

Russian Nuclear Strategy

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Today, Russia clearly is a revisionist power seeking imperial domination of Eastern Europe. If it were to achieve this, its imperial objectives would expand territorially. After taking the Crimea by force (had Ukraine resisted there would be serious fighting), the Kremlin launched military operations in Eastern Ukraine and exerted military pressure against NATO states and even neutrals. In Syria, it made war outside of the former Soviet Union for reasons that have little to do with fighting terrorism. Vladimir Putin replaced Boris Yeltsin's stance that Russia had no enemies with the rather paranoid view that the United States, NATO, and Japan are Russia's enemies and that the United States is seeking the destruction of Russia.¹ Ironically, this does not result in a defensive strategy—just the opposite. Russian nuclear weapons, and fear of nuclear war in the West, are seen in Moscow as means to discourage resistance to Russian actions and weaken the West.

Since the rise of Vladimir Putin, Russia has explicitly reserved the right to use nuclear weapons in response to a conventional attack and has made repeated nuclear attack threats.² Since 2014, Russia's nuclear threats (which began in 2007) have supported its aggression in the Ukraine and

¹ Pavel Felgenhauer, "Russia Prepares for War with the US and NATO, While Lacking Resources," *Eurasia Daily Monitor*, Volume 10, Issue 48 (March 14, 2013), available at www.jamestown.org/single/?tx_ttnews%5Btt_news%5D=40592&tx_ttnews%5BbackPid%5D=7#.VhbWeE31vow.

² Mark B. Schneider, *The Nuclear Forces and Doctrine of the Russian Federation*, (Fairfax Va.: National Institute Press, 2006), 20, available at <http://www.nipp.org/Publication/Downloads/Publication%20Archive%20PDF/Russian%20nuclear%20doctrine%20--%20NSF%20for%20print.pdf>.

bolstered its intimidation of weak NATO states on its borders.³ As Secretary of Russia's National Security Council under Yeltsin, Vladimir Putin played a leading role in the development of Russia's nuclear first use doctrine, which he signed into law in 2000 as Acting President.⁴ Many have attributed Russia's nuclear weapons emphasis to Russian military weakness. While there is truth in this assessment, other factors such as the legacy Soviet nuclear weapons policy and nostalgia for Soviet superpower status play a critical role.

The Soviet legacy nuclear weapons strategy involved a covert policy of massive nuclear weapons first use as documented in declassified Soviet and former Warsaw Pact documents.⁵ The Soviet investment in nuclear capability was enormous. Soviet nuclear weapons peaked in the 1980s at 45,000, about "17,000 warheads above estimates from the U.S. intelligence community (IC) at the time."⁶ Putin's nuclear doctrine adapted Soviet nuclear strategy to post-Soviet reality.

Despite its weak economy, Russia covets a Soviet-like superpower role. Aleksey Arbatov, former Vice Chairman of the Duma Defense Committee, has recently noted that Russia has "only 2.2 per cent of the world GDP."⁷ Thus, even "great power"

³ Keith B. Payne and John S. Foster, *Russian Strategy: Expansion, Crisis and Conflict* (Fairfax, VA: National Institute Press, 2016), 46-47, available at <http://www.nipp.org/wp-content/uploads/2016/01/FINAL-FOR-WEB-1.12.16.pdf>.

⁴ *Ibid.*

⁵ "Soviets Planned Nuclear First Strike to Preempt West, Documents Show Warsaw Pact Allies Resented Soviet Dominance and 'Nuclear Romanticism'," *The National Security Archive*, May 13, 2005, available at <http://www2.gwu.edu/~nsarchiv/NSAEBB/NSAEBB154/>; Lt. Gen. William E. Odom, "Comment on the 1964 Warsaw Pact War Plan (Remembering just how dangerous the Cold War was)," *Free Republic*, June 16, 2004, available at <http://www.freerepublic.com/focus/f-news/1154719/posts>.

⁶ Houston T. Hawkins, "Rethinking the Unthinkable," *National Security Science*, Los Alamos National Laboratory, December 14, 2014, 10, available at http://www.lanl.gov/discover/publications/national-security-science/2014-december/_assets/doc/NSS-december2014-rethinking_the_unthinkable.pdf.

⁷ "Russian press reviews possible retaliation to US sanctions," *BBC Monitoring Former Soviet Union*, July 27, 2017, available at <https://dialog.proquest.com/professional/professional/docview/1923562540?accountid=15509>.

status can only result from the power of Russian nuclear weapons (which may exceed that of the rest of the world) and Russian willingness to use them.

Contrary to popular belief, the United States does not enjoy nuclear parity with Russia.⁸ In fact, Russia has nuclear superiority. The illusion of nuclear parity is created by: 1) comparing the Russian active stockpile with the U.S. active and inactive stockpiles, 2) ignoring the 10-1 Russian advantage in tactical nuclear weapons, 3) dismissing the modernization asymmetry, 4) disregarding the massive Russian advantage in nuclear weapons production capability, and 5) ignoring operating practices that keep relatively more Russian warheads on alert than American.⁹

Houston T. Hawkins of the Los Alamos National Laboratory points out, "Today, estimates are that Russia has about 4,500 strategic weapons in its inventory. But how accurate are these new estimates?"¹⁰ Indeed, in 2009, *ITAR-TASS*, the main official Russian news agency, stated that Russia probably had between 15,000 and 17,000 nuclear weapons.¹¹ This is about twice the number estimated by Hans Kristensen and Robert Norris for 2009.¹² A large under estimate of Russian capabilities has potentially much greater significance today because of the dramatic decline in U.S. deterrent capability since the end of the Cold War.

⁸ Robert G. Joseph, "Second to One," *National Review*, July 2, 2012, available at <http://www.nationalreview.com/article/304310/second-one-robert-g-joseph>.

⁹ "Obama Advisor Gary Samore, 'The Ball is Very Much in Tehran's Court'," *Radio Free Europe*, April 14, 2011, available at http://www.rferl.org/content/interview_samore_russia_iran_us_policy/3557326.html.

¹⁰ Hawkins, "Rethinking the Unthinkable," 10, 15-16.

¹¹ "New RF-US agt to replace START to be concluded before year end – FM," *ITAR-TASS*, March 9, 2009, available at <http://www.itar-tass.com/eng/level2.html?NewsID=14295189&PageNum=1>.

¹² Hans M. Kristensen and Robert S. Norris, "Status of World Nuclear Forces," *Federation of American Scientists* (No date but 2015), available at <https://fas.org/issues/nuclear-weapons/status-world-nuclear-forces/>.



“...we should not tempt anyone by allowing ourselves to be weak.” Vladimir Putin (as Russian Prime Minister), Rossiiskaya Gazeta, February 20, 2012— archive.premier.gov.ru

In October 2016, President Putin declared, “Brandishing nuclear weapons is the last thing to do.”¹³ Good advice, but he did not take it. A month later he made a classic Russian nuclear targeting threat (his fourth, and consistent with an alarming pattern)¹⁴: “We have to take countermeasures, targeting the facilities that we perceive as a threat with our missile systems.”¹⁵ Since 2007, Russia has made, at the highest levels, unprecedented nuclear targeting threats and backed them with provocative bomber flights. In 2008, General of the Army Yuri Baluyevskiy, then-Chief of the General Staff proclaimed, “We do

¹³ Neil Buckley, Sam Jones and Kathrin Hille, “Russia: Putting the ‘nuclear gun’ back on the table,” *Financial Times*, November 15, 2016, available at <https://www.ft.com/content/03df98-aa88-11e6-9cb3-bb8207902122>.

¹⁴ Senate Committee on Appropriations, Subcommittee on Energy and Water Development, *Examining the Proper Size of the Nuclear Weapons Stockpile to Maintain a Credible U.S. Deterrent*, 112th Congress, 2nd sess., July 25, 2012, Statement of Keith B. Payne, PhD., 17, 21. https://www.appropriations.senate.gov/imo/media/doc/hearings/07_25_12%20E&W%20Nuclear%20Weapons%20Stockpile%20as%20Deterrent%20GPO%20record.pdf

¹⁵ Vladimir Isachenkov, “Russia rejects Western criticism of Baltic missile buildup,” *AP English Language News*, November 22, 2016, available at <http://abcnews.go.com/International/wireStory/nato-criticizes-russian-missiles-poland-lithuania-43714034>.

not intend to attack anyone, but we consider it necessary for all our partners in that to defend the sovereignty and territorial integrity of Russia and its allies, military forces will be used, including preventively, including with the use of nuclear weapons.”¹⁶ In December 2013, Deputy Prime Minister Dmitri Rogozin said if Russia is subject to a conventional attack, “we will certainly resort to using nuclear weapons in certain situations to defend our territory and state interests.”¹⁷ (Emphasis in the original). In June 2015, Russia’s Ambassador to Sweden quoted Putin as saying that if Sweden joins NATO, “...Russia will have to resort to a response of the military kind and re-orientate our troops and missiles.”¹⁸ In 2015, Russia’s Ambassador to Denmark threatened that “...Danish warships will be targets for Russian nuclear missiles.”¹⁹ In September 2014, then-Ukrainian Minister of Defense Colonel General Valeriy Heletey stated, “The Russian side has threatened on several occasions across unofficial channels that, in the case of continued resistance, they are ready to use a tactical nuclear weapon against us.”²⁰ In April 2015, the London *Times* reported that Russian generals, speaking with “the approval of Mr. Putin,” threatened a “nuclear showdown over [the] Baltics” if NATO were to deploy forces into these states.²¹ In response to a question he could easily have

¹⁶ “Russia says could use nuclear weapons: Military chief of staff says Moscow would use the arms to protect self, allies,” *Associated Press*, January 20, 2008, available at http://www.nbcnews.com/id/22743091/ns/world_news-europe/t/russia-says-could-use-nuclear-weapons/#.VAmsvWPisdw.

¹⁷ “Russia will use nukes in case of a strike – official,” *RT*, December 12, 2013, available at <http://rt.com/politics/nuclear-strike-attack-rogozin-053/>.

¹⁸ Zachary Davies Boren, “Russia warns Sweden it will face military action if it joins Nato,” *Independent.com*, June 19, 2015, available at <http://www.independent.co.uk/news/world/europe/russia-warns-sweden-it-will-face-military-action-if-it-joins-nato-10331397.html>.

¹⁹ Julian Isherwood, “Russia warns Denmark its warships could become nuclear targets,” *Telegraph.com*, March 21, 2015, available at <http://www.telegraph.co.uk/news/worldnews/europe/denmark/11487509/Russia-warns-Denmark-its-warships->.

²⁰ Taras Kuzio, “Ukraine Reignites: Why Russia should Be added to the State Sponsors of Terrorism List,” *Foreign Affairs*, January 25, 2015, available at <https://www.foreignaffairs.com/articles/russian-federation/2015-01-25/ukraine-reignites>.

²¹ Ben Hoyle, “Putin: try to take Crimea away and there’ll be a nuclear war: Secret meeting of Kremlin elite and US top brass reveals Russian threat to

evaded, Putin said that during the Crimea crisis he would have put Russian nuclear forces on alert if it was necessary.²² In June 2017, Putin declared Russia would defend Crimea “with all means available to us.”²³

Today, Russian military doctrine reserves the right to use nuclear weapons in a conventional war. The public version probably understates its permissiveness. In 2009, Russia prominently announced that its policy on “the use of nuclear weapons as an instrument of strategic deterrence” would be in the “closed part” of new military doctrine, which is apparently contained in a document entitled “Basic Principles of State’s Policy in the Area of Nuclear Deterrence through 2020.”²⁴ There is no reason for Russia to classify its nuclear doctrine if it were the same as the public version. In 2014, General (ret.) Yuri Baluyevskiy said the conditions for pre-emptive nuclear strikes were contained in classified policy documents.²⁵ There is evidence that the threshold for Russian nuclear weapons first use is lower than suggested in the public formulations.

The year 2000 Putin nuclear doctrine stated, “The Russian Federation reserves the right to use nuclear weapons in response to the use of nuclear and other types of weapons of mass destruction against it and (or) its allies, as well as in response to large-scale aggression utilizing conventional

West,” *The Times* (London), April 2, 2015, available at <https://dialog.proquest.com/professional/professional/docview/1668199387?accountid=155509>.

²² “Ukraine conflict: Putin ‘was ready for nuclear alert,’” *BBC News*, March 15, 2015, available at <http://www.bbc.com/news/world-europe-31899680>.

²³ “Russia will defend Crimea with all possible means: Putin,” *United News of India*, June 15, 2017, available at <http://dialog.proquest.com/professional/docview/1909584353?accountid=155509> [New Delhi] 15 June 2017.

²⁴ “Army; Closed part of new military doctrine to define legal aspects of forces’ employment, nuclear weapons - Gen. Staff,” *Interfax*, August 14, 2009. (Transcribed by World News Connection.): Pavel Podvig, “New Russian military doctrine,” *russianforces.org*, February 5, 2010, available at http://russianforces.org/blog/2010/02/new_russian_military_doctrine.shtml.

²⁵ “Russia classifies information on pre-emptive nuclear strikes – military,” *BBC Monitoring Former Soviet Union*, September 5, 2014, available at <https://dialog.proquest.com/professional/professional/docview/1560021754?accountid=155509>.

weapons in situations critical to the national security of the Russian Federation and its allies.”²⁶ The 2010 and 2014 public versions of Russia’s military doctrine changed the formulation relating to the use of nuclear weapons in conventional war to read, “...when the very existence of the state is under threat.”²⁷ At first glance, this would appear to be a desirable change but, unfortunately, this is apparently not the case. In October 2009, Nikolay Patrushev, the Secretary of the Russian Security Council, revealed, “**We have corrected the conditions for use of nuclear weapons to resist aggression with conventional forces not only in large-scale wars, but also in regional or even a local one.... There is also a multiple-options provision for use of nuclear weapons depending on the situation and intentions of the potential enemy. ‘In a situation critical for national security, we don’t exclude a preventive nuclear strike at the aggressor.’**”²⁸ (Emphasis in the original). He defended this by saying, “If we have weapons of mass destruction, we must be prepared to use them.”²⁹ In November 2009, Patrushev declared Russian nuclear doctrine did “not rule out a nuclear strike targeting a potential aggressor, including a preemptive strike, in situations critical to national security.”³⁰ In February 2015, Ilya Kramnik, the longtime military correspondent for the official Russian news agency, *RIA Novosti*, wrote that the 2010 revision of Russia’s military doctrine “further lowered” the threshold of “combat use” of nuclear weapons.³¹

²⁶ “Draft Russian Military Doctrine,” 1999, available at <http://fas.org/nuke/guide/russia/doctrine/991009-draft-doctrine.htm>.

²⁷ *The Military Doctrine of the Russian Federation Approved by Russian Federation*, Presidential Edict on 5 February 2010, available at http://www.sras.org/military_doctrine_russian_federation_2010.

²⁸ “Russia to broaden nuclear strike options,” *Russia Today*, October 14, 2009, available at <http://rt.com/news/russia-broaden-nuclear-strike/>.

²⁹ “Russia must be prepared to use nuclear arms – Patrushev,” *Interfax*, October 23, 2009. (Transcribed by World News Connection.)

³⁰ “Corridors of Power; Russia’s new military doctrine does not rule out possible nuclear strike – Patrushev,” *Interfax*, November 20, 2009, available at <https://dialog.proquest.com/professional/professional/docview/443737413?accountid=155509>.

³¹ Ilya Kramnik, “Cold-Calculation Apocalypse. NATO Has Taken Notice of the Russian Nuclear Threat,” *Lenta.ru*, February 3, 2015. (In Russian).

The Putin nuclear doctrine has influenced Russian nuclear weapons development. In 1999, noted Russian journalist Pavel Felgenhauer reported that in the National Security Council meeting on April 29 of that year, Yeltsin approved a policy which called for the development of variable yield nuclear weapons with yield options which range “from several tens of tonnes to 100 tonnes of TNT equivalent” but one which “can easily and quickly be reprogrammed to produce megaton-range explosions.”³² Felgenhauer also wrote that Russia believed its leverage would be enhanced by being “able to carry out low-yield ‘precision’ nuclear strikes against military targets anywhere in the world. It is assumed that a ‘precision’ strike of this kind will not result in immediate global nuclear war.”³³

A declassified CIA report from 2000 concluded: “Moscow’s military doctrine on the use of nuclear weapons has been evolving and probably has served as the justification for the development of very low-yield, high-precision nuclear weapons. The range of applications will ultimately be determined by Russia’s evolving nuclear doctrine, and could include artillery, air-to-air weapons, ABM weapons, anti-satellite weapons or multiple rocket launchers against tanks or massed troops...”³⁴ The report went on to state, “According to Sergei Rogachev, Deputy Director of the Aramaz-16 nuclear weapon[s] design laboratory: ‘Russia views the tactical use of nuclear weapons as a viable alternative to advanced conventional weapons’.”³⁵

A December 2012 U.S. National Intelligence Council report underscored, “Nuclear ambitions in the United States and Russia over the last 20 years have evolved in opposite

³² “Russia mulls ‘precision’ use of nuclear weapons to counter NATO power – paper,” *BBC Monitoring Former Soviet Union*, May 6, 1999, available at <http://dialog.proquest.com/professional/docview/343210052?accountid=155509>.

³³ *Ibid.*

³⁴ “Evidence of Russian Development of New Subkiloton Nuclear Warheads [Redacted],” *Intelligence Memorandum, Central Intelligence Agency*, August 30, 2000, approved for release October 2005, pp. 6, 10, available at http://www.foia.cia.gov/sites/default/files/document_conversions/89801/DOC_0001260463.pdf.

³⁵ *Ibid.*, 3.

directions. Reducing the role of nuclear weapons in U.S. security strategy is a U.S. objective, while Russia is pursuing new concepts and capabilities for expanding the role of nuclear weapons in its security strategy.”³⁶

In December 2009, then-Commander of the Strategic Missile Troops, Lieutenant General Andrey Shvaychenko, outlined the role of the ICBM force in the new strategy as follows: “In a conventional war, [the nuclear ICBMs] ensure that the opponent is forced to cease hostilities, on advantageous conditions for Russia, by means of single or multiple preventive strikes against the aggressors’ most important facilities. In a nuclear war, they ensure the destruction of facilities of the opponent’s military and economic potential by means of an initial massive nuclear missile strike and subsequent multiple and single nuclear missile strikes.”³⁷ In 2009, the Russian ICBM force was almost entirely made up of legacy Soviet weapons and the only new system, the SS-27 Mod 1, predated the Putin nuclear doctrine. Since then, the ICBM force has been 60% modernized.³⁸ By December 2016, ICBM force commander Colonel General Sergei Karakayev said that the ICBM force had “nuclear warheads of various yield classes.”³⁹

A number of Russian publications have reported that low-yield nuclear warheads (yields from some tens of tons to 200-tons) have been deployed on the new strategic missiles, the Sineva and the Bulava-30 SLBMs.⁴⁰ The Bulava-30 SLBM and

³⁶ “Global Trends 2030: Alternative Worlds,” *National Intelligence Council* (McLean, VA: Office of the DNI, December, 2012), 69, available at <http://www.dni.gov/nic/globaltrends>.

³⁷ “Russia may face large-scale military attack, says Strategic Missile Troops chief,” *BBC Monitoring Former Soviet Union*, December 16, 2009, available at <http://dialog.proquest.com/professional/docview/460433852?Accountid=155509>.

³⁸ “Expanded meeting of the Defence Ministry Board,” *The Kremlin.ru*, December 22, 2016, available at <http://en.kremlin.ru/events/president/news/53571>.

³⁹ “Russia’s RVSN has some 400 ICBMs on duty – commander,” *Interfax*, December 15, 2016, available at <http://dialog.proquest.com/professional/docview/1849129740?accountid=155509>.

⁴⁰ Ilya Kramnik, “Nevsky and Novomoskovsk: Two Submarines for Putin,” *Sputnik News*, December 12, 2010, available at

SS-27 Mod 2/RS-24/Yars ICBM use the same new warhead, which means that if the Bulava-30 has a low-yield option, so does the SS-27 Mod 2 ICBM.⁴¹ In October 2003, former Atomic Energy Minister Viktor Mikhaylov and then-Director of the Sarov nuclear weapons laboratory, observed, “The philosophy of thermonuclear weapons has changed today, and on the agenda is the development of high-precision and deep-penetration nuclear bombs,” and stated that Russia was ahead of the United States in these weapons.⁴² In December 2002, he declared, “The scientists are developing a nuclear ‘scalpel’ capable of ‘surgically removing’ and destroying very localized targets. The low-yield warhead will be surrounded with a superhardened casing which makes it possible to penetrate 30–40 meters into rock and destroy a buried target—for example, a troop command and control point or a nuclear munitions storage facility.”⁴³ In 2009, Deputy Chief of the Russian Naval Staff Vice Admiral Oleg Burtsev noted the future may belong to tactical nuclear weapons saying, “We can install low-yield warheads on existing cruise missiles.”⁴⁴ According to Vice Admiral (ret.) Robert Monroe, former Director of the Defense Nuclear Agency, “Russia has followed exactly the opposite course from the United States. It has focused on low-yield weapons research, design, testing, and production. It has pursued advanced concepts, and greater use

<http://sputniknews.com/analysis/20101215/161784522.html>; Andrey Kislyakov, “Does Russia Need a ‘Wet’ Missile and One More Tank?,” *Ria Novosti*, January 19, 2008. (Translated by World News Connection); “Russian pundit Litovkin argues case of Bulava,” *Ekho Moskvyy Radio*, July 17, 2009. (Translated by World News Connection.)

⁴¹ “Russia to use same warheads on land, sea,” *UPI NewsTrack*, April 24, 2006. (Transcribed by World News Connection.)

⁴² Quoted in Schneider, *The Nuclear Forces and Doctrine of the Russian Federation*, 15-16.

⁴³ Quoted in Mark Schneider, “The Future of the U.S. Nuclear Deterrent,” *Comparative Strategy*, Vol. 27, No. 4 (October 31, 2008), 348, available at <http://www.tandfonline.com/doi/abs/10.1080/01495930802358539>.

⁴⁴ Stephen Blank, “European Proposal on Tactical Nuclear Weapons Highlights Russian Nuclear Dilemmas,” *Eurasian Daily Monitor* Volume 7 Issue 33, February 18, 2010, available at [http://www.jamestown.org/programs/edm/single/?tx_ttnews\[tt_news\]=36056&cHash=349320ee5c](http://www.jamestown.org/programs/edm/single/?tx_ttnews[tt_news]=36056&cHash=349320ee5c).

of fusion, less of fission (possibly achieving pure fusion).⁴⁵ He estimates Russia is now 20 years ahead of the United States in these weapons.⁴⁶



Russian theater nuclear forces are also being substantially modernized and enhanced. Russia, through violations and circumventions of its arms control obligations, appears to be recreating the Soviet-era medium- and intermediate-range nuclear missile capability, although at much reduced numbers. Russia has begun the deployment of a prohibited nuclear capable ground-launched cruise missile based

⁴⁵ Vice Admiral (Ret.) Robert R. Monroe, "Change U.S. Nuclear Weapons Policies!", Nuclear Deterrence Summit Arlington, VA, February 16-19, 2016, 3.

⁴⁶ Vice Admiral (Ret.) Robert Monroe, "Facing the grave nuclear risk," *The Washington Times*, January 27, 2017, available at <http://www.washingtontimes.com/news/2017/jan/26/america-must-resume-underground-nuclear-testing/>.

on the Kalibr sea-launched cruise missile.⁴⁷ There are two other Russian ground-launched cruise missiles with ranges reported in the Russian media that violate the INF Treaty.⁴⁸

All Russian fighter bombers are reportedly nuclear capable and are being modernized.⁴⁹ Russia has reportedly retained the battlefield nuclear weapons that it pledged to eliminate in the 1991-1992 Presidential nuclear initiatives.⁵⁰ According to noted Russian nuclear strategist Alexei Arbatov, Russia's diverse non-strategic nuclear weapons arsenal includes free-fall bombs, depth charges, sea-launched cruise missiles, torpedoes, and air defense warheads, among others.⁵¹ General Paul Selva, Vice Chairman of the Joint Chiefs of Staff, has stated Russia is "developing new nonstrategic nuclear weapons..."⁵²

⁴⁷ Defense Intelligence Ballistic Missile Analysis Committee, National Air and Space Intelligence Center, *Ballistic and Cruise Missile Threat*, NASIC-1031-0985-2017 (Wright-Patterson Air Force Base Oh: National Air and Space Intelligence Center, June 2017), 37; CSIS, "SS-N-30A (Kalibr)," (Washington D.C.: Center for Strategic and International Studies, August 11, 2016), available at <https://missilethreat.csis.org/missile/ss-n-30a/>; Office of Navy Intelligence, *The Russian Navy* (Washington D.C.: Office of Naval Intelligence, December 2015), 35, available at <http://www.oni.navy.mil/Portals/12/Intel%20agencies/russia/Russia%202015%20print.pdf?ver=2015-12-14-082038-923>.

⁴⁸ "Mark B. Schneider, "The Nuclear Posture Review and the Future of the INF Treaty," *Real Clear Defense*, August 8, 2017, available at http://www.realcleardefense.com/articles/2017/08/08/the_nuclear_posture_review_and_the_future_of_the_inf_treaty_111994.html.

⁴⁹ Alexander Mladenov, "Best in the Breed," *Air Forces Monthly*, May 2017, 51.

⁵⁰ "Press Roundtable at Interfax—Stephen G. Rademaker, Assistant Secretary of State for Arms Control, Moscow, Russia, October 6, 2004," available at <http://2001-2009.state.gov/t/isn/rls/rm/37275.htm>. : Schneider, "The Nuclear Posture Review and the Future of the INF Treaty"; Mark B. Schneider, "Russian Violations of Its Arms Control Obligations," *Comparative Strategy*, September 24, 2012, 337-338, available at <http://www.Tandfonline.com/doi/abs/10.1080/1495933.2012.711115>.

⁵¹ Alexei Arbatov, "Arbatov Analyzes Possible Tactical Nuclear Weapons Reductions," *Voyenno-Promyshlenny Kuryer Online*, May 17, 2010. (Translated by World News Connection.)

⁵² House Committee on Armed Services, Military Assessment of Nuclear Deterrence Requirements, 115th Congress, 1st sess., March 8, 2017, Statement of General Paul Selva, USAF, 4, available at <http://docs.house.gov/meetings/AS/AS00/20170308/105640/HHRG-115-AS00-Wstate-SelvaUSAFP-20170308.pdf>.

The role of Russia's low-yield warheads is a nuclear shot across the bow. As then-Secretary of Defense Ashton Carter pointed out, "...it's a sobering fact that the most likely use of nuclear weapons is not the massive nuclear exchange of the classic Cold War-type, but rather the unwise resort to smaller but still unprecedentedly terrible attacks, for example, by Russia or North Korea to try to coerce a conventionally superior opponent to back off or abandon an ally during a crisis."⁵³ In 1999, then-First Deputy Defense Minister Nikolai Mikhailov described the concept: "This strategy boils down to the threat of using nuclear weapons against any aggressor at a scale ensuring unacceptable damage to such aggressor. The amount of damage should be such as not to provoke the aggressor into escalating the use of nuclear weapons without a justified reason. In other words, the point at issue is a limited use of strategic nuclear forces adequate to the threat."⁵⁴

Very low-yield nuclear weapons will produce very little collateral damage, particularly if there is a careful selection of targets. Russia may well be tempted to initiate the use of these weapons because it has an enormous advantage in them and, as stated by then-Deputy Commander of the ICBM force Colonel General Vladimir Muravyev in December 1999, "They are capable of nullifying the combat qualities of all modern conventional systems."⁵⁵ This accurate perception is a major factor in Russian nuclear strategy. Russian use of precision low-yield nuclear weapons must be deterred because of the risk of massive escalation, an eventuality for which Russia is also preparing.

Starting in 1999, Russia began to simulate the first use of nuclear weapons in large theater war exercises. In that same

⁵³ "Remarks by Secretary Carter to Troops at Minot Air Force Base, North Dakota," September 26, 2016, available at <http://www.defense.gov/News/Transcripts/Transcript-View/Article/957408/remarks->.

⁵⁴ Schneider, *The Nuclear Forces and Doctrine of the Russian Federation*, 20.

⁵⁵ *Ibid.*, 22.

year, Russian Defense Minister Marshal Igor Sergeyev asserted, "Our Army was forced to launch nuclear strikes first [in Zapad-1999] which enabled it to achieve a breakthrough in the theater situation."⁵⁶ Simon Saradzhyan of the Harvard Belfer Center has observed, "...the Russian military has repeatedly gamed out use of strategic bombers to carry out such a demonstration nuclear strike during a number of wargames, including the Zapad (West) exercise, which is held annually to simulate a war with NATO."⁵⁷

For many years the Russian press has reported that large strategic exercises ended in a massive Russian nuclear strike. Since 1999, we have seen many Russian press reports of simulated Russian first use of nuclear weapons in exercises in Europe, Asia and the Indian Ocean.⁵⁸ In March 2014, early in the Ukraine crisis, the Russian ICBM force conducted an exercise which reportedly involved a "massive" nuclear strike.⁵⁹ The Russian Vostok [East] 2010 exercise, apparently aimed against China, saw Russian press reports of simulated Russian tactical nuclear weapons first use.⁶⁰ The official newspaper of the Far East Military District reported, "To suppress a large center of the separatists' resistance and to achieve minimal losses of the attacking troops a low-yield 'nuclear' attack was mounted against

⁵⁶ Dr. Jacob W. Kipp, "Russia's Nonstrategic Nuclear Weapons," *Military Review*, May-June 2001, available at http://fmso.leavenworth.army.mil/documents/russias_nukes/russias_nukes.htm.

⁵⁷ Simon Saradzhyan, *Russia's Non-strategic Nuclear Weapons in Their Current Configuration and Posture: A Strategic Asset or Liability?* (Harvard Belfer Center, January 2010), 18, available at <http://belfercenter.ksg.harvard.edu/files/russian-position-NSNWs.pdf>.

⁵⁸ Nikolai Sokov, "The Evolving Role of Nuclear Weapons in Russia's Security Policy," *Engaging China and Russia on Nuclear Disarmament*, CNS, 2009, available at <http://www.isn.ethz.ch/Digital->

⁵⁹ Oleg Vladykin, "Readiness for Massive Nuclear Attack; Large-Scale Strategic Missile Troops Exercise," *Nezavisimaya Gazeta*, March 26, 2014, available at http://www.ng.ru/armies/2014-03-26/6_strike.html.

⁶⁰ Pavel Felgenhauer, "Russia Seeks to Impose New ABM Treaty on the US by Developing BMD," *Eurasia Daily Monitor* Volume 7, Issue 136, July 16, 2010, available [http://www.jamestown.org/single/?no_cache=1&tx_ttnews\[tt_news\]=36624#.Uk69ERCcsdw](http://www.jamestown.org/single/?no_cache=1&tx_ttnews[tt_news]=36624#.Uk69ERCcsdw); Oleg Falichev, "Vostok-2010: Beginning, Culmination, Epilogue. Biggest Russian Armed Forces Exercise Staged for Research Purposes," *Voyenno-Promyshlenny Kuryer Online*, July 16, 2010. (Translated by World Press Connection.)

the enemy.”⁶¹ In May 2014, Russia held a large strategic nuclear exercise, presided over by President Putin, involving a substantial number of live tactical and strategic nuclear missile launches, which ended in a “massive” Russian nuclear missile launch.⁶² In January 2016, NATO released its annual report, which noted, “Russia has conducted at least 18 large-scale snap exercises, some of which have involved more than 100,000 troops. These exercises include simulated nuclear attacks on NATO Allies (eg, ZAPAD) and on partners (e.g., March 7 2013 simulated attacks on Sweden)...”⁶³

The most dangerous aspect of Russian nuclear strategy is that it sees nuclear first use as “de-escalation” of a conflict.⁶⁴ Russia is modernizing its nuclear forces extensively in order to “de-escalate a conflict,” using a small number of nuclear strikes, and, if necessary, to be able to launch a massive nuclear strike. Ongoing nuclear force modernization includes over twenty new or improved Soviet legacy types of strategic nuclear delivery vehicles including a heavy ICBM, rail mobile ICBMs, new bombers and new SLBMs and missile submarines.⁶⁵ The main weapons for “de-escalation of a conflict” are apparently the new precision low-yield nuclear weapons. In June 2015, U.S. Deputy

⁶¹ John W. Parker, “Russia’s Revival: Ambitions, Limitations, and Opportunities for the United States,” *Strategic Perspectives* 3 (Washington: NDU Institute for National Strategic Studies, January 2011), 23, available at <http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=0CCsQFJAA&url=http%3A%2F%2Fwww.dtic.mil%2Fcgi-bin%2FGetTRDoc%3FAD%3DADA546683&ei=u8NOUtuaCffi4AO9-IG4Bw&usq=AFQjCNERLvcl4tODvnNKZfbPQdjoXc783Qbvm= bv.53537100,d.dmg>.

⁶² “Russian military practices massive launch under attack strike under Putin’s supervision (Part 2),” *Interfax*, May 8, 2014, available at <https://dialog.proquest.com/professional/professional/docview/1522677708accountid=155509;Vladykin,“Readiness for Massive Nuclear Attack,” op. cit.>

⁶³ *The Secretary General’s Annual Report 2015* (Brussels: NATO, January 2016), 18, available at http://www.nato.int/nato_static_fl2014/assets/pdf/pdf_2016_01/20160128_SG_AnnualReport_2015_en.pdf.

⁶⁴ Kipp, *Russia’s Nonstrategic Nuclear Weapons*.

⁶⁵ For a list of these systems see Mark B. Schneider, “Russian Nuclear Weapons Policy,” *Real Clear Defense*, April 28, 2017, available at http://www.realcleardefense.com/articles/2017/04/28/russian_nuclear_weapons_policy_111261.html.

Secretary of Defense Robert Work and then-Vice Chairman of the Joint Chiefs of Staff Admiral James Winnefeld observed, “Russian military doctrine includes what some have called an ‘escalate to de-escalate’ strategy—a strategy that purportedly seeks to de-escalate a conventional conflict through coercive threats, including limited nuclear use.”⁶⁶ Work and Winnefeld categorized this strategy as “playing with fire.”

In 2017, the National Intelligence Council stated, “Russian military doctrine purportedly includes the limited use of nuclear weapons in a situation where Russia’s vital interests are at stake to ‘deescalate’ a conflict by demonstrating that continued conventional conflict risks escalating the crisis to a large scale nuclear exchange.”⁶⁷ According to DIA Director Lt. General Vincent Stewart, in 2017, Russia is “the only country that I know of that has this concept of escalate to terminate or escalate to deescalate but they do have that built into their operational concept, we’ve seen them exercise that idea and it’s really kind of a dangerous idea...”⁶⁸ He also said that he had seen no evidence that this policy was changing.⁶⁹

The Russian theory of victory under the “de-escalation” concept is that Russia wins because the West does not retaliate against the initial Russian nuclear strike and backs down. Russia hopes that retaliation will be deterred by the threat of a massive attack. Much of the Russian strategic nuclear modernization program is aimed at giving them the ability to accomplish that objective. Under Putin, the Russian strategic nuclear program expanded from the minimum program to retain the Russia nuclear TRIAD to one with multiple systems for each leg of the

⁶⁶ Robert Work and James Winnefeld, Testimony before the Committee on Armed Services, U.S. House of Representatives, June 25, 2015, 4, available at <http://docs.house.gov/meetings/AS/AS00/20150625/103669/HHRG-114-AS00-Wstate-WorkR-20150625.pdf>.

⁶⁷ U.S. National Intelligence Council, *Global Trends, Paradox of Progress*, NIC 2017-001 (Washington: National Intelligence Council, January 2017), 36, available at <https://www.dni.gov/files/documents/nic/GT-Full-Report.pdf>.

⁶⁸ “S Armed Services Hearing on Worldwide Threats,” *Political Transcript Wire*, May 23, 2017, available at <http://dialog.proquest.com/professional/docview/1902238886?accountid=155509>.

⁶⁹ *Ibid.*

TRIAD.⁷⁰ The requirement for a massive and effective nuclear attack capability is reflected in the development and deployment of the new Sarmat heavy ICBM with a mammoth 10 metric tons of throw-weight which will reportedly carry 10 heavy and 15 medium nuclear warheads.⁷¹ For comparison, the throw-weight of the U.S. Minuteman III ICBM is 1.1 metric tons.⁷²



Russian RS-28 Sarmat—*The National Interest*, November 12, 2016

Thanks to a monumental failure on the part of the Obama Administration in negotiating the New START Treaty (i.e., the elimination of the START Treaty prohibition on new types of heavy ICBMs), the launch weight of the Sarmat increased from 100 tons to about 170 tons with a destructive

⁷⁰ Schneider, "Russian Nuclear Weapons Policy."

⁷¹ "Military Dominance over Russia Impossible, Nuclear Deterrent Top Priority – Defense Ministry," *RT*, January 30, 2015, available at <http://rt.com/news/227811-russia-military-supremacy-modernization>; "New Heavy ICBM to Be Put Into Service in 2018—Karakayev," *Sputnik News*, May 5, 2011, available at http://sputniknews.com/voiceofrussia/2012_12_14/Russia-to-build-new-heavy-ICBM-by-2018-Karakayev/; Steve Gutterman, "Russia Plans New ICBM to Replace Cold War 'Satan' Missile," *Reuters*, December 17, 2013, available at <http://www.reuters.com/article/2013/12/17/us-russia-missiles-idUSBRE9BG0SH20131217>.

⁷² Throw-weight is the sum of the missile's reentry vehicles, self-contained dispensing mechanisms, and penetration aids. Greater throw-weight enables the missile to carry more or heavier payloads. Throw-weight also provides the flexibility to decrease the payload in order to increase the range of the missile.

potential of eight million tons of TNT (8 megatons).⁷³ (The launch weight of the Minuteman III is 34.5 metric tons.) In 2016, TASS reported that the Sarmat would carry “at least 15 warheads.”⁷⁴ It will clearly be Russia’s main counterforce weapon and the publicity they give it is intended to generate fear.

Another such fear-generating weapon is the “Maritime Multifunctional System Status-6,” a nuclear-armed, 10,000-km range, very fast drone submarine capable of operating at a depth of 1,000-meters, and which is reported by the Russian press to carry a 100 megaton weapon.⁷⁵ The only possible use for such weapons is the massive slaughter of civilian populations. It is dangerous to test and can’t be used consistent with international humanitarian law because it is designed to kill civilians by massive blast and radioactivity. It is intended to terrorize.

The role of precision conventional weapons in Russian strategy is much more limited than in the West. Reducing collateral damage is not a major Russian concern. The use of precision weapons in Syria was limited and, apparently, was aimed mainly at testing the weapons performance.⁷⁶ While the 2014 edition of Russia’s military doctrine talked about the

⁷³ “Sarmat ICBM: 8 Megatons at Hypersonic Speeds, Arriving 2 Years Ahead of Schedule,” *Sputnik News*, September 7, 2016, available at <https://sputniknews.com/military/201609071045062797-sarmat-ahead-of-schedule-analysis/>.

⁷⁴ “Formidable Sarmat: Satan’s successor that can piece any defense,” TASS, October 25, 2016, available at <http://tass.com/defense/908575>.

⁷⁵ Matthew Bodner, “Russia Leaks Dirty-Bomb Submarine Drone In State TV Broadcast,” *defensenews.com*, November 16, 2015, available at <http://www.defensenews.com/story/defense/naval/submarines/2015/11/13/russia-leaks-dirty-bomb-submarine-drone-state-tv-broadcast/75710806/>; Pavel Felgenhauer, “Russia Leaks Data About Doomsday Underwater Nuclear Drone,” *Eurasia Daily Monitor* Volume 12, Issue 206, November 12, 2015, available at [http://www.jamestown.org/single/?tx_ttnews\[tt_news\]=44588&no_cache=1#.VkXfAL9HeUk](http://www.jamestown.org/single/?tx_ttnews[tt_news]=44588&no_cache=1#.VkXfAL9HeUk); “Status-6 and Nuclear Strategy Beyond the Tripod,” *geopoliticatus.wordpress.com*, November 12, 2015, available at <http://geopoliticatus.wordpress.com/2015/11/12/status-6-and-nuclear-strategy-beyond-the-tripod/#comments>.

⁷⁶ Rowan Scarborough, “Putin’s modern Air Force choosing devastating dumb bombs over precision strikes,” *The Washington Times*, February 21, 2016 available at <http://www.washingtontimes.com/news/2016/feb/21/russia-dropping-dumb-bombs-in-syria-indiscriminate/>.

development of a “conventional deterrent force,” the role of conventional precision weapons is limited. It states, “Within the framework of strategic deterrence measures of a forceful nature the use of high-precision weapons is envisaged by the Russian Federation.”⁷⁷

Hence, Russia is contemplating using “high precision weapons” in large numbers only in big wars. Note the absence of the word “conventional” in the Russian formulation. When describing alleged Western policy, the document uses the formulation “strategic non-nuclear high-precision weapon[s] systems.” Russian generals almost never talk about “precision conventional weapons” but rather speak about “precision weapons.” Apparently, the reason is that most, if not all, of their “precision weapons,” with the exception of aircraft bombs (for technical reasons) are actually dual-capable (nuclear and conventional.) In 2017, when Russian Defense Minister General Sergei Shoigu described the missiles that could be used to implement Russia’s conventional deterrence (the Kalibr, the Iskander, and the “modern missiles for strategic aircraft”), he neglected to mention that Russia had said that all of them were nuclear capable.⁷⁸ However, he did say that nuclear forces were Russia’s “unconditional priority.”⁷⁹

A 2013 *Military Thought* (publication of the Russian General Staff) article observed, “Under the pressure of emergencies, LRHPW [Long Range High Precision Weapons] may be used at the start of an operation launched by strategic deterrent forces to prevent the threat of an ordinary military

⁷⁷ “The Military Doctrine of the Russian Federation,” December 25, 2014, available at <https://rusemb.org.uk/press/2029>.

⁷⁸ “Development of strategic nuclear forces is unconditional priority - Shoigu (Part 2),” *Interfax*, February 21, 2017, available at <https://dialog.proquest.com/professional/professional/docview/1870636774?accountid=155509>; “Meeting with Defence Minister Sergei Shoigu,” *Kremlin.ru*, December 8, 2015, available at <http://en.kremlin.ru/events/president/news/50892>; “Army Brigade To Be Equipped With Iskander Systems This Year –Commander,” *ITAR-TASS*, September 29, 2009. (Transcribed by world News Connection.)

⁷⁹ *Ibid.*

conflict fought by conventional weapons from degenerating into a nuclear military exchange and to compel the adversary to deescalate and end military confrontation.”⁸⁰ This is “de-escalation” of a conflict Russian style. The authors went on to note this requires the determination of the “makeup of LRHPW carriers to be held in reserve (considering the need for fitting the carriers with nuclear warheads) for use in a strategic aerospace operation in a WMD-dominated large-scale war.”⁸¹

Note the reference to large-scale “WMD” war. The West does not have chemical or biological weapons but Russia does. According to state-run *Russia Beyond the Headlines*, “The modernized version of the Tochka-U [SS-21], which can carry nuclear, biological or chemical warheads, has a maximum firing range of up to 115 miles.”⁸² Senior Obama Administration officials of the Department of State told the House Armed Services Committee that Russia was violating the Biological Weapons Convention and the Chemical Weapons Convention.⁸³ This is virtually never taken into account in assessments of NATO’s ability to deter or defend against a Russian attack.

Our failure to assess realistically the scope of the Russian nuclear threat and their willingness to escalate undercuts our deterrent by discouraging the procurement of required deterrent systems. It could have catastrophic consequences in the event of war. If there is a future conflict with Russia, it is vital to deter Russian nuclear and other WMD escalation. Granting Russia large advantages and monopolies on most types of nuclear weapons capability maximizes the risk that deterrence will fail.

⁸⁰ “Russia: Concept for Long-Range High-Precision Weapons Employment in Military Operations,” *Military Thought*, Volume 4, May 8, 2013. (Transcribed by World News Connection.)

⁸¹ Ibid.

⁸² Nikolai Litovkin, “Are Russia’s SS-21 missiles in use in Syria against Islamic extremists?”, *Russia Beyond the Headlines*, February 9, 2017, available at https://www.rbth.com/defence/2017/02/09/are-russias-ss-21-missiles-in-use-in-syria-against-islamic-extremists_699118.

⁸³ “H.R. 1735—FY16 National Defense Authorization Bill, Subcommittee on Strategic Forces,” April 24, 2014, available at <http://docs.house.gov/Committee/Calendar/ByEvent.aspx?EventID=103288>.