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PROBLEMS AND PROSPECTS OF RUSSIA'S COOPERATION WITH U.S./NATO IN THE FIELD OF MISSILE DEFENSE

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The study covers one of the most significant military and political issues of relations between Russia and the US/NATO- the prospects for missile defense (MD) cooperation. The group of authors includes defense professionals, specialists in national and international security and international politics from the Institute and other organizations. The authors review various aspects of Russian and US/ NATO approaches towards building and possible integration of MD systems, as well as identifying and analyzing the basic political and certain military-technical contradictions, and other obstacles to cooperation.
Supplements include illustrative materials provided by the Russian Defense Ministry.

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Contents

Introduction

In 2009-2011 the outlook for Russia's cooperation with the U.S. and NATO on a missile defense took center stage as a major problem of European and international security. What made the situation that arose in connection with the possibility of such cooperation so unique was Russia and the USA/NATO for the first time ever had entered into a dialogue not on the basis of the traditional approach to arms limitation and reduction that had taken shape back during the "cold war" and willy-nilly prevailed since, but on qualitatively new political and psychological foundations of interaction. For the first time in the history of relations between the two parties the task was formulated of developing algorithms of joint action in sensitive military and political spheres which are not based on confrontation, not on the logic of mutual deterrence, but on completely new goal-setting - joint defense against possible common external threats. Also unprecedented in nature is the format of discussions between Russia and the U.S./NATO at the official political level, including the highest one, of issues of creating a joint missile defense in Europe. The very instance of such interaction is a graphic indicator of changes in the parties' perception of each other. The question remains open of how stable the motivation of Russian, American and European military and political elites to make mutual concessions to form a practical basis for the development of a coherent system of missile a defense in Europe will be.

In 2010-2011 the prospects for and the expected models of creating a US/NATO missile defense system in Europe, with Russia plying some role in it, was at the very center of intense negotiations. Heated debates were revolving around the political, ideological, military, technical and international legal issues, related to the possible creation of a joint system. An active dialogue on these issues unfolded at the level of the heads of state, ministries of defense and foreign affairs, special envoys, as well as at the level of experts, the political community and the media. Alongside international negotiations, contacts and consultations, tough debate broke out within the participating countries - in the U.S., other NATO countries - potential partners in various capacities in creating a future defense system, as well as in Russia. For each of the parties, many political implications that can be derived in the first phase of the discussions of possible scenarios of multilateral cooperation, are related to a wide range of acute internal political and economic issues. The process of negotiations on the prospects and modalities of cooperation in the field of a missile defense is extremely complicated by the fact that in Russia, the U.S. and many NATO countries this theme is getting extremely politicized. This is a side effect of the collision of different internal interest groups, which are motivated politically, ideologically and economically. Some are pressing for co-operation, while others are opposed to it. An essential role is played by the significant negative experiences the parties have gained in recent years on the issue of missile defense and U.S. actions in this area.

The ongoing dialogue on a missile defense, if successful, and in case of the implementation of some scheme of cooperation, can bring about significant changes of conceptual and military-political nature in maintaining the security of each party, as well as in interaction between them. The success of cooperation in the sphere of collective protection against future missile threats can significantly transform the goal-setting of the leadership of Russia, the USA and NATO in identifying the priorities of military planning and construction, in shaping the

structure of defense spending, and most importantly, in forming a foundation and a favorable climate for a qualitatively new relationship between former enemies - a climate of trust. This would allow all parties involved in this interaction to not only move away from the mentality of confrontation towards the creation of sustainable mechanisms of partnership, but also save substantial financial and other resources that might be spent on a new arms race in creating missile defense systems and means of overcoming them.

The aim of this study is to present a balanced analysis of political and military aspects of progress in the dialogue between Russia and the U.S./NATO on cooperation in missile defense. The authors had set themselves the task of not just studying the past experiences and current state of cooperation between Russia and the United States and NATO on missile defense issues in the context of the political conditions the parties insist on, but also of identifying likely realistic prospects of such cooperation. We sought to identify both potential benefits and possible losses for our country stemming from the development of cooperation with the United States and NATO in countering ballistic missile threats, or from refusal to have such cooperation.

The team of authors included professional military, experts in the field of national and international security, as well as political scientists – experts in international affairs at the Institute of World Economy and International Relations (IMEMO) under the Russian Academy of Sciences and other Russian organizations. The authors of this booklet were directly involved in international expert consultations on missile defense within the framework of the specialized working group of the Euro-Atlantic Security Initiative (EASI). [1]

[1] Publications made within the framework of the Euro-Atlantic Security Initiative are available on the IMEMO RAS website at: http://www.imemo.ru/ru/mpr/easi/publ.php.

1. **Evolution of the Antiballistic Missile Defense problem in Russia's Relations with the U.S. and NATO**

Initiative in the establishment of a missile defense in Europe naturally belongs to the United States. That country has enormous technological, financial, economic, military and institutional capabilities in the field of a missile defense, exceeding by far those of the other NATO members combined. The political and military task of creating systems to detect and intercept ballistic missiles of various ranges – a missile defense (MD) – has for several decades remained an important part of the U.S. leadership's foreign policy, military and economic agenda. It will be an important component of the U.S. military-technological development and defense and security policies in the foreseeable future. Moreover, the importance of the missile defense in these areas has shown a distinct upward trend in recent decades. However, the modalities of Washington's policy in the field of missile defense are varied.

Traditionally, projects for creating missile defense systems were to a greater extent in the realm of interest and attention of Republican administrations. In 2001, the Administration of George W. Bush declared unilateral withdrawal from the Soviet-US anti-ballistic missile (ABM) treaty of 1972. That move drew a negative response from Russia. It heralded the American leadership's decision to stake on creating a global missile defense, which was to include land, sea, air and space-based elements. Such a system would eventually provide a layered defense of the United States and its allies around the world, as well as of American troops stationed abroad, from all types of missile threats, including strategic ones. The third site of that system, to be deployed in Europe, is designed to ensure the security of the United States' NATO allies in Europe and also of U.S. troops stationed in the member countries of the alliance.

Measures for the deployment of the first facilities of the third strategic missile defense system site of the United States - ten trans-atmospheric ground-based interceptors (GBI) in Poland and a radar in the Czech Republic were perceived very negatively by Russia, which interpreted these intentions of the U.S. as a step towards creating a missile defense system that would limit the capabilities of the strategic nuclear force (SNF) of the Russian Federation. Alongside the factors of military-strategic nature, such a reaction was determined by the psychological and political opposition of the political and military elite, as well as Russia's general public, to the emergence of U.S. and NATO facilities near the Russian border. There appeared a basis for rapid and steep fall in the level of trust between Russia and the US/NATO and for the deterioration of relations.

Washington initiated the integration of this system with a missile defense system in the alliance's theaters (NATO's theater missile defense). U.S. plans and actions related to the program for developing a strategic missile defense received support from the alliance's leadership and NATO's member-countries. This reduced to nothing the previous ten years of efforts to develop principles and mechanisms of cooperation between NATO and Russia in a theater missile defense. The recent joint computer simulation exercises to model the interoperability of theater missile defenses of NATO and Russia were held in January 2008. However, the Alliance's position, declared at the NATO summit in Bucharest in the spring of

2008 in favor of future integration of NATO's missile defense systems and the United States' third missile defense site in Europe into a single architecture, extremely hindered the dialogue on these issues within the Russia-NATO Council. Cooperation between Russia and NATO in the theater missile defense finally ground to a halt in the autumn of 2008 - after the August "crisis in the Caucasus."

Russia's position in the Georgian-South Ossetian conflict caused a sharp reaction from the U.S. and NATO and has led to temporary curtailment of military cooperation in the RNC, including that on the theater missile defense. After that conflict, experts' consultations and command staff exercises in the TMD were stopped to have remained suspended to this day. The tough position of the outgoing Republican Administration in the United States, and also a painful reaction of the East European members of NATO prevented further cooperation in the months first months after the Caucasus crisis. Despite statements by the George W. Bush Administration to the effect neither the global strategic missile defense, nor its third site in Europe were being created in order to counter Russia's strategic nuclear force the elites of the countries selected for the placement of missile defense facilities and other East European countries saw their participation in it mainly in the context of the "containment of Russia."

The situation began to change rapidly after the Barack Obama Democratic Administration came to power in the U.S. in 2009. For the new U.S. Administration the policy of "resetting" relations with Russia become one of the most important and potentially most successful foreign policy priorities. The course towards signing a new treaty on reducing strategic offensive arms, taken by both parties, contributed to the resumption of the dialogue and other issues of international security.

The discussion of missile defense issues resumed after the Obama Administration declared it had dropped the plans of its Republican predecessor for deploying a strategic missile defense, including advanced elements of the third site in Europe. This decision drew a mixed response from Washington's European allies. The leading countries of Western Europe were generally appreciative of these shifts in the U.S. strategy. However, a large share of the political establishment of the Eastern European members of NATO initially responded to the changes in a negative way by and large. Only after the U.S. government described in greater detail its intentions to establish missile defense system architectures and signaled its readiness for more active involvement of its NATO allies in the process, the position of Poland, the Czech Republic and other East European countries softened somewhat. Nevertheless, they continue to display extreme reserve in relation to the American leadership's intention to establish a dialogue with Russia on the missile defense issue, let alone launch cooperation.

Shortly after Washington changed its approach to the missile defense issue NATO made its own turn towards the restoration of the dialogue with Russia on this subject. At the NATO summit in Strasbourg and Kehl in April 2009 the alliance declared the readiness to cooperate with Russia in missile defense matters. The summit officially declared the resumption of cooperation with Russia on all political and military issues.[2] The intention to develop

[2] See: Strasbourg / Kehl Summit Declaration. Issued by the Heads of State and Government participating in the meeting of the North Atlantic Council in Strasbourg/Kehl on 4 April 2009. /http://www.nato.int/cps/en/natolive/news_52837.htm

cooperation in the field of missile defense was made public at a meeting of U.S. President Barack Obama and Russian President Dmitry Medvedev in Moscow in July 2009.[3]

In February 2010, the Obama Administration adopted an alternative to the global strategic missile defense project, called Phased Adaptive Approach. Its basic principles were laid down in the open Ballistic Missile Defense Review Report, which focused on the application of the principles of adaptive approach to building a missile defense in Europe.[4] The document proclaimed the U.S. readiness to develop cooperation in the field of missile defense with Russia. In contrast to the Republican Administration's plan, which was immediately focused on creating a strategic framework, the new approach provides for gradual (four-stage) deployment of the missile defense architecture, which is to match the pace and nature of growing missile threats.

The current plan of the Missile Defense Agency of the US Department of Defense envisages gradual creation of a defense system in the territory of the US and its allies in Europe and the Asia-Pacific region to provide protection from ballistic missiles of all classes, including strategic ones, in the long term. Washington hopes to achieve the efficiency of the system through the progressive placement on land, at sea, and in space of warning and tracking systems, as well as sea-, land- and air-launched missile interceptors.[5] The first two stages of the implementation of the Phased Adaptive Approach are focused on creating a system capable of intercepting small, medium and intermediate-range (up to 5,500 km) ballistic missiles. The date of achieving the capability to intercept strategic missiles is postponed till the third phase (2018) and fourth phase (2020) and linked with the missile threat trends.* The questions of whether Washington and its allies will have the technical and financial resources to cope with these tasks in due time remain open. At the same time Russia is quite reasonably concerned the ultimate aim of the Phased Adaptive Approach is to bring about a system to intercept strategic missiles, and, in the long term, to restrict, albeit partially, the capabilities of the Russian strategic nuclear force.

The new U.S. approach to the implementation of plans for a missile defense system received support from the allies at the NATO summit in Lisbon in November 2010. Alongside this, at the RNC meeting, which was attended by Russian President Dmitry Medvedev, an agreement was reached on the development of cooperation between Russia and the Alliance in creating missile defense systems. This intention was stated in the final documents of the Lisbon summit of the RNC and NATO.[6] However, between Russia and the US/NATO there is still no

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[3] Joint statement by the President of the Russian Federation D. A. Medvedev and the President of the United States B. Obama on Missile Defense Issues. July 6, 2009 г. / http://news.kremlin.ru/ref_notes/35 (in Russian)

[4] Ballistic Missile Defense Review Report. Department of Defense. February 2010., p.p. 24-25, 31-32.

[5] For greater details about the prospects of the US missile defense system see: Nuclear Resetting: Reduction and Non-Proliferation of Armaments / Executive Editors V.Z. Dvrokin, A. G. Arbatov – M.: ROSPEN, 2011 г., pp. 192 – 197. (In Russian).

* See Addendum № 1.

[6] NATO – Russia Council Joint Statement. at the meeting of the NATO-Russia Council held in Lisbon on 20 November 2010. / http://www.nato.int/cps/en/natolive/news_68871.htm; Lisbon Summit Declaration. Issued by the Heads of State and Government participating in the meeting of the North Atlantic Council in Lisbon. 20 November 2010. / (In Russian) http://www.nato.int/cps/en/natolive/official_texts_68828.htm.

agreement on the principles of distributing the areas of responsibility or the shape of the system of missile defense that is to emerge in the future as a result of a cooperation. The Russian proposals, first made at the 2010 RNC Lisbon summit by Russian President Medvedev for building a joint system on the basis of the "sectoral principle,» enabling the parties to intercept missiles in those areas where their capabilities to do this are the best, met with no support from the Alliance.[7]

In the course of the next RNC summit, which took place in Sochi in July 2011, and shortly after it, NATO's secretary-general, Anders Fogh Rasmussen, said twice that he considered cooperation in efforts to create "interacting" systems of missile defense of NATO and Russia as one of the most important guidelines for the development of relations. He also repeated the assurances the emerging European missile defense system of the U.S. and NATO would not be directed against Russia. He mentioned the possibility of establishing a data exchange center as the most realistic element of a joint architecture.[8] His statement was in response to Russia's repeated demands for documented guarantees by the United States and NATO to the effect the missile defense system, being created in Europe, will not be aimed at countering Russia's nuclear force. In September 2011, France's readiness to come out with an initiative inside NATO for concluding an agreement to provide such guarantees was declared by French Foreign Minister Alain Juppe during his visit to Moscow. However, the U.S. leadership - the key architect of a future missile defense system in Europe - is much less willing to grant Russia any guarantees. Even if the Obama Administration were ready to reach some agreement on this issue, such initiatives would meet with stiff resistance from Congress, especially from the Republicans. In the context of the beginning presidential election campaign in the U.S. the Obama Administration will most probably not even dare open a discussion of the very possibility of providing guarantees the missile defense system in Europe would not be aimed at Russia. The American political elite, regardless of its party affiliation, is traditionally not inclined to the conclusion of any binding agreements that would somehow restrict the freedom of U.S. actions in the field of security and defense. Therefore, most probably, the very discussion of such guarantees to Russia will be carried out strictly within the RNC.

In September 2011, US Deputy Secretary of Defense Alexander Vershbow during a visit to Moscow presented new proposals for cooperation in the field of missile defense. The U.S. side proposed the establishment of two autonomous missile defense systems, which could interact with each other through two structures. Firstly, on the basis of a center to exchange data from Russian and NATO radars and sensors, including ground- and space-based. Secondly, on the basis of another center, tasked to carry out joint planning and coordination of missile defense operation. According to American proposals the centers will be manned by

[7] See: News conference by Dmitry Rogozin and Nikolai Bordyuzha, April, 18, 2011 г., Brussels / http://natomission.ru/cooperation/current/show/205/; Statement by Dmitry Rogozin at the conference of the East-West Institute on missile defense. March 30, 2011, Brussels. (In Russain) / http://natomission.ru/security/article/security/artpublication/107/

[8] Russia and NATO: so much to gain. Speech by NATO Secretary General Anders Fogh Rasmussen at the Kuznetsov Naval Academy in St. Petersburg. 05 Jul. 2011 / http://www.nato.int/cps/en/natolive/opinions_76061.htm (In Russian).

joint Russian-American military crews, who would draw up joint plans for action under different scenarios of a missile attack on Russia or NATO countries.[9]

These new proposals by Washington add clarity to the forms in which the United States might be prepared to cooperate. However, questions about the prospects and ways of Russia's cooperation with the US/NATO in the field of missile defense, as well as NATO's possible guarantees to Russia remain open. They are to feature high on the agenda of the RNC in Chicago in the spring 2012.

[9] We Can Couple NATO's Missile Defense with Russia's. An interview with Pentagon Deputy Chief Alexander Vershbow // Gazeta.Ru 11.09.2011 / (In Russian) http://www.gazeta.ru/politics/2011/09/10_a_3762461.shtml

2. U.S. Approaches to Building the European Segment of the Missile Defense System

After the Obama Administration in 2009 announced that it would not follow the previous leadership's plan for deploying a third site of the strategic missile defense system in Europe, the intention to cooperate in missile defense matters with Russia has become Washington's official policy. It was decided to proceed with Russian-American consultations on missile threat assessment, the development systems of multilateral notification of missile launches, including a Joint Data Exchange Center.[10] Despite the fact that the main dialogue on missile defense began to develop on the bilateral level, NATO was plugged into this process.

After the decision to abandon plans for deploying the US strategic missile defense, including the advanced architectural elements of the third site in Europe, NATO has turned out to be a more active participant in the discussions of possible architectures and principles of a system Washington plans to create. At a time when the focus of attention was on the non-strategic missile defense, the question was raised of NATO countries taking affordable part in this project, and not just hosting the American system in Europe and mechanically complementing it with the missile defense capabilities in NATO's theaters of military operations. True, of all the European members of the Alliance there is only one having real, albeit limited, experience, ideas and products in the field of non-strategic missile defense - France. And it is Washington, of course, that authored the idea of involving the Alliance in discussions with Russia to discuss possible models of missile defense cooperation.

By engaging the European allies more actively in the discussion and establishment of a missile defense system in Europe, the Obama Administration pursues three interrelated objectives:

Firstly, the establishment of a missile defense in Europe under the auspices of NATO, even though a US-led one, can make the European powers bear at least a part of the costs and political risks related with this project.[11] In the context of the financial and economic crisis and the pressures that are being exerted on the U.S. president by the Republican opposition in the run-up to elections such actions are more than reasonable.

Secondly, the formation of a US-led collective missile defense system under the auspices of NATO may be one of the long-term ways of maintaining transatlantic unity and demonstrating that Washington cares for its European allies and their security. NATO's involvement in the discussion and creation of missile defense is becoming a politico-psychological tool, and in the longer perspective, a motivational tool as well, for the European countries and their elites to become more involved in the creation of its architecture. Just as it was the case with Japan, the U.S. can attract major companies of the European member-countries of NATO into the creation of the individual missile defense components. European

[10] Joint statement by the President of the Russian Federation D. A. Medvedev and the President of the United States B. Obama on Missile Defense Issues. July 6, 2009 г. / http://news.kremlin.ru/ref_notes/35

[11] NATO leadership even mentioned a specific, albeit unrealistic, sum of one billion dollars the allies would have to pay for a common missile defense system. Rasmussen A.F. NATO Needs a Missile Defense // International Herald Tribune. 2010. October, 12

companies will have access to orders, as well as to certain technologies, except those Washington considers sensitive even in cooperation with the allies. In addition, the solution of problems in the area of missile defense on a daily basis will intensify the political, military and institutional cooperation within the Alliance, which meets the aspirations of both Washington and Brussels to maintain allied solidarity.

Third, an invitation to Russia to participate in missile defense cooperation and the transfer of that cooperation under the control of the alliance will allow Washington to ensure that cooperation within the RNC acquire new practical content and to create some guarantees there will be fewer risks of a confrontation in the future, no matter what trends bilateral relations may follow in the future. This interaction, along with some other areas where the dialogue between Russia and NATO keeps developing, too (maritime security and the fight against piracy, the situation in Afghanistan, international terrorism, and some others), will allow Washington and Brussels to create an institutional framework for Russia's gradual limited involvement in stable cooperation in the sphere of military security.[12] For part of the US political and military elite this goal looks sensible in the long term not so much in terms of Euro-Atlantic security, as from the standpoint of security in the Pacific. In this respect, Russia should be especially cautious. Cooperation in strategic level missile defense can be negatively perceived by China and cause serious problems in Russian-Chinese relations.[13]

The United States' new adaptive phased approach to the creation of missile defense systems received the allies' official support at the NATO summit in Lisbon in November 2010. At the same time, at the RNC meeting, which was attended by Russian President Dmitry Medvedev, an agreement was reached on the development of missile defense cooperation between Russia and the Alliance. This intention was stated in the final documents of the RNC and NATO summits. [14] However, despite the declaration of willingness to cooperate in missile defense matters between Russia and the US/NATO and the ongoing multilateral dialogue by experts and politicians there remain significant disagreements on several key issues concerning the architecture, principles and pace of creating this system.

The United States is interested primarily in the deployment of its own system in Europe, albeit under the auspices of NATO, and with the possible involvement of the Russian system as essentially autonomous, but linked to NATO's one. The European members of NATO, especially the East European members of the Alliance, have expressed the fears that, if implemented, the "sectoral approach," proposed by Russia, and the creation of a joint missile defense might hypothetically produce a situation where their sovereignty in the military sphere would be limited by a non-NATO state. The East European and Baltic countries of NATO are concerned about what they see as a risk of the violation of NATO's security

[12] Press Conference by NATO Secretary General Anders Fogh Rasmussen following the informal meeting of the NRC at the level of Foreign Ministers in New York. September, 22. 2010. (http://www.nato.int/cps/en/natolive/opinions_66436.htm)

[13] Leading Russian military experts have pointed to this circumstance. See: V.I. Yesin Will the EuroMD Project Materialize? // Military-Industrial Courier. January 19, 2011. №2. (In Russian).

[14] NATO – Russia Council Joint Statement. at the meeting of the NATO-Russia Council held in Lisbon on 20 November 2010. / http://www.nato.int/cps/en/natolive/news_68871.htm;

Lisbon Summit Declaration. Issued by the Heads of State and Government participating in the meeting of the North Atlantic Council in Lisbon. 20 November 2010. / http://www.nato.int/cps/en/natolive/official_texts_68828.htm

principles, under which no members of the alliance can delegate the authority to ensure their security to outside actors. The disagreements as they are (and Washington could not but foresee them) the most likely option would be to create separate missile defense systems, which would interact through the exchange of data obtained from satellites, radars and sensors.[15] Creating a unified system to intercept ballistic missiles in this situation cannot be considered. Russian specialists are extremely skeptical about the effectiveness of such a model missile defense.

In addition, between Moscow and Washington/Brussels, and partly within the Alliance itself, there is no accord as to the nature of missile threats and the pace of their growth. Russia's estimates of the emergence of possible threats in the South and South-East are substantially different from those of the United States and NATO, which our specialists consider excessive. The Russian side has reasonable doubts as to how justified are the fears of the U.S. and NATO about the emergence of missile threats to Europe from the countries that they consider as their probable sources.[16] This is especially true of the Eastern and Northern Europe, of countries that in the future are to host a number of elements of the US/ NATO missile defense.

The multilateral dialogue on missile defense issues continues actively at the level of experts and officials among U.S., Russia and NATO. However, its effectiveness remains questionable. This is largely due to the very complicated structure of the negotiation process. Washington, acting alternately on a bilateral level and through a multilateral dialogue, has a wide range of opportunities for maneuvering. The above-mentioned example of guarantees Russia insists on is very indicative.

The U.S. position with respect to the shape and pace of missile defense deployment, the nature of cooperation with NATO in this area, as well as scenarios of cooperation with Russia on these issues, is influenced by the United States' current domestic political considerations. The very possibility of cooperation with Russia on missile defense causes a negative reaction from many Republicans and some of the Democrats in Congress, as well as at the level of experts. Some interest groups are opposed to the "resetting" of relations with Russia, let alone its extension to the military sphere and such sensitive programs as the establishment of a missile defense. Next to them there are those who believe that the U.S. missile defense should be global, independent (of the allies, too), and capable of counteracting any missile threats, including strategic ones. These politicians and experts are closely connected with the interests of the Pentagon and the companies working on military contracts and interested in inflating the missile defense budget programs. Other interest groups, by contrast, see the missile defense project as groundless waste of public money and want it to be slashed. However, both are interested in using this problem to put pressures on Obama.

Against the backdrop of U.S. unpreparedness for an open dialogue on missile defense NATO's role naturally continues to be secondary, and discord within the alliance on the

[15] NATO: Defending against Ballistic Missile Attack. 15 Jun. 2011. Speech by NATO Secretary General Anders Fogh Rasmussen at the Royal United Services Institute in London. / http://www.nato.int/cps/en/natolive/opinions_75473.htm; Secretary General in London: Missile Defense - A Critical Capability. 15 Jun. 2011. / http://www.nato.int/cps/en/natolive/news_75564

[16] An interview with Russia's Deputy Defense Minister Anatoly Antonov: The West Should not Just Hear Us, but Listen To // Independent Military Review July 22, 2011.

establishment of the system and on possible forms of cooperation with Russia by no means contribute to clarifying the prospects for cooperation. Additional constraints on the implementation of such interaction with the Alliance may be imposed by the financial and economic problems remaining in the United States and many European members of NATO (and the EU as a whole). In all likelihood, greater clarity on missile defense problems may appear only on the eve of the NATO summit in Chicago.

According to the modern concept of the American leadership, the main purpose of the missile defense system being created is the gradual formation of a stable and reliable defense of the territory of the USA and its allies in Europe and the Asia-Pacific region from ballistic missiles of all classes, including strategic in the long term. However, the achievement of capabilities to intercept strategic missiles is postponed until the third and fourth stages of the Phased Adaptive Approach and linked with the missile threat trends. The deployment of a mobile component of the global system was defined as a priority area. The strategic modification of the Standard-3 sea- and land-based interceptor missiles is expected to enter duty after 2015. In the meantime, research and development continues to perfect the strategic interceptors launched from silos.

The Pentagon has set the task to have two missile defense sites armed with ground-based interceptors in the continental part of the United States (Fort Greely, Alaska, and Vandenberg Air Force Base, Calif.). It is also expected to create two bases in the European area to accommodate the anti-missile systems armed with Standard-3 interceptor missiles - one in Romania, and the other - in Poland. The possibility is being studied of creating such bases in the Persian Gulf, Turkey and the Far East. The plans for deploying the naval missile defense components by 2018 provided for the permanent presence of up to three ships in the Mediterranean and North seas. Additional missile defense ships can be deployed in the Mediterranean, Black and Baltic seas. In the Pacific region there will be based up to 20 missile defense ships, some of which may be commissioned to patrol the Persian Gulf.

In all, by 2018 the backbone of the US missile defense group may have 30 operational ground-based interceptors and hundreds of sea and land-based Standard 3 interceptor missiles. The global information and intelligence network of the U.S. missile defense by 2018 may include the advanced satellite constellation PTSS (Precision Tracking Space System) and dozens of radars, both sea and land-based. U.S. facilities in the continental part of the country and abroad, including those of the European bases of strategic missile interceptors, are to be defended from shorter-range and medium range ballistic missiles with anti-aircraft missiles Patriot PAC-3 and mobile antimissile systems THAAD.*

In accordance with the decision of NATO's 2010 Lisbon summit on developing a missile defense in Europe, the leadership of the Alliance began to work out a concept of its formation. The main declared purpose of NATO's missile defense is the protection of all NATO countries, including their territory, population and armed forces from missile threats. Earlier, starting from 2005, the issues of NATO member-states' missile defense were studied within the framework of the Active Layered Theatre Ballistic Missile Defense Program - ALTBMD. It envisaged the unification of the existing combat control and communication systems of the Alliance's Air Force and Air Defense, as well as the firepower of NATO member countries'

* See Addendum № 2.

air defense means in order to protect the most important facilities and troops against ballistic missiles with a range of 3,000 km.[17] At present, NATO leaders have adopted the United States' Phased Adaptive Approach as the basis of the project.

Central to the firepower component of the European segment of the U.S. missile defense will be ship and land-based missile complexes with Standard-3 interceptor missiles of various modifications, varying in the maximum range and altitude of interception, and ground-based antimissile systems THAAD and air defense systems Patriot PAC-3.

The first phase envisages the deployment on a rotational basis of three U.S. Navy's warships, equipped with the multifunction weapons control system Aegis and interceptor missiles Standard-3 (1A) in the North Sea and the Mediterranean, as well as air defense missiles Patriot PAC-3 in European countries. In addition, for information and intelligence support there will be deployed forward-based transportable stations and ship-based stations.

In the second phase (until 2015) the missile defense group of US/NATO in Europe will be reinforced with anti-missile complexes Standard 3 (modification 1A) - ground-based in Romania and sea-based in the Mediterranean and North Seas, as well as mobile missile complexes THAAD. For information and intelligence support it is planned to use land-based versions of ship-born missile defense stations.

The third phase of creating the US/NATO missile defense (by 2018) provides for the deployment in Romania and Poland of missile defense systems Standard-3 (naval and ground-based versions of 2A modification), both having a limited ability to intercept ballistic missiles of an intercontinental range, as well as low-orbit spacecraft.

In phase four (by 2020) all land and ship-born missile defense complexes are to undergo upgrading and be equipped with interceptor missiles Standard 3 modification 2B. It is assumed that these missiles will be capable of intercepting ICBMs and SLBMs.

Antimissile systems being developed in other NATO countries are regarded as national contributions to the force to be placed under NATO's Allied Command Operations. In addition, radars of the anti-missile and air defense systems and radar and air defense posts of the alliance's member-states are to be used as an information and intelligence component of NATO's missile defense.

About the role and degree of Russia's participation in the possible establishment of a missile defense in Europe U.S. and NATO officials have been stating clearly that these processes will be run in parallel and independently of each other (on the one hand, within the RNC, and on the other, within the Alliance). Both Washington and Brussels are referring to cooperation/interaction, and not creation of a single/common missile defense system of Russia and the US/NATO in Europe.

[17] ALTBMD Programme. / http://www.tmd.nato.int/threat.html.

3. Russia's Stance on Cooperation with U.S./NATO in Antiballistic Missile Defense

Discussions between the official representatives of Russia and the U.S./NATO on the prospective architecture of MD in Europe have failed to bring about results to date, since the sides remain at odds over the topicality of and possible dynamics in the development of missile threats, as well as the distribution of the zones of responsibility for defense against possible missile attacks.

The proposal that Russia put forward in 2010 boiled down to the setting up of a joint antiballistic missile system defense along the perimeter of the Euro-Atlantic region. It would intercept the ballistic missiles launched from beyond the regional boundaries. Simultaneously, it envisioned the delimitation of the European part of Eurasia, which might be the target of a potential missile attack, into sectors, the antiballistic missile defense of which would be subject to joint decisions by Russia and NATO member-states. The Americans insist on giving priority to their own MD system, which should eventually get a potential for intercepting strategic missiles, too, so long as its technological capabilities continue growing and its architecture keeps developing. The U.S. rejects any possible division into zones of responsibility. The leaderships of NATO's European member-nations voice disagreement with Russia's sectoral approach at the official and expert levels.

Russian official representatives are worried by the possible impact that the U.S./NATO missile defenses may exert on Russia's nuclear deterrence forces, since that impact might undermine the foundations of strategic stability. Moscow finds especially troublesome the fourth, and partly the third, phase of the American project of setting up the European segment of the global antiballistic missile system. Russia takes account of the prospective capabilities of the U.S. interceptor missiles and the envisioned areas of their deployment. The U.S. counter-arguments mostly revolve around the claim that phase four interceptors do not exist yet and it is not known whether or not they will come into being by 2020. What is more, the implementation of phases four and three may be revised if the Iranian missile threat disappears. But practical efforts to create the European segment of the U.S. global MD system are progressing strictly in line with the U.S. plans, and hence the Russian leadership should take decisions already now on whether or not it should draft the so-called asymmetric decisions.

NATO's leaders realize by all means that Russia has a capability for an anti-missile bailout of its own territory and the territories of NATO member-states and they have spoken out fervently against Moscow's sectoral approach to cooperation. As a pretext for the objections, NATO experts and politicians point to the ostensible discrepancy between this proposal and Article 5 of the Washington Treaty that does not envision (and does not prohibit either – *editor's note*) the delegating of powers to ensure security of any member-nation to a third party that does not have NATO's membership. This argument is infallible from the formal angle of view if one continues thinking in terms of nuclear standoff and ignores the definite revolutionary elements in Russia's proposals.

As we said earlier, Russia's sectoral approach causes an especially strong revulsion among NATO's East-European countries that voice apprehensions over possible restrictions of their sovereignty on the part of Russia. The North-Atlantic pact's leadership is going on their leash, as it reduces cooperation with Russia in the field of missile defenses to the proposition that each side should build a system of its own but these systems should interact through an exchange of various data[18]. NATO officials think these exchanges can raise the efficiency of the MD compared with the situation where each side should resolve this task independently.

The fundamental differences between the sides as regards the equitable engagement in the construction of Euro MD also affect the efforts to work out the forms of cooperation. Russia insists on its full-scale engagement in both determining the building-up of the MD systems and its architecture. In contrast, the U.S. and NATO in general are prepared only for a metered-out cooperation with Moscow in setting up a missiles defense shield for Europe.

At the same time, is it little wonder that the sides did not manage to reach mutual understanding on the principles of cooperation in missiles defenses either in 2010 or in 2011, given the gap between their approaches. In 2011, Brussels drafted a document titled 'The Political Principles of Cooperation on Euro BMD' and submitted it for consideration to the Russia-NATO Council at the ambassadorial level. Moscow submitted a reciprocal document and circulated it among the participants in the Council's session. The contents of either document were not published but it is known well enough that Russia remained dissatisfied with NATO's document and NATO, in its turn, with the Russian one. Dmitry Rogozin, the Russian ambassador to NATO who simultaneously is the Russian President's special envoy for the issues of missile defense said: "We've bumped into the layout of European MD architecture." One can assume with a high degree of probability that the ideology of separate construction of the ballistic missile defense systems by Russia and a certain percentage of their interaction in obstructing the common missile threats in Europe underlay the NATO document. The Russian proposal was most obviously hinged on the sectoral principle of building a joint European MD system bolstered by a sharing of responsibility for the shielding of one or another approach route having a high risk of a missile strike[19].

Moscow has not made any formal renouncing of the sectoral principle for building the missile defense system that President Dmitry Medvedev proposed at the Lisbon summit of the Russian-NATO Council. All of its versions envision the deployment of NATO's tracking and interception instruments in the immediate vicinity of Russia's western borders. Moscow will be prepared to assume responsibility for the areas exposed to missile attacks, on which the sides reach consent, and to entrust the defense of other areas to NATO. In case of the setting up of two separate missile defense systems, the zone of responsibility of the NATO system will cover a part of Russia's sovereign territory. This, in turn, may mean that the Russian intercontinental ballistic missiles deployed to the West of the Urals may get under a watchful eye in the future if the U.S./NATO gets down to implementing the final phases of its 'phased adaptive approach'. If the creation of that watchful eye is one of the objectives of the U.S./NATO ballistic missile defense program in Europe (albeit not the main one), it is quite obvious then that the Russian leadership cannot afford taking part in a project of this kind without substantial guarantees.

The guarantees of the non-targeting of missiles that Russia demands should, in the firm conviction of the country's political and military leadership, have a precisely specified character in terms of defense technologies. More exactly, this means non-deployment of the tracking and interception instruments in certain areas, restrictions on the speed and effective range of the interceptors, and limitation of the number of interceptors in definite areas. These guarantees should be featured in an international treaty. Beyond any doubt, one should realize clearly that Russia is entitled to getting them from NATO member-states and first and foremost, from the U.S., not from the North-Atlantic alliance as an organization that cannot sign international treaties. This demand stems primarily from the fact that 90% of the whole antiballistic missile resource to be found in Europe at the moment and to be built up in the future consists of the U.S. tracking and interception technologies.

In this context, Moscow's suggestion that Russia and the U.S. should sign a legally binding agreement on the reciprocal non-targeting of the national MD systems at each other looks logical and justified. Russian Deputy Foreign Minister Sergei A. Ryabkov, who co-chairs the Russian-U.S. workgroup for arms control and international security (in the framework of Presidential Commission set up by Dmitry Medvedev and Barack Obama in 2009), believes this might help facilitate the attaining of appropriate agreements in the format of the Russia-NATO Council[20]. However, Washington did not support this proposal, largely out of internal political considerations.

With elections on the threshold, the White House is unprepared to sign any legally binding agreement on MD with Russia, as it would inevitably add fuel to the standoff in the American political elite. It might be highly disadvantageous for the Obama Administration and might undermine Obama's electoral ratings. Dmitry Medvedev had to admit at a news conference at Deauville, France, upon the end of talks with Barack Obama that "decisions on the future of the ballistic missile defense system will be taken by future politicians". He added, though, that Obama and he could lay the foundations for it already now[21].

These positions predestined to a big enough degree the extremely modest results of the Russia-NATO Council session at the level of Defense Ministers in June 2011. The participants in it failed to attain the desired objective, as they did not manage to agree on the framework terms for cooperation on the European MD. Nonetheless, the Russian Foreign Ministry said in a statement quite prudently that the June 2011 conference of the defense ministers did not mark an end of the process. It rather marked an interim result or phase in the course of negotiations. The Russian side spoke up in favor of a continued search for mutually acceptable decisions on the European ballistic missile defenses, and the NATO officials called for it, too. Foreign Minister Sergei Lavrov formulated the following priorities in the field of further cooperation with the U.S./NATO in missile defenses. "We're confident it is important to settle the problem and to do it in a way that would remove it from the top of the bilateral agenda and would eliminate it as a factor of disunity, simultaneously transforming it into a force of unification[22]."

However, the stance taken by Russia does not mean a rapid elimination of controversies and especially the ones that, as we showed earlier, have a fundamental character. In spite of the encouraging expectations connected with the Russia-NATO Council conference in Chicago in

2012, the attaining of concord on the principles of cooperation may be impeded amid the election campaigns continuing at full tilt.

Along with it, the progress of official discussions on setting up a compatible architecture of the antiballistic missile defense systems may feel the impact of not only subjective positions but objective factors, too.

4. Possible Missile Threats and the Dangers of U.S./NATO Antiballistic Missile Defenses for Russia's Strategic Nuclear Forces

Assertions about the absence of missile threats coming the South are fair exactly in the same measure, in which the efficacious antiballistic missile systems for the defense of Russia and the European countries do not exist today. It would be a gross strategic miscalculation to start designing these systems after the emergence of a real missile threat. On the other hand, the efficaciousness of the system from the angle of view of a possible tracking and interception of missiles of third countries would be considerably lower if the U.S./NATO decided to build it without Russia's involvement in it.

Generally speaking, the suggestions that the countries like North Korea and Iran may possess only the limited-range missiles based on the old Soviet technologies of the Scud type are profoundly erroneous. One should recall the medium-range missiles R-12 and R-14 with nuclear warheads that the USSR developed back at the end of the 1950's. They could cover the distances of up to 2,000 km and even 4,500 km. There is no data at present on the testing of liquid-fuelled missile engines comparable in output with the engines of these two missiles, and yet it would be a dangerous mistake to believe that such technologies are still inaccessible for other countries.

Iran's Sejil-2 mobile two-stage solid-fuel ballistic missiles have the range of 2,200 km to 2,400 km at payloads of up to 750 kg. A successful flight testing of these missiles, which became a tangible achievement of Iranian weaponry designers in the field of big-size solid-fuel engines, caught many experts by surprise. Estimates showed that should the Iranians consistently improve the materials used in the bodies of engine units and missiles as such the effective range of the latter would increase to 3,500 km. This means that the time Iran will need for the manufacturing of extended-range ballistic missiles may be quite comparable with the time of scheduled deployment of the U.S./NATO's European missile defenses. Nonetheless, this circumstance cannot justify the rates at which the U.S./NATO is implementing the third and fourth phases of the Phased Adaptive Approach.

Deputy Secretary of Russia's Security Council, Vladimir P. Nazarov, and the U.S. Assistant Secretary of State for International Security and Nonproliferation, Vann Van Diepen, released a joint report on the assessment of threats in the 21st century at the end of May, 2011. Although the text of the report has not been officially published yet (quite possibly, it remains confidential so far), the very fact that a document of this type has appeared is beyond any doubt an encouraging event. It proves that the sides share the assessments of missile threats, to rebuff which the European MD system has been conceived.

The issue of a possible threat that the missile defense system, which the U.S./NATO is creating in Europe, poses to Russia's Strategic Nuclear Forces requires scrutiny precisely in connection with the emergence of missile threats in third countries, as well as the rates of its increase and the scale it is acquiring.

U.S. SM-3 (Standard) missiles of four modifications, the Theatre High-Altitude Aerial Defense (THAAD) complexes, the X-band (3 cm) radars, and the strategic Ground-Based Interceptors (GBI) that are to be deployed in Europe along with the nuclear strike early warning radars will be elements of a unified U.S. and other NATO countries' system of antiballistic missile defense. As we said earlier, taken in this combination they are viewed by

Russian officials as a threat to this country's nuclear containment potential. The degree, to which the threat is real, can be figured out from the assessments of capabilities of the U.S. MD system in Europe to intercept Iranian missiles. The X-band radars can track not only warheads but also some deception targets at the exoatmospheric part of the trajectory but it does not guarantee an opportunity of distinguishing between the two. Along with this, even simple enough measures of counteraction, which the Iranian missile experts may have access to, can reduce the effective cross-section of a warhead from 0.03 cm^2 to 0.01 cm^2, thus slashing considerably the distance of their identification. The increase of modules of the radar to 80,000 units will provide for a target acquisition range of about 1,300 km at the very best, while the required minimum range is about 2,000 km, and the interception of one Iranian warhead will need five antiballistic missiles on the average.

There are slightly any doubt that the Russian IBMs and submarine-launched ballistic missiles have much more efficient complexes for penetrating the enemy missile defenses. Their designing spanned several decades and the process of their modification or adaptation to the emerging antiballistic missile systems continues. The GBI strategic missiles, which the George W. Bush Administration hoped to deploy in Poland, could theoretically intercept the warheads of the IMBs launched from the European part of Russia and flying westwards towards targets in the U.S., but the interception of only one Russian warhead would require all the ten GBIs, and this makes even the hypothetical use of the missiles in such situations absolutely irrational.

This is why the new architecture of antiballistic missile defenses in Europe can exert only a limited impact on Russia's nuclear containment arsenals and this postulation applies to all the phases of the U.S. MD system in Europe that are stipulated in the Phased Adaptive Approach. Its third phase envisions the deployment of SM-3 (modification 2A) revamped interceptor in Northern Europe and its ground-based version, which will have a still higher efficiency in incapacitating the medium-range ballistic missiles. To help resolve these tasks, an extended-range SM-3 antiballistic missile is being developed. American experts hope to prolong the range through an increase of the mass of solid fuel (the diameter of the second and third stage of the missiles will increase to 53.3 cm from 34.3 cm). Last but not least, one more modernization of the SM-3 interceptor (modification 2B) is presupposed to take place in the course of the fourth phase. It will get a capability to kill off ballistic missiles of the intercontinental range. On the face of it, a modernization of the combat control and homing technologies is due to take place during each of the four phases. The result will manifest itself in the improved velocity of the antiballistic missiles. It is expected that if the SM-3 are deployed on the ships equipped with the Aegis combat system in the Mediterranean, they will be able to hit the Iranian intercontinental ballistic missiles, too (should Iran get them), in the active trajectory leg.

A hypothetical scenario has cropped up recently suggesting that all the sea-based and ground-based MD complexes can be redeployed to the U.S. if need be and form a tight antiballistic missile fence protecting the U.S. territory against Russia's nuclear retaliation strike. This option does not hold water for many reasons. One of them is the dragged-out character of redeployment of the MD systems. Actions of this kind are impossible to conceal, and the actual purpose may be the preparations for a disarming strike on the part of the U.S., which in

turn would trigger a forced preventive strike by Russia's Strategic Nuclear Forces. And who actually needs such a disastrous scenario?

One more concern for Russia is the deployment of U.S. naval ships involved in missile defense in the northern seas, and this concern has far more grounds. The SM-3 antiballistic missiles may theoretically be capable of intercepting the Russian submarine-based missiles, especially the liquid-fuelled ones that are launched from offshore water areas or form permanent bases and are hit in the active trajectory let. Their striking capacity may increase along with the increase of their speed parameters. The U.S. space-based systems of early warning inescapably identify missiles in the active trajectory leg in some 50 seconds after the launch. Practically as of the same moment, the low-orbit Space Tracking and Surveillance System (STSS) will do a high-precision definition of parameters of the submarine-based missile parameters and work out targeting assignments for the antiballistic missiles. These assignments will be transmitted to the homing radars placed on the ships fitted out with the Aegis system. This means that liquid-fuelled submarine-based missiles, which will start off from aboard the submarines in the offshore water areas, may theoretically be intercepted in the second leg of their voyage upon covering a distance of some 300 km from the launching point while being at the altitudes of 250 km to 500 km – something that is not problematic to attain for either the existing or prospective missiles in the SM-3 family.

New design solutions used in the solid-fuel submarine-based Bulava missile have reduced the duration and altitude of the powered flight compared with the liquid-fuelled missiles. The possibilities for intercepting the Bulavas in the active trajectory leg are not considered here due to the absence of the necessary data in the open information sources.

Some U.S. representatives claim that the SM-3 missiles are not meant for intercepting the ballistic missiles in the powered trajectory leg and can only kill off the separated warheads. They say this is linked to the specificity of the antiballistic missiles homing units' sensors and to the fact that the warheads travel along the ballistic trajectory, which makes the forecasting of their coordinates an easy job to do. They also claim it is far more difficult to detect the coordinates if the target is a missile moving with a considerable acceleration. However, expert assessments suggest that the correction of sensitivity of the sensors at a ballistic missile in the powered trajectory leg does not pose any technological problems. Nor does the forecasting of the missile trajectory pose them. This is all the more so that the powered-flight trajectories of Russian missiles have been studied perfectly well in the process of exchange of the telemetric data and the instruments for decoding them under provisions of the START-1 treaty. If the Americans have mastered interception along the 'bullet hitting a bullet' formula, then they will scarcely have any problems transforming it into the 'bullet hitting an elephant'.

In addition, works and tests are getting to a completion in the U.S. over an aircraft system operating laser weapons and capable of hitting the missiles of all types in the active trajectory leg. In spite of a chain of faulty tests, including the most recent ones, there is no data to suggest that the program will be frozen for any durable period of time. (As for now, it has been returned to the R&D status from the development and engineering efforts phase.) Laser weapons will be installed on the B-747 jets barraging at the altitudes of about 10 km. The

laser to be used is of the chemical type with a continuous radiation mode. Its aperture has a diameter of 1.5 m to 2.0 m. Reports speak of the maximum range of up to 800 kilometers. The laser is supposed to have an ability to hit missiles in the active trajectory leg within a 60-second bracket, but the actual duration of impact on the target will vary one to five seconds. The latter will incapacitate the missile, as its hull will be experiencing a strong thermal and power loading. The scheme concerns liquid-fuelled missiles, in the first place, as they have a longer active trajectory leg than the solid-fuel missiles and their hulls have a smaller endurance. The aircraft carrying laser guns may be redeployed to the areas located relatively close to the enemy's missile bases. This pattern implies the deployment and the upkeep of permanent combat readiness of several attack aircraft, refueling planes and patrol aircraft. It is hardly possible to use these aviation instruments for intercepting the ballistic missiles that are assigned to the bases deep inside the enemy territory and protected by efficient air defenses. Yet the barraging in the areas of deployment and cruising of Russian missile-carrying submarines puts at risk the missiles to be launched from them.

One could hear a big enough number of skeptical remarks about this MD system in the U.S. of late. Its deployment and maintenance in combat readiness requires an oversize spending. This is especially true of the incumbent Administration and the current budget deficit, and yet many believe that the Administrations come and go and budget deficits are remediable. However, an amassed deployment of the ships supporting the antiballistic missile defense system and the auxiliary ships in the vicinity of bases and patrol areas of Russian missile-carrying submarines, or a concentration of aircraft with air guns and patrol planes, is tantamount to a scenario envisioning a relocation of mobile MD systems from Europe to defend the U.S. territory. The scenario is prone with touching off a preventive strike by Russian nuclear deterrence forces. Also, the ground-based intercontinental ballistic missiles are still in the play and they can deliver a crushing retaliatory strike.

A real danger for Russia might take an outline only in case of an amassed buildup of ground, sea-based, aircraft-based and outer space lines of interception of ballistic missiles and warheads in all the legs of the trajectory as commanded by the Star Wars program or something similar to it. This would be fraught with a return to the Soviet-American nuclear contention and a new arms race. But the possibility of a chilling of Russian-U.S. relations as radical as that is very small at the moment.

6. Russia's Potential Contribution to the MD System in Europe

Russia's proposals on equitable cooperation in the setting up of a combined MD system in Europe and the implementation of the so-called sectoral principle call for an assessment of Russia's realistic potential this cooperation would involve.

Russia has the A-135 MD system that was designed for the defense of the Moscow region. The last version of the system that was commissioned in 1995 retains a definite potential for future modernizations. But high-altitude antimissile missiles 51T6 have been removed from the operational status, while the military and political situation has long made the combat employment of the remaining close-range interceptors 53T6 with nuclear warheads inconsistent with the concepts of inadmissibility of multiple nuclear blasts over one's own national territory in order to intercept the warheads with unknown fuses or even the ones having no fuses, if one or several missiles have been launched as a provocation. It is all the more so inadmissible to use these missiles in Europe. The U.S. Senate passed a decision back in 1975 to renounce a similar antiballistic missile system for the defense of the IBM base in Grand Forks, North Dakota, and dismantled all the antimissile missiles there.

The S-400 Triumph system of antiballistic missiles defense and antiaircraft defense has only the antiaircraft missiles today and there is no data on whether or not any successful tests of the antimissile for intercepting the real ballistic targets have been held. It is impossible yet to compare the prospective Russian MD/antiaircraft complex S-500 and the U.S. antiballistic missile complex THAAD, the currently operational sea-based and future ground-based systems of the Standard type. Preliminary estimates show that the S-500 will be inferior to the THAAD by about a factor of two in terms of the altitude and range of ballistic targets interception. Still, it may catch up with, or even exceed, the THAAD parameters if it starts using external targeting assignments from the information tools having variegated sites of deployment.

Testing of the THAAD and Aegis complexes lasted ten to fifteen years and U.S. experts say their efficacy remains highly questionable. Given the presence of problems, the cycle of trial testing of the Russian antiballistic missile systems will take up no less time than the U.S. ones. Therefore there are no grounds for hoping that Russia will streamline the manufacturing of MD systems comparable to the existing U.S. analogues before the end of this decade or will deploy them.

The absence in the foreseeable future of the interception instrument that Russia might contribute to the U.S./NATO-conceived European MD system does not put up any insurmountable obstacles to genuine cooperation. Considerable opportunities remain unabated in the field of missile defense information tools. U.S. independent experts surmise that the integration of the Russian and U.S. systems of missile attack alert would raise the efficiency of tracking down of missile launches by 30% to 70%. A still more profound collaboration might take place during the deployment of the global MD close-orbit data exchange system. The space vehicles involved in it might be delivered to the orbits of a desired elevation and inclination by the heavy-duty carrier rockets Dnepr manufactured under a Russian-Ukrainian project of defense manufacturing conversion.

Contribution on the part of the space echelons of Russia's Missile Attack Alert System will scarcely be substantial in the short term due to the current problematic condition of these echelons, all the more so that the American early warning system has an expanded capability to forecast the trajectory of ballistic missiles flights, the launches of which have been spotted. But the possibility of spotting is contingent on the density of clouds in the launch areas and hence it is not 100% precise. The radars of the Russian Missile Attack Alert System and the U.S. Early Warning System are the most reliable instruments for spotting the launched missiles and computing their trajectories. U.S. specialists are well aware of the unique capabilities of the Russian system radars to identify the missile launches from the South. These radars are located in Mingacevir, Azerbaijan, and in the southern Russia town of Armavir. When Iran launches its missiles from the northern testing range southeastwards, the Mingacevir radar spots them at approximately the 110th second of flight. And if a missile is launched northwestwards, the identification occurs even earlier. None of the U.S. radars has a comparable capability.

Equally important is the fact that the unsurpassed experience in the field of software for tracking down the attacking missiles, the discrimination of warheads against the background of dummy targets and jams, and other research products can be utilized with much result in the field of missile interception instruments. Also, Russia has a well-developed chain of testing grounds with a network of radar, optronic and telemetric stations, which is non-existent in Europe.

Тексты сносок:

19 Cf.: News conference by D. Rogozin and N. Bordyuzha, April 18, 2011, Brussels. /http://natomission.ru/cooperation/current/show/205/; Dmitry Rogozin's speech at a conference of the East-West Institute on antimissile defenses, March 30, 2011, Brussels.

http://natomission.ru/security/article/security/artpublication/107/.

20 On the meeting between Russia's Deputy Foreign Minister S.A.Ryabkov and U.S. Under Secretary of State for Arms Control E. Tauscher, August 13, 2011.

http://www.mid.ru/brp_4.nsf/0/30F0183B9F162EA0C32578EB00460F9E

21 President Dmitry A. Medvedev. A news conference upon the results of the G8 summit, May 27, 2011.

/http://www.kremlin.ru/transcripts/11374

22 Transcript of Russia Foreign Minister Sergei Lavrov's Notes with NATO Secretary General A. Fogh Rasmussen upon the results of a meeting of the Russia-NATO Council members with President Dmitry Medvedev in Sochi, July 4, 2011

http://www.mid.ru/BDOMP/Brp_4.nsf/arh/834D8F10FC3851ВИС32578C30063402C

7. Organizational Specificity of Possible Cooperation in Missile Defense

Unification of the Russian and U.S. systems of early warning on missile launches might be the first step meeting Russia's demands for equitable cooperation in the conditions of a stalemate in Russian-U.S. debates on the principles and forms of cooperation in the process of configuring the European missile defense system. A united Data Exchange Center (DEC) might be set up for the purpose. Its creation was envisioned back in 1998 by a joint decision of Russian and U.S. Presidents, but it was not put into practice for a variety of reasons. As we said earlier, the two countries' Presidents reiterated this intention at a summit in Moscow in 2009. In the future, it would be reasonable to transform the DEC into a Center for Global Monitoring of and Early Warning on Missile Attacks. In should work in the real-time mode and should have offices in Moscow and Warsaw.

The unified Missile Attack Alert System and Early Warning System grounded to the global monitoring center cannot be sectoral. It will be created to make the resolution of a common task more efficient. The information from any systems that has tracked the start of a missile will be transmitted to the center that will process the entirety of data. The double processing will only build up the efficaciousness of tracking. When Russia gets the interception instruments comparable to the American ones, the principle should remain unchanged – only the antimissile missiles capable of incapacitating the targets are eligible for launching. If both Russia and the U.S. send their anti-missiles to intercept a target, this will only enhance the guarantees of interception. One should bear in mind at the same time that the combined system must be fully automated, since it is not just minutes but actually seconds that matter. It is exactly a system like this that should select the best means of interception automatically. The command and control posts will not have time to clear out whose sector is engaged.

In this connection, one should point out the special treatment of sovereignty of Russia and the U.S./NATO in the course of rebuffing a third country's missile strike that the proponents of cooperation have formed. They believe that each participating country will defend its own territory, although they admit of operational protocols that would be coordinated in advance and would allow each side to intercept the missiles crossing its territory if they were targeted at the other side's territory. These suppositions can be perceived at an early stage as the byproducts of insufficient trust between the sides and a bow to the incantations about the inviolability of the North Atlantic Treaty principles that NATO's top officials and representatives of East-European nations, in the first place, keep repeating. But their claims stand in an apparent controversy with the already existing practical collaboration in the adjacent spheres of security.

For instance, Russian and NATO fighter jets participated in a joint antiterrorist exercise codenamed 'Vigilant Skies 2011' in June 2011. It relied on two main coordination centers – in Moscow and Warsaw – and local coordination sites in Russia, Poland, Norway, and Turkey. The Polish and Russian fighters engaged in the interception of 'renegade planes' and escorted them in a common airspace without tying their actions to proverbial sovereignty. One more similar exercise brought together Russian and Turkish fighter jets.

One can also ask a question here about the role of North-Atlantic Treaty principles in the exchange of operative information among secret services in the course of antiterrorist and anti-trafficking efforts, as well as in the maintenance of hundreds of units of Russian

weaponry still on the tables of organization in the East-European armies formerly affiliated with the Warsaw Treaty Organization. One can cite a whole range of other instances. One way or another, NATO member-states assure their security not only with their own efforts and this is an irreplaceable reality in the globalizing and mutually interdependent world. References to the principles embedded in NATO 60 years ago become devoid of relevance when the case in hand is the shaping up of architecture and combat employment plans for a combined missile defense system designed to counteract the missile challenges of the 21st century. A system of this type is to function automatically and to identify the optimal decisions on intercepting the attacking missiles with the instruments most efficacious at the moment regardless of their national identity. Interference of "sovereign" command and control posts is off the agenda.

Given the knotty situation pertaining to negotiations, development and coordination of the layout of integrated information systems might make up the first step in terms of organizing cooperation. A considerable amount of research works has been effectuated in this aspect most recently by the IMEMO together with the Nuclear Threat Initiative (NTI) and the Brookings Institution. The Euro-Atlantic Security Initiative (EASI), which unites the experts from Russia, the U.S., Canada, and a number of European nations, some of them having NATO membership, is doing intensive specialized work in that sphere, too.

A document titled 'The Missile Defense: Towards a New Paradigm' that was drafted by EASI's workgroup for antiballistic missile defense consisting of nongovernmental experts from Russia, the U.S. and NATO's other member-nations spells out the fundamental characteristics, which should underlie the approach to cooperation in missile defense. Also, the document highlights the public significance of this cooperation and its contribution to promulgating the strategic goals of a new Euro-Atlantic security space. Experts on the workgroup believe in the importance of setting up the Cooperation Centers as the first step along the path of cooperation in MD. These centers would exchange real-time information and data from satellites and radars to warn about a missile attack. The experts also trust in the paramount importance of joint command post exercises in antiballistic missile defense, adding that the scale of the exercises should be expanded to the extent that would allow Europe's defense against the medium-range and intermediate (up to 4,500 km) missiles.

On the whole, the authors of the project have formed a steady enough idea about the architecture of a joint European missile defense system and the essential initial steps. Apart from the Russian and U.S. systems and instruments of missile attack alert, they find it reasonable to augment the architecture with the up-to-date and quite efficacious radars of the A-135 Russian MD system -- Dunai-3U, Dunai-3M and Don-2N, which help track down the ballistic missiles at distances of up to 6,000 km, as well as dwell the missiles and target the antimissiles at them – and the radars that the Americans hope to place in Europe. At a discussion on the problems of cooperation in missile defense that was hosted by the IMEMO, U.S. experts suggested that a new radar station based on U.S. technologies and oriented northwards and southeastwards could be built and operated together in Eastern Siberia. Russian radars do not cover these missile-risky areas properly at the moment. Yet a project like that might provoke a grave military and political concern on the part of Russia's mighty eastern neighbor, the People's Republic of China, if it lacks enough transparency. That is why it can be implemented only if the Chinese side gets full appropriate information on the

absence of any risks from the project to the Chinese nuclear deterrence forces. They should see the system is focused at monitoring the missile threats coming out of unstable regimes (North Korea, Pakistan, etc.).

Along with this, considering the difficulties of the ongoing consultation on the formats of cooperation, it would make sense to rehabilitate the Data Exchange Center project so that it would comply with the initial plan as a minimum. Proposals have been made of late to create a virtual DEC, not a physical one, something that will hopefully remove previous problems.

As for the physical DEC, Russia and the U.S. thought to appoint one governor for either country there. Also, Moscow hoped to appoint two deputy governors and Washington, one deputy. The governors would have equal rights in steering the DEC activity. The top officials would guide the routine daily operations and share the responsibility for the DEC performance. The daily operations would be effectuated by the specially trained Russian and U.S. operating staff. (Both countries would commit twelve persons each, thus forming six two-man crews.) Technical maintenance would be done by the Russian and American technical experts (four men to be assigned by Russia, two by the U.S.). The guarding and servicing would be done by the Russians (62 persons all in all).

In case of organizing a virtual DEC on the premises of the Missile Attack Alert System command and control post or the National Center for the Reduction of Nuclear Threat or on the U.S. territory, the sides will form national duty teams at designated places. They will have the task of exchanging information. The Russian duty shift will hand the authorized information on established missile launches to the American duty shift. Delays of several minutes may be admitted. The information reaching the duty shifts should not necessarily be cleared of all the false alerts, since it is much better for an MD system to accept erroneous information than to overlook real missile launches.

The list of advantages of the virtual center includes a smaller number of communication channels owing to the exemption of communications between the analysis department and the unified Center and a faster delivery of data thanks to a smaller number of links in the transition chain. As for the disadvantages, they are, first and foremost, the transmission of data via the open channels of the Internet and the hereto related need of protecting them. Next comes the need for pairing the equipment and software of the Russian and American sections of the Center. Before the virtual center comes into operation, the sides will have to do a cycle of joint research for the resolution of software and hardware tasks. Along with it, the sum of pros and cons of the virtual center, should the latter be looked at from the angle of information reliability and exclusion of havocs, a rehabilitation of the previously coordinated project of the DEC seems to be the best of all options.

An urgent resumption of a suspended series of Russia-U.S. and Russia-NATO computerized exercises on the theater-of-operations missile shield with a subsequent expansion beyond the boundaries of the theater is a crucial area of cooperation. Five computerized training sessions were held from 1996 through to 2006 in the Russia-U.S. format, alternately in Russia and the U.S. Four training sessions in the Russia-U.S.-NATO format (in Colorado, the Netherlands, Moscow, and Munich) were held from 2003 through 2008. Subsequent plans featured practical drills at Russian testing ranges with the use of S-300 and Patriot air defense

complexes. It is important now to breathe new life into this form of cooperation that was shelved in 2008.

The sides should revive the practice that helped achieve success in the straightening out of the vocabulary and notions related to the solution of MD tasks, as well as the compatibility of information systems and interception instruments. Long breaks in these exercises and analytical work lead to a loss of the accumulated experience, as specialists start leaving, contacts are lost and new technologies appear. Along with this, it certainly stands to reason to hold joint research works for a transition to full-fledged command staff exercises and a subsequent practical utilization of Russian and U.S. missile defense systems at testing ranges the way it was planned at the last exercise in the Russia-U.S./NATO format in Munich.

Projection research and experts consultations involving the specialists from Russia, the U.S. and other NATO member-states will be necessary before the implementation of steps in these two areas.

CONCLUSION

Problems and obstacles occurring in the way of building up a full-fledged cooperation between Russia and U.S./NATO in the construction of the European and global missile defense system arise, first and foremost, out of the excessive reciprocal mistrust between the sides, which stems from the survival of political, psychological and conceptual rudiments of the Cold War.

Considering these circumstances, one should take a realistic account of medium-term and long-term tendency in the military/strategic sphere. It is no use hoping to strike a deal with the U.S. on a new antiballistic missiles treaty. Predicting the Obama Administration's steps in MD, the Republicans managed to squeeze a whole chapter on inadmissibility of restrictions on the U.S. missile defense systems into a resolution on the Senate's consent to ratify the 2010 New START treaty. All the phases of the Phased Adaptive Approach were mentioned separately in this context. The document underlined the inconsistency of any further cuts in the missile defense potential with the U.S. national security interests. That is why there is little hope for any arrangements with the U.S. regarding the limitations on the technical characteristics or quantities of interceptor missiles. Still the compromise on restricting the deployment of long-range antimissile missiles, as well as the detecting and tracking radar stations in certain parts of Europe can be tapped provided the U.S. and NATO's European member-states get a genuine craving for and political willingness to develop the relations of partnership with Russia. This is all the more so that the issue concerns a limited enough number of places located in the immediate vicinity of our borders. The compromise solution could be fixed in a bilateral Russian-American statement at top state level or a declaration of the Russia-NATO Council (similar to the Rome Declaration of 2002), also at top state level.

Russia has paramount interest in getting the political and legal guarantees that the U.S. and NATO missile defense systems will not slash the efficiency of Russian nuclear deterrence forces and undermined strategic stability this way. Such guarantees are to be featured in a mutual agreement on non-targeting the U.S./NATO and Russian antimissile missile potentials

at each other. The document would lift a whole range of apprehensions and raise mutual trust to a quality new level. A common interpretation of non-targeting could be registered in the form of clear military, technological and geographic criteria making it possible to assess the impact of the sides' antiballistic missile programs on strategic stability and to confirm their limited character and the consistency of parameters of the MD systems the sides have on their tables of equipment with the stated objectives of counteraction to the missile threats coming out of third countries. An agreement on these provisions would lay the political and legal foundation for a further progress of cooperation in that sphere. Although, as we have already said, the signing of the document in 2011 and 2012 is impeded by political factors, standing out of which is the election race in the U.S., it could well be signed in the next two or three years.

Nonetheless, cooperation should be developed regardless of when this agreement could be reached. The doubts of the Russian side, which fears that a consent to take even the initial steps towards informational cooperation would furnish the U.S./NATO with a pretext for a further deployment of the MD systems in Europe without accounting for Russia's interests do not seem to have grounds, all the more so that an alternative to this unfavorable scenario – should it be implemented – is still worse than that. The U.S./NATO might then deploy the European and the global MD system without looking back at Russia at all. Russia's involvement even in the informational sphere in the foreseeable future will help coordinate and/or thwart the emergence of some undesirable elements in the European MD architecture – for instance, cut the number and size of the areas in the northern seas where NATO countries' ABM ships do the patrolling. Recall that these ships should rather stay in the immediate vicinity of the coast of or on the bases of NATO's northern states if the Alliance seeks to protect them against medium-range ballistic missiles.

When Russia starts taking a political decision on cooperation in missile defenses, it would be reasonable to consider the following factors.

Firstly, cooperation can play a decisive role in the promotion of a genuine strategic partnership of the two nuclear superpowers, Russia and the U.S., and NATO's leading European member-states. It will encompass other spheres of security, too, and will flesh out with real programs the new architecture of Euro-Atlantic security proposed by the Russian President.

Secondly, the absence of this cooperation at a time when the Barack Obama Administration implements the MD system plan in Europe in the U.S./NATO unilateral format will trigger a yet another antimissile missile crisis between Russia and the West as long as the systems included in the MD pattern accumulate a strategic potential.

Thirdly, although the official member-states of the Nuclear Club have already devised and tested the measures towards preventing the unauthorized or haphazard solitary missile launches, there are no one hundred percent guarantees that could rule them out. The risks are still bigger when it comes to the countries that have already gotten nukes or may get them in the future. Hence the defense against such incidents is quite justified.

Fourthly, historical experience shows that relations with unstable countries and radical regimes can briskly change for the worse and the nuclear potential or a currently amicable third country may turn into a real threat to Russia's national security.

Fifthly, even if Iran, Pakistan or North Korea do not turn into Russia's enemies, the nuclear and missile potential they have obtained and continue developing may start destabilizing the regional and global situation. This may cause a chain reaction of nuclear armaments proliferation (Saudi Arabia, Syria, Turkey, Egypt, Japan, South Korea, Taiwan), which will inescapably breed new missile threats for Russia as well.

There is one more very significant circumstance. The declared goal of the U.S. missile defense plan for Europe is to defend it against Iranian missiles but one should not rule out completely a possible neutralization of the Iranian nuclear missile threat with the aid of scenarios that we do not analyze herein. This consideration should not forestall the cooperation that may prove to be invariant as regards other missile threats. Also, if Russia engages in a European MD system and if the potential sources of threats disappear, a more solid political foundation will surface for the initiatives on folding up or restricting the implementation of final stages of the U.S./NATO Phased Adaptive Approach. As a full-fledged participant in the process, Russia will be able then to promulgate more efficaciously the principle of congruency of a response to the threat.

Antiballistic missile defense was a crucial sphere of strategic contentions between the USSR/Russia and the U.S. for more than four decades. In a new situation, it might transform into no less important a stimulus for the consolidation of efforts to counteract the global challenges to security provided there is enough wisdom and firm political willingness. This may have significance for the evolution of reciprocal nuclear containment, which is useless in the new system of military/political and political/economic relations, to a new model mutual nuclear security.

If cooperation in antiballistic missile defenses happens to be successful, it will help fill other spheres of security with real programs and will become a plausible political and psychological factor facilitating the translation of Russian-EU Partnership for Modernization into real life.

Should the line at cooperation in MD systems go smash and should Washington and Brussels construct the systems unilaterally, with Russia taking additional steps towards rebuffing the growth of the U.S./NATO antimissile missile potential, a new crisis of the Russia-West relationship will be imminent. It may prove acuter and more devastating than all the previous ones that occurred after the end of the Cold War and lead up to a new spiral of the arms race, which Russia is least of all prepared for at the moment, both technologically and economically. A scenario as disadvantageous as this one does not meet the national interests of either Russia or the U.S. or its NATO allies.

The absence of efficient cooperation between Russia and the U.S./NATO in the sphere of MD, to say nothing of the onset of confrontational relations in connection with it, may result in disastrous aftermaths due to the non-existence of efficacious mechanisms and principles of collaboration against missile attacks if the real missile threats spring up in the South. Hardly any of the parties to the process is interested in such developments.

Since the leaders of Russia, the U.S., and European countries have more than once expressed interest in establishing and developing full-scale cooperation in the field of MD systems, there is a hope that they will summon their political will to translate the project of the European MD with Russia's involving Russia into reality. The history of bilateral and multilateral negotiations on arms control has seen quite a few instances of the seemingly doomed ideas

become reality given the presence of will, a steady political motivation among the contracting parties, and a mutual orientation at achieving a compromise.