RUSSIAN INTERNATIONAL AFFAIRS COUNCIL

10 YEARS WITHOUT THE ABM TREATY

THE ISSUE OF MISSILE DEFENSE IN RUSSIA-US RELATIONS

SHORT VERSION OF A RESEARCH PAPER

№ 5 | 2012

Russian International Affairs Council

Moscow 2012

Russian International Affairs Council
Institute for US and Canadian Studies of the Russian Academy of Sciences

Authors:
S.M. Rogov (Team Lead), Academician, RAS, Dr. of History; **S.N. Babich**, Ph.D. in Economics; **V.I. Esin**, Ph.D. in Military Science, retired Colonel-General; **P.S. Zolotarev,** Ph.D. in Technical Science, retired Major-General; **V.S. Kuznetsov**, retired Vice-Admiral; **I.A. Petrova**; **N.V. Rogova**; **P.A. Sharikov**, Ph.D. in Political Science

Copy Editors:
I.N. Timofeev, Ph.D. in Political Science; **T.A. Makhmutov**, Ph.D. in Political Science; **O.S. Rozhdestvenskaya**; **L.V. Filippova**

Translation edited by **B.A. Osokin**

What is the real threat posed by the U.S. Missile Defense to Russia now and in the foreseeable future? What are the possibilities of reaching military and political compromise on missile defense? These issues are dealt with in this short version of the scientific paper entitled "Ten years without the ABM Treaty. The issue of missile defense in Russia-US relations" authored by experts from the Institute for US and Canadian Studies of the Russian Academy of Sciences under the research program of the Russian International Affairs Council.

Cover: Foto by AN HONORABLE GERMAN (http://www.flickr.com/photos/anhonorablegerman/)

Ten years without the ABM Treaty. The issue of missile defense in Russia-US relations – M. Spetskniga, 2012. – 32 pages. – ISBN 978-5-91891-204-1

CONTENTS

INTRODUCTION

The missile defense issue has taken center stage in world politics and in the Russia-US relations. It is constantly featured in international negotiations, in political debates, and in the media.

It is now 10 years since the administration of George W. Bush withdrew from the Anti-Ballistic Missile Treaty (ABM Treaty). From 1972 to 2002, the ABM Treaty was considered to be the cornerstone of strategic stability. In the framework of mutual nuclear deterrence (or mutually assured destruction), Moscow and Washington agreed on the destabilizing effects of missile defense in the strategic balance. In order to prevent a nuclear Armageddon, the two superpowers agreed to a substantial limitation of their strategic missile defense systems, thereby maintaining their mutual vulnerability to a nuclear missile strike. This approach permitted the two parties to maintain a strategic balance ensuring the inevitability of nuclear retaliation to a potential aggressor. This made it possible to negotiate on reducing strategic offensive arms.

Indeed, since the Cold War era, maintenance of strategic stability was associated not only with missiles and nuclear weapons, but also with missile defense. Therefore, the U.S. withdrawal in June 2002 from the indefinite ABM Treaty, which (according to the 1974 Protocol to the ABM Treaty)

limited strategic ballistic missile defense to 100 strategic interceptors and 1 deployment area, of course, had a negative impact on strategic stability.

As it is well-known, Washington was the initiator of BMD limitation, and the ABM Treaty was signed in May 1972 when the White House was occupied by the Republican Richard Nixon. However, as early as 1983, President Ronald Reagan proposed the Strategic Defense Initiative designed to protect the U.S. territory against nuclear missile strikes. However, the Star Wars program had the nature of a bluff since there were no efficient non-nuclear BMD technologies during this period. Under the Democratic President, Bill Clinton, the United States abandoned the Strategic Defense Initiative and shifted its emphasis on the development of a tactical missile defense system.

Nevertheless, from the Reagan's era, the ideological creed of the Republican Party became the idea of ensuring the U.S. invulnerability. Moreover, Republicans used the claim of a nuclear threat from North Korea and Iran as an excuse to withdraw from the ABM Treaty. In 1998, the so-called Rumsfeld Commission announced that North Korea and Iran, in the next 3 to 5 years, could create intercontinental ballistic missiles capable of reaching the U.S. territory. The Commission's conclusions were formulated in the spirit of the reports of the Cold War era – on the fake gaps of the U.S. behind the USSR on bombers and missiles.

Following this, the U.S. Congress controlled by the Republican Party passed the National Missile Defense Act, which called for missile defense deployment as soon as technologically feasible. After that, the Republicans began a propaganda campaign for the U.S. speedy withdrawal from the ABM Treaty.

The coming to power of George W. Bush and the hysterical situation in the United States after the terrorist attacks of September 11, 2001 paved

the way for breaking the ABM Treaty. In December 2001, Washington announced its withdrawal from the ABM Treaty unilaterally, which happened in June 2002.

The White House announced that in 2004, a missile defense base will be set up in Alaska. Subsequently, it was also decided to deploy a missile defense system in California.

In 2004-2007, the administration of George W. Bush deployed 24 three-stage strategic ground-based interceptor missiles (GBI) equipped with CE-I EKV (Capability Enhancement I version of the Exoatmospheric Kill Vehicle). Since 2007, interceptors have been equipped with the more advanced CE-II EKV. Under George W. Bush, the Pentagon planned deploying 44 GBI missiles. In addition, there was a plan to deploy the Third Site with 10 two-stage GBI interceptors in Poland (as well as a radar system in the Czech Republic).

In addition, a number of other strategic missile defense systems such as the kinetic energy interceptor (KEI), MKV system («smart shrapnel»), airborne chemical laser, space test bed, etc., were all designed.

In 2009, Barack Obama's administration dramatically changed the missile defense priorities, emphasizing on theater missile defense. It was decided to limit the number of GBI missiles to 30 units. At the same time, the Obama administration announced it is abandoning a number of strategic missile defense systems including KEI, MKV, the space program as well as the Third Site in Eastern Europe. The design of the missile defense system for interception of ballistic missiles in the boost phase using an airborne chemical laser fitted to an adapted Boeing 747 airliner, which was launched in 1996, was, in fact, suspended.

At the same time, the Obama administration declared the European Phased Adaptive Approach (EPAA), which provides for implementation in 4 phases until 2020. The problem arose due to the fact that the EPAA envisages the deployment of the advanced SM-3 Block 2B interceptors on the fourth phase (after 2018), which can perform «limited» interception of ICBMs. Hence, there has been concern that the U.S. may in future deploy multi-layered BMD systems.

This scenario cannot be excluded. However, it is not at all inevitable.

It is basically impossible to completely avoid the destabilizing effects of BMD on the balance of the capabilities of the strategic nuclear forces of Russia and the United States, unless there is a radical change in military and political relations between Moscow and Washington. As Vladimir Putin noted, «If we had managed to achieve a breakthrough on missile defense then this, in literal sense, would have also opened the floodgates for building a qualitatively new model of cooperation, similar to an alliance, in many other sensitive areas».[1]

[1] The Moscow News, February 27, 2012

FINDINGS

1. Washington motivated its unilateral withdrawal from the ABM Treaty by potential missile threats from third countries such as Iran and North Korea. The United States' official assessment is constantly based on the worst-case scenario when the military and technical capabilities as well as aggressive intentions of Pyongyang and Tehran are greatly exaggerated. As a result, a hypothetical danger is proclaimed as a direct and immediate threat, and on this basis, Washington makes decisions on missile defense, which cause understandable concerns in Moscow.

Unfortunately, we often hold the missile defense discussion in a rather incompetent manner, at the level of propagandistic myths and stereotypes. Moreover, alarmist assessment and repeated exaggeration of the military and technical capabilities of the U.S. missile defense system dominate the discussion. A false image of the unreliability of Russian nuclear deterrence is being created among the public. The existing and the latest Russian penetration aides against BMD systems are being completely ignored. There is an impression that Russian estimates based on the worst-case scenario of the U.S. missile defense system prevail.

2. As objective analysis of the actual situation shows, 10 years after the withdrawal from the ABM Treaty, the United States has not, and in the foreseeable future will not have, a strategic missile defense system capable

of fending off a retaliatory counter-strike, and even a retaliatory strike by Russian strategic nuclear forces.

The U.S. strategic BMD, till the end of this decade, will have a very limited capability, not exceeding the limits of the ABM Treaty by number of interceptors (100 units). The strategic missile defense system of the United States has only a ground-based intercept echelon with limited capabilities (30 GBI interceptors in two launch areas).

Pentagon is planning to buy a total of 57 GBI missiles. Fourteen of them will be used for testing and as a reserve. When necessary, additional 8 GBI missiles may be deployed in empty launch silos in Alaska. In this case, the total number of interceptors deployed will be 38 units.

The U.S. strategic interceptors have never been tested against ICBMs. Tests were conducted only for interception of medium-range missiles in a predetermined time and under a flight path known in advance. So far, there has not been any successful interception under conditions of decoy targets launching.

3. Evaluating the impact of missile defense on strategic stability without taking into account the factors related to combat command and control systems and procedures for making a decision to use nuclear weapons, is at least incorrect.

The key problems of information support for the U.S. missile defense system remain unresolved. In particular, the Pentagon's existing radars and sensors are not able to distinguish decoys from real warheads at the midcourse phase of a missile trajectory. A constellation of new satellites that will strengthen the system of missile defense combat control should be deployed by early next decade, but this does not guarantee a solution to the issues of recognizing decoy targets.

4. There is currently no space, air and sea BMD echelons capable of ICBM intercept. This greatly limits the effectiveness of the U.S. strategic missile defense system.

Under the Star Wars program proposed by Ronald Reagan in 1983, hitting a large number of targets (several thousand targets) requires the use of active weapons based on new physical principles such as radiation, electromagnetic, kinetic, and microwave principles. Over the 29 years that have elapsed since the SDI (Strategic Defense Initiative) program, the United States has not been able to create space-based anti-missile laser weapons. The problems of convergence of beam energy over large distances, targeting of high-speed maneuvering targets, etc., have not been resolved. It has not been successful in creating space-based missile interceptors known as Brilliant Pebbles (kinetic intercept).

Of course, one cannot exclude that in the event the Republican Party comes to power efforts to create space-based BMD echelon will be renewed. However, it is unlikely that technical and financial problems will be quickly resolved. The beginning of the deployment of space-based military platforms is hardly possible before the second half of the 2020s. It is most likely that a missile defense space-based echelon with many hundreds of such platforms may be created only in a few decades time, in the middle of the XXI century.

5. As for the sea-based missile defense system, the Pentagon was able to achieve some success. The Aegis combat system allows not only to provide ballistic missile defense to the U.S. Navy ships, but also to intercept short- and medium-range ballistic missiles. However, the speed of Standard Missile (SM-2 and SM-3 Block 1) interceptors does not exceed 3.5 kilometers per second, thereby making them unable to intercept ICBMs in the mid-course phase. It should be recalled that the Russia-US 1997 Protocol on the delimitation of strategic and theater missile defense

(unfortunately, it was never ratified) established a similar ceiling for theater missile defense interceptors.

This speed ability also applies to the land-based missile defense system THAAD (Theater High Altitude Air Defense), which cannot be used to intercept intercontinental ballistic missiles either.

6. The missile defense issue has escalated in recent years due to the fact that the Obama administration adopted the European Phased Adaptive Approach envisaging the deployment of the advanced SM-3 Block 2B interceptors on the fourth phase (after 2018), which can perform «limited» interception of ICBMs. At the end of this decade and the beginning of the next decade, there is a plan to begin deployment of the SM-3 Block 2B interceptor, which velocity is likely to be 5.5 kilometers per second. For now, even a preliminary design of such an anti-missile does not exist. Creation of SM-3 Block 2B, which has a liquid-fuel and solid-fuel stage, requires solving very intricate technical problems, which will not happen before 2020. If this happens, then the U.S. will have a strategic new-generation anti-missile, which cost will be 4-5 times lower than the cost of the current GBI systems.

There is a plan to deploy ground-based SM-3 Block 2B interceptors in Poland and Romania. However, as modeling shows, these anti-missiles (once they are deployed in the above-noted regions) are not capable of having a significant devaluing impact on the Russian strategic nuclear deterrence. In addition, the SM-3 Block 2B interceptors must be installed on cruisers and destroyers, although the U.S. Navy abandoned any liquid missiles 20 years ago. In this case, hundreds of anti-missiles capable of intercepting ICBMs in the midcourse phase may emerge. The deployment of missile defense naval constellations off the coast of the United States to intercept ICBMs in the terminal phase cannot be excluded either. Nevertheless, this is not possible before the middle of the 2020s.

7. It is worth mentioning that a number of widely publicized missile defense programs, which gulped huge amounts of money ended in complete failure. Let us recall the space-based laser gun, the Brilliant Pebbles, kinetic energy interceptors (KEI), chemical laser on adapted Boeing 747 airliner, etc. Tests of the SM-3 Block 2B interceptor are postponed until 2018. It is possible that this system will suffer the fate of its numerous predecessors.

8. On the whole, the existing U.S. BMD will, in the coming years, provide an effective regional protection against short- and medium-range ballistic missiles (theater missile defense). Since Russia and the United States have completely destroyed missiles of these classes in accordance with the INF (Intermediate-range Nuclear Forces) Treaty, theater missile defense systems do not pose a threat to Russia.

The current U.S. strategic BMD is capable of intercepting several primitive ICBMs if the attacker does not apply anti-ballistic missile countermeasures (maneuvers during flight, use of decoys, suppression of information systems, etc.).

9. If Iran's nuclear missile issue is resolved (Russia proposes to achieve this through diplomatic means) the excuse to implement the fourth phase of the European Phased Adaptive Approach will become invalid. The adaptive approach declared by the Obama administration provides for such an opportunity, even though for now Washington is not agreeing to consolidate such a link on paper. In the meantime, the United States and NATO have completed only the 1st phase of the EPAA. This means that there is time for Russia and the U.S. to reach an agreement on missile defense.

10. The financial and economic factor will play an important role in the coming years. The budgetary situation in the U.S. forces is to reduce or freeze government spending, which includes the defense budget.

This makes it unlikely to have a sharp increase in BMD expenditure compared to the current level. Meanwhile, deployment of strategic missile defenses will require an increase in the cost by 150-200 per cent.

Over the 29 years that have elapsed since Ronald Reagan proclaimed the Star Wars program, the Pentagon has spent more than USD 150 billion on missile defenses. In the case the U.S. public spending is sequestered in 2013, the defense budget may be reduced by 10-15% (unless a compromise is reached between the Democratic and Republican Parties). This may lead to cancellation of some missile defense programs.

11. BMD is the number one priority for the Republican Party. If the Republicans win the 2012 elections, we can expect attempts to shield the missile defense from budget cuts and even increase spending on strategic missile defense. A Republican administration, which will undoubtedly be dominated by neoconservatives, may reject arms control agreements and seek the U.S. withdrawal from the New START Treaty (as happened with the ABM Treaty in 2002). Naturally, there will not be any Russia-US agreement on missile defense in this case.

If the Democratic Party wins the election, the continuity in the approach to missile defense will be maintained. Apparently, the BMD budget will fall slightly. As before, the main focus will be on theater missile defense, while the priority of strategic missile defense will reduce. The second administration of Barack Obama is likely to continue efforts on further reductions of nuclear weapons. It is most likely that Obama will show some «flexibility» in missile defense negotiations with Russia on the basis of political agreements, without a legal nature.

12. The prospects of a U.S. layered strategic missile defense system depends on the political struggle between supporters and opponents of BMD in the American political arena, and on the solution of technical and

budgetary problems being faced by the Pentagon in the process of creating a new generation of anti-missile systems.

There are fears in Russia that the U.S. may deploy a layered strategic defense system in the future. However, in the next decade – at least before the beginning of the 2020s – the U.S. missile defense will at best be able to intercept not more than a few tens of Russian warheads.

The situation may change radically only if the United States, in a few decades time, deploys a layered BMD system (radars, sensors, and attack systems) and some thousand land- and sea-based strategic interceptors; and modernization of Russia's strategic nuclear forces and missile early warning system fails. Then Russia's retaliatory potential against an aggressor may be minimized.

The deployment of strike systems in the near space and creation of ballistic missile interceptors that are based on new physical principles will be the greatest threat to Russia's strategic nuclear forces in the longer term.

With this in mind, it appears that Moscow should not only implement those military and technical measures announced by the Russian leadership in November 2011 on asymmetric response to the U.S. missile defense deployment, but also together with other countries intensify efforts on signing a treaty banning the deployment of weapons in space. The discussion of a draft of this treaty introduced jointly by Russia and China for consideration at the Conference on Disarmament in Geneva has been stalled. Persistent political and diplomatic efforts, including at the highest level, are required in order to overcome the deadlock and reach international agreement on banning deployment of any-strike systems in space.

CONCLUSION

POSSIBLE POLITICAL COMPROMISE ON MISSILE DEFENSE

As is known, diplomacy is the art of possible. The problem is that today Russia cannot create a symmetrical threat to the U.S. missile defense. Any treaty on the control of any class of weapons is only possible if there is approximate parity in these weapons since restrictions should apply not to one but to both sides.

Unfortunately, we have to recognize that the political situation in the United States completely excludes the signing, and even more so, ratification of a new ABM Treaty. In this regard, one should not cherish any illusions. Therefore, Russia's demand for written legal guarantees that the U.S. missile defense system would never be turned against Russia's nuclear arsenal sounds at least strange. There is no chance, neither will there be any chance, of accepting this demand.

The treaty is not an end in itself. The aim is to ensure predictability in the strategic situation for a fairly long period. For example, the New START Treaty ensures stability in strategic offensive arms for a decade. Subsequently, new agreements would be required. Similarly, the predictability in strategic defensive arms is achievable approximately within the

same time period only. A strategic stability is a process and not the consolidation of the status quo once and forever. This is evidenced by the experience of four decades of arms control agreements between Moscow and Washington.

Possible approaches to missile defense agreements emerged in the Russia-US consultations in 2011-2012, although no compromise has been achieved yet. It is not just the differences between the positions of the parties, but also a strong negative impact of domestic factors – the elections in Russia and the United States. It is obvious that before the end of the election campaign in the United States serious negotiations are hardly possible. Nevertheless, preparations for them should start now.

In June 2012, Presidents Vladimir Putin and Barack Obama made a joint statement at the summit in Los Cabos: "As a priority, we intend to successfully implement the New START Treaty, and to continue our discussions on strategic stability. Despite the differences in assessments, we have agreed to continue a joint search for solutions to challenges in the field of missile defense. The pursuit of international peace and security remains a priority for the United States and Russia based on the recognition of how much we have to gain by working together to overcome the main challenges of this century."[2]

Under these circumstances, the missile defense negotiations can be designed to achieve two goals.

First: the negative consequences of deploying new missile defense systems on strategic stability in the foreseeable future must be limited and minimized.

[2] Joint Statement by Russian President Vladimir Putin and U.S. President Barack Obama (Los Cabos, June 18, 2012)

Second: identifying the main areas of possible practical cooperation between Russia and the United States/NATO on the issues with regard to defense against missile threats from third countries.

In the first case, the parties are potential adversaries. Therefore, various restrictions on the strike and information elements of BMD of both countries are required in order to maintain guaranteed mutual destruction. From this perspective, the smaller is the missile defense, the better.

In the second case, the parties do not view each other as potential adversaries. They proceed from the fact that joint or parallel actions against common threats are required in order to ensure the neutralization of the missile nuclear forces of another state. This makes the development of BMD the highest priority.

Certainly, these goals do not coincide, and in many respects, even come to a contradiction, which is not easy to resolve, since it requires reviewing some basic principles of the nuclear strategy of Russia and the United States.

Is it possible to combine these two goals?

The lack of progress in BMD discussions makes it very difficult to achieve a mutually acceptable compromise. Nevertheless, it is premature to dramatize the situation. Before the start of the next decade, the United States will not have large-scale strategic missile defenses. In the future, the Pentagon will face considerable technical and budgetary problems that may hinder the deployment of such a missile defense system.

However, the nuclear missile threat from third countries is related not with intercontinental ballistic missiles, but with small- and medium-range

missiles. Protection against this threat does not require large-scale deployment of strategic missile defense systems. As far back as fifteen years ago, Russia and the U.S. reached an agreement on delimitation of the technical parameters of strategic and theater missile defense systems (the Primakov-Albright Agreement). Although this agreement have not entered into force, basically, there is understanding of where the boundary between strategic and theater missile defense systems is.

It is worth noting that the 1972 ABM Treaty (with the 1974 Protocol) did not entirely prohibit, but only set the limits of strategic missile defense permitted. These limits were based on restrictions on the number of missiles (100 to 200 units) and their deployment areas (1-2 areas), and also excluded the possibility of basing a radar system outside the national territory (except for the radars in Greenland and the UK).

The current state of the Russia-US relations and the consequences of the U.S. decision to unilaterally withdraw from the 1972 ABM Treaty, hinder formal negotiations on the preparation of a new legally binding treaty on the missile defense. Given the implementation of the BMD missile plans of the U.S. and NATO, such negotiations have no perspectives for success. Any U.S. administration and the leaders of other NATO member countries will follow this policy.

However, at a meeting with President Medvedev held on the sidelines of the summit on nuclear security in Seoul in April 2012, President Obama signaled that his administration would be willing to show "greater flexibility" in negotiations on BMD with Russia after the 2012 elections. There is a reason to believe that it is not just mere words but also a reflection of the Obama and his team's pursuit of a compromise.

Therefore, a real compromise is still possible.

Given this, if President Obama is re-elected for a second term, there remains a possibility of signing a Russian-American political declaration on the principles of cooperation on missile defense in 2013. Such a declaration could be modeled on the Joint Statement on basic principles of reducing and limiting strategic offensive arms signed in July 2009, which paved the way for the New START Treaty. This Russia-US declaration could include the principles of cooperation based on equal compatibility of missile defense systems of Russia and the United States to protect from short- and medium-range ballistic missiles from third countries, create a common information field, and contain a number of other measures that benefit both countries. That would create conditions necessary to achieve specific agreements with the U.S. on missile defense in the future.

The solution of the missile defense issue should be provide for a pragmatic approach based on achievable opportunities of cooperation between Russia and the U.S./NATO on BMD defense in Europe (European missile defense system) rather than on high expectations. Moreover, it is necessary to proceed from the following assumptions.

First, commitment of Russia and the U.S./NATO to the Lisbon agreements of 2009, i.e. the European missile defense cooperation intended for protection against short- and medium-range ballistic missiles; although a more extensive cooperation will be possible in the future, provided a common security system is created in Europe.

Second, understanding that lack of trust between the parties in terms of their intentions with regard to each, and the still operational factor of mutual nuclear deterrence are preventing the parties from creating a robust joint European missile defense system, despite the political

recognition of the fact that Russia and the U.S./NATO are no longer enemies but partners.

Third, the fact that each party is currently creating its own self-reliant missile defense system. Neither the Americans, nor we will control the missile defense of each other.

Fourth, it is only through the parties' participation in a joint missile defense project that the countries can increase their level of mutual trust, recognize their interests, remove certain concerns, and avoid confrontation.

What kind of cooperation can meet the interests of both sides?

Threat assessment. The Russia-US consultations on missile threats have been going on for a long time. It seems it is only about the threat posed by short- and medium-range ballistic missiles, which Russia and the United States destroyed in accordance with the INF Treaty. Cooperation between Moscow and Washington on defense against ICBMs and SLBMs is hardly possible. After all, Russia and the United States are not going to help intercept each other's missiles. Russia and the U.S. will not cooperate on repelling the ICBMs and SLBMs threat from China, the UK, and France, either.

Therefore, we can talk only about defense against theater missiles with a range of less than 5,500 km, i.e. the ones covered under the INF Treaty, and below. Today, more than 10 countries possess such missiles. These countries have not responded to Russia's proposal to join the INF Treaty. By the way, during the election campaign in 2008, Barack Obama proposed to make the INF Treaty a multilateral agreement.

A single BMD system or two BMD systems? It is unlikely that Russia and the U.S. are willing to create a single missile defense system. Such a system cannot have a "double key". The level of trust between Moscow and Washington does not permit both countries entrust the other side

with their defense against a missile attack. Both sides, of course, will not give up the national control over their own BMD.

It is therefore possible to set the task of **making two missile defense systems compatible**. These complimentary BMD systems will not require to give up national control, but rather multiplicate the capabilities of each of the two missile defense systems to meet their own challenges.

Allocation of responsibility. The interaction of two BMD systems should probably include the allocation of responsibilities to avoid, on the one hand, "gaps" in missile defenses, and, on the other hand, – unnecessary duplication ("shooting at the same target"), i.e. the area of responsibility may be probably divided horizontally, and in some cases – vertically. Obviously, Russia needs to take responsibility for the missile defense of its territory, while the Americans – the territories of the U.S. and its allies. These zones should be clearly defined to avoid fatal mistakes.

Integration. Interaction in real-time detection of missile launches and identification of their trajectories can provide the greatest improvement in missile defenses. Such interaction in practice means the integration of relevant information coming from various Russian and U.S. radars and sensors.

It is obvious that the interceptor missiles and other weapons would remain under national control. But of course it is necessary to promptly inform each other about the use of such arms.

Technological cooperation. Creating a dual missile defense system will require unprecedented military and technical cooperation. Ronald Reagan once proposed to share the Star Wars technologies with the Soviet Union. Of course, this proposal was unworkable at the height of the Cold War.

Nevertheless, in spite of serious difficulties under new conditions, the transfer (sale) of technologies may be possible. Thus, it may be noted that the Agreement on cooperation in use of nuclear power for peace purposes (the so-called "one-two-three Agreement"), which entered into force in early 2011, concerns very sensitive areas that were super-secrets until recently. The United States is already engaged in military and technical cooperation in missile defenses with Japan, Germany, Italy, Israel, and several other countries.

Legal formalization. In international legal terms, cooperation on missile defense will require backing in the form of the appropriate Russia-US agreement. Of course, we are not talking about a new ABM Treaty, but about the so-called Executive Agreement. The United States has such agreements (that do not require ratification by the Senate) with all its missile defense partners.

Multilateral agreements. Above we talked about a bilateral Russia-US cooperation in missile defense. In the future, there could also be multilateral agreements. First of all, it concerns the NATO countries.

Approaches to cooperation on European missile defense system could be as follows:

First. The resulting stalemate has no solution under the "all at once" principle. The problem should be resolved in stages, starting with what can lay the foundation for practical cooperation and interaction in the area of BMD.

Second. Over the last decade of cooperation between Russia, the United States, and NATO, significant experience in the field of theater missile defense has been accumulated. However, there are unrealized opportunities in obtaining and exchanging information on missile attack

early warning. However, because of mutual distrust – mainly due to the unilateral action by the United States and NATO on BMD – the process of real cooperation has been stopped.

An interesting precedent was the NATO-Russia Council Cooperative Airspace Initiative in Europe. It provides for a system of monitoring the airspace, which concurrently connects (through data transmission) two coordination centers (one in Warsaw and one in Moscow) with data collection units (three units in the territory of NATO countries and three – in Russia).

The primary steps towards cooperation with regard to the European missile defense system should be the establishment of interaction centers and expansion of joint command post rehearsals on missile defense (they were resumed in March 2012) with a transition to joint exercises on the ground.

A similar approach is proposed to create a combined system for surveillance and monitoring of missile threats based at the coordination centers – one in Warsaw or Brussels, and the other in Moscow. Each of these centers will be operated by U.S./NATO and Russia personnel working together to form an overall picture of the missile threat environment and to develop measures to counter these threats, based on objective information supplied from missile warning and space control systems available to the parties as well as from other sources.

In essence, this is nothing more than a resuscitation of the Russia-US project of 1998-2000 on establishing the Joint Center for the Exchange of Data from Early Warning Systems and Notifications of Missile Launches, but at a higher level and with expanded functions.

Measures on reducing the risks of employment of nuclear missiles should be included among the conditions conducive to reaching a compromise on BMD. The establishment of the Joint Center for the Exchange of Data from Early Warning Systems and Notifications of Missile Launches, even within those functions, which were envisaged by the Russia-US 1998 Memorandum, eliminates the risk of unpremeditated use of missiles, the conduct of a surprise nuclear missile attack which is possible theoretically, and substantially limits the possibility of a preemptive strike. The openness of the Center for other states to participate in its activities removes fear from other nuclear states.

At the same time, it would be appropriate to expand the functions of the previously envisaged Data Center – primarily the function of monitoring the situation in space. At present, Russia and the United States exchange information obtained from observations of space objects capable of threatening the International Space Station. However, in the long term, as the competitive environment in space grows and the danger from space debris increases, the issue of joint monitoring of the situation in space and avoidance of misunderstandings and mutual suspicion will come into focus. This function also extends beyond the interests of only two countries. New Russian radar optical systems allow monitoring of the outer space at a level comparable to the U.S. capabilities.

Analytical assessment of the level of missile threats along with the formation of general guidelines for responding to them could be considered to be among the additional functions of the data exchange Center.

The Moscow Center can be able to form an overall picture of the area of missile threats and make recommendations on how to respond to such threats. It is reasonable to entrust the interaction center in Warsaw or

Brussels with the function of direct response to emerging missile threat. Joint Russia-NATO groups will have to decide on the appropriateness of the composition of the firepower and radar equipment involved (both those of NATO and Russia) and the time of their transfer to a state of readiness for combat use.

Third. The self-sufficient BMD systems created by the parties should not have a significant destabilizing effect on the existing balance of potentials of strategic offensive arms of Russia and the United States.

If the parties reach a political agreement with the above approaches, the possible variant of the European missile defense architecture could look as follows:

- the U.S./NATO BMD deployment is limited to two ground bases with SM-3 interceptor missiles in Romania and Poland (not more than 24 interceptors on each of the bases);

- the U.S. BMD deployment at sea is limited to a total of 4 to 6 ships, equipped with the Aegis Combat System and SM-3 interceptors in the Mediterranean and North Seas (such ships will not operate in the Black, Baltic, White, and Barents Seas);

- in addition to the modernization of the A-135 BMD system (rearming to anti-ballistic missiles with conventional equipment), Russia deploys in the European part of the country dozens of new missile systems – S-400 and S-500 as well as ships with the same anti-ballistic missiles systems in the Black, Baltic, White, and Barents Seas.

In this case, each party will independently be in charge of the missile defense of its territory, working through the interaction Centers.

When implementing such European missile defense architecture, the possibility of U.S./NATO ships with SM-3 anti-ballistic missiles being located near the European territory of Russia should be excluded. This removes Russia's biggest irritant, which makes her reject the European phased adaptive approach to BMD.

In order to implement the foregoing, there is a need to institutionalize cooperation between Russia and the U.S./NATO on European missile defense through signing of an appropriate policy Act. The scheme of action is likely to line up as follows.

It is necessary to elaborate a draft political agreement in the form of a joint statement. The initial part of the statement should contain the commitment of the United States, NATO and Russia to cooperate on BMD. Later on, two cases can be mentioned: recognition that in the future, the missile defense system deployed by Americans and NATO could have a negative impact on Russia's nuclear potential, and the second one – which is necessary – that Americans and NATO members are willing to take measures to address Russian concerns. Such cooperation will not harm the main functions – "protection against rogue regimes" – of the BMD system being created.

This statement could include the principles of cooperation based on equal compatibility of missile defense systems of Russia and the U.S. against short- and medium-range missile strikes from third countries, creation of a common information space, and other measures that benefit both countries. This could prepare the conditions necessary to reach specific agreements with the United States in the future.

The Russia-US political statement on missile defense could particularly include the interdependence of the architecture and capabilities of

the BMD systems on real missile threats as well as the commitment to the principle of concerted action in response to the emergence of a missile threat and interactions in the course of defense from a missile attack on any of the parties. It is important to emphasize the openness of this political declaration for accession into it by any other state creating missile defense elements.

The main part of the statement should indicate the point when the negotiation process will be shifted from a political level to a military and technical one (of course, if this process is led by diplomats).

The joint statement should also reflect the position that the parties undertake to regulate the pace of deployment of missile defense systems in Europe, in accordance with the emergence of real missile threats from third countries. For example, this means that if Iran does not get intercontinental ballistic missiles, the parties will not deploy in Europe any BMD systems capable of intercepting ICBMs.

Now a few words regarding the list of military, technical and organizational measures. Basically, these measures can be implemented when it is jointly established that the missile defense system being deployed by NATO is beginning to negatively affect Russia's nuclear arsenal. Such measures may include the following: making some changes in the operation algorithms of BMD radars; American ships with the Aegis Combat System refrain from entering into areas that are in the immediate vicinity of the potential trajectories of our ICBMs and SLBMs; placing Russian observers at the U.S. and NATO BMD facilities, etc. Probably, it will be necessary to design a mechanism for monitoring the implementation of these measures.

At the same time, NATO's Military Committee and the Russian Ministry of Defense could be instructed to use the special working group on missile defense created by the NATO-Russia Council, to conduct joint

analysis of the current situation on the impact of the missile defense created or planned by the U.S. and NATO members on Russia's nuclear arsenal. Later, as a result of the joint analysis, the sides may conclude it necessary to prepare an agreed list of military-technical and organizational measures to exclude the impact of the U.S. and NATO missile defense system on Russia's nuclear arsenal.

This group should annually present to the senior leadership of NATO and Russia (for us – through the Defense Ministry and Foreign Ministry) a report with the results of the analysis of the situation on missile defense and propose appropriate measures for their approval at the political level. Russian participation in the group should involve the Defense Ministry, and other interested agencies, including experts from the military and industrial complex.

The Chief of the General Staff of the Armed Forces of the Russian Federation, Army General N.E. Makarov, at the international conference "Missile Defense Factor in Establishing New Security Environment", said that "Russia and NATO have not yet crossed the line of no return in the missile defense dialogue", and retain the possibility of "establishing mutually beneficial cooperation".

It seems that the leadership of Russia, the United States and NATO can demonstrate the political will and, as it previously was during the preparation of the Founding Act in 1997 and the Rome Declaration in 2002, will find an opportunity to make new steps towards one another. If Americans and other NATO members agree to accept the above mentioned mechanism of agreement, a joint structure of interaction, evaluating the impact of the U.S. and NATO missile defense system on strategic stability, will be set up. To a certain extent, this will be a guarantee of the absence of unacceptable threat to Russia's security and one of the key

elements of predictability in the Russia-US relations on missile defense.

The proposed format of cooperation on European missile defense could play a crucial role in promoting a strategic partnership between Russia and the U.S./NATO, which will be extended to other areas of security.

The global strategic stability and the European security in the coming decade are directly dependent on whether Russia can ensure predictability in the area of BMD jointly with the United States and other NATO countries. This requires joint efforts to create a system for such predictability. A truly effective mechanism of cooperation should be the foundation for this system.

Should negotiations be successful and a Russian-American compromise on missile defense achieved in 2013-2014, one can count on maintaining strategic stability, at least until the end of this decade and beginning of the next one. In the future, it seems that maintaining the strategic balance would require the development of fundamentally new approaches to strategic offensive and defensive arms.

Ensuring predictability will depend in no small part on further joint steps to reduce and control nuclear weapons. If the United States agrees to limit some of their high-precision conventional weapons systems capable of threatening strategic facilities, new agreements on reducing nuclear arsenals will be possible. However, this will require no buildup of the nuclear weapons by other states.

FOR ENTRIES

FOR ENTRIES

Russian International Affairs Council

Printed in Russia