

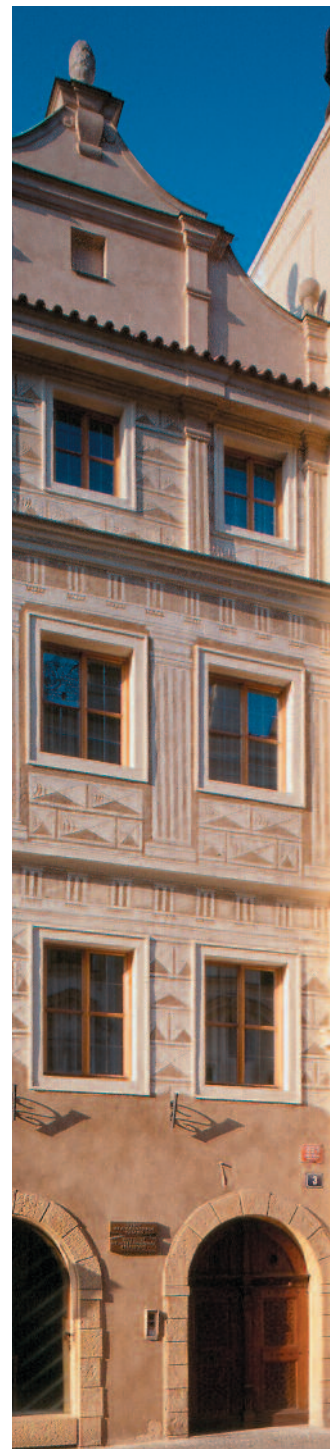
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# ABM Defense & Prospects of a New Russia-US “Reset”

## SUMMARY AND RECOMMENDATIONS

The Obama administration recently suggested concluding a legally binding agreement on transparency that would confirm that American BMD does not pose a threat to Russia’s deterrence forces, and also concluding a framework agreement on further cutting Russian and American nuclear arsenals. The USA may be interested in reducing the tensions with Russia over the missile defense with a view to break the deadlock on a wide complex of hard security and proliferation issues, including the hot problems of nonstrategic nuclear weapons in Europe and Iran and the North Korean nuclear programs, and also to ensure Russia’s support in managing regional crises – these days, especially that in Syria.

Moscow probably agrees that it should negotiate a legally binding agreement on transparency and confidence building measures with the USA. At the same time Russia continues in asking for legally binding guarantees that the US BMD is not aimed against its strategic forces as the sine qua none of any other talks and agreements on nuclear weapons with the US. The Kremlin also may propose some trilateral consultations between the USA, Russia, and Europe on BMD with a view to involve some European circles that are skeptical about the missile defense in the debate.



In a wider geopolitical context, Russia's policy towards the BMD issue results from Moscow's perception of the US quest for a compromise on strategic problems as a weakness. The US quest for a compromise may and most probably is used by Moscow to question the reliability of the American alliance obligations.

It cannot be ruled out that there are plans for a certain "big deal" between the two countries, at the possibility of which Moscow hints. In the context of this deal, Russia would consent to new negotiations on further reductions of strategic nuclear weapons in exchange for the USA consenting to limit its non-nuclear strategic systems, take into account the conventional arms in Europe, limit the US naval activity in the seas around Europe and accept future Russian proposals on European security aimed at enfeebling NATO.

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Controversies about the US missile defense are among the core issues of the US-Russia relationship. In particular, Moscow makes its consent to discussing further nuclear arms control and some other key matters of global and European security conditional on the USA's assent to "removing Russia's concerns over America's missile defense plans". Over a long period of time Russian-American relations on missile defense were in a deadlock; yet some signals that were recently given by Washington and Moscow possibly indicate that this state of affairs may change.

## Russian and American stands

In 2010–2011, after the USA announced the Phased Adaptive Approach to the BMD in Europe (EPEE), Russia suggested "sectoral" and/or "joint" European BMD systems as alternatives to the US plan.<sup>1</sup> Since the USA and NATO rejected these proposals, Russia's approach to the US ballistic missile defense consisted of three main points.

Moscow insists that "Aegis Ashore" sites in Romania and Poland with a land-based Aegis SPY-1 radar and 24 SM-3 interceptors each, the US's Aegis-equipped BMD warships with SM-3 interceptors, and the most powerful Ground Based Interceptors (GBI) stationed in California and Alaska either are, will be, or may be (there are different wordings for this in different documents and statements, depending on the circumstances) detrimental to the Russian strategic nuclear forces. Mostly, Russian officials mentioned the deployment of the SM-3 Block IIB interceptors, a system that is still at the conceptual stage of its development, in Poland and on board warships in the Barents Sea – that is, implementation of the fourth phase of the EPAA – as a threat.

In this light, Russia demands a legally binding agreement guaranteeing that the US missile defense is not and will not be aimed against Russian strategic missiles – both land- and sea-based. Russia thus presumes to impose limits on the performance characteristics of the American BMD components – above all, the interceptors' burn-out velocity – and on the geographical zones of their actual and potential deployment, including the operating areas of the BMD warships.<sup>2</sup> Sometimes, Russian diplomats and military commanders have mentioned such guarantees with regard to the US missile defense elements that are planned to be deployed in Europe and in the Mediterranean, the Black, and the Barents Sea, yet mostly they spoke about the BMD in general, which meant that in their view, such limits should be imposed for the BMD components stationed in the USA and the seas nearby.

Finally, albeit during the last few months Moscow did not mention its threat to take military countermeasures in response to the US missile defense in Europe, including a pre-emptive attack, this threat was not removed from Russia's official stance.<sup>3</sup>

The American and NATO positions can be expressed in a few basic points. Firstly, the NATO missile defense is not directed against Russia; it is not and will not be able to undermine Russia's strategic deterrence. Through transparency and cooperation with the United States and NATO, Russia would see that this system is designed for ballistic missile threats from outside the Euro-Atlantic area. Secondly, the USA and NATO seek to work cooperatively with Russia. Thirdly, since "NATO alone bears responsibility for defending the Alliance from ballistic missile threats ... the United States and NATO cannot agree to Russia's proposals for 'sectoral' or 'joint' missile defense architectures".<sup>4</sup> And, fourthly, "as ballistic missile threats continue to evolve", the USA "cannot place limits or constraints on [its] ability to defend [itself], [its] allies, and [its] partners. This includes any limitations on the operating areas of [its] BMD-capable multi-mission Aegis ships".<sup>5</sup>

One may also remark that Russia has no technologies that are able to add value to the American and NATO missile defenses. In particular, the idea of "sectoral" defense is pointless since Russia has no interceptors that would be able to shoot down Iranian missiles flying over its territory. Even the most advanced Russian systems, the S-300 PMU2 and the S-400, which potentially could be used in the missile defense, have a very limited

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vertical range against ballistic targets – only up to 27–30 kilometers, while Iranian missiles aimed at targets in Europe will travel over Russia at an altitude of a few hundred kilometers. In their turn, the

American SM-3 Block IA/B interceptors can hit ballistic targets at altitudes of up to 250 kilometers. As for a "joint" system, Moscow had in mind that it should be based on the "two buttons" principle in decision-making on launching the interceptors, which is definitely unacceptable to the USA and NATO. Besides, the Russian suggestion that information from Russian early warning radars could be used in the European missile defense was impractical, as this information can add almost nothing to the information produced by American missile defense radars.

Finally, in order to guarantee that the US and NATO missile defense cannot undermine Russian strategic forces it is necessary to limit the performance characteristics of most of the components of a BMD system, including the speed, number and deployment of the interceptors; the location of the radars; the operation speed of the computers; the detection, tracking and surveillance aptitudes of the space based sensors; the ranges and resolutions of the land based radars; the capability of the sensors on board the interceptors of the exoatmospheric kill vehicles to seek the enemy's warheads in space and discriminate them from decoys, et cetera. It is hardly possible to agree on the concrete limits for such characteristics; but even if such limits are decided upon, Russia most probably will demand a verification of the corresponding agreements, which means that it will have access to highly

sensitive crucial military technologies. This is hardly acceptable for the USA, especially because any such agreement would in actual fact be one-sided, as it would introduce limits on American programs for the simple reason that Russia is lagging behind America in the corresponding areas of science and technology and will probably continue to do so.

## New elements in the US approach to the BMD and strategic nuclear arms control

On March 15, 2013 US Secretary of Defense Chuck Hagel announced that in order to protect the country against the North Korean missile threat, the USA would deploy 14 additional GBIs in Alaska, which will increase their number from 30 to 44. In addition, the USA delayed the implementation of the fourth phase of the EPAA until 2022, which meant a delay in the deployment of the SM-3 Block IIB interceptors in Poland and on board Aegis equipped warships.<sup>6</sup> American officials said that the restructuring of the fourth phase of the EPAA in no way resulted from Russia's objections but was only caused by technological difficulties and budget considerations. However, a number of American and Russian experts acknowledged that a delay in the deployment of the SM-3 Block IIB in Europe may stimulate Russia to look for a compromise with the USA on the BMD. It was exactly the apparent deployment of these potentially most advanced interceptors that Moscow used in arguing against the missile defense in Europe.

A month later, in mid-April 2013, Tom Donilon, the National Security Advisor in the Obama Administration, delivered to Vladimir Putin the US president's letter containing a number of proposals aimed at easing the tensions and seeking ways to cooperate. Albeit Obama's letter was not made public, the usually well-informed Russian newspaper Kommersant said that it had the text of the document. The newspaper revealed that its key idea was "to reaffirm that the US and Russia are two great powers performing a special historic mission and should jointly address global issues rather than argue over trifles".<sup>7</sup> Of principal importance for Russia were two of Obama's suggestions: firstly, the two countries were "to develop and conclude a legally binding agreement on transparency, which would include exchange of information to confirm that [the two countries]" (BMD – Y. F.) programs do not pose a threat to each other's deterrence forces' and, secondly, they were to conclude a framework agreement on further cutting their nuclear arsenals.<sup>8</sup> Both of the agreements proposed by president Obama imply that the proposed agreements would be sole-executive agreements, for which the president does not need to seek the consent of Congress.<sup>9</sup>

The transparency agreement proposed by the US administration may require declassifying data on the American missile defense characteristics, and the burn-out speed of inter-

ceptors is mostly mentioned in this context.<sup>10</sup> In 2012, the Department of Defense admitted that it discussed the pluses and minuses of providing Russia with classified data on the “burn-out velocity” of the SM-3 interceptors that were planned to be deployed in Europe.<sup>11</sup> In May 2013, James Syring, the director of the US Missile Defense Agency, confirmed that he had been asked by the Defense Secretary’s office for guidance on whether particular pieces of missile defense information such as the speed of the US interceptors were classified or not.<sup>12</sup> If the Obama administration decides to declassify some technical details of the US BMD, it may be seriously challenged by the Republicans in Congress, as they strictly oppose sharing any data about American antimissile capabilities with Russia.

In exchange for a legally-binding transparency agreement, which Washington hopes will allay Russia’s fears of the US BMD, the Obama administration wants negotiations with Moscow with a view to reduce the ceiling on strategic nuclear warheads established by the New START to 1000-1100 weapons (according to the Treaty’s counting rules), that is, to decrease it by roughly 30 per cent. American experts said that this plan was coherent with President Obama’s aspiration to “put an end to Cold War thinking” by reducing “the role of nuclear weapons in our national security strategy”.<sup>13</sup> In a more practical context, it resulted from the revision of the US nuclear policy adopted in 2010. Experts referred to an agreed draft of the directive, presuming that it would be “target-

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ing fewer, but more important, military or political sites in Russia, China, and several other countries”.<sup>14</sup>

It seems that the USA’s renewed approach to the BMD and strategic weapons issues is in line with the

wider changes in the American foreign policy. The current US administration is focusing upon domestic issues, reducing the defense budget and aspiring to avoid any new involvement of the US in regional and local conflicts. Besides, as the gravity center of the global economy and politics is moving to East Asia and the Pacific, the USA will progressively center its resources on these regions with a view to counteract China’s growing influence there. In this light the USA may be interested in reducing tensions with Russia over the missile defense issue with a view to break the deadlock on a wide complex of hard security and nuclear proliferation issues, including the hot problems of nonstrategic nuclear weapons in Europe, and Iran and North Korea’s nuclear programs, and also to ensure Russia’s support in managing regional crises – these days, especially the one in Syria. The question, however, is whether these goals can be achieved.

## Russia's response

Initially, Moscow's reaction to the recent American suggestions was negative. Russian officials reiterated that they wanted legally binding guarantees that the USA BMD is not aimed against Russia. It seems, however, that by the end of April 2013 some new elements have appeared in Russia's approach to the problem.

In particular, in an interview published on April 29, 2013, Sergey Lavrov, when answering a question about missile defense, uttered a few phrases that were not very rich in content: missile defense "still divides us"; "if the Russian Federation and the United States bring their minds together, we can develop a common system which would be efficient in protecting the Euro-Atlantic region from threats coming from outside this region"; "inside the United States there are different opinions as to how to handle the problem of missile proliferation, so we are reiterating our openness to discussing this issue with the United States".<sup>15</sup> Yet he did not mention any legally binding guarantees, which is an inevitable element of Russian statements about the issue. In addition, Lavrov said that if the USA, Russia and the Europeans "[found] a response to the threat of missile proliferation", it would bring Russia and NATO's relationship "to a qualitatively new level. It [would really be us moving] a step closer to us becoming allies again like we used to be during World War II".<sup>16</sup> This looks like a hint that a certain "big deal" between Russia and the West is possible only if the latter agrees with Moscow on the missile defense and poses the following question: what sort of deal would Moscow like to propose to the West?

In addition, Russia resumed the inter-ministerial consultations with the USA on missile defense. On May 1, 2013, the Russian Deputy Defense Minister Anatoly Antonov met with his American counterpart James Miller in Brussels. After the meeting Antonov said that he hoped to continue these talks in Moscow at the end of May. He has also mentioned that "problems like the European missile defense should be handled on a multi-lateral basis so that everyone realizes fully well the consequences of the decisions we take"; this means that the European states should participate in the BMD talks. He added that at "first glance, these U.S. proposals do not provide enough optimism for us to say that in dealing with the problems of missile defense, we can break the deadlock and achieve some kind of rapid breakthroughs" but "we are positive about the readiness of our American colleagues to listen to us, to try to understand Russian concerns", and that transparency and confidence-building measures "should be part of a package of solutions that could satisfy the Russian side".<sup>17</sup>

In the mid-May 2013, the Russian media outlined a piece of information "from Russian diplomatic sources" which said that Moscow "could well accept the US proposal" because "more transparency in the missile defense field is useful both in and of itself and as an instrument to improve mutual confidence". The source also noted that "if Moscow comes to

the conclusion that the technical parameters of the US missile defense elements it receives under this agreement show that Washington's plans do pose a threat to its deterrence forces, it will be unable to affect them anyhow, as the agreement provides only for exchange of information". Therefore, Russia will still continue to insist on long-term legally-binding agreements not only in order to improve transparency but also in order to guarantee that the US missile defense systems are not directed against its nuclear potential.<sup>18</sup>

Finally, the current Russian reaction to the US proposals for BMD has been outlined by the Secretary of the Russian Security Council Nikolay Patrushev, who has delivered Putin's reply letter to Washington. In an interview published on May 25, 2013, Patrushev said that "in principle" Obama's suggestions "are heading in the right direction", yet they are not enough. He said, "We value the readiness to ensure the transparency of the BMD programs ... [but] ... we need clear and solid guarantees that the development of the anti-missile assets of the USA and its allies will not undermine the efficiency of the Russian strategic deterrence".<sup>19</sup>

Thus, a possible outline of Russia's current approach is the following: Moscow most probably agrees that it should negotiate a legally binding agreement with the USA on transparency and confidence building measures. The decision to start the talks on this agreement may be taken at the Putin-Obama meeting on the sidelines of the G8 Summit in late June 2013 or on the sidelines of the G20 Summit in September 2013. At the same time, Moscow continues demanding legally binding guarantees that the US BMD is not aimed against its strategic forces. In addition, the Kremlin may propose, or may have proposed already, some trilateral consultations on BMD between the USA, Russia and Europe with a view to involve some European circles that are skeptical about missile defense in the debate.

## Is there a threat to the Russian strategic force?

The key argument of Russia is that the deployment of the SM-3 Block IIA/B interceptors negates or may negate its strategic forces. If this point is technically grounded, then the West should think of how to mitigate the Russian fears, yet if it is not, then Moscow uses it with political goals in view, above all to force the USA and Europe to accept the Russian demands regarding a number of hard security issues.

Russian officials do not present any proof of a threat posed by the US BMD to the Russian strategic deterrent that is based on a comparison of the performance characteristics of Russian ballistic missiles and those of the US missile defense systems. At the same time, some high-ranking Russian military officials in actual fact deny the Russian government's political position. For instance, the Commander-in-Chief of the Russian



Strategic Rocket Troops, Lieutenant-General Sergey Karakaev, said that for Russia, today, the BMD systems Patriot and SM-3 “do not present any threat. The speed of their interceptors could be, at most, 5 km/sec. The speed of our warheads is more than 8 km/sec. Thus, simply put, American interceptors cannot catch up with our missiles.”<sup>20</sup> It is important that Karakaev has mentioned the speed of 5 km/sec since this is the burnout velocity which most American independent experts attributed to the SM-3 Block IIA/B interceptors. Furthermore, on April 16, 2013, Dmitry Rogozin, the Deputy Prime Minister in charge of defense industry, said that “we have solved the issue of penetrating the U.S. missile shield and it poses no military threat to the country”.<sup>21</sup>

Russian and American experts fully agree that only a few Russian

strategic missiles’ trajectories to the USA, namely those stretching from the ICBMs bases in the European part of the country to targets on the American East Coast, pass near EPAA assets. At the same time, the majority of the Russian missile trajectories to the USA, including those of all the ICBMs stationed in Siberia, take a Polar route, and under no circumstances can they be intercepted by the BMD components deployed in Europe.

The American side provided some technical arguments proving that the EPAA cannot harm Russia’s strategic force. In particular, the BMD computers can calculate “a fire control solution” only after an enemy’s missile, which has to be intercepted, achieves burnout. During the boost phase the missile’s trajectory is not ballistic, and it must be on a ballistic trajectory for any BMD system to compute an intercept solution. Madelyn Creedon, the U.S. Assistant Secretary of Defense, said, “It is simply not the case that U.S. interceptors can launch prior to burnout. ... We need the time after burnout for targeting, and the interceptors are not fast enough in any event.”<sup>22</sup> According to the official American assessments, which assume perfect sensor aptitudes, an interceptor launch will not occur until approximately 60 seconds after the threat missile’s boost flight ends and the initial ballistic trajectory track is established, at the earliest. This means that the SM-3 interceptors may launch “approximately 190 to 240 seconds after a threat missile launch”.<sup>23</sup> As a result these interceptors simply will not be able to catch up with Russian ballistic missiles flying toward America over Europe.

By and large, this conclusion is supported by a few highly knowledgeable Russian experts, including Colonel-General Victor Yesin, the former Chief of Staff of the Russian Rocket Missile Troops, and a number of his former colleagues, albeit their calculations did not

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take into account the just mentioned argument about the time lag between the burnout and the interceptor launch. Their conclusions are summarized in the following table:

Key factors of a successful intercept of Russian ICBMs travelling over Europe for interceptors with a burn-out speed of 5.5 km/sec:			Results:
Location of ICBM base	ICBM type and burn-out time	Time between the start of the ICBM and the start of the interceptor	
Tver Oblast	Topol-M, 170 sec	200 sec	The interceptor may be at the potential intercept point 3 minutes later than a threat missile; intercept impossible
Tver Oblast	Topol-M, 170 sec	100 sec	The interceptor may be at the potential intercept point 80 seconds later than a threat missile; intercept impossible
Saratov Oblast	SS-19, 340 sec	320 sec	Intercept impossible as the interceptor cannot reach the altitude of 1450 km at a 2000 km distance from the launching point
Kaluzhskaya Oblast	SS-19, 340 sec	?	Intercept is possible; it requires 5–10 interceptors per target warhead or missile to implement a kinetic intercept

*Source: S. M. Rogov, S. N. Babich, V. I. Yesin, P. S. Zolotarev, V. S. Kuznetsov and others: Desyat let bez dogovora po PRO. Problema protivoraketnoi oborony v rossiisko-amerikanskich otnosheniyah (Ten years without the ABM Treaty. The BMD problem in the Russian-American relations). Moscow, 2012, p. 44–46.*

There are different assessments of whether the American GBIs deployed in Alaska and California may be effective against Russian ICBMs or not. For instance, General Yesin revealed that from his “contacts with the director of the Missile Defense Agency”, he had “learned that the Americans will need five to seven interceptors to engage one (single warhead – Y. F.) Topol-M missile”.<sup>24</sup> Or to pose it differently, a GBI force of 44 interceptors, which the USA plans to have by 2017, can intercept no more than eight Russian strategic warheads, while by 2020 Russia may have at least about 1000 of them.

## Moscow's goals

An agreement on missile defense transparency will provide Moscow with an access to some sensitive American data about BMD technologies. In addition, it will be portrayed by Russia's propaganda as evidence of its flexibility and its good-will approach to crucial hard security issues, and also as an essential concession to the Obama administration. Besides, Moscow's consent to conclude this agreement can result from its interest in some easing of the tensions in the relations with the West. Such an easing of the tensions would have the purpose of "freezing" the implementation of the "Magnitsky Act" in the United States and preventing the adoption of similar laws in Europe; and in a wider context, another purpose for it would be to mitigate Western criticism of human rights violations in Russia.

Yet it does not mean that Russia's long-term strategy towards the West is changing. In particular, there are no signs that Moscow will consent to start talks with the USA on further reductions of the strategic nuclear weapons. In this light, Moscow uses and most probably will use the US refusal to fully satisfy the Russian politically motivated but not technically grounded demands related to missile defense to justify its own military build-up, including its build-up of strategic nuclear weapons, and to discredit America by portraying it as the main obstacle for the limitation and reduction of nuclear weapons.

In a wider geopolitical context, the Russian policy towards the BMD issue results also from Moscow's perception of the US quest for a compromise on strategic problems as a weakness, which confirms the officially accepted view that "the historical West's potential to dominate in the global economy and politics is continuing to diminish".<sup>25</sup> The concept of the USA's progressing weakness may be and most probably is used by Moscow to question the reliability of American alliance obligations, including their reliability in the eyes of the leaders of Asian countries, who are particularly sensitive to what they consider as a loss of face.

However, it cannot be ruled out that a certain "big deal" between the two countries, at the possibility of which Lavrov hinted, will come about. This 'big deal' would include Russia's consent to new negotiations on further reductions of strategic nuclear weapons

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in exchange for the USA's consent to limit its non-nuclear strategic systems, take into account the conventional arms in Europe, limit the US naval activity in the seas around Europe and accept some Russian proposals on European security aimed at enfeebling NATO.

## Endnotes

- <sup>1</sup> The idea of "sectoral" defense presumed that if this system became a reality, Russia would take responsibility for shooting down missiles fired towards Europe which would fly over its territory while NATO countries would do the same for missiles fired towards Russia. The idea of "joint" missile defense presumed that Russian, American and European ABM radars, missile-interceptors, and command and control centers would be combined to form an integrated network.
- <sup>2</sup> Burn-out velocity is the speed achieved by a ballistic missile at the moment of the boost phase termination.
- <sup>3</sup> Speaking at an international conference in Moscow in May 2012 the then head of the Russian General Staff General Makarov said, "Given the destabilizing character of the missile defense system (in Europe – Y. F.) ... a decision about a pre-emptive use of all available weapons (against this system – Y. F.) will be made in a period of exacerbation of the situation". Online: [tvzvezda.ru/schedule/specialprojects/content/201204281353-w91r.htm/201205031250-71gg.htm](http://tvzvezda.ru/schedule/specialprojects/content/201204281353-w91r.htm/201205031250-71gg.htm).
- <sup>4</sup> Frank A. Rose, Deputy Assistant Secretary, Bureau of Arms Control, Verification and Compliance. Implementation of the European Phased Adaptive Approach. Remarks. Polish National Defense University. Warsaw, Poland. April 18, 2013. Online: [www.state.gov/t/avc/rls/2013/207679](http://www.state.gov/t/avc/rls/2013/207679).
- <sup>5</sup> Ibidem.
- <sup>6</sup> *Missile Defense Announcement as Delivered by Secretary of Defense Chuck Hagel*. The Pentagon, Friday, March 15, 2013. Online: [www.defense.gov/Speeches/Speech.aspx?SpeechID=1759](http://www.defense.gov/Speeches/Speech.aspx?SpeechID=1759).
- <sup>7</sup> Elena Chernenko: *Doveritelnye gramoty (The instruments of trust)*. Kommersant. May 15, 2013. On-line: [www.kommersant.ru/doc/2187951?isSearch=True](http://www.kommersant.ru/doc/2187951?isSearch=True).
- <sup>8</sup> Ibidem.
- <sup>9</sup> According to the US law, a sole-executive agreement does not require the approval of Congress and can only cover matters within the President's authority or matters in which Congress has delegated authority to the President, that is, matters of foreign policy, matters in which the president acts as commander-in-chief, and matters stemming from a prior act of Congress, or from a prior treaty.
- <sup>10</sup> In the USA, the burn-out speed of missile interceptors is classified information; however, most American independent experts believe that the burn-out speed of the SM-3 Block IIA/B interceptors cannot be more than 5.0–5.5 km/sec. American law presumes that any transfer of secret technical information would have to be considered by the National Disclosure Policy Committee (a governmental interagency committee).
- <sup>11</sup> In March 2012, a Pentagon spokesperson said that "no determination has been reached on whether to furnish Russia with SM-3 interceptor 'velocity at burnout' information, though such a move is not off the table. Velocity at burnout, as the term indicates, is the speed of an interceptor at the point at which a defueled rocket motor stops functioning". See: *U.S. Considering Antimissile Data Transfer to Russia*, Pentagon Says. March 12, 2012. Online: [www.nti.org/gsn/article/us-seriously-considering-antimissile-data-transfer-russia-pentagon-say](http://www.nti.org/gsn/article/us-seriously-considering-antimissile-data-transfer-russia-pentagon-say).
- <sup>12</sup> Rachel Oswald: *Missile Defense Head Says Doesn't Need Extra \$250M for East Coast Interceptor Site Work*. Global Security Newswire. May 9, 2013. Online: [www.nti.org/gsn/article/mda-head-says-no-need-extra-250m-east-coast-missile-site-research/](http://www.nti.org/gsn/article/mda-head-says-no-need-extra-250m-east-coast-missile-site-research/).
- <sup>13</sup> Hans M. Kristensen: *Options for Reducing Nuclear Weapons Requirements*. Federation of American Scientists. February 13, 2013. Online: [www.fas.org/blog/ssp/2013/02/nukeoptions.php](http://www.fas.org/blog/ssp/2013/02/nukeoptions.php).
- <sup>14</sup> R. Jeffrey Smith: *Obama Administration Embraces Major New Nuclear Weapons Cut*. The Center for Public Integrity. February 8, 2013. Online: [www.publicintegrity.org/2013/02/08/12156/obama-administration-embraces-major-new-nuclear-weapons-cut](http://www.publicintegrity.org/2013/02/08/12156/obama-administration-embraces-major-new-nuclear-weapons-cut).
- <sup>15</sup> *Transcript of an Interview Given by the Foreign Minister of Russia S. Lavrov to a Foreign Policy Magazine*, published on April 29, 2013. Online: [www.mid.ru/bdcomp/brp\\_4.nsf/e78a48070f128a7b43256999005bcbb3/3bbaf8ed0603efd044257b5c004e77b0!OpenDocument](http://www.mid.ru/bdcomp/brp_4.nsf/e78a48070f128a7b43256999005bcbb3/3bbaf8ed0603efd044257b5c004e77b0!OpenDocument).
- <sup>16</sup> Ibidem.
- <sup>17</sup> Zamministry oborony Rossii i SShA obsudili predlozheniya Washingtona po PRO (The Deputy Minister of Defense of Russia and the United States discussed the proposals on missile defense in Washington). Rosbalt. May 1, 2013. Online: [www.rosbalt.ru/main/2013/05/01/1124741.html](http://www.rosbalt.ru/main/2013/05/01/1124741.html).
- <sup>18</sup> Elena Chernenko: *Doveritelnye gramoty (The instruments of trust)*. Kommersant. May 15, 2013. Online: [www.kommersant.ru/doc/2187951?isSearch=True](http://www.kommersant.ru/doc/2187951?isSearch=True).
- <sup>19</sup> "Predlozheniya Baraka Obamy idut v pravilnom napravlenii, no etogomalo" ("Barack Obama's proposals are heading in the right direction, yet they are not enough"). Kommersant. May 25, 2013. Online: [www.kommersant.ru/doc/2197826](http://www.kommersant.ru/doc/2197826).
- <sup>20</sup> Interview given to Komsomolskaya Pravda: *Komanduyustshii RVSN general-leitenant Sergey Karakaev: "Vladimir Vladimirovich byl prav – my mozhem unichtozhit SShA bystreet xtm zapol chasa"* (The RVSN Commander-in-Chief Lieutenant-General Sergey Karakaev: "Vladimir Vladimirovich was quite right; we can eliminate the USA in less than half an hour"). Komsomolskaya Pravda. December 16, 2011.

- <sup>21</sup> *US Missile Shield No Threat to Russia – Deputy PM*. RIA Novosti. April 16, 2013. Online: [en.ria.ru/world/20130416/180661245/US-Missile-Shield-No-Threat-to-Russia---Deputy-PM.html](http://en.ria.ru/world/20130416/180661245/US-Missile-Shield-No-Threat-to-Russia---Deputy-PM.html).
- <sup>22</sup> Madelyn Creedon, Assistant Secretary of Defense: *U.S. Ballistic Missile Defense*. Moscow. May 3, 2012. P. 12.
- <sup>23</sup> RDML Randall M. Hendrickson, USN Deputy Director of the Missile Defense Agency. European Phased Adaptive Approach (EPAA) Ballistic Missile Defense-A Technical Overview. Missile Defense Conference, Moscow, Russia, May 3–4, 2012. Slide 4.
- <sup>24</sup> *US Needs 5–7 GBIs to Intercept One Topol ICBM – Expert*. RIA Novosti, April 2, 2013. Online: [www.en.rian.ru/military\\_news/20130402/180401687/US-Needs-5-7-GBIs-to-Intercept-One-Topol-ICBM---Expert.html](http://www.en.rian.ru/military_news/20130402/180401687/US-Needs-5-7-GBIs-to-Intercept-One-Topol-ICBM---Expert.html).
- <sup>25</sup> *Kontseptziya vneshnei politiki Rossiiskoy Federatzii (Foreign policy concept of the Russian Federation)*. Approved by Vladimir Putin, the President of the Russian Federation, on February 12, 2013. Online: [www.mid.ru/brp\\_4.nsf/newsline/6D84DDED EDBF7DA644257B160051BF7F](http://www.mid.ru/brp_4.nsf/newsline/6D84DDED EDBF7DA644257B160051BF7F).