

# **INFORMATION SERIES**

Issue No. 429 April 17, 2018

## Russian Lies and Hypocrisy Concerning Missile Defense

### Dr. Mark Schneider

Mark B. Schneider is a senior analyst at the National Institute for Public Policy and a former senior official in the Defense Department.

On March 1, 2018, President Putin delivered to the Russian Duma the most rabid speech we have ever heard from him. Putin started by staking a claim to all the states of the former Soviet Union and bemoaning their loss. How did Putin justify this claim? According to Putin, it is because Russia "... was known as the Soviet Union or Soviet Russia abroad..." Perhaps not the most salient legal argument in history. He then unveiled five new Russian nuclear weapon systems which he proclaimed had no counterparts elsewhere. Well-known Russian journalist Pavel Felgenhauer summed it up very well: "Putin called on the West to admit defeat, sit down and negotiate an end of sanctions and a new world order that will grant Russia an 'equal status.' Russia is not aggressive, according to Putin, but it demands what it believes it is due – otherwise, its doomsday nuclear super weapons are ready."

Putin's speech contained the usual Russian falsehoods about U.S. missile defense taken to an extreme. He said, "If we do not do something, eventually this will result in the complete devaluation of Russia's nuclear potential. Meaning that all of our missiles could simply be intercepted." <sup>3</sup> This is clearly impossible in the foreseeable future even if the U.S. were to deploy a massive missile defense system and Russia had nothing beyond Soviet-era countermeasure technology. Significantly, this is not the case since the new Russian missiles, now deployed, reportedly have enhanced countermeasures. <sup>4</sup> Indeed, at various times many senior Russian officials, including Putin, have admitted that U.S. missile defenses are not a problem for Russia. For example:



# Information Series Issue No. 429 | April 17, 2018

- "Even the most sophisticated air-defence system will be unable to protect the country [the U.S.] from 100 or 200 nuclear charges." – Colonel General Vladimir Yakovlev, Commander of the Strategic Missile Force, December 1999.
- "As is well known, Russia and the U.S., unlike other nuclear powers, have for a long time possessed effective means to overcome missile defenses. Therefore I fully believe that the decision [withdrawal from the ABM Treaty] taken by the president of the United States does not pose a threat to the national security of the Russian Federation." President Vladimir Putin, December 13, 2001.6
- "We can already say that current and future missile defense systems, created today, tomorrow and in the foreseeable future ... will be successfully overcome by our intercontinental ballistic missiles and their warheads." General of the Army Yuriy Baluevskiy, Chief of the General Staff, May 2006.
- "We have the capability to surpass any antimissile system." Colonel General Sergey Ivanov, Russian Defense Minister, February 2007. 8
- "We are absolutely not concerned" about U.S. missile defense deployment in Europe. Colonel General Vladimir Mikhailov, Air Force Commander, February 2007. 9
- "A new nuclear payload for intercontinental ballistic missiles that has been developed in Russia will be able to penetrate all existing and prospective systems of missile defense."
   Yuri Solomonov, Chief designer of the Yars ICBM and the Bulava SLBM, January 2011.
- "All these Aegis and such-like systems do not present any threat to the Russian strategic nuclear forces." – Yuri Solomonov, April 2011.
- "To accomplish the mission of missile defence penetration, the new missiles have characteristics that allow us to describe them as invulnerable in all phases of their flight." – Colonel General Sergei Karakayev, Commander of the Strategic Missile Force, December 2011. 12
- "The analysis of Russian military experts has found that 'neither the firepower potential, nor the data computing capacity of the currently deployed US missile defense' installations could deal with a swarm attack of the Russian nuclear triad..." -- Colonel General Sergei Karakayev, Commander of the Strategic Missile Force, December 2015. (Emphasis in the original). <sup>13</sup>
- "The threats to the Russian Strategic Missile Forces coming from the European segment of missile defense are limited and do not lead to a critical reduction of combat capacities of the Russian Strategic Missile Forces." -- Colonel General Sergei Karakayev, Commander of the Strategic Missile Force, May 2016. 14
- "A missile defense system of this type [European missile defense], from the military and technological point of view, poses no danger to Russian strategic nuclear forces." -- Yuri Solomonov, Designer General of the Moscow Institute of Thermal Technology, May 2016. 15
- "We have enough technical, intellectual and physical means in order to overpower this entire rubbish [the European missile defense] that they [the U.S.] have built." -- Admiral (ret.) Vladimir Komoyedov, Chairman of the Russian State Duma Defense Committee, June, 2016. 16



INFORMATION SERIES
Issue No. 429 | April 17, 2018

- "We can rip their air defenses apart; at the moment [the US defense shield] poses no serious military threat to us, except for provocations." Dmitriy Rogozin, Deputy Prime Minister, February 2017. (Emphasis in the original). <sup>17</sup>
- "Today the strategic nuclear forces are able to reliably deliver an unsustainable blow to any aggressor, including one possessing missile-defense systems." - General of the Army Valery Gerasimov, Chief of the General Staff, November 7, 2017. 18

In 2012, the Russian Defense Ministry held a major conference in Moscow to attack U.S. missile defense. All Russia could even allege was that <u>if</u> U.S. missile defense interceptors deployed in Europe had a velocity of five kilometers per second, an intercept from the Baltic Sea and the Norwegian Sea was possible if the Russian missile flew directly over the site.<sup>19</sup> The Russians did not mention that the reported velocity of U.S. interceptors to be deployed in Europe was lower than five kilometers per second<sup>20</sup> and the ballistic missile trajectory they depicted would have impacted in the ocean, not in the U.S. At the Moscow conference, the U.S. Missile Defense Agency demonstrated that the U.S. system being deployed in Europe had no capability to intercept Russian ICBMs targeted on the U.S.<sup>21</sup> Indeed, three months before the Moscow missile defense conference, Yuriy Solomonov, Russia's leading missile designer, told Putin face to face that with regard to the missile defense system in Europe, "In most cases – and I'm saying this absolutely officially and competently – this is an absolutely far-fetched threat to our strategic potential." <sup>22</sup>

### Russian Missile Defense History and Current Capabilities

Russian hypocrisy on missile defense is illustrated by the fact that Russia says it is building what it calls an "aerospace defense" system designed to defend against all types of ballistic missiles as well as bombers, cruise missiles, hypersonic missiles and satellites.<sup>23</sup> In 2012, Lieutenant General Oleg Ostapenko, then-Aerospace Defense Troops commander, listed one of main functions of the Russian Aerospace Defense Forces as, "Destroying ICBM and SLBM warheads and destroying or functionally suppressing enemy military spacecraft."<sup>24</sup> The focus of Russian missile defense activities is defending against the U.S. In 2010, General of the Army Nikolai Makarov, chief of the Russian General Staff, said "Russia's military is working to deploy an 'impenetrable' missile-defense shield by 2020."<sup>25</sup>

The Russian effort to develop its "aerospace defense" predates the U.S. decision to deploy a small missile defense system by almost a decade. Colonel General (ret.) Boris Cheltsov of the Academy of Military Sciences and former commander of the Russian Air Force, has revealed that, "Back in 1994, the first Russian Federation's Aerospace Defense project came about." <sup>26</sup> This could not have been a reaction to U.S. programs because in 1994 U.S. funding for missile defense, particularly for strategic missile defense, had been dramatically cut by the Clinton administration and there was no deployment program contemplated. While Russia was attacking U.S. missile defense deployment in 2005, General Cheltsov said, "The [Russian] aerospace defence system will become one of the major deterrents of low-intensity conflicts,



INFORMATION SERIES
Issue No. 429 | April 17, 2018

will prevent such conflicts from escalating to fully-fledged and world wars." <sup>27</sup> In 2007, Air Force Commander Colonel General Vladimir Mikhailov stated Russian missile defense would be "no less effective" than U.S. systems. <sup>28</sup> In 2011, in a rare moment of candor, Deputy Prime Minister Rogozin declared, "Concerning our aerospace and national missile defense, we will be working on it irrespective of what the United State and NATO are going to build." <sup>29</sup> Russia even demanded "red button" rights (i.e., launch authority) over U.S. missile defense in Europe but would not give the U.S. the same right. <sup>30</sup>

In 2011, First Deputy Minister of Defense Vladimir Popovkin said that Russia's first priority in defense is the strategic deterrence force which he said included the strategic nuclear forces, the missile attack warning system, and the Aerospace Defense System.<sup>31</sup> In January 2011, Lieutenant General Valerie Ivanov, Commander of the new Aerospace Defense Operational-Strategic Command, said the missile-space defense was being created, to cover the country and would initially "cover Moscow fully with the umbrella" and then Russia would expand the system.<sup>32</sup> In June 2015, Putin declared, "...we are actively strengthening our strategic nuclear forces and Aerospace Defence units..."<sup>33</sup>

The 2018 Nuclear Posture Review (NPR) noted, "Finally, despite Moscow's frequent criticism of U.S. missile defense, Russia is also modernizing its long-standing nuclear-armed ballistic missile defense system and designing a new ballistic missile defense interceptor." There are actually two elements of Russia's strategic missile defense system: the Moscow ABM system being upgraded to the A-235 configuration with improved missiles and other components, and the S-500 system. The upgraded Moscow system will be more capable but will be deployed in much smaller numbers.

In 2015, Major General Andrei Dyomin, then-acting commander of the Aerospace Defense Forces, estimated the effectiveness of the existing Moscow A-135 missile defense system at 90%.36 In 2017, Colonel Ilgar Tagiyev, head of the Russian Aerospace Forces' Directorate of Military Algorithms and Programs of the missile defense, said that against advanced MIRVed ICBMs the existing missile defense system at Moscow had an intercept "probability close to 100%."37 In April 2015, Major General Kuril Makarov, Deputy Commander of Russia's Aerospace Forces Command, stated, "Moscow's layered air defense grants 99% effective defense against air attack..." due to the deployment of S-400 and SA-20 defenses.38 In April 2018, Colonel Gennady Shlag, the acting chief of the 14th Air Force and Air Defense Army's air defense department, said that in a military exercise, the S-300 and the S-400 and the Pantsir-S1 "...managed to repel two massive missile attacks."39

Such claims are exaggerated but against offensive missiles without countermeasures Russian missile defenses could be very effective. In 2016, General Robin Rand, Commander of Air Force Global Strike Command, told the House Armed Services Subcommittee on Strategic Forces that the Minuteman III ICBM will have a difficult time surviving in the active anti-access/area denial environment of the future and if it "...is used to be a deterrent for this nation, then it



INFORMATION SERIES
Issue No. 429 | April 17, 2018

needs to have a high probability that it will get to the target that it's intended for." <sup>40</sup> The 2018 NPR recognized the need for "...capabilities for defeating advanced air and missile defenses." <sup>41</sup>

In 2009, Lieutenant General Sergei Razygrayev, a deputy commander of the Russian Air Force's for air defense forces, said, "...the nascent S-500 will be able to destroy intercontinental missiles and will have strategic aerospace defense elements in terms of interception altitude." In 2013, Lieutenant General Ostapenko said that the S-500 can intercept "low-orbital satellites and space weapons," and "...intercontinental ballistic missiles in the terminal phase of the trajectory and, within definite limits, in the midcourse sector." In 2013, Aerospace Defense Forces Deputy Commander for Air Defense Major General Kirill Makarov said that the S-500 could intercept ICBMs. In 2014, the Russian Defense Ministry issued a statement that said that the S-500 could "intercept ballistic targets of all types..." In 2015, Deputy Defense Minister Yuri Borisov repeated this statement." In 2016, Sputnik News reported that Lieutenant General Razygrayev said, "... that the S-500 can shoot down missiles in near space thus it will become an element of strategic missile defense."

These assessments are exactly what one would expect from a modern air defense missile system designed to have capabilities against ICBMs. The advantages of the S-500 are mobility, low cost, deployment in very large numbers, the claimed capability against hypersonic non-ballistic missiles and self-defense capability against all types of air or missile attack which will give it unique capabilities.

In March 2018, State Duma's defense committee chairman Vladimir Shamanov declared that the U.S. had deployed 400 ABM interceptor missiles against Russia and that Russia would do "mirror measures [which] have been undertaken, or would be undertaken without delay." <sup>48</sup> This is a classic example of blaming the U.S. for things that Russia was doing for its own purposes. He did not note that 356 of these interceptors (and they were not deployed against Russia) had no capability against ICBMs and SLBMs or that the type of missiles they could intercept were missiles Russia was prohibited from having by the INF Treaty. Nor did he note that Russia claims, "Our newest S-500 system with a new missile is better than any other U.S. analog." <sup>49</sup> Much of this can be explained by the fact that U.S. systems are not designed against a Russian level threat and are not nuclear capable as Russian air/missile defense missiles reportedly are. <sup>50</sup> Nuclear capability reduces the cost of missile defenses effective against ICBMs and SLBMs and reduces testing costs. Its downside is that the use of nuclear armed interceptors is limited to large scale and, indeed, nuclear warfare.

#### **Future Plans**

The scope of Russian strategic missile defense deployment will be very large. In 2015, the staterun *The Voice of Russia* reported that Aerospace Defense Forces Deputy Commander for Air Defense Major General Kirill Makarov said, "We will be able to provide missile defense not only to Moscow and the central industrial area but also to other sites on territory of Russia.



Information Series
Issue No. 429 | April 17, 2018

This is our response to the U.S. missile defense [project]."<sup>51</sup> One of the objectives of Russia's expanded strategic missile defense system is reportedly the defense of Russia's strategic nuclear forces.<sup>52</sup>

Thus, years before Putin announced that his new nuclear superweapons were a response to U.S. missile defense, Russian generals were saying that Russian missile defense was the response to U.S. missile defense activities, which also was not true. Russia would have done more or less the same thing irrespective of U.S. missile defense activities or arms control treaty constraints because of the impact of the Soviet legacy on their thinking. Whatever the Russians are doing at any time, they will blame it on the U.S. While the early S-500 plan was for 10 battalions by 2020<sup>53</sup> (it has been delayed with deployments now starting in 2020), in late 2017, *TASS* reported, "The S-500 is designed to replace its predecessor S-400."<sup>54</sup> The announced Russian plan for the S-400 involves deployment of 56 battalions.<sup>55</sup> If the S-500 replaces all S-400, Russia plans thousands of interceptor missiles capable of engaging ICBMs and SLBMs.

In the Russian world view, defending Russia against all missile threats is legitimate and defensive but defending the U.S. or our allies against even limited missile threats is a threat to strategic stability. Indeed, in March 2018, the Russian Foreign Ministry voiced concern about the Polish purchase of the Patriot air/missile defense system as "...an element of destabilizing the military political situation in Europe and as a threat to the national security of the Russian Federation." The Patriot only has capability against short- and medium-range ballistic missiles. Russia claims that even its current S-300 and S-400 systems are superior to the Patriot. According to the Russian Foreign Ministry, "...Russia has sufficient defence resources to secure the integrity of our western borders and to protect our territory." So why is the Patriot destabilizing? The Russian Foreign Ministry says the reason for Russian concern is that Poland "...is making significant efforts to modernize the military and technical capabilities of the national army, reforming the army units management system and increasing their number." This is another example of a gross double standard. According to President Putin, on December 22, 2017:

We have worked hard in the past few years – we have completed deep structural reforms of the Armed Forces and enhanced the efficiency of the entire system of military administration. We are steadily re-equipping all branches and arms of our Armed Forces. I will cite only a few figures that demonstrate the dynamics of this process. In 2012 modern weapons and hardware accounted for 16 percent in our troops, whereas now, at the end of 2017 it increased to about 60 percent and should reach 70 percent by 2021.... Russia should remain among the leading states, and in some areas, it must become an Absolute leader in the creation of a new-generation army that would fit into a new technological era.<sup>58</sup>



INFORMATION SERIES
Issue No. 429 | April 17, 2018

At the same meeting Russian Minister of Defense Sergei Shoigu stated:

In 2018, the Defence Ministry will have to address the following key tasks: bring the proportion of modern weapons and equipment in the Armed Forces to 61 percent of the total, specifically to 82 percent in the Strategic Nuclear Forces, 46 percent in the Land Forces, 74 percent in the Aerospace Forces and 55 percent in the Navy.<sup>59</sup>

#### Conclusion

The Russian attack on U.S missile defense is based upon lies and hypocrisy. Russia is attacking the U.S. for doing what Russia is actually doing and seeks a veto over U.S. defense decisions. U.S. missile defenses are not designed against Russia and reportedly have a very limited capability to intercept Russian strategic missiles. The emerging asymmetry in capabilities is made more dangerous by Russia's expansionist foreign policy and a military doctrine that allows for first use of nuclear weapons in limited war. Russian threat perceptions are paranoid. This is a serious concern. Indeed, President Putin has openly declared, "I learnt one rule in the streets of Leningrad: if the fight is inevitable, be the first to strike." <sup>60</sup>

In light of Russian and Chinese military doctrine, programs and international behavior, a good case can be made for designing our missile defense systems to deal with the Russian and Chinese threats. For example, a significantly upgraded national missile defense system could enhance deterrence of limited Russian nuclear attack and enhance the survivability of U.S. nuclear deterrent forces. Additionally, effective defenses of U.S. bases and carrier battle groups in the Asian Pacific theater are critical elements of our ability to deter Chinese attack and defeat it if it were to occur.

- 1. Vladimir Putin, "Presidential Address to the Federal Assembly," *Kremlin.ru*, March 1, 2018, available at http://en.kremlin.ru/events/president/news/56957.
- 2. Pavel Felgenhauer, "Putin Unveils Array of Nuclear 'Super Weapons' Aimed at US," *Eurasia Daily Monitor* Volume: 15 Issue: 32, (March 1, 2018), available at https://jamestown.org/program/putin-unveils-array-of-nuclear-super-weapons-aimed-at-us/.
- 3. Presidential Address to the Federal Assembly," op. cit.
- 4. "Army; Four missile regiments to be rearmed with Yars missile complex in 2017 commander," *Interfax*, December 16, 2016, available at https://dialog.proquest.com. "First regiment fully armed with RS-24 Yars missiles Defense Ministry," *Interfax*, August 11, 2011, available at https://dialog.proquest.com
- 5. Anatoly Yurkin, "Russia general calls US bluff about national ABM system," *ITAR TASS News Wire*, December 10, 1999, available at https://dialog.proquest.com.



## INFORMATION SERIES Issue No. 429 | April 17, 2018

- 6. Terenece Neilan, "Bush Pulls Out of ABM Treaty; Putin Calls Move a Mistake," *The New York Times*, December 13, 2001, available at http://www.nytimes.com/2001/12/13/international/bush-pulls-out-of-abm-treaty-putin-calls-move-a-mistake.html.
- 7. "Russian Missiles More Than a Match for U.S. 'Shield': General," *Agence France Presse*, May 24, 2006, available at http://defensenews.com/story.php?F=1823430&C=europe.
- 8. Thom Shanker, "Russian Criticizes U.S. Plan for Missile Defense System," *The New York Times*, February 10, 2007, available at http://www.nytimes.com/2007/02/10/world/europe/10gates.html?mcubz=3.
- 9. "Russia Doesn't Fear U.S. Missile Defense in Europe—Russian Commander," Moscow *Daily News Bulletin*, February 14, 2007, available at https://dialog.proquest.com.
- 10. Viktor Litovkin, "Fantasy-Level Nuclear Warheads. Topol, Bulava General Designer 'Tweaks' Federation Council Resolution on Prague Treaty," *Nezavisimoye Voyennoye Obozreniye Online,* January 29, 2011. (Translated by World News Connection).
- 11. Dmitriy Litovkin, "Bulava Designer Speaks Out Against Defense Ministry," *Izvestiya Online*, April 12, 2011. (Translated by World News Connection).
- 12. "Commander notes current, future Russian ICBMs' potential against missile defence," BBC Monitoring Former Soviet Union, December 18, 2011, available at http://dialog.proquest.com.
- 13. "US missile shield unable to repel massive Russian ICBM attack chief of strategic missile forces," *Russia Today*, December 16, 2015, available at https://www.rt.com/news/326121-us-missile-shield-russian-icbm/.
- 14. "Russia designing systems to penetrate future ABM network in Europe, which currently presents no threat Strategic Missile Forces commander (Part 2)," *Interfax*, May 10, 2016, available at https://dialog.proquest.com.
- 15. "Defence Industry; Missile defense in Europe poses no danger to Russian missile systems Yars, Topol designer general," *Interfax*, May 2016, available at http://dialog.proquest.com.
- 16. "Corridors of Power; Russia able to overpower U.S. missile defense shield in Europe, but necessary to continue dialogue on missile defense MP," *Interfax*, June 6, 2016, available at http://dialog.proquest.com.
- 17. "Russia's new ICBMs can 'rip apart' US anti-missile systems Deputy PM Rogozin," *Russia Today*, February 20, 2017, available at https://www.rt.com/news/377916-rogozin-russian-new-icbm/.
- 18. "Russian nuclear forces can strike any aggressor, overpowering missile defenses General Staff," *Interfax*, Novmeber 7, 2017, available at https://dialog.proquest.com.
- 19. Colonel E. Yu. Ilyin, "Coordination in BMD Area as an Element of Military Cooperation," Russian Ministry of Defense, May 3-4, 2012, pp. 8-9, available at mil.ru/files/.../Eng\_ILYIN\_Assessment%20of%20BMD% 20Global%20capabilities(1)...
- 20. Strategic Capabilities of SM-3 Block IIA Interceptors (June 30, 2016)," *Mostly missile defense*, June 30, 2016, available at https://mostlymissiledefense.com/2016/06/30/strategic-capabilities-of-sm-3-block-iia-interceptors-june-30-2016/.
- 21. "U.S. Ballistic Missile Defense," Missile Defense Agency, May 3, 2012, p. 11.
- 22. "Prime Minister Vladimir Putin meets with experts in Sarov to discuss global threats to national security, strengthening Russia's defences and enhancing the combat readiness of its armed forces," Prime Minister of the Russian Federation, February 24, 2012, available at http://archive.premier.gov.ru/eng/events/news/18248/.

- 8 -



## Information Series

Issue No. 429 | April 17, 2018

- 23. "Interview With Chief of Russian Federation Air Force Air Defense Major-General Viktor Vasilyevich Gumennyy by Aleksandr Pinchuk," *Krasnaya Zvezda Online*, April 26, 2013. (Translated by World News Connection).
- 24. Mark B. Schneider and Peter Huessy, "Russian Deployment of Missile Defenses Hidden in Plain Sight," *Gatestone Institute*, February 18, 2013, available at http://www.gatestoneinstitute.org/3590/russia-missile-defense.
- 25. Bill Gertz, "Inside the Ring Russian missile defense," *The Washington Times*, January 5, 2011, available at http://www.washingtontimes.com/news/2011/jan/5/inside-the-ring-442522451/?page=all.
- 26. Ibid.
- 27. "Russian space defence system to become main regional war deterrent," *BBC Monitoring Former Soviet Union*, April 7, 2005, available at https://dialog.proquest.com.
- 28. "Russia's Missile Defense No Less Effective Than America's—Commander," *Moscow Daily News Bulletin*, February 15, 2007, available at https://dialog.proquest.com.
- 29. "Russia will build its own missile defense system by all means Rogozin (Part 2)," *Interfax*, July 1, 2011, available at http://www.interfax.co.uk/russia-cis-general-news-bulletins-in-english/russia-will-build-its-own-missile-defense-system-by-all-means-rogozin-part-2/.
- 30. Schneider and Huessy, "Russian Deployment of Missile Defenses, Hidden in Plain Sight," op. cit.
- 31. "Interview with Vladimir Popovkin," *Rg.ru*, February 4, 2011, available at http://www.rg.ru/2010/07/12/popovkin.html.
- 32. Quoted in Keith Payne, Thomas Scheber, Mark Schneider, David Trachtenberg and Kurt Guthe, *Conventional Prompt Global Strike: A Fresh Perspective*, (Fairfax, Va.: National Institute Press, 2012), p. 44, available at http://www.nipp.org/wp-content/uploads/2015/11/CPGS\_REPORT-for-web.pdf.
- 33. "Reception in Honour of Graduates of Military Academies," Kremlin.ru, June 25, 2015, available from http://en. kremlin.ru/events/president/news/49763.
- 34. Department of Defense, *Nuclear Posture Review*, (Washington, D.C., US, Department of Defense, February 2018), p. 9, available at https://media.defense.gov/2018/Feb/02/2001872886/-1/-1/1/2018-NUCLEAR-POSTUREREVIEW-FINAL-REPORT.PDF.
- 35. "Moscow to Get Updated Missile Defenses-Deputy Minister," *Cihan News Agency*, December 11, 2013, available at https://dialog.proquest.com.
- 36. "New missile defense technologies could appear in Russia deputy defense minister (Part 2)," *Interfax*, December 11, 2012, available https://dialog.proquest.com.
- 37. Moscow's missile defense system capable of intercepting all existing ballistic missiles Russian Aerospace Forces," *Interfax*, January 30, 2017, available at http://dialog.proquest.com.
- 38. Alexander Mladenov, "Access Denied Fortifying Putin's Skies," *Air Forces Monthly*, Issue 334, January 2016, pp. 68-69.
- 39. "Russia's S-400, Pantsir systems hit ballistic cruise missiles during military drills," *TASS*, April 6, 2018, available at http://tass.com/defense/998150.
- 40. "Rep. Mike D. Rogers Holds a Hearing on Nuclear Deterrent Modernization Plans and Budgets," *Political Transcript Wire*, July 16, 2016, available at https://dialog.proquest.com.
- 41. Nuclear Posture Review, op. cit., p. 40.
- 42. "Aviation; S-500 air defense missiles to be able to intercept targets in near space," *Interfax*, October 2, 2009, available at https://dialog.proquest.com.



## INFORMATION SERIES Issue No. 429 | April 17, 2018

- 43. "Russia: Comments by Deputy Defense Minister Ostapenko on Aerospace Defense Troops Programs Commentary by Interfax-AVN, Moscow, 24 April: The New S-500 Air Defense Missile System Will Be Able To Effectively Combat Advanced Offensive Aerospace Weapons...," *Interfax-AVN Online*, April 26, 2013. (Translated by World News Connection).
- 44. "Corridors of Power; S-500 to be Russia's response to U.S. missile defense network Defense Ministry," *Interfax*, November 29, 2013, available at http://dialog.proquest.com.
- 45. "Russian Defense Ministry creating prospective S-500 air defense missile system statement," *Interfax*, March 26, 2014, available at http://search.proquest.com.
- 46. "Deputy Defence Minister: Russia's new S-500 system to destroy any target at any altitude," *TASS*, March 26, 2015, available at http://en.itar-tass.com/russia/725453.
- 47. "Russia's Cutting-Edge S-500 Missile System to Begin Tests This Year," *Sputnik News*, February 1, 2016, available at http://sputniknews.com/military/20160201/1034050340/russia-missile-s500-test.html.
- 48. "Russia undertakes mirror response to US' deployment of 400 ABM defense missiles," *TASS*, March 3, 2018, available at http://tass.com/defense/992637.
- 49. "Army; S-500 missile system will be completed on time, surpass foreign analogs ministry," *Interfax*, September 7, 2012, available at http://search.proquest.com.
- 50. Nuclear Posture Review, op. cit., p. 53.
- 51. "Russia's S-500 Can Intercept ICBMs; Moscow's Response To U.S. Missile Defense," *The Voice of Russia*, December 2, 2013, available at https://fortunascorner.com/2013/12/02/russias-s-500-can-intercept-icbms-moscows-response-to-u-s-missile-defense/.
- 52. Yuriy Vladimirovich Krinitskiy, "'Strategy': Creation of Aerospace Defense Requires Strictness in Defending Scientific Truths." *Vozdushno-Kosmicheskaya Oborona Online,* February 14, 2012. (Translated by World News Connection.)
- 53. "Defence Industry; Fifth regiment armed with S-400 missiles to be deployed in 2012 designer," *Interfax*, August 23, 2012, available at https://dialog.proquest.com.
- 54. "Russia at final stage of testing high-altitude interceptor for S-500 air defense system," *TASS*, July 20, 2017, available at http://tass.com/defense/957013.
- 55. "Russia to have 10 S-500, 56 S-400 air defence battalions official," *Interfax-AVN*, February 14, 2011, available at https://dialog.proquest.com.
- 56. "Briefing by Foreign Ministry Spokesperson Maria Zakharova, Moscow, March 29, 2018," Foreign Ministry of the Russian Federation, March 29, 2018, available at http://www.mid.ru/en/foreign\_policy/news/-assetpublisher/cKNonkJE02Bw/content/id/3145417.
- 57. "Russia/United States: Russia Might Sell S-400 Systems to US If Americans Feel Insecure," *Asia News Monitor*, February 12, 2018, available at https://dialog.proquest.com.: "Russia, NATO may agree on missile defence system details by June 2011 expert," *BBC Monitoring Former Soviet Union*, November 23 2010, available at https://dialog.proquest.com.
- 58. "Expanded meeting of the Defence Ministry Board, *Kremlin.ru*, December 22, 2017, available at http://en.kremlin.ru/events/president/news/56472.
- 59. Ibid.



# Information Series Issue No. 429 | April 17, 2018

60. "Meeting of the Valdai International Discussion Club," *Kremlin.ru*, October 23, 2015, available at http://en.kremlin.ru/events/president/news/50548.

The views in this Information Series are those of the authors and should not be construed as official U.S. Government policy, the official policy of the National Institute for Public Policy or any of its sponsors. For additional information about this publication or other publications by the National Institute Press, contact: Editor, National Institute Press, 9302 Lee Highway, Suite 750 | Fairfax, VA 22031 | (703) 293-9181 | www.nipp.org. For access to previous issues of the National Institute Press Information Series, please visit http://www.nipp.org/national-institute-press/information-series/.

© National Institute Press, 2018