Dvorkina. M., 2009. S. 105-128. (In Russian).

Russia does not pose a similar threat to the United States or its allies. All of its long-range SLCM are designed for deployment on multi-purpose submarines, and they have nuclear warheads.

The just-mentioned threat should not be exaggerated. Nevertheless, it is beyond doubt, that the U.S. potential of precision weapons does create a military-strategic problem for Russia in a sense, and it will pose hindrances to both nuclear disarmament and to co-operation by the great powers.

#### 3. Regulatory and legal measures to strengthen stability in the Arctic

The former USSR's proposals for limiting the antisubmarine defense (ASD) were repeatedly rejected as running counter to the principle of freedom of shipping and as unverifiable. But now, when radical measures for nuclear disarmament and cooperation by former enemies in the advanced military-technical areas (early warning and missile defense) are the issue of the day, continuation of the old "games" under the pretext of the sacramental principle of the freedom of shipping no longer works. First of all, this is true of the Arctic, if the current task is to make it a region of international cooperation in natural resources extraction and the use of new sea routes.

First. To ensure the safety of Russian nuclear powered ballistic missile carrying submarines on combat duty an agreement is to be achieved within the next phase of negotiations on START, or alongside these, that would outlaw all anti-submarine activities by NATO east of the line North Cape (Nordkapp)-Bear Island. Verification of any such agreement with respect to surface ships and ASW aircraft can be reliably carried out by national technical means, including naval and air systems. With respect to submarines, this is much harder to do, and it will be discussed below.

For its part, Russia will pledge not send its multi-purpose submarines west of this boundary. For multi-purpose submarines this is unnecessary. In view of the reduction of their total number and change in the overall situation in Europe, the task of upsetting NATO's transatlantic links can be abandoned as both unrealistic and unnecessary. For the same reasons the task of combating NATO's SSBNs beyond the specified boundary should be dropped likewise.

Second. An agreement should be reached to ensure the strategic missile-carrying submarines of the U.S. and its allies should not cross the marked line eastwards, and Russian ones, westwards. In view of the sufficient range of SLBMs, doing so for Russia's strategic submarines would be unnecessary, just as it would be for the SSBNs of NATO, unless they are charged with the task of practicing the tactic of dealing a disarming strike with the minimal approach time.

Third. Russia and the United States should limit on a reciprocal basis flights by their heavy bombers over the Arctic outside their respective airspaces (except those for rescue purposes, which need separate approval). On both sides such flights may be perceived as provocative, and they by no means correspond to the new relations between the two powers. To maintain the role of heavy bombers (albeit, highly doubtful) as a nuclear deterrent, training flights inside either country's airspace would be quite sufficient.

Fourth. The problem of long-range cruise missiles with precision warheads shall be a theme for special negotiations in the future.

The above-proposed restrictions on flights by heavy bombers over the Arctic would apply not only to nuclear air-launched cruise missiles, but also to ALCMs with non-nuclear warheads, the more so, since in the air it is extremely difficult to distinguish between nuclear-carrying and conventional heavy bombers.

A hypothetical threat from the SSBNs Ohio armed with precision conventional SLCMs could be substantially weakened, if they are based exclusively on the west coast of the USA (from the Pacific and Indian oceans they do not reach most bases of Russia's ICBMs, and their passage into the Arctic via the Bering Strait would be associated with operational difficulties). The above-suggested limitation of areas patrolled by strategic and multi-purpose submarines of NATO by drawing the

North Cape-Bear Island frontier would automatically limit the possibility of deploying U.S. submarines carrying precision SLCMs near the territory of Russia (and Russian ones with any long-range SLCMs - near the U.S.). In this case other problems, such as the avoidance of collisions by nuclear submarines would be solved along the way.

Verification. There are great difficulties in verifying compliance with this sort of agreement, since stealth is essential to operations by any submarine fleet. But, provided there is the determination, a solution can be found. For instance, the possibility of concluding an agreement either side may be entitled to a certain annual quota of demands for surfacing this or that submarine. With the help of their intelligence satellites both sides will roughly know what submarines are outside their base at any given moment in time, and at what maximum distance from it. The risk of detecting intruders will be big enough, if at the request of Russia addressed to the U.S. military leadership (and vice versa) the submarine in question acting on orders from its command surfaces in the exclusion zone or fails to surface at all.

This sort of agreement may be needed in any case, in connection with the development of submarine fleets belonging to third powers and the risk of a provocative attack by SLBMs or SLCMs from under the water. In other words, such measures would have a synergistic effect, simultaneously addressing a range of issues of strategic stability.

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Clearly, the proposed options of severe restrictions on maritime activities, especially those for submarines, do not cancel the possibility of concerted and joint actions by ships, submarines and aircraft of Russia and the West (and, perhaps, also China and other countries concerned) throughout the Arctic and the North Atlantic in rescue operations, for research, for escorting ships along the Northern Sea Route and in the Straits of Canada, for protection against piracy, for the prevention of environmental disasters, etc. All these functions will be increasingly important, as the expansion of international economic development and use of the Arctic Ocean and the Arctic seas continues.

#### Missile Defense and Security in the Arctic

A future U.S. missile defense system, should it be deployed in any region of the Northern Hemisphere in the foreseeable future, will be considered as a credible threat to Russia's nuclear deterrence potential, regardless of its scope. This will be so even if it proves practically unable to intercept even a single launch of Russia's ICBMs and SLBMs. This will be so as long as the two nuclear superpowers remain in the state of irrational mutual nuclear deterrence.

In particular, this applies to the placement of attack missile defense components in the Arctic and the adjacent waters and coastal areas, which may be excused to an extent by the protection of the European North or, in the distant future, of the territory of North America. The Arctic, currently a transit area crossed by naval and civilian ships and aircraft of various classes and flight paths of ICBMs and SLBMs – may be converted into an area of direct application of means of armed struggle. The concentration of these means will grow immeasurably, as ships carrying the information and combat components of NATO's missile defense will require naval and air support against reinforced groups of all combat and logistics resources of the Northern Fleet of Russia.

In accordance with the plans unveiled by the Obama Administration and the Pentagon for deploying an anti-missile defense any further expansion of strategic ground-based interceptors GBI in Alaska (Fort Greely, 26 missiles) and California (Vandenberg base, 4 missiles) will be suspended. A reserve of 14 GBI silos will finish to be built in the California. They can accommodate the missiles, if need be.

The plans for deploying a missile defense in Europe and elsewhere for protection from Iran's ballistic missiles envisage four stages. At all four stages missiles, radars and combat control and guidance systems will be upgraded. It is expected that interceptors' better speed characteristics will guarantee the ability (if Aegis ships are present in the northern seas and the Mediterranean) to hit the intermediate- and intercontinental-range missiles in the boost phase of their flight path.

Already at the first stage, on the condition of missile defense ships' presence in the northern seas), the SM-3 missiles will theoretically be able to intercept Russian liquid propellant SLBMs, launched from the coastal areas, or directly from the naval bases, in the active phase of their trajectory. After the upgrading, at the third and fourth stages higher speed parameters will constantly enhance the interceptors' ability to down liquid and solid propellant SLBMs.

The distance from the neutral areas to be patrolled by Aegis ships to the submarine bases of Russia's Northern Fleet at Gadzhiyevo (Yagelnaya Bay, Sayda Inlet), and within the areas they will patrol may range 800 to 2,500 kilometers. The boost phase of liquid SLBMs ends at a distance of approximately 800 kilometers from the launch site at an altitude of 350 kilometers.

US space-based early warning systems unmistakably detect missiles during the boost phase about 50 seconds after the launch, and a future low-orbit space tracking and surveillance system STSS from the same moment and with high accuracy begins to calculate the parameters of the SLBMs' trajectories and generate preliminary target designation data and transmit them to the radars on board the Aegis ships. Thus, the interception of liquid propellant SLBMs, launched from submarines in the nearby sea areas, can be carried out in flight at the second stage, at distances ranging from about 300 kilometers from the launch point and to the end of the boost phase at altitudes from 200 kilometers to 300 kilometers, which is quite achievable for today's SM-3 interceptors.

The boost phase of the solid propellant SLBM Bulava is significantly shorter in time and smaller in altitude to those of the liquid propellant SLBMs. However, this does not exclude the possibility of intercepting the ballistic platform (missile bus) or individual warheads after their separation, when the SM-3 interceptor missiles achieve their strategic capability.

Currently the U.S. is finalizing and testing an airborne laser weapon complex, designed to destroy missiles of all types in the boost phase. Despite a number of failed tests, including the most recent ones, there have been no reports this program may be "frozen" for a long time.

In the event laser-armed aircraft may be patrolling areas where Northern Fleet submarines are on a mission, thereby posing a real threat to the SLBMs in the boost phase - the concentration of air and naval forces of both parties in the North will be significantly enhanced.

Should a missile shield begins to be deployed in Europe in accordance with the decisions taken at the NATO summit in November 2010, but without Russia's participation, one may well expect a new missile crisis in relations between the two states, similar to the one that occurred before the revision of previous plans for a third missile defense site in Poland and the Czech Republic. Preventing such a crisis would be possible only with counter-steps aimed at closer cooperation in the sphere of a European and global missile defense. To some extent, such steps were taken at the Lisbon summit, where President Dmitry Medvedev declared the possibility of Russia's participation in building a so-called "sectoral missile defense" (i.e. each party covers its territory, but coordinates the deployment and use of missile defense systems, and perhaps, all will integrate their early warning systems).

Ultimately, security in the Arctic in case of the deployment of missile defenses in the northern seas should be seen primarily in the context of the nuclear relationship between Russia and the United States and their ability to radically transform the principles of mutual nuclear deterrence. The urgent need for such a transformation has been repeatedly emphasized by a number of Russian experts. Recently, such an opinion was expressed in an article entitled From Nuclear Deterrence to Overall Security by four prominent Russian authors (Ye. Primakov, I. Ivanov, Ye. Velikhov, and M. Moiseyev). The authors point out that "The paradox of nuclear deterrence is it is mostly addressed to the threats of last century, while the likelihood of a large-scale armed conflict between great powers and their allies in the contemporary context of globalization and multi-polarity is close to zero. At the same time, nuclear deterrence is powerless against the new threats of the XXI century: the proliferation of weapons of mass destruction (WMD) and their delivery vehicles, international terrorism, ethnic and religious conflicts, cross-border crime, etc. Still worse, nuclear deterrence in some cases ferments the processes of proliferation and missile technology or hinders deeper cooperation by the great powers in combating such threats as the joint development of missile defense systems)."

Russia's chances for full-fledged cooperation in building a European and global missile defense system still remain. Russia with its early warning radars has unique opportunities for control of critical avenues of missile approach from unstable regions in the South. According to independent American experts, the integration of Russian and US missile attack warning systems increases the efficiency of detecting missile launches and launch vehicles by 30-70 percent.

No argument to the effect Russia's space component of the early warning system is temporarily weak can have decisive importance, because that system in any condition will be an essential complement to the American space echelon, which lacks an equal potential of monitoring on the global scale.

Still more profound cooperation can be translated into reality in deploying a low-orbit space information system of a global missile defense. Its space satellites may be put into orbits of desired height and inclination with heavy converted IBCM rockets under the Russian-Ukrainian project

Dnepr. The satellites of this system with a mass of about 650 kilograms each with infrared and visible light sensors must be put into circular orbits at altitudes of 1,350-1,400 kilometers with an inclination of 60-70 degrees.

To protect facilities in the territory of Russia and Europe in a common defense system can use the S-400 complex and its future successor S-500.

Regardless of how the agreements reached at the summit in Lisbon on cooperation in the establishment of a European and global missile defense system will be implemented in the medium term it is expedient to restore first and foremost those elements of cooperation which were neglected in recent years. Above all, it is an urgent need to revive the project for a center of exchange in data on missile launches and delivery vehicles. In parallel with this it is worth resuming the interrupted series of joint computer exercises with the U.S. and NATO in using a theater missile defense, with the subsequent expansion of these exercises beyond the theater of operations. Some very positive experience was gained in this respect. Russia and the USA in 1996-2006 held five computer sessions of training in operating a theater missile defense, alternately in either country. In 2003-2008 there were held four exercises in the Russia-US-NATO format (in Colorado, the Netherlands, Moscow and Munich). As the experience of joint exercises showed, the demarcation of zones of responsibilities should not pose any significant problems. There were plans for exploring the possibility of carrying out practical exercises at Russian test sites involving air defense rocket systems S-300 and the Patriot. However, this area of cooperation has been frozen since the armed conflict between Russia and Georgia.

The immediate resumption of these important elements of cooperation will allow for shaping new projects, including the above-mentioned areas of cooperation, more confidently.

It is necessary to stress once again the idea that security in the Arctic in the context of the emergence of missile defenses in the northern seas can be achieved first and foremost in close connection with a coherent and radical transformation of principles of mutual nuclear deterrence by Russia and the U.S. and one of the most important steps towards such transformation must be Russia's equitable participation in developing, deploying and using European, Euro-Atlantic and global missile defenses.

In that case it would be quite feasible to achieve agreements to the effect the Arctic region should be an exclusion zone for aircraft armed with laser weapons and for airborne and naval means of support, for which there should be no bases ready for the deployment of these resources, because they would be completely useless for intercepting Iranian missiles.

As far as the naval missile defense system Aegis is concerned, it might be possible to agree on a limited presence of such ships in the northern seas, or, still better, on a ban on their deployment in the region, since at the first two stages of the European missile defense by 2015, they will be useless by their parameters for intercepting Iranian missiles in the boost phase and the passive phases of their trajectory.

#### **Conventional Security Issues in the Arctic**

Despite the progress in other areas of regional and global security, at present there are certain prerequisites for seriously considering the Arctic as a possible scene of future military operations. Such fears are fuelled, among other things, by various countries' soaring interest in this region, and that interest increasingly looks like competition, which creates conditions for conflict situations that may result in a show of muscle, or even the local use of force.

Preparations for and even routine measures to maintain one's readiness to use force to ensure national economic and other interests in the Arctic create the preconditions for greater and lasting tensions in the region.

While the international situation tends to improve, in statements by politicians in the Arctic region countries (ARC) one may hear declarations of the readiness for combat operations in the Arctic. The national security documents of these states retain the logic, postulates and vocabulary of the Cold War. In some cases, actions by ARCs are aimed at strengthening military positions in the region, which breeds fear and mistrust and creates an incentive to the hitherto smoldering rivalry in building up military forces and resources in the Arctic.

The situation is exacerbated by conflicts due to the lack of clarity over the legal status of sensitive maritime areas and some areas of the seabed (shelf). Further destabilization results from conflicts that arise in the process of the development of mineral resources, economic activities (mining, fishing).

It seems appropriate for the countries of the Arctic region to take some important steps for the sake of long-term stabilization of the situation in the region.

1. Countries of the Arctic region are largely inclined to regard their neighbors' development activities in the Arctic as a challenge to their own interests, including security. In this regard, it is necessary to the maximum extent possible to complete the elaboration and adoption of legally required documents, the development of appropriate regulations governing the disputed issues, related to the status and activities of states in the Arctic.

It is necessary to complete efficient maritime delimitation in the Arctic Ocean, meeting the interests of the parties. Making the UN Convention on the Law of the Sea universal and having the United States join this agreement should contribute to achieving this goal.

- 2. Quite promising would be an expansion of powers of the Arctic Council and complementing them with the arbitration function. It is necessary to study the procedures of resolving disputes that arise between countries in the region.
- 3. Countries with access to the Arctic zone closely link the goals of achieving their economic interests in the Arctic with maintaining their defenses. However, at this stage formal restriction of naval activities in the Arctic zone is not considered by a number of Arctic states, including Russia, as a measure essential to the interests of national security. Countries in the region continue to regard national naval capabilities as a necessary means of ensuring (protecting) their own interests in the Arctic.

For easing contradictions in this area it might be possible to consider mutual constraints on the movement of the national and other countries' naval forces towards the Arctic sectors not belonging to this or that state. It is quite possible to reach agreement on mutual notification by parties regarding the movement of national forces to the Arctic sectors of other countries. Russia historically proceeds from the sectoral division implemented in 1920.

- 4. The above-mentioned limitations of naval and other activities in the region can be most effectively ensured only on the condition of creating an effective warning system and of the observance of all parties' interests. More broadly, the most promising way of ensuring the interests of the ARC and resolving contentious issues in the Arctic would be to address the specific concerns of parties and to adopt package solutions accompanying such restrictions.
- 5. It is in this context that it might be possible to consider the feasibility of developing confidence-building measures for the Arctic, which would introduce in the legislative form the restrictions, specified in the third paragraph, on the movement of naval forces and other means. A ban on holding joint military exercises by several countries might be one of such measures.
- 6. In order to protect the environment the Arctic countries may be obliged to conduct monitoring in their respective sectors of activities by civilian and naval ships, aircraft, offshore and other equipment from any country already present or entering the Arctic sector within the given country's area of responsibility. This should include a mechanism of warning the world community about the results of such monitoring by any Arctic country.
- 7. Gradual revision, based on reciprocity, of the provisions of national regulatory acts in the area of national security, which are applicable to the Arctic region, is an important measure that will promote confidence and stability in the region. To initiate this process it might be possible to propose the establishment of a permanent seminar on military doctrines and military presence in the Arctic.
- 8. Creating a Code of Conduct in the Arctic, which would constitute a set of principles for national activities in this region, may prove a promising guideline of activity. The very beginning of a discussion of provisions of such a Code would once again focus the attention on the major common issues and specific concerns of the countries participating in the Arctic process, thereby helping resolve the existing contradictions.
- 9. An important task is seen in the improvement of an effective dialogue in the Arctic region. The format of high-level meetings (so-called "quintets" at the level of foreign ministers of Russia, the USA, Canada, Norway and Denmark) is an important forum for making proposals and for the subsequent development of specific solutions that would be mandatory for the other members of the Arctic process. It seems possible to combine different organizational formats for making certain decisions (from the "quintet" to the "group of eight" member- countries of the Arctic Council).

The search for an effective format for discussing problems and achieving their practical solutions remains an important challenge for the Arctic region's countries. A summit of the Arctic states might give a noticeable impetus to the movement towards solving the problems of the Arctic.

#### The Arctic: Climate Change and Its Impact on the Environment

- 1. The ongoing climatic impact and especially the one that is expected on the environment in the Arctic is big and unlike in many other regions of the Earth it can exert sizable adverse effects on global climate. That is why it would not be an overstatement to claim that the changes of climate in the Arctic have significance for the entire planet. Arctic is the zone of convergence of a multitude of so far insufficiently studied yet climatically meaningful and reversible processes and/or feedback relationships. A sizable part of the latter is brought to the climate of high latitudes by the cryosphere and especially by marine ice, known for the complexity of dynamic and thermodynamic processes inherent in it. Along with the specific cryogenic features of cloudage and atmospheric boundary layer formation, the low humidity levels, an unusual stratification of the Arctic Ocean, a special role that the sub-Arctic seas located in Northern Atlantic play in the global thermochalinical circulation, and other particular features make the Arctic an extremely involute object from the angle of physico-mathematical model-building and forecasting.
- 2. Global warming has become an accomplished fact. For instance, eight of the first ten years of the 21<sup>st</sup> century broke the temperature records over the 160-years-long history of instrument-assisted observations making it possible to assess the averaged annual temperature. The year 2009 occupies the fifth position in this sphere, and certain quite credible assessments indicate that the year 2010 may even outdo it to become the warmest year over the entire period of meteorological observations.
- 3. The pace of climate change in the Arctic has been faster in the past decade than in all other regions of the planet. Up-to-date physico-mathematical climate simulation models show the tendency will likely remain unabated in the 21<sup>st</sup> century, as the temperatures in the Arctic will be growing more than twice as fast as the temperatures across the rest of the globe on the whole. For instance, the A1B scenario (known as the 'no change' scenario or BAU 'business as usual') suggests that if it proves correct, the averaged global temperature may go up 2.8° C. In the Arctic, the increase is likely to stand at 7° C versus roughly about 3.5° C on the greater part of the land surface.
- 4. Detailed analysis of climate change in the Arctic and its anticipated aftermath can be found in the so-called assessment reports (one of them was drafted in 2008 by Russia's Federal Service for Hydrometeorology and Environment Monitoring /Rosgidromet/). The most important conclusions regarding the expected changes in the Arctic climate and their consequences typically boil down to the following:
  - a) There is a great probability that a tendency towards a faster warming-up in the Arctic region as compared with the rest of the Earth will persist;
  - b) The natural and manmade environments in the Arctic are extremely vulnerable to changes in the climate (in this sense, the Arctic is one of the most vulnerable parts of the world);
  - c) In addition to being an indicator of climate change, the Arctic is also a factor of changes in the global climate.
- 5. The pace at which the ice shield of the Arctic Ocean is melting causes an especial concern. A record over the three decades of satellite tracking was reached in 2007 and the size of the area covered by the ice shield in 2010 (4.6 million sq km) was third in line. The practically observed rate of the ice cover shrinkage outstrips noticeably the forecasts derived from physico-mathematical simulations. Many issues remain unanswered today, namely, what mechanisms stand behind this rapid melting of ice, what contribution the natural and anthropogenic factors make to the observed

acceleration, what intensity the melting of the Arctic ice will maintain in the future, and last but not least, what consequences all these changes may bring about. The existing scientifically grounded assessments of future thinning of the Arctic marine ice have the same qualitative denominator but vary widely in quantitative terms. Some researchers claim at present that the simulation-model assessments (the disappearance of permanent ice by the end of the 21<sup>st</sup> century under tough scenarios of anthro-pogenic impact) are overly conservative.

- 7. Another two factors borne out by climate changes in the Arctic have a doubtless global nature.
  - a) A possibility of changes in the large-scale circulation of the world ocean due to an increasing export of fresh water from the Arctic to North Atlantic (in particular, a possible enfeebling of heat transport by meridianal circulation from lower to higher altitudes in North Atlantic and its influence on the climate in Europe);
  - b) An increasing level of the world ocean due to the melting of the Greenland ice sheet, which contains enough water for a rise of the levels by up to 7 meters. In case of a warming in the interval of 2° to 5° this melting may be slow enough and span hundreds of even thousands of years but the dynamic processes in the ice sheet unaccounted for by the accepted climatic models may, according to experts, speed up substantially the transition of the masses of ice and water into the ocean.

Qualitative assessments of the aforementioned factors look rather uncertain at the moment.

- 8. These problems are, without a doubt, the 'Arctic challenges' to the climate science and they bring up considerable uncertainties regarding the assessments of future changes in the climate with various time references, specifically:
  - a) The future of the Arctic ice (years of decades?),
  - b) The plight of carbon contained in the permafrost (decades or centuries?),
  - c) The global aftermaths of changes in the freshwater budget of the Arctic Ocean (from decades through to millenniums?),
  - d) The role of dynamic ice sheets in the rise of the ocean level (centuries or millenniums?).

This set of challenges is aggravated by the unpredictability of the Arctic area climate.

- 9. Given the high natural changeability of the Arctic climate, predictions in the time frame of a season to several years i.e. in the format where the anthropogenic signal is weaker than the natural alterability of the Arctic climate pose an especially knotty research problem. The 3<sup>rd</sup> World Climate Conference (WCC) that was held a year ago was devoted exactly to these time brackets (for the Arctic as well as for the entire global climate system).
- 10. Climatic changes have already begun to exert a crucial impact on ecological systems, the population and the economic infrastructure in the Arctic region, to say nothing of the issues pertaining to the sphere of foreign policy. Here are the instances of impact on the environment and humans in the Arctic in the wake of climate change.
  - a) Invasion (proliferation) of new species of plants and insects, as well as the diseases of plants and animals which in their turn put in danger the traditional biological species and ecosystems of the land surface, freshwater and marine waters, and pose risks for the health and lives of people working or having tours of duty in that part of the world,
  - b) A speedy erosion of the shores and a loss of territories (some assessments suggest the sea front of about 10 km wide along the perimeter of the Arctic Ocean has already been lost, except for the Kola Peninsula coastline) and the risks of flooding,

- c) An aggravation of anthropogenic risks and challenges to fragile ecological systems of the Arctic area (in the wake of an easier access to and intensifying activity in it), including contamination of the environment and destruction of certain flora and fauna species,
- d) Intensification of the systemic (synergic) effect of the combination of impacts, under which the integral aftermaths of separate impacts exceed their total sum.
- 11. The successes scored by the world climatology, including the success of reports by the Intergovernmental Panel on Climate Change (IPCC) that won the Nobel Peace Prize in 2007, some politicians and public activists rushed to the conclusion that climatic research had completed the performing of its functions by and large and what remained to be done was the refining of some details that were not especially important for the process of decision-making. Other politicians jumped at the opportunity make instrumental certain inconsistencies and flaws in the reports, called into questions absolutely everything and even insisted that the rapporteurs had not done any impressive amounts of valuable work.
- 12. Both extremities are unacceptable. First and foremost, adhering to them given their peremptory character means inevitably the ignoring of the hollows, which still exist in scientific knowledge, and especially in what concerns the understanding of the causes and ecological aftermaths of climate change. As regards the clarification of the latter, the Arctic research is hard to overestimate. Blank spots in their understanding arise from the shortage of observation data and from the problems of climate simulation modeling. Elimination of these blank spots is essential for correcting the assessments of climate changes in the future in the Arctic, among other places and this in its turn lays down a fair prerequisite for adopting efficacious economic and ecological decisions, including the ones in the field of nature conservation.
- 13. Fulfillment of this prerequisite makes climate prognostications less uncertain, but far from completely certain. Whatever the progress in observation and simulation techniques, the chaotic character of the climate system will always affect their precision and reliability, thus imparting variableness for the forecasts. That is why the adoption of decisions will always have the savor of searching for the second best and will be contingent on the risks of miscalculations in planning and in the implementations measures to reduce the aftermath of climate change. In the first place, this applies to the steps to adapt the most vulnerable regions like the Arctic to the aforesaid changes.
- 14. Errors of this kind may have a dire price and that is why the purposes of risk reduction bring out the investment in scientific research (in particular in the Arctic-related one) as an essential and economically rational spending that helps cut down the uncertainty of regional forecasts and assessments of climate change and, correspondingly, the aftermath of the latter. It is important to not simultaneously that the (capital) factor replacement theory, much loved by neo-classical economists, does not work in such cases, as alternatives to science are simply do not exist.
- 15. This situation brings to spotlight Russia's shortage of both fundamental and applied knowledge and retardation in the field of climate research as compared with the most developed nations. The factor weakens the original Russian research base for assessing climate changes and their aftermaths and instills Russia's contingence on up-to-date data and information on the ongoing changes and forecasts for or the aftereffects of the upcoming changes from foreign research centers, mostly located in the member-states of NATO or other military/political blocs. This will pose risks not only to Russia's nature, population and economy but also potential risks to its national security.
- 16. The scaling down of these risks and threats requires well-specified measures on the part of the state, which should determine for itself the priorities of its policies as regards the problem of climate change at large and in the Arctic area in particular. This approach to the issue was reflected in the Climate Doctrine of the Russian Federation (signed by the President December 17, 2009) that envisions the development and implementation of an appropriate state strategy, as well as the

federal, regional and departmental programs and action plans designed on its basis. These documents should rely on a solid body of scientific data, the development of which is simultaneously an object of planning. Priority planning.

- 17. Designing of the Comprehensive Plan of Research into Weather and Climate (hereinafter the Comprehensive Plan) became one of the steps associated with the Climate Doctrine. The document was drafted by the Federal Service for Hydrometeorology and Environment Monitoring and the Russian Academy of Sciences in cooperation with the Ministry of Education and Science, the Ministry of Economic Development and the Ministry for Emergency Situations and Civil Defense in line with a decision of Russia's Security Council taken March 17, 2010. The Comprehensive Plan spells out the national priorities in the field of scientific research of weather and climate and the priority scientific guidelines for research. It also stipulates the cross-sectional guidelines that overlap one another and synthesize the major guidelines. This two-dimensional matrix-like structure arises from the presence of complicated cross-disciplinary problems related to climate and its changes.
- 18. A total of two of the four main guidelines are dedicated to resolution of the central task of the meteorological science, i.e. the forecasting of weather and climate. Another two dwell on the assessment of consequences of weather and climate impacts, including the risks to and vulnerability of ecological systems, the population and the economy as regards the aftermaths of these impacts, the opportunities for their adaptation to the latter, the alleviation of anthropogenic burdens on the climate, and the assessment of possible uses of good effects of climate change.
- 19. Augmenting the major guidelines of the Comprehensive Plan are four cross-sectional guidelines, three of which make up an unbreakable sequence extending from the monitoring to the construction of simulation models and servicing and are key elements of each major guideline. As stipulated by the March 17, 2010, resolution of Russia's Security Council and with account of Moscow's international initiative on holding an international Arctic decade, the research into weather and climate in the Arctic areas will be supported in the coming years with the aid of measures envisioned in the fourth cross-sectional guideline and added to the list of Russia's national priorities in the sphere of climate policies.

## Aquatic Bio-Resources of the Arctic and International Legal Provisions for Their Rational Utilization

The Barents Sea and the White Sea are the main regions of Russia's fishery operations in the Arctic region. The warming of the climate opens up opportunities for fisheries in the Kara and Chukchi Seas. On the face of it, the aquatic bio-resources of the Laptev and East-Siberian Seas do not have importance for fisheries in the short-term prospect, as the climate there is too harsh, the destinations for the delivery of produce are too far away, and local infrastructures are underdeveloped.

At present, regional organizations for fisheries and interstate bilateral agreements regulate fishery activities only in the northern part of the Atlantic. The following documents form the basis for regulations.

- 1. Convention on the International Council for the Exploration of the Sea (ICES). The International Council is a research organization existing for over a hundred years by now and coordinating the national research efforts in marine fisheries and ecosystems in Northern Atlantics, including the adjoining seas. It was instituted July 22, 1902 in Copenhagen. The ICES unites 19 countries, including Russia.
- 2. North East Atlantic Fisheries Commission (NEAFC) A convention on fisheries in Northeast Atlantic. NEAFC regulates fishing in the Atlantic and Arctic Oceans and the adjacent seas located above 36° North and between 42° West and 51° East. The Convention took effect in 1982. The USSR ratified it April 23, 1982. At present, the NEAFC membership list features Russia, Norway, Iceland, Denmark (as represented by the Faroe Islands), and the EU.
- 3. Convention for the Conservation of Salmon in the North Atlantic Ocean (NASCO). It took effect in 1983 and the USSR ratified it in 1984. Its signatory nations are Russia, Canada, Denmark (as represented by the Faroe Islands and Greenland), the EU, Iceland, and the U.S. NASCO applies to the resources of salmon migrating outside the areas under jurisdiction of separate states and in the sphere of fisheries of the Atlantic littoral countries above 36° North along the entire route of the salmons' migration.
- 4. Mixed Russian-Norwegian Commission on Fisheries, which functions on the basis of bilateral intergovernmental agreements on fisheries signed April 11, 1975, and on mutual relations in the sphere of fisheries signed October 15, 1976. The Commission takes decisions on the size of total allowable catches of jointly developed fish resources in the Norwegian Barents region (cod, haddock, capelin, etc.).

Due to the warming of climate in recent years, a number of areas of the Arctic Ocean located outside the exclusive economic zones of littoral countries have started getting free of ice cover in the summer season. Specifically, such waters have appeared outside the U.S., Canadian and Russian economic zones opposite the western sector of the American coast and the eastern part of the Asian coast. The fact has created prerequisites for the introduction of fishery regulating measures in the Arctic Seas.

A number of international conferences was convened in the period of 2008 through 2010 to accumulate information on the Arctic littoral countries' data concerning the status of aquatic biological resources, the environment around their habitats, and assessment of the prospects for further changes in the ecological systems of the Arctic Seas, and to hold early discussions of possible future patterns for maintaining and rationally utilizing the aquatic bio-resources.

Russia's stance on the Arctic problems is reflected in the Fundamentals of the Russian Federation's State Policy in the Arctic Region for the Period of up to 2020 and Beyond It, which President Dmitry Medvedev signed September 18, 2008. The document spells out the following objectives and strategic priorities of the state policy in the Arctic in what concerns the fisheries.

- Ensuring a sufficient level of fundamental and applied research,
- Ensuring mutually beneficial and multilateral cooperation between Russia and other Arctic littoral states,
- Strengthening cross-border cooperation on a bilateral basis and in the format of regional organizations,
- Setting up a fleet of fishery seacraft and the necessary support infrastructure,
- Maintaining the biological diversity of the Arctic flora and fauna,
- Forecasting and estimating the aftermath of global climatic changes generated by natural and anthropogenic factors.

The importance of signing an agreement by the regional countries on regulating fisheries in the Arctic waters in the short-term has become plainly obvious now. According to our estimates, the drafting of this document will take no less than four to five years. The efficaciousness of defense of Russia's fishery interests in the Arctic will be contingent on how well-substantiated this country's position at the talks is. The preparation of scientific grounding of the Russian stance on the problem should include:

- Formulation of legal terms for international fisheries in the ice-free waters of the Arctic Ocean,
- Gathering and analysis of biological data for assessing the populational structure and status
  of production-worthy aquatic biological resources of the Arctic region for designing the
  scientifically grounded fisheries regulation measures, as well as for maintaining the
  resources and the environment around their habitats.

Research of this kind will make it possible to defend Russia's interests efficaciously only if they are fulfilled incessantly while the drafting of the agreement on fisheries in the Arctic region is underway.

The practical implementation the Fundamentals of the Russian Federation's State Policy in the Arctic Region for the Period of up to 2020 and Beyond It and the building up of efficacious protections for national fishery interests in the Arctic while the agreement between the Arctic littoral states is in the phase of drafting necessitates the development of a federal special-purpose program for tightening the defense of Russian fishery interests in the Arctic seas from 2012 through to 2016.

#### Transport Infrastructure of the Russian Arctic Zone: Problems and Solutions

The Fundamentals of the Russian Federation's State Policy in the Arctic Region for the Period of up to 2020 and Beyond It, which the Russian President signed September 18, 2008 (Pr-1969), specifies the main objectives, key tasks and strategic priorities of Russia's state policies in the Arctic region and the mechanisms for implementing them, a system of strategic forecasting measures, the planning of social and economic development of Russia's Arctic Zone, and the strengthening of national security. The Council for the Studies of Productive Forces, which reports to the Ministry of Economic Development, and the Russian Academy of Sciences have drawn up the draft concepts of a Strategy for Development of the Arctic Zone of the Russian Federation (AZRF) and support for national security over the period of up to 2020, as well as the State Program titled "The Social and Economic Development of the Russian Federation's Arctic Area" for the same period. The objective of the two documents is to help implement the provisions specified in the Fundamentals and to raise the efficiency of priority tasks resolution.

The concepts proceed from the postulation that the geographic position creating prerequisites for an active utilization of the Arctic spaces is a factor of extreme significance for the further steady development of the AZRF and the Russian Federation on the whole. The potential generated by the factors of space and far from sufficiently used now conceals Russia's unique transport and logistics opportunities. This country might effectuate a strategic maneuver and assume the role of a competitive transit state with a developed tertiary industry and service-oriented economy. The AZRF has gotten a chance to overhaul the specialization of its foreign trade over the next ten to twelve years, to part with the dependence on the hydrocarbons the monotype export produce, to scale down the economy's orientation at raw materials and to eliminate many imbalances in development. A full-scale implementation of the potential for transit transportation owing to the rise of a system of international transport corridors crossing the territories and water areas under Russia's jurisdiction may become a promising field of activity. The same applies to the capillary transport infrastructure linking remote sub-Arctic townships.

The scarcity of the transport system – its maritime and continental elements likewise – is the main factor impeding a steady social and economic development of Northern regions. This scarcity hinders the development of mineral resources – not only in the AZRF but also in the Urals, Siberia, the Perm territory, and many other regions specializing in the production of minerals and energy resources. In addition, it puts off indefinitely the projects linked to the mineral wealth. That is why the aforesaid program solutions aim to help the creation of a base frame of the transport system in the AZRF, including new latitude-wise and longitude-wise transport corridors tied up to the implementation of 'Industrial Urals to Arctic Urals' and BelKomUr projects. Construction of a railway line between Polunochnaya and Obskaya stations, completion of the line between Obskaya and Bovanenkovo with a subsequent connection to the port of Kharasavei, the commissioning of Nadym-Salekhard railway corridor that will extend to Labytnanghi, and construction of a line between Korotchayevo and Igarka with a future access to the port of Dudinka in the mouth of the River Yenisei and the city of Norilsk will link the ore resources of the Arctic Urals and the gas/oil producing territories of the Yamal Peninsula to the well-developed parts of the Industrialized Urals.

The BelKomUr project envisions construction of the still missing sections of the Arkhangelsk-Perm railway route (between Kargopory and Vendinga) that will provide access from Arkhangelsk to Syktyvkar, Kudymkar and Perm (Solikamsk). It will furnish the latter regions with a corridor to foreign markets. This pushes up the list of priorities the projects and mega-projects like the construction of Sosnogorsk-Indiga (BarentsKomUr) and Vorkuta-Ust Kara technological lines, as well as the North-South transport corridor that will offer a route for cargo haulage from the states of

the Persian Gulf, India and Pakistan to Eastern/Central Europe and Scandinavia via the Caspian region. In addition, there are a growing number of reasons for creating rapid communication routes across the North Pole, including the air routes, as they provide the fastest connection between the Eastern and Western hemispheres. One more project in this vein is a multi-transport tunnel between Russia and the U.S. under the Bering Strait.

A transport and logistics infrastructure that is poorly developed or simply absent in some places produces a wide discrepancy between the importance of developing the natural resource potential of the AZRF and the Arctic seas' continental shelf, on the one hand, and the requirements of national security or Russia's competitiveness, sagging now in spite of the country's unique geographic advantages. The latter imply an opportunity to use efficiently the high-latitude transport corridor – the Russian national trans-Arctic maritime mega-route, which includes organically the Northern Sea Route, the longitude-wise inland waterways adjoining it and the railway communications. Its oppositely located extreme support points – Murmansk and Petropavlovsk-Kamchatsky – must ensure the transshipment of cargos to ice-rated ships, the maintenance of icebreaker fleets, and support to transits by feeder routes.

#### U.S. Policies in the Arctic Region

U.S., NATO and the EU proceed from the following postulations when they shape up the conceptual, doctrinal and strategic foundations of their policies in the Arctic area.

They surmise that the predicted changes in the Arctic ice cover will give a boost to economic activity in the region (since the fisheries, navigation and the development of mineral and energy resources will intensify). The situation will necessitate a response to new challenges and threats, the possible list of which includes the conflicts for territories and resources and the risks of new ecological disasters.

As long as the Arctic ice continues melting, the military and strategic significance of the region will keep increasing, which will prompt the Arctic region countries to revise their naval doctrines, since the growth of military activity will require the commissioning of new defense systems and complexes.

The U.S. declares the principle of the "freedom of navigation" as regards the Arctic region and especially the waters of the Northwest Passage and the Northern Sea Route, which the Americans would like to consider as the international transit transport routes. It is well known that Russia and Canada uphold an entirely different position on the issue, insisting on their right to regulate the navigation in these maritime passages. The U.S. has one more problematic issue in relations with Russia – an agreement on delimitation of spaces in the Bering Sea that was not ratified by the Russian side.

Although the U.S. proclaims today its commitment to the course at joining the 1982 UN Convention, it enjoys the most lucrative situation and uses skillfully the freedom of action it has reserved to itself. As it gradually gathers the data on the outer borders of its continental shelf in the Arctic, it feels free to join the Convention only upon scrutinizing the results of this research. There is a possibility that the U.S. will join the Convention along with introducing certain changes in it or adopting some supplementary protocols regarding the Arctic region.

At the official level, the idea of resolving the territorial disputes in the Arctic on the basis of the 1982 Convention is being promulgated. This strategy presupposes of possibility for expanding the outer borders of littoral states' continental shelf, but if one looks at the unofficial level, the concept of internationalizing the Arctic region, which envisions the transition of marine spaces located outside the countries' exclusive economic zones to an international administration exercised by all the signatory countries. By using the rhetoric suggesting the availability of 'ecologically friendly' technologies for development of the Arctic deposits and by insisting on the assimilation of a system approach, some countries are seeking an exclusive role in the designing of a new regime for the administration of Arctic spaces and resources.

The U.S. and NATO nations give a lukewarm response to the idea of signing an Arctic Treaty that would be similar to the 1959 Antarctic treaty. It is very unlikely that the establishing of a nuclear-free zone in the region, a possible slashing of military exercises, and the imposition of a tough control over the economic activity in the Arctic could match the military, political and economic aspirations of many countries.

Still, in a situation of intensifying conflicts over the resources and territories in the Arctic region the North-Atlantic pact is prepared to become one more forum for an exchange of information – with Russia among others.

By way of summing up, one should state that the level of coordination or the identity of positions on many issues regarding the Arctic remain extremely low. Russia's practical steps to determine the

outer border of its continental shelf prompt other Arctic littoral countries to take similar steps. On the one hand, this can be seen in civilian initiatives, including an accelerated research activity, polar expeditions, and the adoption of new doctrinal and conceptual documents. On the other hand, the militarization of the region is increasing. The Russian Federation does not leave these tendencies unattended either.

One could presuppose as a result that, unfortunately, the anticipated mounting of economic activity in the region in the wake of the forecasted warming of the climate there may lead up to new contradictions only.

#### The Arctic Strategy of the European Union

The EU started showing an intense interest towards the Arctic as of the end of the 1990's, saying this interestedness stemmed from the concern over the competition among various powers for the resources of the Far North, over the territorial litigations, claims for the control of northern sea passages, as well as the deteriorating ecological situation in the region.

At the initial stages, the EU mostly concentrated its activity in the Arctic sphere on the Northern Dimension format. The idea of the so-called "Arctic aspect" was very popular at the beginning of the 2000's and it was reflected in the overhauled concept of the Northern Dimension, adopted in November 2006<sup>2</sup>. The EU cooperated actively with three regional organizations – the Barents Euro-Arctic Council (BEAC), the Arctic Council (AC) and the Nordic Council of Ministers (NCM). The European Commission passed an action plan for the integrated maritime policy in October 2007. It raised, among other things, the problem of partitioning of the continental shelf and the commercial navigation in the passages of the Arctic Seas<sup>3</sup>.

In March 2008, the European Commission and the EU's high representative presented a joint report titled "Climate Change and International Security" that dwelt extensively on the problems of security. Special focus was given to the following problems – the thawing of the Arctic ice that breaks up the traditional ecological system, the bad aftermaths of economic activity in the light of natural resource excavation and the increase of international commerce routes, the sharpening of competition among the Arctic littoral countries for the utilization of natural resources and Arctic maritime passages.

The following measures were proposed to ward off the dangerous tendencies the EU proposed the following measures:

- To breathe new life into regional organizations under the auspices of the revamped Northern Dimension,
- To draft the EU's own Arctic Strategy with a special accent on the opportunities for equitable access to the region's natural resources and trade routes,
- To establish dialogue with the regional countries having no EU membership on the problem of global warming and its impact on international security.

A number of experts from Norway, the U.S. and Canada – i.e. the countries having no EU membership – assessed the document as a resolute enough attempt on the part of the EU to declare its claim to engagement in the Arctic affairs. They also said that three Nordic member-nations – Denmark, Sweden and Finland – were in many ways the motivating force that was pushing the EU towards more aggressive policies in the Arctic. These countries had important interests in the region but felt being separated from it.

<sup>3</sup> Arctic Communication. MEMO/08/726. Brussels, 20 November 2008 <a href="http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/08/726&format=HTML&aged=0&language=EN&guitanguage=en">http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/08/726&format=HTML&aged=0&language=EN&guitanguage=en</a>

<sup>&</sup>lt;sup>2</sup> Northern Dimension - Policy Framework Document and Political Declaration. 13 November 2006. Brussels: Council of the European Union, 2006.

<sup>&</sup>lt;sup>4</sup> Climate Change and International Security. Paper from the High Representative and the European Commission to the European Council. S113/08. 14 March 2008. Brussels: Council of the European Union, 2008 <a href="http://www.consilium.europa.eu/ueDocs/cms">http://www.consilium.europa.eu/ueDocs/cms</a> Data/docs/pressData/en/reports/99387.pdf>

The European Commission issued a communication titled "The European Union and the Arctic Region" in November 2008<sup>5</sup>. It was called upon to outline the contours of the EU strategies in that part of the world. "The EU has to state its position concerning a unique region of strategic importance which is located in its immediate vicinity," the Commission said in a memorandum accompanying the Communication. "The Arctic is a unique and vulnerable region located in the immediate vicinity of Europe. Its evolution will have significant repercussions on the life of Europeans for generations to come," EU Commissioner Benita Ferrero-Waldner said in connection with the issuance of the communication<sup>6</sup>.

The Communication sets forth the objectives and offers recommendations for organizing research into Arctic problems, the life of indigenous peoples, fisheries, production of hydrocarbons, navigation, political and legal organizations, and cooperation with regional associations.

More specifically, it singled out three priorities for the EU's future politics in the Arctic:

- o Protection of the environment and indigenous Arctic peoples;
- o Sustainable development and rational utilization of the region's natural resources;
- o Promotion of multilateral cooperation in the Arctic.

The Communication highlights especially the importance of international cooperation in the Arctic region. "Enhancing the European Union's contribution to Arctic cooperation will open new perspectives in our relations with the Arctic states," the European Commission said in a press release timed for the issuance of the Communication." "The EU is ready to work with them to increase stability, to enhance Arctic multilateral governance through the existing legal frameworks as well as to keep the right balance between the priority goal of preserving the environment and the need for sustainable use of natural resources including hydrocarbons." The document stressed the significance of a broad dialogue on the problems of the Arctic course based on the UN Convention on the Law of the Sea. It also underlined the role the Northern Dimension and the Arctic Council (the two agencies where Russia is an active collaborator) played in terms of Arctic cooperation.

However, the document practically makes no mentioning of Russia, which is the EU's largest partner in the Arctic, or the Barents Euro-Arctic Council that has turned into a tangible platform for regional cross-border cooperation in the north of Europe between five Russian regions (with the participation of the federal government) and the neighboring Norway, Finland and Sweden.

The European Commission's Communication does not attach any special significance to the problems of security, although it notes the importance of stability, cooperation and preservation of the marine biological environment. Also, the EU deems it necessary to create a new, stronger multilateral entity for administrating the Arctic, since the Arctic Council in its current shape does not have enough political weight.

It is possible to suppose that the EU will be building up efforts in the foreseeable future to expand its own presence in the Arctic and will resolutely defend its rights to the region. Unlike NATO, the U.S. or Norway, though, the Europeans will do this without any noticeable accent on military strength and will give preference to the diplomatic and economic instruments.

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<sup>&</sup>lt;sup>5</sup> The European Union and the Arctic region. Communication from the Commission to the European Parliament and the Council. COM(2008) 763 final. 20.11.2008. Brussels: Commission of the European Union, 2008 <a href="http://ec.europa.eu/maritimeaffairs/pdf/com08\_763\_en.pdf">http://ec.europa.eu/maritimeaffairs/pdf/com08\_763\_en.pdf</a>

The Arctic merits the European Union's attention – first step towards an EU Arctic Policy// <a href="http://europa.eu/rapid/pressReleasesAction.do?reference=IP/08/1750&format=HTML&aged=0&language=EN&guiLanguage=en">http://europa.eu/rapid/pressReleasesAction.do?reference=IP/08/1750&format=HTML&aged=0&language=EN&guiLanguage=en</a>

#### The Future of the Arctic: Re-division or Status Quo?

#### *Summary*

The Arctic has become a subject of growing attention of politicians, experts and the mass media from far beyond the region in the past decade. Often dramatized, the theme fueled the already heightened interest in the problems existing there.

Following are the reasons that put the Arctic into the limelight:

Firstly, the record high prices of fuels in the second half of the past decade, the alleged depletion of their reserves and upcoming clashes over access to the increasingly scarce resources made many turn their eyes to the Arctic. According to many estimates, the region is believed to contain considerable hydrocarbon reserves, in the first place natural gas.

Secondly, climatic changes have affected the Arctic, too. The mean temperatures there have been increasing faster compared with the Earth's average. It seemed the region's resources should become more readily accessible as perennial ice melted, at least in a more distant future. Climate changes are associated with the prospects for stepping up the economic activity in the Arctic in general, such as expanding areas of fishing, including outside the boundaries of the 200-mile exclusive economic zone of the Arctic states, and navigation along the Northern Sea Route and the Northwest Passage.

Thirdly, the discussion of all these issues is overshadowed by the talk about the impeding "legal chaos" and upcoming conflicts between Arctic states which have not delimited marine space and the offshore zone and would seek to re-divide the Arctic territories.

Fourthly, all the parties to this situation showed a painful reaction to the reports on naval exercises in the Arctic or in immediate proximity to it, increased defense spending and the modernization of coastguard forces of a number of Arctic states.

It becomes increasingly obvious today that the larger part of the dramatic prognoses and scenarios – perhaps with the exception of the on-going climatic changes, grossly overestimated the existing or emerging problems, including those in the field of national and regional security. The conference confirmed this conclusion, even though the participants differed on a number of issues.

Contrary to the widespread point of view about the division of the Arctic into national sectors in the early 20<sup>th</sup> century, its legal regime is governed by the norms of international law and the 1982 UN Convention on the Law of the Sea. This applies to the classification of marine spaces in the Arctic in full measure. The marine spaces are divided into internal marine waters, territorial sea (12 nautical miles) and the adjacent zone, and the 200-mile exclusive economic zone with the open sea beyond its boundaries.

The continental shelf of the Arctic states coincides with the 200-mile exclusive economic zone, although in some cases, it may extend up to 350 miles. Beyond its boundaries is the area of the sea floor to which the principle of common heritage of mankind applies. The free flights principle operates in the air space beyond the territorial waters (12 miles).

All the Arctic states except the USA are signatories to the 1982 Convention. A participant in the 1958 Conventions on the Law of the Sea, the USA reserved the right to determine the boundaries of its continental shelf outside of not only the 200-mile, but also the 350-mile zone. However, in other matters, all the states in the region are guided in their activities by the norms of the international law of the sea.

Indeed, the Arctic has unregulated issues of the delimitation of marine space, for example in Canada's relations with the USA and Denmark. The parties should settle disputed issues on bilateral basis. The existing disputed issues should not give the reasons to assume that this might lead to an armed conflict in the Arctic, not mentioning a regional conflict.

Today, it becomes more and more obvious that the temptation to rush to develop Arctic energy resources – which is understandable in the conditions of high prices of oil and gas in the second half of the 2000s – is not as great as it seemed several years ago, especially because the search for oil in the region has not yielded significant results.

A serious obstacle to the development of the Arctic's resources is the high cost of not only their extraction, but also the confirmation of their reserves (the share of confirmed reserves, in particular oil reserves, in the aggregate estimate of the Arctic's resource potential is insignificant), as well as the high cost of the development of transport and other infrastructures. This decreases the profitability and, consequently, the appeal of a majority of Arctic projects for investors.

Therefore, the development of the Arctic's energy sources is a distant prospect at best. It will depend, to a considerable extent, on the long-term changes in global energy market, which are difficult to predict. The interest in the development of Arctic reserves visibly flagged because of the economic crisis of 2008-2009 and the emergence of unconventional natural gas in the market.

Reports and discussions paid much attention to the naval activities of the Arctic states which have been gaining momentum in the recent years. The proposed thesis warning about the danger of the militarization of the Arctic was vigorously challenged.

The participants in the conference noted that there were no serious conflicts in the region to nudge the states towards an arms race or view the on-going naval activities as threatening.

The announced purchases of new armaments often reflect the plans of the states in question to modernize their armed forces, rather than build them up, against the general background of dramatic cuts in the armed forces and shrinking defense spending. Furthermore, the possible melting of perennial ice and its replacement with seasonal ice by mo means implies that the Arctic region will become accessible for large-scale conventional naval activities in a foreseeable future.

In these conditions, the plans to modernize the coastguard services of the USA and Canada, and, consequently, upgrade and build up their ageing fleets of ice-breakers -- which are far smaller compared with Russia's -- look quite routine. Given the prospect for stepping up fishing and navigation in the Artic, even on a limited scale, the need for various kinds of operations will be increasing there, including the rescue operations mounted by coastguards.

Despite different points of view, the discussion of naval security in the Arctic tended to acknowledge the expediency to coordinate various confidence-building measures or the rules of conduct. The participants also agreed with the expediency of cooperation and interaction between the navies of the Arctic states, in order eliminate excessive concerns that arise in connection with the routine military activities of the states.

The conference reviewed the regional aspects of strategic stability, including the possibility to deploy missile defense in the Arctic zone. The activities of U.S. and Russian strategic forces in the region are a significant factor, which has general influence on the security situation. Since they admittedly belong to bilateral Russian-U.S. regulation, not regional one, they do not quite fit into the context of regional cooperation proper.

The strategic stability related to military activities in the Arctic would be a sort of encumbrance for the region due to its geographic location. This circumstance cannot but be reckoned with. It only underscores and enhances the joint responsibility of the Russian Federation and the USA. They may give an impulse to the settlement of regional issues through cooperation or complicate this settlement, if they do not make much headway in their policies to renounce the Mutual Assured Destruction.

The on-going changes in the Arctic – in the first place climatic changes – are likely to have consequences for fishing and navigation in a foreseeable future. In 2009, certain parts of marine space in eastern Arctic outside the boundaries of the 200-mile zones of Russia, the USA and Canada became briefly available to fishermen for the first time. Fishing, largely concentrated in the Barents Sea at present, may gradually shift eastwards as global warming continues. This explains the growing interest in fishing in the Arctic zone, including on the part of non-Arctic states. Consequently, it raised the issue of drawing a new agreement to regulate fishing in the Arctic.

The prospect for stepping up navigation along the Northern Sea Route and the Northwest Passage opens the opportunities for boosting economic activities, but it also raises the complex questions of the status of these sea routes. Many countries associate it with the opportunity to use shortcuts between the Pacific and Atlantic Oceans, while Russia might plan further development of Arctic territories. If this prospect becomes a reality, the settlement of issues arising in this connection will require from Russia certain legislative acts and intensive and complex negotiations, given the positions of the USA and the EU that view both routes as international, to which the principles of the freedom of navigation should apply.

Since a dramatic representation of the general situation in the Arctic is unnecessary – though serious problems that may possibly emerge in the foreseeable future should not be ignored – so much less dramatic is Russia's position in the Arctic.

Russia has no disputes with the neighboring states over delimitation of maritime boundaries. In 1990, it signed an agreement with the USA on delimitation in the Bering and Chukchi Seas. Although Russia has not ratified it up to date, the treaty is used on a temporary basis. In 2010, Russia and Norway signed accords on delimitation in the Barents Sea, which the parties are yet to ratify. In general, Russia has an advantageous position as it has no territorial disputes with its neighbors.

According to the existing estimates, there are no confirmed data on the availability of considerable reserves of hydrocarbons (oil and natural gas) in the central part of the Arctic basin, outside of the 200-mile zones of the Arctic states. The most accurate U.S. estimates of 2008 say the zone of the Lomonosov ridge to which Russia laid claims, is as unpromising. Most of the large deposits with proven reserves are found in the littoral zone of the Russian shelf. These territories are not disputed. For this reason, the Russian energy sector has no problems in principle with the present delimitation of marine space in the Arctic.

This delimitation (as with the USA in 1990 and Norway in 2010) causes dissatisfaction, in the first place in Russia's fisheries. Taking into account the fact that the Arctic yields one-third of Russia's catch of seafood, this circumstance has significance. But the prospect of fishing areas' gradually shifting east of the Barents Sea partially eases the problem, while bringing forward another one – the prospect for drawing international fishing rules in the Arctic and the appearance of fishing fleets of third countries there.

The possibility of navigation's expanding along the Northern Sea Route will press Russia to regulate its status. A solution heavily depends on domestic acts, in the first place on the revision of the Russian legislation on preventing pollution in the Arctic (which is still regulated by the 1984 degree of the Presidium of the USSR's Supreme Soviet). Also, it would require raising the status of the rules of navigation along the Northern Sea Route to the level of federal law (at present, departmental rules established back in 1990 are in effect).

Undoubtedly, Russia encounters far more serious problems in the Arctic region in its own territory, for example the undeveloped and rundown Arctic infrastructure, which continues to degrade due to

the melting of permafrost and the rising World Ocean's level. These also include the ageing fishing fleet, a lack of research funds and the necessity to attract large foreign investments to develop the resources of the Arctic shelf.

A heightened interest in the Arctic, including on the part of Russia in the past few years has had positive consequences, though the real situation was overdramatized. Russia has drawn complex documents that map out a strategy to develop its northern territories. However, to implement the designated ambitious projects, many of which are described in the reports by participants in the conference, Russia requires considerable funds, which can only be attracted in the conditions of broad international cooperation, and by no means in the midst of confrontation or "the struggle for the Arctic."

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Dramatizing problems of the Arctic in international discussions of the past decade had many negative consequences, the main being the mounting mutual suspicions and mistrust, which interfered with the settlement of real problems of the region and the Arctic states' through cooperation.

A reasonable way out of the situation can only be found in the understanding that these problems are mutual and that cooperation is essential in achieving their optimal solution. The recent trend towards the easing of tensions around the Arctic suggests that a breakthrough in this direction is possible given sufficient political will, so that the region becomes a zone of stability and common security, not virtual rivalry.

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#### **Program of the conference**

10:00 – 10:50 opening. Alexander A.Dynkin, Academician, IMEMO RAN director, member of the EASI commission

First session. Moderator: Vladimir G.Baranovsky, corresponding member of the Russian Academy of Sciences, IMEMO RAN deputy director

Legal regime of the Arctic. Pavel V.Savaskov, Professor, Department of International Law, MGIMO (University), Ministry of Foreign Affairs of the RF

10:50 – 11:45 The Arctic Store of Resources

*Energy issues.* Yelena A.Telegina, Professor, Ph D Economics, deputy director of the department for strategic management of the fuel/energy sector of the I.M.Gubkin Russian State University of Oil and Gas, director of the Russian Institute of Energy and Geopolitics

12:05 – 13:45 Second session. Security in the Arctic. Moderator: Vladimir G.Baranovsky, corresponding member of the Russian Academy of Sciences, IMEMO RAN deputy director

Strategic Stability. Alexei G.Arbatov, corresponding member of the Russian Academy of Sciences, director of IMEMO RAN center

Missile Defense. Vladimir Z.Dvorkin, Lieutenant-General, Ph D Military-Technical Sciences, IMEMO RAN chief researcher

Conventional Aspects of Security. Sergei K.Oznobishchev, head of the sector, IMEMO RAN; Vyacheslav M.Apanasenko, Rear Admiral, corresponding member of the Russian Academy of Missile and Artillery Sciences

14:30 – 15:15 Third session. Climate changes and ecology of the Arctic. Moderator: Andrei V.Zagorsky, Professor, MGIMO (University), Ministry of Foreign Affairs of the RF

Vladimir M.Katsov, PhD Physics/Mathematics, director of the A.I.Voyenkov Geophysical Observatory in St.Petersburg

Boris N.Porfiryev, Professor, Ph D Economics, head of center at RAN Institute for National Economic Forecasting

15:15 – 16:00 The Arctic's economics

Biological Resources of the Arctic. Mikhail K.Glubokovsky, first deputy director of the Russian Federal Research Institute of Fisheries and Oceanography (VNIRO) federal state unitary enterprise; Alexander I.Glubokov, director of the department for international fisheries cooperation, Russian Federal Research Institute of Fisheries and Oceanography (VNIRO) federal state unitary enterprise

*Navigation*. Alexei M.Konovalov, director of the World Ocean center, Marine Department of the Council for the Study of Productive Forces

16:00 – 17:00 Fourth session. Issues of politics. Moderator: Andrei V.Zagorsky, Professor, MGIMO (University), Ministry of Foreign Affairs of the RF

USA policy in the Arctic. Pavel A.Gudev, senior researcher, Scientific Support Center of the Marine Board under the Russian government

The EU's Arctic strategy. Alexander A.Sergunin, Professor, St Petersburg State University; Mikhail I.Rykhtik, Professor, N.I.Lobachevsky State University of Nizhny Novgorod

17:00 conference closure

#### On Euro-Atlantic Security Initiative

The EASI project, launched by the Carnegie Endowment for International Peace, is implemented by the group of prominent politicians and experts from Russia, the USA and Europe with the goal to elaborate proposals on the new Euro-Atlantic security structure.

The EASI Commission co-chairmen are: former Senator Sam Nann for the USA, former German Deputy Foreign Minister Wolfgang Ischinger for Europe, and former Russian Foreign Minister Igor Ivanov for Russia. IMEMO is the key partner of the project in Russia. All participants in the project see the solution of the problems not through the prism of Russian-Western relations, but in the context of common threats to security. Such an approach effectively promotes the Russian vision of all-European security. The President of the Russian Federation and the Ministry of Foreign Affairs recognized as expedient the EASI project and Russia's active participation in it.