CARNEGIE COUNCIL
The Voice for Ethics in International Affairs

ONLINE EXCLUSIVE: On U.S. Plans to Deploy ABM Systems in Europe and Possible Compromise Solutions

Petr B. Romashkin , Pavel S. Zolotarev

June 19, 2008


Pavel S. Zolotarev

Production of this special report was supported by a grant from the Alfred and Jane Ross Foundation.

The current state of Russian-American relations in the area of missile defense —specifically the proposed placement of U.S. missile defense systems in Poland and the Czech Republic—cannot be evaluated without taking a retrospective look at the problem. The past has an appreciable impact on the present and future.

History of the Issue

The missile defense problem arose at virtually the same time that Nazi Germany began using rockets to attack London. The British concluded fairly quickly that the only feasible method of destroying the rockets was to use an interceptor missile. However, it was some 15 years between the time this conclusion was reached and the first test launches of interceptor missiles in the U.S. and the USSR (1961-1962), given that the task required the application of cutting edge technologies across a relatively broad spectrum of sciences and technologies.

From the very beginning, the USSR and the U.S. were oriented toward the need to destroy each other's missiles, and even the subsequent achievement of nuclear status by Great Britain, China, and France did not influence the nature of missile defense, because for a long time they were the only two countries that had a real capability for a surprise nuclear attack.

Against the background of the unfolding nuclear missile arms race and the attempts to develop missile defense systems, in the mid-1960s there appeared a group of politicians high in the U.S. leadership who believed it was necessary to make provisions for limiting these systems. The Americans voiced their proposals to limit missile defense systems during consultations and negotiations held in the USSR in preparation for the Strategic Arms Limitations Talks (SALT-1) and Anti-Ballistic Missile (ABM) treaties toward the end of the 1960s. They were concerned that a missile defense system might give one of the sides the dangerous illusion of invincibility, and push it to use nuclear weapons in a given situation.

The American argument concerning limitations was not immediately accepted, because the main efforts of the USSR at that time were concentrated on closing the gap with the U.S. in the area of strategic nuclear weapons. There was every justification for this. Immediately after the Soviet Union tested a nuclear weapon in 1949, the U.S. began preparing actual war plans using nuclear weapons against the USSR. The first such plan—codenamed "Trojan"—envisioned initiating combat operations against the USSR on January 1, 1950. At that time the U.S. had 840 strategic nuclear bombers and over 300 atomic bombs. However, it was determined during staff exercises that the U.S. would not achieve its goals, and in 1950 the idea of preventive nuclear war was scrapped.

In 1953 the Eisenhower administration adopted the concept of "massive retaliation," which was based on the then U.S. superiority over the USSR in nuclear munitions and means of delivery. In December 1960, the first unified plan for conducting nuclear war, called the "Single Integrated Operating Plan" (SIOP), was

drawn up. The plan provided for conducting total nuclear war against the USSR, with unlimited use of nuclear weapons.

In 1961 the U.S. approved SIOP-2, under which the political-military leadership of the U.S. assumed that it was necessary to have strategic nuclear forces sufficient for implementation of the concept of "assured destruction" of the Soviet Union. The plan provided for conducting a preemptive strike on governmental centers and military command posts ("decapitation strike") and on nuclear delivery vehicles ("counterforce strike"). This, it was believed, would reduce to a minimum the likelihood that the enemy would be able to carry out a retaliatory strike, which in combination with the capabilities of a missile defense system held out the hope that it would be possible to achieve victory in a war with the USSR, and that the damage from retaliatory actions could be minimal.

Under such conditions, it was completely natural that the leadership of the Soviet Union at first would receive U.S. initiatives to limit missile defense systems with caution, the more so because the USSR at that time was more active and successful in developing a missile defense system than was the U.S. However, the foreign policy situation of the time—U.S. involvement in Vietnam, the USSR crisis in Czechoslovakia, the defeat of the Soviet Union's Arab "friends" by Israel, etc.—prompted both governments to look for ways of reducing the tension in their relations. Arms limitation talks between the USSR and the U.S. began on November 17, 1969, with one of the main goals being the limitation of missile defense systems.

During the talks, the USSR declared its readiness to agree to any one of three alternatives: complete absence of limitations on missile defense systems, establishment of limits on development and deployment of missile defense systems, or a complete ban on missile defense systems. The U.S. proposed an approach based on limiting the scale of missile defense system deployment, which fully satisfied the Soviet side, and further discussions on the missile defense issue primarily concerned technical details on the number and location of ABM deployment regions and the details of system configuration.

The conclusion in 1972 of the treaty between the USSR and the U.S. on the Limitation of Anti-Ballistic Missiles (ABM) served as the cornerstone for maintaining stable relations between the USSR and the U.S. during subsequent decades and maintaining strategic stability in the world during the Cold War. By this treaty the two sides created the system known as mutually assured destruction (MAD)—a system whereby neither side was able to inflict a nuclear strike on the other and escape assured destruction in a retaliatory strike. The establishment of the ban on deployment of missile defense systems made it possible to ensure the stability of the strategic balance, because it eliminated motives for increasing offensive capabilities and acquiring a unilateral advantage by developing defensive systems. The treaty validated the principle of stability in the strategic relations between the U.S. and the USSR and created conditions that would prevent the possibility of either side gaining advantages, even in the future.

It should be noted, however, that the establishment of a level of permissible development for missile defense systems did not stop the development of offensive nuclear weapons. The Soviet Union continued to lag behind, forcing it to achieve quantitative parity in strategic nuclear arms and to react to U.S. qualitative breakthroughs, such as the "multiple independently targetable reentry vehicle" (MIRV) and the deployment in Europe of Pershing 2 missiles capable of ensuring a "decapitation strike" on the USSR. Then in 1983 Ronald Reagan's Strategic Defense Initiative (SDI), or "Star Wars" program, presented a new challenge, to which the USSR reacted to in all seriousness and with concentrated effort during a complicated economic and political period in the country known as "Perestroika."

At the beginning of détente at the end of 80's, the missile defense initiatives struck a different note. U.S. President George H. W. Bush proposed reorienting the SDI program to develop a missile defense system for defense of the U.S. *and* its allies, including force groupings, against individual and group strikes—a program known as Global Protection Against Limited Strikes (GPALS). However, the creation of such a system required exceeding the limits of the 1972 ABM Treaty. Mutual consultations, Soviet-American in the beginning and then Russian-American, led to proposals from the Russian side concerning joint development and operation of a global defense system (GDS). During a 1992 meeting at Camp David,

Russian President Boris Yeltsin proposed transforming SDI into an international project open to all governments desiring to participate in developing a GDS.

It subsequently became clear that the U.S. was not prepared for an equal partnership in missile defense. Only the symbolic participation of Russia in the development of a missile defense system was allowed, and, from all appearances, it was done with a single goal—revision of the 1972 ABM Treaty. Furthermore, the United States excluded the idea of developing an international system in which anyone other than the United States could have a controlling role. In effect, Russia's proposals were rejected. However, the generally favorable political climate did not harm Russian-American relations. In fact, cooperation began developing between the two countries in the area of theater missile defense (TMD).

At the end of the 1990s, President Bill Clinton's administration put forth new proposals regarding missile defense. He envisaged the development of a limited national missile defense system, sufficient to protect U.S. territory against a single or cluster strike. The American side felt that the limited capabilities of the missile defense system should not cause concern on the part of Russia or China; but they did require changes to the 1972 ABM Treaty because elements of the American system could not be limited to only one deployment area. Russia, however, was categorically opposed to any revision of the treaty.

During the Russian-American summit in Moscow in June of 2000, President Vladimir Putin proposed an initiative for development of a pan-European non-strategic missile defense system as an alternative to the American national missile defense system. The U.S. in return agreed to consider the proposed European missile defense system—not as an alternative to its own proposal, but rather as a supplement to its national missile defense program, to which Russia, in striving to preserve the 1972 treaty, could not agree.

Finally, in 2002 the U.S.—referring to protection against missile threats from "rogue states"—withdrew from the 1972 ABM Treaty. Meanwhile, declarations about prospects for mutual cooperation on missile defense continued to be issued. For example, when the Moscow Strategic Offensive Reductions Treaty (SORT, better known as the Moscow Treaty) was signed in May 2002, thereby limiting each side to 1,700 to 2,200 operationally deployed warheads, a joint declaration was adopted providing for further joint work on issues of strategic stability under new conditions, and for cooperation on missile defense. In fact, a commission was formed with four minister level members—the Russian Minister of Foreign Affairs and Minister of Defense and the U.S. Secretary of State and Secretary of Defense. This commission, however, has not been very active.

As this review clearly shows, the history of Russian-American relations in the area of missile defense has given Russia definite grounds for distrusting U.S. plans to deploy elements of an ABM system in Eastern Europe. However, there exist other, more objective, causes of distrust.

Other Causes of Distrust

The fundamental factor forming the basis for mutual distrust today is the strategic nuclear potential of Russia and the U.S., which is commensurate with the mission of mutual nuclear deterrence. Both governments are hostage to weapons created during the Cold War (primarily land-based ICBMs) that cannot have their readiness to launch reduced without disrupting their normal operating mode. The primary plans for use of nuclear weapons by each side are tied to the destruction of targets on the opposing side. There simply are not enough strategic nuclear weapons held by Russia and the U.S. to strike targets other than those on the territory of the opposing side. Simultaneously, all land-based ICBMs are in a state of readiness for a retaliatory strike based on signals received from a missile attack early warning system. This results in the continued relevance of maintaining the system of mutually assured destruction. Hence, it inevitably follows that maintenance of the balance of strategic nuclear arms and strategic defensive systems is a necessity. All of this forms the basis of mutual distrust, but above all Russia's distrust of the U.S. because Russia is constantly finding itself in the catch-up position.

Among the factors contributing to Russia's distrust of the Eastern Europe missile initiative are:

1. Although the U.S. continues to claim that the ABM system it is developing is not directed against Russia, this claim is in conflict with U.S. doctrinal approaches to the structure of its defense policy. The U.S. has declared that it is not proceeding from an assessment of threats to its national security, but rather from an assessment of the capabilities of other nations to harm its national security. Given that Russia is the only country that possesses the nuclear potential to destroy the United States, it is logical to imagine that the U.S. might foresee the possibility of destroying Russian strategic nuclear delivery vehicles by developing an extremely expensive, multi-echelon national ABM system.

2. All of the preliminary work done on alternative means of cooperation and on joint development of a missile defense system has come up against the unwillingness of the American side to accept joint control of the ABM system. In the course of the official and unofficial contacts between Russian and American military experts, the Russian side has repeatedly proposed use of its territory for the joint establishment of a missile defense system that would make it possible optimally to counter a missile threat from the south. However, the Americans have expressed no interest in this type of cooperation. At the same time, information has emerged in some mass media concerning U.S. wishes to deploy elements of an ABM system in countries to the south of Russia, which clearly suggests a dual purpose to the structure of the American ABM system—against both a threat from the south and from Russia.

3. The U.S. offers no guarantees that the matter will be limited to a single radar and a single base with 10 interceptor missiles. Washington has issued no guarantees that after a time the number of interceptors will not increase to 100 or 1000; that they will not be deployed at other bases (closer to the presumed trajectories of Russian ICBMs or SLBMs); that they will not be augmented with boost-phase interceptor systems; and that sea, air, and space-based forces, including weapons based on new physical principles (laser and other), will not be added. The proposed ABM system in the Czech Republic and Poland may be only the first step in the deployment of a much larger system in Europe. Similarities with the rationale for NATO expansion suggest themselves.

4. Russian experts fear that the proposed system may have significantly broader capabilities that those declared. It is also known that the Americans plan to employ GBI missiles as interceptors. These missiles consist of the second and third stages of Minuteman ICBMs, and ICBM nuclear warheads could easily be mounted on them under certain conditions. If done, the GBI missiles would be converted into intermediate-range missiles with a short flight time, which could be targeted at facilities within Russia. In addition, GBI missiles can also be used as an anti-satellite weapon.

5. Russian and American experts assess that interceptor missiles traveling at a speed of 4.5-9 km/sec are fully capable of destroying targets at a range of 2000-2500 kilometers from their base location (in this case from northeast Poland). Based on this, it can be assumed that ABM systems in Eastern Europe will be fully capable of fulfilling such a mission not just against missiles launched from the European part of Russia, but also against missiles deployed in the Ural Mountains and southern Russia.

6. The radar complex planned for deployment in the Czech Republic will be capable of monitoring the missile and space activities in the European part of Russia and in the Beloye and Karskoye seas. This will expand technical intelligence capabilities targeting Russian territory, including the Plesetsk launch site and the Northern Fleet. In addition, there is no guarantee that interceptor missiles launched from Poland will not be capable of hitting space carrier vehicles launched from the Plesetsk Cosmodrome.

7. The potential missile threats from the North Korea (DPRK) and Iran, which are used as a justification for the sites in Poland and the Czech Republic, are clearly exaggerated. According to the estimates of some Russian experts, the DPRK will need at least 25-30 years to develop an ICBM under the most favorable circumstances, and it will take at least 50-60 years to create enough missiles to aim them at targets located on different continents. Moreover, it is improbable that these targets will be in Europe; the DPRK will be more likely to select targets in other directions much closer to its borders-most probably in the Far East region or, in the long-term, even the U.S. West Coast. The U.S. cannot seriously perceive a nuclear missile threat to Europe from the DPRK, much less expend large sums on a system that will be operational only after 50 years, when it will already have become obsolete.

8. Iran currently has several missiles with a medium range of 1200-1300 kilometers ("Shahab-3") and may in the future increase their range to 2000-2200 kilometers. Thus their maximum range currently extends to Israel, Ankara, and the North Caucasus, and after their range is increased they will be capable of reaching Istanbul and Volgograd. In contrast to the DPRK, Iran may be capable of developing and deploying long-range missiles that could, in principle, reach the territory of Western Europe, but experts estimate that it will take Tehran at least 15 to 20 years to develop and deploy missiles of this class

All in all, it may be concluded that the proposed U.S. ABM system in Europe is intended not so much for countering North Korean and Iraqi missiles as for other purposes, for example, for countering the Russian nuclear forces. At the same time, regardless of the significant potential for distrust resulting from these plans, we believe that the ABM system itself can make a significant contribution to countering the proliferation of weapons of mass destruction (WMD) and enhancing collective security, but only if certain conditions are met.

Missile Defense and the Non-Proliferation Problem

The proliferation of nuclear weapons and missile technology is one of the greatest threats to peace today. Energy resource problems provide an impetus to develop nuclear technologies, while the transformation of space into a milieu vital to economic development prompts many states to acquire rocket technologies. The result is that the nuclear missile threat is increasing, and missile defense is becoming an ever more urgent task. At the same time, one may assert that today the system of nuclear control can only be effective if it is multilateral in nature and unites coordinated international efforts.

On the whole, the system developed during the Cold War for countering the proliferation of nuclear weapons was reasonably effective. It was formulated on the basis of bilateral agreements between the USSR and the U.S., as well as on the basis of multilateral agreements, such as the Treaty on the Non-Proliferation of Nuclear Weapons (NPT). It should be noted that the confrontation of the two countries left its stamp on their non-proliferation policies, especially in the beginning, showing up as double standards on both sides and, occasionally, in condoning the nuclear ambitions of other countries. But gradually the USSR and the U.S. recognized the danger of nuclear weapon proliferation and became two of the most active proponents of strengthening the non-proliferation regime.

The end of the Cold War did not simplify the problem of countering the proliferation of nuclear weapons, as there arose a real likelihood of a multilateral nuclear arms race. Today we are already in a situation of nuclear multipolarity, characterized by the existence of several groups of states:

- Officially acknowledged nuclear states: The U.S., Russia, Great Britain, France, and China
- Unacknowledged nuclear states that have openly announced that they have nuclear weapons: India and Pakistan
- A state that has not admitted having nuclear weapons but is known to have them: Israel
- States having the motivation to acquire nuclear weapons and the scientific and technical capability to do so: the DPRK and Iran
- States capable of developing nuclear weapons but refraining from joining the nuclear club because of political or military inexpediency (the so-called "latent" states): Argentina, Brazil, Republic of Korea, and others.

Nuclear multipolarity entails several main challenges and threats: the continuing motivation for possessing nuclear weapons; the possible implementation of intentions to develop and acquire nuclear weapons; and the risk of nuclear weapons being used. In attempting to lower the risks of nuclear multipolarity, several principal goals can be identified, including: reduction of the motivation for non-nuclear states to acquire nuclear weapons; prevention of efforts to develop or acquire nuclear weapon technologies by states that either have officially announced their goal of acquiring them or secretly are attempting to do so; and reduction of the probability that states possessing nuclear weapons will use them.

The current system for controlling nuclear arms is primarily aimed at achieving the objectives specified in the NPT, and the majority of proposals aimed at improving the nuclear control system has been within the framework of these objectives. At the same time, energy problems have increased the prospect of greater numbers of atomic power stations. This tendency will inevitably lead to an increase in the number of latent states. If there is motivation to acquire nuclear weapons, it can lead to an explosive increase in the number of nuclear states. It follows, therefore, that there is an increasing urgency for reducing motivations to acquire nuclear weapons.

At the same time, the goal of preventing the use of nuclear weapons should not be let slip. It can be asserted with a high degree of assurance that states having a significant nuclear potential will not employ them against each other. However, one cannot exclude that situations may arise at the regional level where nuclear weapons may be used by nuclear states with a low nuclear potential, or by a state with a significant nuclear potential against a state not possessing nuclear weapons or having a low nuclear potential.

It is necessary to solve two fundamental problems in order to reduce the motivation to acquire nuclear weapons: First, guaranteeing the security of non-nuclear states against possible use of force by states possessing overwhelming military superiority; second, finding means of resolving regional disagreements and conflicts that would eliminate the need for nuclear weapons. Actions to solve each of these problems may be limited to the political and diplomatic arena, or they may be supplemented by a series of military-technical measures. A review of two examples of current interest may show that there are occasions when military-technical measures are possible but not called for.

The DPRK, for example, uses its nuclear program for blackmail with one main goal in mind, that is, to keep the ruling regime in power while gradually transforming its social-political system and simultaneously receiving economic aid from other nations. The DPRK has no claims to world or regional leadership; the country has no aggressive intentions that require possession of nuclear weapons. Judging by the noticeable progress that has been made in this area since 2006, it would appear that a guarantee against forced regime change in combination with economic aid would be sufficient to eliminate the motivation for possessing nuclear weapons. The DPRK modified its position as soon as the U.S. (possibly because of the lessons of Iraq) ceased its rhetoric about the need for regime change in North Korea while staying focused on nuclear non-proliferation. Instead, the topics of discussion began to focus on the conditions for rendering economic aid and the progress in meeting that aid. Thus, it would appear that negotiations regarding the DPRK can remain in the political and diplomatic sphere without a military-technical dimension.

A different kind of situation may develop when the nuclear intentions of a state are associated with an ambition either to secure its leadership position in a region or to restore the balance of forces with an unfriendly regional government that possesses nuclear weapons, or with both simultaneously. Given this type of motivation, attempts to acquire nuclear weapons by any means are possible, including circumvention of all limitations under international law, IAEA monitoring, international sanctions, and so on. The objective may even be more modest—to reach a level of development in domestic power engineering and nuclear fuel cycle technologies that would make it possible to rapidly begin producing nuclear weapons (move to the category of "latent" states). In this kind of situation one cannot exclude the necessity to undertake measures of a military-technical nature to reduce motivation for nuclear weapons.

Obviously, the military-technical measures that are appropriate, including preventive measures, depend on the situation. However, it is advisable to work out in advance a "menu" of military-technical measures for reducing motivation to acquire nuclear weapons and legal conditions for their use. Above all, it is necessary to determine the thrust of the military-technical measures. Obviously, they must supplement the political efforts to reduce the motivation to acquire nuclear weapons. For example, if there is a nuclear state in a region, then ideally any state in the region that is not an ally or partner of the nuclear state should, for its own security:

- Have exhaustive information about the nuclear potential of that state and its doctrinal views on conditions for its use;
- In the event of a conflict, possess operational information about enemy preparations to use nuclear weapons;
- Have the capability for launching a preventive strike on the enemy's nuclear assets with conventional weapons;
- Be capable of repelling an attack with nuclear weapons.

It is obviously questionable whether any one government is capable of acquiring these capabilities independently. More realistically, one can only speak of the joint participation of a number of countries. Therefore, one is forced to conclude that not only should military-technical measures supplement political measures, but also that military-technical measures must be augmented by political ones.

For an example we may examine a possible implementation of such measures with regard to an actual situation. The prospect of establishing a regional missile defense system in Europe is currently under review. From our standpoint, the logic for establishing this system must be based on the following factors:

First, the architecture of a missile defense system must be reasonably flexible, because the tendency for the number of latent states to increase remains. Missile technologies are becoming more available for many states, and depending on the changes in the political situation, sources of nuclear missile threat may emerge from various geographic directions.

Second, a missile defense system can be realistically effective only if it is capable of destroying a missile and its warheads in the various phases of its trajectory. Hence, an effective missile defense system cannot be established within the borders of a single nation because of indefiniteness regarding missile-threat directions and the necessity for destroying targets in the various phases of their trajectory. From the cost standpoint, a missile defense system that uses the national missile defense assets of states located near the missile-threat directions is optimal. Therefore, the dispersal of missile defense assets beyond national borders will inevitably be a cause of concern for states that possess a missile potential and lie within the operational zone of these assets. These concerns can be eliminated if the missile defense assets are controlled jointly with those states.

The optimum missile defense system, therefore, should be joint (collective) in terms of construction, and its command and control system should allow joint use of national information assets and weapons, as well the participation of multinational crews. Obviously, missile defense assets deployed on the territory of the nation that owns them should be under that nation's control; however, this would not prevent their use as part of the common system. Therefore, there most probably is no point in including missile defense weapons for destroying warheads in the terminal phase in the joint missile defense system. However, a data interface between the national missile defense system and the joint system will be necessary. The problem of destroying the remaining warheads can be solved effectively only if the results of actions by the joint missile defense system are known.

We conclude that despite the end of the Cold War, it is as vital as ever to find ways for the two largest nuclear states, the U.S. and Russia, to cooperate in preventing WMD proliferation, keeping the peace, and strengthening international security, as well as cooperating on issues affecting the security interests of both countries.

Areas of Possible Cooperation

If we follow the logic of cooperation, it would be desirable for Russia and the U.S. to work jointly against external threats without disrupting each other's strategic stability and security. As is well known, at the "two plus two" meeting (a meeting between the heads of the foreign affairs and defense departments of the Russian Federation and the U.S.) held in Moscow in October 2007, Russia responded to American plans to deploy elements of an ABM system in Europe by putting forth its own proposals, including one

for joint use of the radar complex in Gabal, Azerbaijan.

Keep in mind that the Gabal radar complex is part of the Russian SPRN missile attack warning system and was not intended to acquire targets for the missile defense system. (Under the Protocol to the 1974 ABM Treaty each side could have only one missile defense deployment zone; accordingly, the establishment of a target designation radar in other regions was prohibited.) Russia has proposed to jointly develop and deploy a system at the Gabal radar complex that would be capable of acquiring targets for interceptor missiles in addition to detecting a missile's launch and flight trajectory, and the interceptors themselves could be deployed in the North Caucasus. Moreover, in view of the fact that, as we have previously shown, there is no particular urgency for the establishment of such a system, it was proposed that it be developed jointly by Russian and American companies, and operated by Russian crews with the involvement of American observers. If this is done, the doubts of the Russian side regarding the thrust of the ABM system could be resolved. However, the Americans rejected these proposals.

In addition to the Gabal radar complex there are other possible areas of missile defense cooperation between Russia and the U.S. (or NATO). These include, in particular:

1. At the end of the 1980s at U.S. insistence, Russia dismantled an early warning radar in the Krasnoyarsk region (Western Siberia). The U.S. believed that it would function as a target acquisition radar for interceptor missiles. It would seem to be advisable to begin joint work to reestablish an early warning radar in this region, which would make it possible to monitor all missile launches from Asia and from the waters of the Indian and Pacific oceans.

2. It would also be possible to examine the possibility of establishing a joint early warning radar in the Amur Oblast (Eastern Siberia) at the currently closed Svobodnyy Cosmodrome. If this is done, it will be possible to destroy even the intermediate-range missiles (1000-1500 km) that the DPRK will hypothetically be able to develop in the next 10-15 years for possible use against South Korea, Japan, and U.S. military bases in these countries, and thereby cover all the missile-threat directions in Asiatic Russia as well as in Japan and South Korea.

3. To cover the southern direction, in addition to the Gabal radar complex we can examine the possible joint use of the infrastructure at the Sary Shagan Test Range in Kazakhstan, where all the missile defense systems and all the missile guidance radars developed in the Soviet Union were tested.

4. The Armavir early warning radar (Krasnoyarsk Kray, South Russia) could be used jointly as an early warning radar in the south, and the Moscow ABM radar complex could be used as a target acquisition radar.

5. Serious attention should be given to President Putin's proposal to develop integrated data exchange centers in Moscow and Brussels from the national early warning systems, whereby information on missile launches could be jointly analyzed to issue recommendations for subsequent decision making. The implementation of this proposal would greatly enhance the level of trust between Russia on one side and NATO and the U.S. on the other.

The Russian-American Memorandum on Opening a Joint Data Exchange Center (JDEC) in Moscow, adopted more than 10 years ago, served as the basis for the Russian president's proposal, particularly for the following provisions:

- The JDEC shall be open for representatives of other countries to participate in its operation.
- JDEC participants are required to provide timely notification about upcoming missile launches (tests, military training, scientific uses, space launches, etc.).
- In the first stage the JDEC shall be equipped with national early warning system data display equipment, but subsequent plans call for interfacing them electronically, without the input of human operators.

Since for technical reasons missile defense weapons are effective only when functioning in automatic mode, the following functions could be assigned to the missile defense command post in the region where it is proposed the participating nations will exercise joint control:

- Collection and monitoring of information about the condition of national missile defense systems made available for use in the combined regional missile defense system;
- Transition of missile defense systems to a given state of readiness based on information received from various sources, including national early warning systems;
- Collection and analysis of information about the implementation of missions to destroy targets in the different trajectory phases.

The first step in the realization of this project can be the construction of a system to defend against non-strategic ballistic missiles. This is a natural outgrowth of ongoing work on Theater Missile Defense (TMD) between Russia and the U.S. and regarding European missile defense between Russia and NATO. It appears that no other actual missile threats to NATO and Russia exist at this stage. As later threats from ballistic missiles of strategic range emerge, the capabilities of the system can be increased.

On the whole, the implementation of Putin's proposals to create data exchange centers in Moscow and Brussels opens the possibility for initial deployment of joint centers for collection and analysis of information about missile threats and, at a later stage, the prospect for establishing joint command posts for a European missile defense system. The primary goal is the establishment and maintenance of a setting where all the participating countries will be able to predict the situation and adequately evaluate it. The results of the last NATO summit in Bucharest (April 2-4) and the meeting between the presidents of Russia and the U.S. in Sochi (April 5-6) provide a definite reason to hope for success in the search for a compromise alternative in the establishment of an effective missile defense system that would not disrupt strategic stability.

At the NATO summit the deployment of elements of the American ABM system in Europe was approved, but at the same time the need to establish a European missile defense system was noted. At the Sochi meeting two different compromise alternatives for deployment of a missile defense system in Europe were proposed. At this stage each presents an extreme position, but both show signs of compromise. The American position reflects an unwillingness to share control of ABM elements or the system as a whole with any other body; nevertheless, given compliance with a few fundamental details, it could form the basis for a joint compromise solution. The Russian position was based on the principle that everyone who participates in construction of a missile defense system should participate equally in controlling it. Joint construction of the system is a precondition for its effectiveness, and joint control relieves concerns over disruption of the strategic balance.

There are many possible compromise alternatives for resolving the situation involving U.S. plans to deploy ABM system elements in Europe. However, if the two sides are unable to come to a mutually acceptable solution, we believe that Russia will respond in both the political and military-technology arenas, which, of course, will affect the level of strategic security in the world as a whole and in Europe in particular. Russia is already making specific preparations for such actions. For example, it will very likely enhance work on advancing the means to penetrate and suppress the ABM systems; and there is also a possibility that funds will be assigned to develop additional means of preventative and counter-measures should the situation become increasingly aggravated.

Conclusion

It appears that the U.S. initiative to establish elements of an ABM system in Europe will be an extremely destabilizing factor in Russian-American relations. It causes serious concern in Russia as a threat to its national security and as a disruption of the strategic stability of the region and the world. Furthermore, it may lead to an unwarranted arms race and a reduction in the level of security in the world. Rather, we believe the differences in the Russian and American positions can be overcome in part only if both governments have a common goal—the establishment of a missile defense system not just to protect

against missile threats, but also to prevent proliferation of nuclear missiles and, above all, to reduce motivations to acquire nuclear weapons.

Dr. Petr B. Romashkin, Colonel (ret.), was Senior Expert at the Institute of World Economy and International Relations of the Russian Academy of Sciences, and Professor of the Academy of Military Sciences. This article for Ethics & International Affairs *was Dr. Romashkin's last work prior to his death in April.*

Dr. Pavel S. Zolotarev, Major-General (ret.), is Deputy Director of the Institute for U.S. and Canada Studies of the Russian Academy of Sciences, and Professor of the Academy of Military Sciences.

Bibliography:
1. Anureev I. "Weapons of Anti-Missile and Anti-Space Defense," *Voenizdat*, 1971.
2. Matveev O. "Anti-Ballistic Missile Defense as a Factor of Strategic Stability," *Strategic Stability*, No. 3, 1998.
3. Belous V. "Preparations for the Second Coming of the Star Wars," *Nezavisimaya Gazeta*, April 13, 2007.
4. "U.S. National Missile Defense: Consequences for Strategic Stability and Arms Control," edited by Ivan Safranchuk, PIR Study Papers, No. 15, 2000. Available at: www.pircenter.org/index.php?id=160.
5. Khozin G. "Washington's Space Strategy for the 21 Century," *USA and Canada: Economy, Policy, Culture*, No. 6 (368), June 2000.
6. Semeiko L. "Anti-Ballistic Defense and Strategic Stability: About the Reality of the Assessments," *USA and Canada: Economy, Policy, Culture*, No. 6 (368), June 2000.
7. Belous V., Evseev V. "Interception of the Russian Ballistic Missiles on the Boost Phase: Myth or Reality?" March 15, 2005. Carnegie Endowment. Available at: www.carnegie.ru/ru/pubs/media/72621.htm
8. Gornostaev D. "Anti-Ballistic Missile Defense—is a Global Problem," *Nezavisimaya Gazeta*, September 19, 2000.
9. Belous V. "US ABM System: Dreams and Reality," National Institute of Press, 2001.
10. "ABM: How it Was. The History of the Nuclear Umbrella," Washington ProFile, 2007.
11. Reagan R. "Address by the President to the Nation," 1983, 23/III.
12. "White Paper on the Necessity of the U.S. Nuclear Deterrent Updated," August 15, 2007.
13. *Aviation Week and Space Technology*, 1985, 21/1, Vol. 122, No. 3, p.20.
14. Lambakis S. "Missile Defense From Space," *Policy Review*, February 19, 2007. Available at: www.hoover.org/publications/policyreview/5516446.html.