



Missile Defense: A Sphere of Competition or an Instrument for Jointly Combating the Proliferation of Weapons of Mass Destruction

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As the first phase of its new [program on U.S. Global Engagement](#), the Carnegie Council examines the critical and evolving U.S.-Russia relationship. To aid in this exploration, the Council entered into a joint project with the Moscow-based Institute for United States and Canada Studies [ISKRAN], the most established and prestigious of Russia's think tanks devoted to bilateral relations.

The cooperative project comprised a series of papers on three critical topics, in each case with submissions from both Russian and American experts. The topics are: arms control, with a particular focus on the Strategic Arms Reduction Treaty and the Anti-Ballistic Missile Treaty, with related missile defense questions; Afghanistan and the future of the NATO alliance; and security, military, and energy issues in the Arctic region.

We now present the first set of papers, those on arms control. The papers speak for themselves, but three general observations may be made: First, arms control and treaties governing both offensive and defensive military capabilities remain absolutely central to U.S.-Russia relations; second, much as the Obama administration may wish to do so, it is not realistic to expect that Russia will agree to "decouple" discussion of the different components of the arms control agenda; and third, the paper writers in general exhibit a healthy skepticism to temper long-range expectations following the recent meetings of the two presidents in Moscow—while offering suggestions for a way ahead to benefit both the United States and Russia.

—David Speedie, Director, U.S. Global Engagement Program

The other three papers in this first set are:

- [Bargaining Chip or Gas Mask? Prospects for Missile Defense](#)
- [Possible Attributes of a New Russian-American Treaty on Strategic Offensive Weapons: The View from Russia](#)
- [A Guide to the Challenges Facing President Obama's Nuclear Abolition Agenda](#)

During the Bush administration many Russian political analysts began talking about the possibility of a new cold war between Russia and the United States. This is all the more remarkable in that no one, not even Zbigniew Brzezinski, who has become an advisor to the new president, denied that there would be a cold war between the two countries.

The use of the term "reset" by Joseph Biden signaled a radical shift in Russian-American relations, and the joint statement by the presidents of Russia and the United States summarizing the results of the G-20 Conference in London on April 1 of this year marked the real beginning of these changes.

As the statement by the two presidents observed, "...the era when our countries viewed each other as enemies is long over..." and "We are resolved to work together to strengthen strategic stability and

international security, and jointly meet contemporary global challenges, while also addressing disagreements openly and honestly in a spirit of mutual respect and acknowledgement of each other's perspective."

Despite the good intentions of the two presidents and the leadership of the two nations it is essential to recognize the effect of objective factors left over from Cold War times. The key factor is the continuing state of mutual nuclear deterrence between Russia and the United States. There are simply no other targets for such a large number of nuclear delivery vehicles. The land-based intercontinental ballistic missiles on each side are ready for immediate launch at a signal from the missile attack warning systems. Indeed, readiness to launch against each other is part of their master plans. Intercontinental ballistic missiles cannot be kept in any other state without violating their technical regimes.

As is known, the strategic nuclear forces of the two sides function according to so-called "zero launch missions." However, the master plans for use of strategic nuclear forces involve striking each other.

Mutual nuclear deterrence foreordains planning for the use of the strategic nuclear assets against targets of the other side. Readiness to launch on signals from missile attack warning systems necessitates an evaluation of the different options and parameters for retaliation (launch under attack or retaliatory strike). The future development of the strategic forces is determined by taking into account the need to retain the balance of forces. The balance of strategic nuclear forces depends to a great degree on the missile defense potentials of each side. The withdrawal of the United States from the ABM Treaty has forced the Russian side to be wary of U.S. plans for development of a missile defense system.

In the end, it is the essentially technical state of mutual nuclear deterrence that predetermines the political environment of Russian-American relations.

The paradox is that there are no political prerequisites that justify mutual nuclear deterrence, but for now we are unable to extract ourselves from the situation. Obviously, the model of mutual nuclear deterrence that emerged during a particular period in history cannot remain unchanged in the new era. With the end of the ideological conflict between Moscow and Washington and the end of the global standoff between the two systems, there has arisen the theoretical possibility of replacing mutual nuclear deterrence with a new, more positive model for interaction between Russia and the United States in the nuclear sphere.

The mutual nuclear deterrence model needs to be replaced by a more positive form of military-strategic cooperation. Russia and the United States must gradually replace the framework of mutually assured destruction (the essence of mutual nuclear deterrence) with a new framework—mutually guaranteed security.

Hitherto, the West, including the United States, has in many ways behaved as the victor of the cold war toward vanquished Russia. This was the behavior of victors who did not want to allow a defeated enemy to get back on his feet.

The reality is that the assumptions and concerns about the unpredictability of Russia's course have no serious justification. Russia has only one choice. Russia's positive reaction and actions with respect to the events of September 2001 bear witness to that.

In a Joint Statement on April 1 of this year the two presidents made clear their intention to form a special alliance against international terrorism and the proliferation of weapons of mass destruction (WMD), and their willingness to move energetically in this direction by intensifying bilateral cooperation. First and foremost, however, it appears to be necessary to get out of the state of mutual nuclear deterrence.

There have been enough theoretical treatments of proposed military-technical measures for ending the state of mutual nuclear deterrence.^{1, 2, 3, 4} But they have not been implemented.

Hence the vigilance with regard to American missile defense. There is no reason to guess about its purpose, which includes countering a potential threat from Russia. As far as the plans to deploy a radar in the Czech Republic and interceptor missiles in Poland are concerned, SIPRI Yearbook 2007 rightly notes

that they "are clearly provocative with respect to Russia, although primarily in a political, and not in a military sense."⁵

Elements of an American missile defense system in Europe can have no effect on Russia's nuclear missile potential. However, it is essential to consider that this is only an element of a multi-layered missile defense system that is in the development stage. The system's potential is increasing. Russia is being forced to take into account the possibility that the system will reach a level of effectiveness capable of counterbalancing the retaliatory potential of its strategic nuclear forces. The logic of continuing mutual nuclear deterrence requires that this possibility be considered.

To some extent, materials of the Missile Defense Agency (MDA) support the proposition that the U.S. missile defense system is directed against the Russian nuclear potential in addition to other threats. For example, an MDA briefing dated January 23, 2009⁶ includes a diagram of ballistic missile deployments (shown below).

By all appearances, the diagram shows countries whose missile potential presents a potential threat, or all that are seen as a potential threat. Great Britain and France, like the United States itself, are missing from the map.

Russian and U.S. approaches to missile defense

A comparison of the approaches taken by Russia and the United States in organizing missile defense reveals that they have many features in common, but there are several important differences.

Russia is not developing a system for defending against strategic missiles, having protected only one position area as provided for by the 1972 Treaty on Limitation of Antiballistic Missile Systems. Primary attention has been devoted to defense against intermediate-range and short-range missiles, including tactical missiles. Russia views the prospects for U.S. development of strategic missile defense systems from the standpoint of maintaining strategic stability. In so doing, it looks at strategic stability according to cold war criteria. This means that an approximate equality of strategic nuclear force potentials must be ensured, and the potential capabilities of strategic missile defense systems must not counterbalance the number of nuclear assets that may be employed in a retaliatory strike. Russia's adherence to this approach is completely logical for the reasons stated above. During the cold war period the potential of the Soviet Union's general purpose forces was such that the western nations needed to rely more on nuclear deterrence than did the USSR. Therefore, the doctrinal assertion that the USSR would never employ nuclear weapons first was not declaratory in nature. Typically, according to the concepts and scenarios of exercises conducted in the USSR, after Warsaw Pact forces went on the counteroffensive (in response to NATO aggression), the NATO nations were forced to employ tactical nuclear weapons in order to halt it, with subsequent escalation to world nuclear war. For Russia the situation is different. The weakness of its general purpose forces and the beginning of actions to reform the Armed Forces have necessitated a reliance on nuclear deterrence. Significantly, even when the military reform is complete, the Russian Armed Forces will not be powerful enough to conduct a large-scale war independently. Russia has not set itself a goal to do so. This results in different doctrinal formulations regarding conditions under which nuclear weapons would be employed.

For the **United States** the approach is somewhat different. Not counting the terrorist threat, long-range missiles are the only effective means of attacking the United States. Before the Soviet Union acquired strategic missiles, the continental United States was virtually untouchable. Therefore, in the United States the missile threat is viewed with increased tension. The prospect for proliferation of missile technologies and the threat of further proliferation of nuclear weapons are seen as a concrete reasons for developing a strategic missile defense system. In addition, the United States views the ABM system as a means for combating the proliferation of nuclear missiles. The logic behind this is obvious. A nation seeking to develop a missile weapon must see that it can be countered at need by other nations' missile defense assets which ensure the destruction of missiles in all phases of flight. In such a case the missile potential is devalued. When combined with other measures, including diplomacy, the use of missile defense assets may make an appreciable contribution to the nuclear missile non-proliferation process.

Therefore, there are essentially no fundamental factors that would make a Russian-American partnership inconsistent with the development of missile defense systems. There are objective military-technical and political factors associated with the aftereffects of the cold war. But they can be compensated for if both countries concentrate their efforts on the problem of non-proliferation. The development of missile defense systems must be accompanied by compromise solutions that eliminate the perception of a threat from these systems by each side. Simultaneously, measures must be implemented to withdraw a nation's strategic nuclear weapons from the state of mutual nuclear deterrence. In this regard, it should be noted that the formation of Data Exchange Centers out of the missile attack warning systems as provided by the 1998 Russian-American memorandum would make a significant contribution to the solution of this problem. But without the political will on both sides the solution will be drowned in a bureaucratic bog. And now, as will be shown below, an entirely different approach must be taken to the question of forming the data exchange centers.

The establishment of a missile defense system in the interest of non-proliferation, steps to develop missile defense systems agreed to on the basis of compromise solutions, and escape from the state of mutual nuclear deterrence are fundamental conditions for future Russian-American cooperation.

Missile defense in the interest of non-proliferation

The proliferation of missile technologies is most likely unavoidable. The aspiration of other nations to acquire these technologies results not so much from the desire to employ missiles as carriers of conventional weapons or weapons of mass destruction as from the need to develop their own space-based capability for monitoring, communication, and reconnaissance. Without this capability a country cannot count on developing successfully in a globalizing world.

At the same time, energy problems encourage countries to acquire nuclear power technologies.

The combination of trends that stimulate the proliferation of missile and nuclear technologies has exacerbated the problem of combating the proliferation of WMD. Missile defense systems may play a major role in solving this problem.

The current areas in which efforts are being made to counter the proliferation of nuclear weapons basically stem from the provisions of the Treaty on the Non-Proliferation of Nuclear Weapons (NPT). In essence, it all comes down to the desire not to allow acquisition of nuclear weapons or the conditions for their development and production. Questions of how to reduce the motivation to acquire nuclear weapons are outside the scope. At the same time, these can be considered critical questions. To support this contention, it is sufficient to draw attention to the number of nations that possess the technologies for producing nuclear weapons and long-range missiles. They include Argentina, Japan, and the Republic of Korea, among others. But they have not gone nuclear and do not plan to go nuclear in the foreseeable future, so long as there is no motivation to do so. Therefore, it is very important to avoid creating a political environment that would impel nations with the necessary technological capabilities to join the ranks of the nuclear powers. Missile defense systems may be classified as the last resort (after political and diplomatic measures) for reducing the motivation to acquire nuclear weapons.

The level of uncertainty regarding the nations for which the deterrent potential of a missile defense may be needed is high. Therefore, it is desirable to have highly mobile missile defense systems for deployment in a region where the need has arisen. Above all, missile defense assets must be capable of destroying intermediate-range and short-range missiles. Without experience in developing missiles of this class it is impossible to acquire the technologies required for long-range ballistic missiles. If it is not possible to prevent a nation from developing WMD-capable long-range missiles, then missile defense assets capable of destroying such missiles will be needed.

It is obvious that, in addition to fire means, it is important to have an information system that makes it possible to take the following actions in a timely and reliable fashion:

- evaluate the situation in order to decide the advisability of using missile defense assets in the interest

of non-proliferation;

- detect an immediate missile threat;
- make a decision about placing missile defense assets in a state of readiness for use;
- make effective and integrated use of the combat capabilities of all attached missile defense assets.

But most important is the timely construction of a missile defense system architecture to support non-proliferation. Its structure should be aimed not at protecting the territory of a single nation or group of nations, but rather at countering any launches from a nation on which this kind of sanction has been imposed. Each country is entitled to deal independently with the issue of its own security against missile attacks, but that is a separate task that has only indirect relevance to the problem of non-proliferation. The architecture of a system aimed at combating nuclear missile proliferation must be such that destruction of missiles or warheads is guaranteed during all possible phases of flight despite their direction. In order to accomplish this goal, elements of a missile defense system must be deployed on the territory of other nations, primarily neighboring countries. Some of these nations may have their own missile defense facilities and information systems. These countries may make their own contribution to the overall architecture of a missile defense system. Nations without their own missile defense assets may make their territory available for deployment of elements of a missile defense system. In any case, ideally all nations in a region that agree with the need to employ missile defense systems for non-proliferation should be involved in constructing the system.

It follows that the use of missile defense systems in the interest of non-proliferation requires the collective efforts of a number of nations.

So far, the initiator of the use of missile defense has been the United States. However, the United States has viewed the construction of the system architecture primarily from the standpoint of ensuring the protection of its own territory and, to some extent, that of its allies. It has not taken note of the potential of other nations whose assets and territory may be used effectively to counter the missile threat. A typical example of such an approach may be seen in the current U.S. plans to deploy elements of a missile defense system designed to neutralize a possible missile threat from Iran.

Apparently, the decision on the use of missile defense in the interest of non-proliferation must come from international organizations dealing with this problem. Different options are possible—from a decision within the UN framework to a decision worked out by a regional organization (NATO, SCO, and CSTO). Also within the realm of possibility is an option based on the experience gained in countering the nuclear programs of North Korea and Iran. Thus, the "group of six" countries (the five nuclear-weapon states and an influential non-nuclear country in the region) that came together in each case may take it upon themselves either to make a decision (but by agreement with or under the mandate of the UN) or to prepare recommendations for a decision within the UN framework. It is also clear that the best option would be to use missile defense information systems and fire means without being limited by the capabilities of any one nation. The combined capabilities of several nations may permit a more efficient solution to the problem than can be accomplished using the potential capabilities of a single nation.

Compromises in missile defense

Let us examine the theory behind two possible goals for development a missile defense system.

The first goal is protection of a nation's own territory against missile attack.

The second goal is non-proliferation.

The first goal may raise concerns in nations that until recently were enemies. There remains the pressing task of maintaining the strategic balance of forces while retaining strategic nuclear forces in a state that provides mutual nuclear deterrence. If the capabilities of a missile defense system come to

counterbalance the retaliatory strike capability, the strategic balance will be disrupted. It should be borne in mind that the progressive reduction of strategic nuclear weapons will lead to a more critical attitude towards missile defense capabilities. The only system that will present no cause for concern is a multi-layered missile defense system intended to counter single missile launches from new extremist nuclear states or unsanctioned and accidental missile launches. As far as Russia and the United States are concerned, the practice of working on strategic arms reduction treaties is retained. Their content is linked to missile defense issues. Nonetheless, ABM development in the United States motivates Russian efforts to improve nuclear weapons in order to defeat missile defenses. China possesses a much lower nuclear capability than Russia and the United States. Therefore, China is actively modernizing all components of its nuclear triad.

In general, the creation of a national missile defense system by the United States is in conflict with Article VI of the Non-Proliferation Treaty, which provides for general and total nuclear disarmament. If the United States is actively working toward this objective, there is no point in creating a missile defense for its own territory, much less when the territory of the United States is at issue.

The second goal—the establishment of missile defense system in the interests of non-proliferation—should not cause concern among other nations, providing it is constructed within the previously mentioned constraints.

To date, its actual plans and actions have been different. For example, Russia and the United States have been working on issues of the joint construction of a regional missile defense system (theater missile defense). This effort has included joint exercises. These issues have also been worked in the Russia-NATO format. However, U.S. plans to deploy elements of a missile defense system to counter a possible missile threat from Iran actually exclude Russia from participating, and the missile defense assets used have an engagement envelope that includes Russian territory and missile trajectories. Moreover, the missile defense system of the North Atlantic Defense Alliance (Euro-TMD) is actually integrated into the layered missile defense system of the United States. The Final Communiqué of the NATO Council in December 2008 actually captured this approach. If this Euro-TMD architecture option is implemented, it would mean that it does not have non-proliferation policy as its basis, but rather that it has an exclusionary basis; namely, Article 5 of the Washington Treaty. Defense against missiles is limited by the framework of the collective defense obligations of the members of the North Atlantic Defense Alliance. The logic of exclusion is simple—Russia is not a member of NATO; therefore, it is excluded from participation in Euro-TMD. The following diagram, taken from the previously mentioned MDA briefing, illustrates this approach well.

What might be the basis of compromise solutions on missile defense in the current situation?

First: It is essential to emphasize the main goal—countering the proliferation of nuclear weapons. If the United States considers it necessary to protect its own territory from missile threats, that is its right. But the total capability of its national missile defense system should not counterbalance the missile potential of any of the nuclear states. Otherwise, the system will become a hindrance to the process of gradual reduction and destruction of nuclear weapons.

Second: Establish an international mechanism to assess a situation and make a decision about the use of missile defense capabilities in the interest of non-proliferation. How might this appear in relation to the actual problems of today with North Korea and Iran? At the political level, these functions could be implemented in the framework of the existing six-party negotiation format. To systematically assess the decision-making process and the information support for evaluating a situation, it would be advisable to return to the idea of forming Data Exchange Centers out of the missile attack warning systems. But in so doing it is essential to expand the functions of the Data Exchange Centers. In fact, conversion of the Data Exchange Centers into centers for evaluating the missile and space situation may come under discussion. Accordingly, it will be advisable to gather data in the Data Exchange Centers not just from missile attack warning and space tracking systems, but also from space monitoring and surveillance systems, including systems used for commercial purposes. Naturally, the nations whose representatives are entitled to participate in the Data Exchange Centers cannot be limited to the Russian-American framework. It would

be logical to establish a minimum of two Data Exchange Centers: one in Europe and a second in the Far East. Representatives of the nations participating in the six-party negotiating processes—in Europe on Iran and in the Far East on North Korea—could participate in staffing each of the centers. However, the proposals made by the Russian president in 2007 included a proposal to open two centers—in Moscow and Brussels. As far as Euro-TMD is concerned, this would be an ideal option. However, given the situation in Asia-Pacific region, it would be best to have three centers.

Third: It is essential to continue joint study on the use of national missile defense systems designed to destroy intermediate-range and short-range missiles (PAC-3, THAAD, Aegis, S-300, S-400, et cetera.). It would be advisable to conduct exercises using scenarios tied to specific regions. The following basic problems could be worked out during the exercises:

- Determination of the composition of the combined group of national missile defense assets and formation of the group given the nature of the missile threat;
- Organization of control of the combined group of missile defense assets for effective use of the capabilities of attached assets;
- Use of existing radar facilities, to include the Gabala and Armavir radars, to ensure timely decision-making and control of missile defense assets.

The plans to deploy fixed-site interceptor missiles in Europe can be deferred until the prospect of missile threats requiring the deployment of the this type of interceptor arises. This approach was mentioned in the latest speeches by the U.S. president, and it merits approval. But actions must accompany this pause. Joint efforts on the operational deployment and control of the combined air defense system against intermediate-range and short-range missiles can effectively deter plans of other nations to develop and acquire WMD. But even if this deterrence turns out to be ineffective, the experience of jointly building a regional missile defense will ease the identification of solutions that do not arouse concerns in any of the parties.

In conclusion, it is essential again to emphasize that the following issues are key:

- Withdrawal of Russia and the United States from the state of mutual nuclear deterrence;
- Limitation of the capabilities of national strategic missile defense systems to countering single launches in the interests of implementing Art. 6 of the NPT;
- Concentration of regional missile defense system deployment on the non-proliferation task.

References and Comments

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