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Russia's Evolving Nuclear Doctrine and its Implications

Abstract

A discontented Russia is putting significant thought into how it would employ its nuclear weapons in the event of a conflict with NATO. Policymakers and those who influence them need to understand how Moscow sees its options for nuclear employment, particularly its so-called "escalate to deescalate" strategy. NATO should not be caught unawares by Russian emphasis on, let alone resort to, such an option. This paper is an attempt to provide a baseline of Russian thinking on how Moscow looks at these options.

Résumé

La Russie consacre beaucoup d'énergie intellectuelle à réfléchir à la manière dont elle utiliserait ses armes nucléaires dans le cas d'un conflit avec l'OTAN. Les décideurs et ceux qui les influencent doivent comprendre comment Moscou conçoit ses options concernant l'emploi du nucléaire, en

particulier sa stratégie « d'escalade pour la désescalade ». L'OTAN ne devrait pas se laisser surprendre par l'accent que la Russie place sur cette option – et encore moins par sa mise en œuvre. Cet article vise à éclairer les fondements de la pensée russe sur ces options.

The Importance of Understanding Russia's Defense and Nuclear Posture and Doctrine

The specter of armed conflict between major states has returned in Europe. Russia's seizure of Crimea, its continuing intervention in areas of eastern Ukraine, and the possibility that Moscow may intrude in other, nowindependent parts of its former empire have resulted in a situation in which serious conflict between Russia and the North Atlantic Treaty

Organization appears, even if highly undesirable, nonetheless a plausible prospect. While efforts to deescalate the ongoing standoff with Moscow and to prevent a longer-term hardening of animosity between NATO and Russia are very much in order, it is therefore nonetheless incumbent upon the Western Alliance to prepare for the possibility of conflict with Russia. Not only are such preparations important for deterrence of and defense against any Russian aggressiveness, they are also fully compatible with efforts to calm the situation and decrease the chances of war, since they should, by adding deterrent strength to NATO's position, also reduce the temptation the Russian leadership might feel to exploit any weakness the Western Alliance exhibits.

Most attention to strengthening NATO's defensive posture has focused on conventional forces, and particularly on demonstrating the will of the United States as well as the Alliance's collective resolve to resist Russian intrusions into or molestation of the sovereign territory and rights of NATO member states, particularly in and around the Baltic Sea.¹ Steps to buttress the Alliance's ability to repel Russian employment of smaller and more deniable forms of military and/or paramilitary force – such as the much-noted "little green men" – make sense. But sometimes implicit – and occasionally explicit – in the focus many put on the challenges posed by Russian para-

1. For a cataloguing of NATO and U.S. responses, see, for instance, North Atlantic Treaty Organization fact sheet, "NATO's Readiness Action Plan," May 2015, available at http://www.nato.int/nato static fl2014/ assets/pdf/pdf 2015 05/20150508 1505-Factsheet-RAP-en.pdf; White House Fact Sheet, "European Reassurance Initiative and Other Efforts in Support of NATO and Other Partners," June 3, 2014, available at https://www.whitehouse.gov/the-pressoffice/2014/06/03/fact-sheet-european-reassuranceinitiative-and-other-us-efforts-support-. For updates on the U.S. European Reassurance Initiative, see http://www.eucom.mil/media-library/article/33026/ <u>eucom-provides-update-on-the-european-reassurance-</u> http://www.defensenews.com/story/ <u>initiative;</u> defense/policy-budget/budget/2015/11/30/europeanfunding-fy17-budget-pentagon-russia-f35/76565666/. These efforts focus overwhelmingly on non-nuclear forces. NATO has been increasingly discussing nuclear issues, but these discussions do not yet appear to have resulted in significant modifications to NATO's nuclear posture or in light of Russia's evolved nuclear strategy. For NATO's formal statement, see NATO, "NATO's Nuclear Deterrence Policy and Forces," http:// Nuclear Deterrence Policy and Forces," http://www.nato.int/cps/en/natohq/topics_50068.htm, which remains essentially unchanged sinced 2012. For NATO's deliberations, see, for instance, Geoff Dyer and Alex Barker, "Nuclear Deterrent on NATO Agenda Amid Rise in Russian Rhetoric," The Financial Times. June 25, 2015, available at http://www.ft.com/intl/ cms/s/0/aa11ac16-1a8f-11e5-a130-2e7db721f996.html#axzz3vREBSoSl.

military and hybrid warfare capabilities is a conception that the use or implementation of higher-level military capabilities and doctrines, including those involving nuclear weapons, is unthinkable and therefore irrelevant in this ongoing crisis.²

This is a mistake. For a more intense conflict between NATO and Russia is, in fact, plausible.³ The simplest reason is that escalation of a lower-level contest is possible, if not likely, not least because Russia plans to make such higher-order capabilities part of any broader war with NATO. Indeed, higher-echelon military capabilities are an integral and indeed central element of how Russia appears to plan to leverage its military forces for political and coercive gain as well as to employ these forces in the event of conflict with NATO. In other words, Russia at least plans and is posturing itself to take - or credibly threaten to take - a conflict with the West to higher levels, even if NATO would prefer not to do so. This has direct military and strategic implications in the event of outright conflict but it also could give Moscow substantial coercive leverage in a crisis, since even the credible threat to escalate – even without actually doing so – could give Russia the political upper hand.

Furthermore, a war between NATO and Russia might escalate to higher levels even if neither side wanted it to. Indeed, even a conflict that both sides sought to keep limited might escalate for a wide variety of reasons beyond the full control of the combatants. Such reasons might include a failure to understand or abide by each other's respective red lines, inadvertent escalation stemming from the nature of how the sides implement their military plans, and even simple accident.⁴

^{2.} This point of view often proceeds from the idea that nuclear weapons are simply unusable as a practical matter. See, for a particularly blunt example of this line of thinking, Walter Pincus, "Old Nukes and Old Thinking," *The Washington Post*, November 17, 2014, available at http://www.washingtonpost.com/world/national-security/old-nukes-and-old-thinking/2014/11/17/79acf6dc-6c45-11e4-b053-65cea7903f2e story.html

^{3.} For a good, sober analysis of why this is so, see Paul J. Saunders, "No War With Russia? Don't Be So Sure," *The National Interest*, April 3, 2014, available at http://nationalinterest.org/commentary/no-war-russia-dont-be-so-sure-10177?page=show

^{4.} For an excellent examination of this peril in the U.S.-Russia context, see Forrest Morgan, *Dancing with the Bear: Managing Escalation in a Conflict with Russia.* Paris: Institut Francais des Relations Internationales, Winter 2012. For a somewhat exaggerated argument along these lines, see Bruce Blair, "Could U.S.-Russia Tensions Go Nuclear?" *Politico*, November 27, 2015,

It is therefore crucial that NATO have a solid understanding of how nuclear weapons and higher strategic capabilities might influence and affect a conflict with Russia. And the beginning of gaining this understanding is to grasp more fully what Russia is doing with its nuclear and other strategic forces and doctrine, what role it envisions for them in crisis and conflict, and how these relate to NATO's interests in deterrence and defense, escalation control and de-escalation, and war termination.

Such an understanding is important not only for specialists in defense policy and strategic issues but also for those focused on broader U.S. and Western policy towards Russia. This is because political tensions and competition in Eastern Europe and areas of the former Soviet Union are now more shadowed by the specter of armed conflict. In particular, Moscow appears to be seeking to use the possibility of escalation – including both inadvertent and deliberate varieties - as a source of advantage and coercive leverage in its dealings with NATO and other European states.5 This is evident, for instance, in the increased volume and intensity of threats issued by the Kremlin over to use military force in its near abroad, as well as the publiclytrumpeted major exercises Russia has staged, including exercises focused on the employment of nuclear weapons.6

Accordingly, those interested in the "high

available at http://www.politico.com/magazine/story/2015/11/russia-us-tensions-nuclear-cold-war-213395

political" aspects of the West's relations with Russia also need to have a grasp of the military - and thus the nuclear and nonnuclear strategic - dimensions of Russia's standoff with the West. This is because apparently political phenomena and decisions in this context will also have an important military dimension, even if that dimension is not made explicit. Assessments of the balance of military capability and resolve will factor into Moscow's calculations about how much farther it can press against NATO's position, for instance regarding the advisability of seeking to undermine the territorial and political integrity of the Baltics. Likewise, such calculations will also influence how members of the Western Alliance decide how to respond to any such provocation or aggression. It is therefore crucial that Alliance leaders and those advising them have a solid understanding of the military balance between NATO and Russia, and in particular, what Russia's capabilities are and how it would considering employing them.

Russia's Foreign Policy and National Security Strategy

Contemporary Russian strategy and foreign policy are focused on restoring the power of the nation in its traditional area of influence or dominion and defending Russia from external challenge.7 For a variety of reasons, the current (and most likely for the near future) leadership in Russia wishes to regain some degree of the suzerainty it enjoyed before the collapse of the Soviet empire. Moscow sees NATO expansion as well as the growing role of the European Union into areas it judges as falling within its sphere of influence as jeopardizing this objective. Setting aside whether such ambitions and fears are justified or not, it seems fair to characterize Russia as a clearly revanchist

^{5.} See, for instance, Elisabeth Braw, "Behind Putin's Nuclear Threats," *Politico*, August 8, 2015, available at http://www.politico.eu/article/nato-putin-russia-nuclear-weapons-ukraine-war/.

^{6.} See, for instance, the oped by NATO Secretary General Jens Stoltenberg that appeared in several leading European newspapers, "Modernising the Rule-Book of European Security," November 26, 2015, available at http://www.nato.int/cps/en/natohq/ opinions 125177.htm; "Russia Tests 100,000 Troops in Vostok 2014', biggest-ever post-Soviet drills," RT, September 23, 2014, available at http://rt.com/ news/189900-kamchatka-military-drills-shoigu/. nuclear exercises, see Steve Gutterman, "Putin Flexes Muscles in Big Test of Russia's Nuclear Arsenal,' Reuters, October 20, 2014, available at http:// www.reuters.com/article/2012/10/20/us-russianuclear-putin-idUSBRE89JoEJ20121020, Keck, "Russia's Nuclear Forces Begin Their Largest Drill Ever," The National Interest, February 12, 2015, available at http://nationalinterest.org/blog/the-buzz/ russia%E2%80%99s-nuclear-forces-begin-their-largest -drill-ever-12245 and Marcus Weisberger, Could Block Access to Baltic Sea, US General Says, Defense One, December 9, 2015, available at http:// www.defenseone.com/threats/2015/12/russia-couldblock-access-baltic-sea-us-general-says/124361/.

^{7.} For a similar analysis, see Robert M. Gates, "Putin's Challenge to the West," *The Wall Street Journal*, March 25, 2014. The sources of Russian strategic thinking and doctrine are the subject of extensive debate. Analysts differ as to what drives Moscow's strategy. Factors identified include resentment at Russia's lessened sway and prestige in its former empire and beyond and a consequent desire to recover them, insecurity in the face of NATO expansion and the Alliance's and the United States' use of force outside of what Moscow sees as legitimate channels, deeplyembedded cultural and organizational inclinations, simple paranoia, and other factors. For a more extensive analysis of Russia's - and particularly Vladimir Putin's - foreign policy drivers, see Jeffrey Mankoff, Russian Foreign Policy: The Return of Great Power Politics. Lanham, MD: Rowman & Littlefield for the Council on Foreign Relations, 2009.

power, unsatisfied with the current politicalstrategic status quo in its near abroad.⁸

Especially in the last several years and with increasing intensity since the beginning of the Ukraine crisis, Moscow sees the United States and NATO as the leading threats to this conception of its interests and security. Indeed, in its late 2014 revision to its military doctrine, Moscow labeled the Alliance as the chief threat to Russian security. The

8. For a clear recent statement of Russia's view of NATO as a hostile force and the Kremlin's general dissatisfaction with the existing regional and international political orders, see the just-released National Security Strategy, available at http://static.kremlin.ru/media/events/files/ru/l8iXkR8XLAtxeilX7JK3XXy6YoAsHD5v.pdf, with an English translation available at BBC Monitoring, January 7, 2016. See especially sections 15-18 and 106. For preliminary analyses of the document, see Olga Oliker, "Unpacking Russia's New National Security Strategy," CSIS.org, January 7, 2016, available at http://csis.org/publication/unpacking-russias-new-national-security-strategy; Familiar Themes, Gaudy Rhetoric," War on the Rocks, January 4, 2016, available at http://warontherocks.com/2016/01/russias-new-national-security-strategy-familiar-themes-gaudy-rhetoric/.

9. China appears to occupy a secondary place in Moscow's hierarchy of threats, especially in light of the recent confrontation with the West over Ukraine and Crimea. For a discussion of China's place in Russian security thinking, see Simon Saradzhyan, "The Role of China in Russia's Military Thinking," International Relations and Security Network, May 4, 2010, available at http://belfercenter.ksg.harvard.edu/ p u b l i c a t i o n / 2 0 1 2 9 / role of china in russias military thinking.html. Indeed, if anything, Russia appears to be seeking to deepen security cooperation with China, though it is likely that structural and historical-cultural tensions will continue to place limits on the depth of such engagement. For recent reporting on Sino-Russian collaboration, see Sam LaGrone, "Largest Chinese, Russian Joint Pacific Naval Exercise Kicks Off This Week", *USNI News*, August 17, 2015, available at http://news.usni.org/2015/08/17/largest-china-russiapacific-naval-exercise-kicks-off-this-week; "Russia to Launch Large-Scale Space Projects With China,' Sputnik, June 30, 2015, available at http:// <u>in.sputniknews.com/</u> russia/20150630/1014976280.html; and Supports Russia's Actions in Syria — Foreign Ministry, TASS Russian News Agency, December 4, 2015, available at http://tass.ru/en/world/841546

10. Carol J. Williams, "Russia Revises Military Doctrine to Name NATO as Chief Threat," *The Los Angeles Times*, December 26, 2015, available at http://www.latimes.com/world/europe/la-fg-russia-military-doctrine-nato-20141226-story.html. The Commander of U.S. Army forces in Europe, Lt. Gen. Ben Hodges, has gone so far as to assert that the Kremlin wants to "destroy NATO" by "splintering it." Justin Huggler, "Putin Wants to Destroy NATO, Says US Commander in Europe Ben Hodges," *The Guardian*, March 4, 2015, available at http://www.telegraph.co.uk/news/worldnews/vladimir-putin/11448971/Vladimir-Putin-wants-to-destroy-Nato-says-US-commander-in-Europe-Ben-Hodges.html.

Kremlin, impressed in particular by American military prowess, has noted the willingness of the United States and NATO to use military force outside channels Moscow deems legitimate (such as the United Nations Security Council), including in areas of special interest to Russia, such as Serbia and Kosovo.¹¹ Moscow also perceives a threat in emphasis of the West transformation of former Soviet governments and societies - including Russia - into more philo-Western ones; the so-called "color revolutions" presented the most dangerous example of this, to Moscow's eyes, and are perceived in Russia as coups d'Etat supported and funded by the West rather than organic domestic movements.12 The crisis over and conflict in Ukraine have only intensified Russia's sense of threat from the West, in Moscow's view validating its judgement that the West is seeking to further shrink Russia's area of influence with the ultimate goal of toppling and perhaps dismembering the existing Russian state. In light of this and Russian elites' assessment that the United States and NATO are seeking to hobble or transform Russia, this means that Moscow continues to see the United States and NATO as primary threats.

Russia's Defense Plan

This widely shared perspective among Russian decision-makers and strategic elites has led Moscow to see the need for a powerful military that can take on those of the United States and NATO across the spectrum of potential confrontation and conflict. As a consequence, Russia has in the last decade and a half invested substantial and sustained effort and resources to modernize and strengthen the nation's military after its semi-collapse in the years following the dissolution of the Soviet Union. Russia has been seeking to build a

^{11.} See, for instance, "The Military Doctrine of the Russian Federation," February 5, 2010, II/8/a, 3 in translation provided by the Carnegie Endowment for International Peace, available at http://carnegieen.com/http://carnegieen.

^{12.} See, for instance, Anthony H. Cordesman, "Russia and the 'Color Revolution': A Russian Military View of a World Destabilized by the U.S. and the West" (Center for Strategic and International Studies, May 28, 2014), a vailable at http://csis.org/files/publication/140529 Russia Color Revolution Full.p df and Darya Korsunskaya, "Putin Says Russia Must Prevent 'Color Revolution'," Reuters, November 20, 2014, available at http://www.reuters.com/article/2014/11/20/us-russia-putin-security-idUSKCNOJ41J620141120

military capable of taking on forces (especially those of NATO and particularly the United States) able to conduct highly-sophisticated, integrated, and decisive operations employing the most modern technology. By 2020 Moscow plans (albeit aspirationally) for the Russian military to be structured around combat-ready and readily deployable brigades, of which 70% will be equipped with the latest arms and equipment, and to boast of large number of new tanks, aircraft, ships, submarines, and satellites. 4

Russia is acutely conscious, however, of the limited success of its modernization effort thus far, the daunting challenges to its success going forward, and thus its military's continuing weakness relative to those of the United States and NATO. The reasons for the only partial success of Russia's modernization program are several - not least of them has been the great ambition of the project. Russia's reform effort inevitably faces a major challenge in transforming the moribund and calcified post-Soviet military of the 1990s into a modern fighting force, especially with the considerably more modest (and possibly declining, given economic realities) resources available to Moscow than to Washington. 15 Furthermore, the Russian reform effort itself

13. For overviews of this effort and the logic behind it, see Nikolas Gvosdev, "The Bear Awakens: Russia's Military is Back," The National Interest, November 12, available at http://nationalinterest.org/ commentary/russias-military-back-9181?page=show; Maria Martens, General Report of the NATO Parliamentary Assembly's Science and Technology Committee, "Russian Military Modernization," October 11, 2015, available at Catrin Einhorn et al, "Russia Rearms for a New Era," The New York Times, December 24, 2015, available at file:///C:/Users/elbridgeacolby/Downloads/176 stc 15 erussian military modernisation.pdf; and www.nytimes.com/interactive/2015/12/24/world/ asia/russia-arming.html? action=click&contentCollection=Personal% 20Tech&module=MostPopularFB&version=Full®io n=Marginalia&src=me&pgtype=article. See also, for an earlier official Russian perspective on this kind of thinking: Sergey Ivanov, The Report of the Defense Ministry of the Russian Federation. Moscow: Ministry of Defense, October 2, 2003.

14. Gvosdev, "The Bear Awakens"; Einhorn et al, "Russia Rearms"; and Franz-Stefan Gady, "Putin to Press on With Russia's Military Modernization," *The Diplomat*, June 27, 2015, available at http://thediplomat.com/2015/06/putin-to-press-on-with-russias-military-modernization/.

15. See, for recent reports of Russia's economic troubles, Mehreen Khan, "Russia Crisis Deepens as Economy Suffers Worst Recession in Six Years," *The Telegraph*, August 10, 2015, available at http://www.telegraph.co.uk/finance/economics/11794653/Russia-crisis-deepens-as-economy-suffers-worst-recession-in-six-years.html.

has been hobbled by bureaucratic and cultural resistance, corruption, inefficiencies, and other challenges.¹⁶ At the same time, Moscow is aware that the United States and, to a lesser degree, its NATO allies have capitalized on the opportunities afforded by the "Revolution in Military Affairs" to improve their military capabilities dramatically, making catch-up especially difficult.

The Central Role of Nuclear Weapons

Accordingly, Russia has continued to emphasize the central role of its nuclear forces in its strategic and security posture.¹⁷ In addition to seeing its nuclear arsenal as an important contributor to its diminished international prestige, it views these weapons in practical military terms as providing a way to compensate for its conventional weakness vis-à-vis NATO (and possibly China) and as a crucial method in particular for deterring American exploitation of its own strategic capabilities.

Following this logic, Moscow is undertaking an impressive modernization of its nuclear deterrent. As Hans Kristensen and Robert Norris report, "Russia is in the middle of a broad modernization of its strategic and nonstrategic nuclear forces" that involves continued development and deployment of a range of new missiles, platforms, and supporting systems.¹⁸ These include newly modernized road-mobile and silo-based missiles equipped with multiple independently targetable reentry vehicles (or MIRVed) ICBMs (the RS-24), plans for a new large MIRVed ICBM (the "Sarmat") to replace SS-18. MIRVed submarine-launched ballistic missiles (SLBMs) (the SS-NX-32

^{16.} For an assessment of the challenges this effort has faced and the limited success Russia has achieved in its reforms, see Roger N. McDermott, "Russia's Conventional Armed Forces: Reform and Nuclear Posture to 2020," in Stephen J. Blank, Russian Nuclear Weapons: Past, Present, and Future. Carlisle, PA: Strategic Studies Institute, 2011, 33-98. See also International Institute of Strategic Studies, Military Balance 2014. London: International Institute of Strategic Studies, especially Chapter 5.

^{17.} This has been a regular feature of official Russian pronouncements in recent years. For a recent example, see "Putin: Russia to Boost Nuclear Arsenal with 40 Missiles," *BBC News*, June 16, 2015, available at http://www.bbc.com/news/world-33151125

^{18.} See Hans Kristensen and Robert S. Norris, "Russian Nuclear Forces, 2015," 71 Bulletin of the Atomic Scientists 3, May 2015, 84, available at http://thebulletin.org/2015/may/russian-nuclear-forces-20158299

"Bulava"), and a range of other weapons and platforms.¹⁹ Russia is also rebuilding its supporting architecture for strategic forces, such as early warning launch detection satellites and ballistic missile early warning radars, an architecture that had dramatically decayed after the collapse of the USSR.²⁰

This modernization effort is motivated in substantial part by Moscow's concern about the growing strategic offensive and defensive capabilities of the United States. While a good deal of Moscow's complaints about U.S. missile defense and conventional strike likely exaggerated capabilities are designed to retard and complicate U.S. deployment and employment weapons, Russian security decision-makers also appear genuinely fearful about the U.S. ability to leverage its combined strategic strike and defense assets to coerce Russia.21 As a result, Moscow is seeking to build and deploy a strategic nuclear force that is able to demonstrate clearly to Washington that such a first-strike capability is out of reach and that U.S. attempts to use force to disarm Russia of strategic deterrent would result in devastating retaliation. To this end, Russia has been outfitting its strategic forces with systems designed to provide better tactical and strategic warning, redundant and skip echelon command and control functions, and new MIRVed missiles designed to penetrate adversary defenses.22

This effort is certainly of interest and of supreme importance to Western policymakers and analysts. Such weapons generate serious stability issues, cast a shadow over any potential conflict with Moscow, and would of course be uniquely and immensely destructive if actually used. Yet Western governments are by and large sensitive to these developments and have no genuine interest in taking actions that would prompt their use. Both Western governments and Russia understand that large-scale nuclear employment would be mutually devastating and it thus appears reasonable and responsible to conclude that the bar for either side to initiate such a step remains very high.

Russia's Interest in and Plans for Decisive Limited Nuclear Use

Less well understood but possibly of greater relevance, however, is Russia's interest in and development of capabilities for more limited nuclear use. Moscow is aware of its only success in fielding a modern conventional military and of that force's imperfect ability to challenge the forces of the United States and NATO in a broader conflict as well as of the relatively narrow relevance of its strategic nuclear forces in situations short of the apocalyptic. This leaves a significant gap in Russia's defense posture: left alone, conventional Russia's forces could decisively overcome by NATO forces in a plausible conflict over, for instance, the Baltics or other countries in Eastern Europe. Such a scenario would likely fall considerably short of a situation in which Moscow would see the utility in initiating a general nuclear strike against NATO, a strike that would essentially inevitably result in a comparable massive Western response. Russia could therefore find itself exposed to Western coercion if this vulnerability were left unaddressed.23

To deal with this problem, Russia has for a number of years seen the value of seeking to extend credible nuclear deterrence down the ladder of escalation to scenarios below the extreme in order to deter the West from seeking to exploit this potential conventional vulnerability as leverage. As Russian expert Yuri Federov has outlined, "[I]n the strategic environment since the end of the Cold War, instead of massive use of nuclear weapons planned by the Soviets during the Cold War, [the] Russian military command [has] sought to develop a method of limited use of nuclear weapons that will enable them to deter or stop

^{19.} Ibid, 84-97.

^{20.} See, for instance, "Electronic Weapons: Making Crimea Pay," *The Strategy Page*, October 28, 2014, available at http://www.strategypage.com/htmw/htecm/20141028.aspx

^{21.} See, for instance, the description of the Russian reaction to an influential article by Kier Lieber and Daryl Press in Olga Oliker et al., *Russian Foreign Policy: Sources and Implications*. Santa Monica: RAND Corporation, 2009, 167. For the original article that sparked this particular bout of controversy, see Kier A. Lieber and Daryl G. Press, "The End of MAD? The Nuclear Dimension of U.S. Primacy," 30 *International Security* 4, Spring 2006, 7-44.

^{22.} For assessments of the state of Russia's nuclear modernization efforts, see Roger McDermott, "Russian Military Modernization: Rogozin Promises a 'Nuclear Surprise'," *Eurasia Daily Monitor*, October 7, 2014, available at http://www.jamestown.org/programs/edm/single/?txttnews%5Bttnews%5D=42926&txtnews%5BbackPid%5D=756&nocache=1#.VHnXWfnFT8, and Martens, "Russian Military Modernization," 5-7.

^{23.} For an influential Russian's exploration of this problem, see A. A. Kokoshin, *Problems of Providing Strategic Stability: Theoretical and Applied Problems*. Second Edition. Moscow: M.V. Lomonosov Moscow State University Department of World Politics, Russian Academy of Sciences Institute of International Security Problems, 2010, especially Chapter 5, entitled "The task of preventing the escalation domination" [sic].

[an] attack of superior conventional forces without escalation into total nuclear exchange or large-scale regional war."24 Moscow has occasionally described the objective of such nuclear employment as "de-escalation of aggression," an approach sometimes termed an "escalate to de-escalate" strategy."25 An influential 2003 official document. described "[d]e-escalation instance, aggression" as the effort to "forc[e] the enemy to halt military action by a threat to deliver or by actual delivery of strikes of varying intensity with reliance on conventional and (or) nuclear weapons."26 Russia appears to see both nuclear weapons of tailored effect and "strategic" non-nuclear but conventional weapons as being of potential use in such scenarios.27 This strategy is consistent with those of other countries facing a potential

24. Yury E. Federov, "Russia's Nuclear Doctrine," in NIDS International Symposium on Security Affairs. Tokyo: National Institute for Defense Studies, 2010, 54.

25. See, for instance, Nikolai N. Sokov, "Why Russia Calls a Limited Nuclear Strike De-Escalation," *Bulletin of the Atomic Scientists*, March 13, 2014, available at http://thebulletin.org/why-russia-calls-limited-nuclear-strike-de-escalation. For a longer treatment, see the chapters by Sokov, Richard Weitz, and other experts in Stephen J. Blank, *Russian Nuclear Weapons: Past, Present, and Future*. Carlisle, PA: Strategic Studies Institute, 2011.

26. Sergey Ivanov, *The Report of the Defense Ministry of the Russian Federation*, 70. For further explication of this important document and how it relates to Moscow's limited nuclear conflict doctrine, see Nikolai Sokov, "Nuclear Weapons in Russian National Security Strategy," in Blank, *Russian Nuclear Weapons: Past, Present, and Future*, especially 205-208.

27. The inclusion of non-nuclear weapons for such strategic purposes appears to have received official sanction in the most recent Russian military doctrine. See "Russia's New Military Doctrine Names NATO As Key Risk," Reuters, December 26, 2014. For a deeper exploration of this approach, see A.A. Kokoshin, Problems of Providing Strategic Stability: Theoretical and Applied Problems, Chapter 16. Kokoshin outlines in particular a system of "non-nuclear" or "pre-nuclear" deterrence that relies on "high-precision remote combat weapons of different kinds and types with explosives, including conventional high-power explosive, with the use, first of all as a platform, of both submarines and combat ships, and also long-range bombarding aircraft." Such employment would be integrated with the threat of nuclear escalation, in Kokoshin's argument, but would provide "an act of 'last warning' in the course of military actions before the selective use of comparatively low-power nuclear weapons." He argues that "weapons of this kind should be used against objects of high cost and complex systems for ensuring national security, comparatively far from densely populated areas...include[ing] ground centers of radio-electronic surveillance, large ships of analogous purpose, communication units, control units..." 154. Such employment would be itself of greater appeal than immediate use of nuclear weapons and would increase the credibility of subsequent nuclear strikes.

adversary possessing stronger conventional forces – NATO in the Cold War and Pakistan vis-à-vis India, for instance.²⁸ In accord with this doctrine, Moscow has since the early 1990s made clear that it would resort to using nuclear weapons first.²⁹

The precise conditions under which Moscow would employ its nuclear weapons in this fashion are ambiguous – by design. Official Russian statements as to when it would use its nuclear weapons have varied. In its 2000 defense statement, for instance, Moscow adopted a broader set of parameters for such use, apparently prompted by the Western Alliance's awing display of force unsanctioned by the UN Security Council in Kosovo. This doctrinal statement explicitly extended the intended relevance of Russia's nuclear arsenal from "global war," or a "a war against a coalition of powerful states in which sovereignty and [the] very survival of Russia are at stake," to "regional war," with the latter defined as "a war with a powerful state or a coalition [namely the United States and NATO], which Russian forces cannot win or terminate on favorable conditions."30 In more colloquial terms, Russia explicitly announced that it was prepared to use nuclear weapons in a major but not total conflict with NATO in which Russia believed it could not prevail.

The most recent (2010 and 2014) official statements of Russia's military doctrine, however, appeared to narrow Russia's declaratory policy on nuclear use.³¹ With the exception of retaliating against nuclear attack, the 2010 and 2014 white papers suggested

^{28.} The concept of controlled nuclear strikes and deliberate manipulation of the escalatory ladder resembles NATO's Flexible Response and the U.S. Limited Nuclear Options (or, more colloquially, "Schlesinger Doctrine") approaches. For the author's interpretation of this history in the Cold War context, see Elbridge A. Colby, "The United States and Discriminate Nuclear Options in the Cold War," in *On Limited Nuclear War*. Jeffrey A. Larsen and Kerry M. Kartchner, Eds., Palo Alto: Stanford University Press, 2014, 49-79.

^{29.} See Serge Schmemann, "Russia Drops Pledge of No First Use of Atom Arms," *The New York Times*, November 4, 1993, available at http://www.nytimes.com/1993/11/04/world/russia-drops-pledge-of-no-first-use-of-atom-arms.html

^{30.} See Sokov, "Nuclear Weapons in Russian National Security Strategy," in Blank, Russian Nuclear Weapons: Past, Present, and Future, 204.

^{31.} The language on nuclear weapons appears to have been left largely unchanged from the 2010 version in the 2014 military doctrine. See Pavel Podvig, "New Version of the Military Doctrine," *Russian Strategic Nuclear Forces* blog, December 26, 2014, available at http://russianforces.org/blog/2014/12/new-version-of-the-military-do.shtml

that Moscow would confine any first nuclear use to situations of, as in the 2003 paper, "a military conflict involving the utilization of conventional means of attack (a large-scale war or regional war)" but also "imperiling the very existence of the state." The last section of the statement seemed to indicate that Russia's bar for using nuclear weapons in the face of conventional conflict with NATO would be quite high; such a conflict would, the statement appeared to imply, have to threaten the collapse of the state – an undefined but presumably extreme circumstance – before Moscow would reach for its nuclear arsenal.33

A number of reports, however, suggested that this shift of public statements was more cosmetic than real.34 The release of the actual white paper followed a series of controversial statements indicating that Russia continuing to adhere to a more expansive conception of the role of nuclear weapons, and that it was even considering broadening their writ to include "local conflicts." These statements provoked

32. "The Military Doctrine of the Russian Federation," II/16.

33. The recently-released December 2015 National Security Strategy does not appear to have modified Russia's declaratory statements on nuclear weapons employment. The Strategy mentions nuclear forces only in more general terms. See, for instance, provisions 36, 100, and 104-105. I am grateful to Michael Albertson and Samuel Charap for clarifying this point. The Kremlin-linked Russia Today, in an article discussing the Strategy, described Russia's declaratory position on employment as the following: "Russia plans to prevent any military conflicts by maintaining its nuclear capabilities as a deterrent, but would resort to the military option only if all other non-military options had failed." It is not clear that this rather broader declaratory statement has an official basis. "Russia's National Security Strategy for 2016 in 9 Key Points," Russia Today, December 31, 2015, available at https://www.rt.com/news/327608-russianational-security-strategy/

34. Indeed, there is reason to judge that such statements should not be taken wholly at face value in any case, both due to the inherently questionable reliability of nations' nuclear declaratory statements to Russia's own apparently permissive understanding of how accurately its statements on strategic and defense matters need to correspond to its actual plans or practices, as evidenced in the recent INF and Crimea cases. Mark Schneider cites a revealing comment by then-Defense Minister Ivanov in October 2003: "What we say is one thing. That sounds cynical, but everything that we plan does not necessarily have to be made public. But what we actually do is an entirely different matter. If we are talking about nuclear weapons, they are the chief components of our security." Mark B. Schneider, "The Nuclear Weapons Policy of the Russian Federation," Presentation to the Defense Science Board, undated, available at http:// www.dod.mil/pubs/foi/Science and Technology/ DSB/06-F-0446 DOC 10 The Nuclear Weapons Policy of the Russian Federation.pdf

considerable controversy that might have led. for political and perceptual reasons, to the slightly more restrictive statement of the role of Russia's nuclear forces that appeared in the final white paper.³⁵ A similar dynamic obtained in the lead-up to the 2014 doctrine's release in late December 2014.36 Buttressing this interpretation are reports that the 2010 white paper was accompanied by a classified annex entitled "The Foundations of State Policy in the Area of Nuclear Deterrence until 2020," which a number of informed experts speculate includes provisions for employment of nuclear weapons in a wider variety of situations than stipulated in the Military Doctrine document.37 It seems reasonable to assume that a similar annex accompanied accompany the 2014 version.

Perhaps more to the point, recent events and statements from the Kremlin and other authoritative Russian sources strongly suggest that Moscow envisions nuclear weapons playing a significant role in a limited conflict with the West, a conflict that appears less implausible in the wake of Moscow's seizure of Crimea, its continuing incursions into eastern its broader Ukraine. and posture antagonism towards the West and interest in revising the post-Cold War political settlement in the areas in and around the former Soviet Union.38 Nor does this situation appear likely

35. See, e.g., Sokov, "Nuclear Weapons in Russian National Security Strategy" and Richard Weitz, "Russian Tactical Nuclear Weapons: Current Policies and Future Trends," in Blank, Russian Nuclear Weapons: Past, Present, and Future, 209-210 and 376-377.

36. See, for instance, "Russian General Calls for Preemptive Nuclear Strike Doctrine Against NATO," *The Moscow Times*, September 3, 2014, available at http://www.themoscowtimes.com/business/article/russian-general-calls-for-preemptive-nuclear-strike-doctrine-against-nato/506370.html and "Preemptive Nuclear Strike Omitted From Russia's New Military Doctrine - Reports," *RT*, December 10, 2014, available at http://rt.com/politics/213111-russia-nuclear-preemptive-strike/

37. See particularly Weitz, "Russian Tactical Nuclear Weapons: Current Policies and Future Trends," 377, citing Dmitry Gorenburg, "Russia's New Military Doctrine: An Exercise in Public Relations," February 8, 2 0 1 0 , a v a i l a b l e a t h t t p://russiamil.wordpress.com/2010/02/08/russias-new-military-doctrine-fairly-innocuous/ and Marcel de Haas, "Doctrinal Stipulations and Political Realities. What Should Be the Western Response to the New Doctrine?," Nezavisimaya Gazeta, February 2, 2010. See also Pavel Podvig, "New Russian Doctrine and Preventive Nuclear Strikes," at Russian Strategic Nuclear Forces (blog), October 14, 2009, available at http://russianforces.org/blog/2009/10/new russian doctrine and preve.shtml

38. See, for instance, Jeffrey Tayler, "Putin's Nuclear Option: Would Russia's President Really Be Willing to

to improve, especially with the Russian military playing an increasing role in the Kremlin's foreign policy. Vladimir Putin and the broader Russian leadership appear to have concluded that relations with the West have fundamentally deteriorated and that political confrontation will continue. It therefore appears likely that the Kremlin will continue to view nuclear weapons as a key part of Russia's strategy and military posture, and will look upon them as a method of compensating for the country's weakness in relation to NATO.

Expressed intent and doctrine are interesting and perhaps illuminating. But while they are suggestive, they are empty without the capabilities to implement them. And in this respect Russian procurement and posture appear to provide Moscow with at least some ability to put its enunciated doctrine into practice. Based on its variegated nuclear forces and the platforms to deliver them, Russia appears to have the fundamental hardware to conduct limited nuclear strikes against both military and non-military targets of value to the Western Alliance, both in Russia's near abroad and deeper into Western Europe and even North America. Russia could use its large and diverse tactical nuclear arsenal as well as strategic weapons to conduct controlled strikes from a variety of aerial, maritime, and ground platforms. To take only one set of Moscow's options, experts estimate that Russia boasts 700 nuclear warheads assigned to Russia's non-strategic naval forces. These warheads are judged to be used arm cruise missiles, antisubmarine weapons, anti-air missiles, torpedoes, and bombs. Russia has also begun deployment of a modernized guided-missile attack submarine that can fire antisubmarine rockets and cruise missiles, a submarine that U.S. Navy officials consider a formidable asset.³⁹ These weapons could be used to attack

Start World War III?" Foreign Policy, September 4, 2014, available at http://www.foreignpolicy.com/articless/22014/09/09/04/putins_nuclear_option_russia_weapons. The article upon which some of this assessment is based is available here http://www.echo.msk.ru/blog/piontkovsky-a/1376104-echo/.

39. See Kristensen and Norris, "Russian Nuclear Forces, 2014," 82. U.S. Navy officials reportedly judge this submarine to be highly capable and posing a serious challenge to U.S. anti-submarine warfare capabilities. See Dave Majumdar, "U.S. Navy Impressed with New Russian Attack Boat," USNI News, October 28, 2014, available at http://news.usni.org/2014/10/28/u-s-navy-impressed-new-russian-attack-boat.

40. See Jacob W. Kipp, "Russia's Nonstrategic Nuclear

a range of NATO targets on land, at sea, and in the air. Similar ground and air-launched capabilities also exist.

It is also known that Russia has exercised its forces to conduct such limited strikes designed to force war termination on terms favorable to Moscow. In June 1999 Russian forces conducted a major exercise entitled "Zapad [West]-99" in which Russian forces simulated the use of nuclear weapons from two Tu-95 and two Tu-160 bombers, including through use of nuclear-armed air-launched cruise missiles to strike against the countries from which the invasion was launched (often judged to be Poland and even the United States itself).40 Reports indicate that more recent exercises have also included limited nuclear strikes.⁴¹ For instance, the U.S. Army Commander in Europe stated in December that Russia's recent exercises in Kaliningrad had involved mock nuclear employment.⁴² Indeed, Nikolai Sokov claimed in 2014 that all of Russia's large-scale military exercises since 2000 had included the conduct of limited nuclear strikes.⁴³ Other reports have also indicated that Russia has frequently exercised such options.44

Thus, we know that Russia has ample capabilities to conduct limited nuclear operations. And while we cannot be sure how frequently, realistically, or comprehensively Russia has exercised the capability to conduct limited nuclear strikes to seek to favorably control escalation in their aftermath, it does

Weapons," Military Review, May-June 2001, available at http://fmso.leavenworth.army.mil/documents/russias_nukes/russias_nukes.htm. For the speculation that Poland and the United States were targets of the limited nuclear strikes in this exercise, see, for instance, Marcel H. van Herpen, Russia's Embrace of Tactical Nuclear Weapons: Its Negative Impact on U.S. Proposals for Nuclear Arms Reductions. Cicero Foundation No. 11/04, September 2011, available at http://www.cicerofoundation.org/lectures/Marcel_H_Van_Herpen_RUSSIA_EMBRACE_OF_T ACTICAL_NUCLEAR_WEAPONS.pdf.

- 41. See, for a list of notable exercises, National Institute for Public Policy, "Russia's Nuclear Posture," 2015, Slide 5.
- 42. Weisgerber, "Russia Could Block Access to Baltic Sea, US General Says."
- 43. Sokov, "Why Russia Calls a Limited Nuclear Strike De-Escalation."

44. See, for instance, Zachary Keck, "Russia Threatens Nuclear Strikes Over Crimea," *The Diplomat*, July 11, 2014, available at http://thediplomat.com/2014/07/russia-threatens-nuclear-strikes-over-crimea/ and Anne Applebaum, "War in Europe," *Slate*, August 29, 2014, available at http://www.slate.com/articles/news-and-politics/foreigners/2014/08/vladimir-putin-s-troops-have-invaded-ukraine-should-we-prepare-for-war-with.html

appear reasonable to infer that Russian forces have developed some capability to do so, and perhaps a considerable capability. In other words, the West must assess that Russia has not only the will but also some significant ability to use nuclear weapons in a limited fashion for strategic effect.

The Challenge Posed to NATO

This Russian capability to conduct limited nuclear operations designed to deescalate a conflict on terms favorable to Moscow poses a significant challenge to Western interests. In the event of a conflict, such a capability might give Russia the upper hand if NATO lacks the assets needed to weather and then overcome the effects of such employment or the resolve required to persevere through a limited nuclear war, which would by definition be a contest of nerves.45 This could lead to the partial but still dramatic defeat of the Western Alliance over issues important enough for its members to judge it worthwhile to fight, a result that would have untold deleterious consequences.

But this Russian capability will also have relevance in situations short of outright fighting in ways that policymakers and experts focused on less extreme scenarios should also internalize. If Moscow believes that it has the ability to stare down the West under certain conditions, Russia might become emboldened and more aggressive in certain contexts. Those settings are likely to be those in which Moscow judges that it would have the better footing on the lower rungs of the ladder of escalation, likely due to some combination of firmer resolve. faster tactical deployment and response time, and superior local force. Moscow might think, for instance, that its ability to conduct controlled limited nuclear operations would give it the upper hand in a crisis or conflict stemming from, for instance, a politically ambiguous dispute in Ukraine, Georgia, and perhaps even the NATO Baltic states.46 Fortified by this confidence, Moscow might be more willing to pursue a harder line and more ambitious set of objectives over disputes with and about these countries. Indeed, a cursory examination of Russian behavior over the last two years suggests that Moscow has thought about its approach to Crimea and eastern Ukraine in something like this way, calculating that the West was not only unwilling to match Russian escalation but that Moscow might well be able to face down the Alliance if it did so. There is little reason to think that Moscow is finished exploring how far this logic will hold.

The key, then, is for the Atlantic Alliance to be adequately prepared for a Russian effort to use such a limited nuclear capability for coercive effect, either through threats or through actual employment. This means having effective limited nuclear capabilities of its own, as well as the resolve to stand fast in the event of Russian use and to respond appropriately with its own capabilities, nuclear or otherwise.47 More broadly, however, it means that Western leaders need to understand that this is a serious problem, grasp its broad contours, and shape their policies accordingly, rather than dismiss such possibilities as unthinkable. Western leaders should understand that Russia has considerable capability to use its military forces – including its nuclear forces – in controlled but possibly decisive ways in plausible conflict scenarios. Preventing Russia from gaining from this ability – either through outright war or through the exploitation of the fear of it – will require appropriate capabilities and firm resolve. But first of all it will require understanding the problem. A good start would be by acknowledging it exists. ◊

^{45.} For the classic and still finest treatment, see Thomas C. Schelling, *Arms and Influence*. New Haven: Yale University Press, 1966. For a contemporary set of analyses of limited nuclear war, see *On Limited Nuclear War*. Kartchner and Larsen. Eds.

^{46.} For Moscow's interest in and ability to create politically ambiguous situations, see, for instance, Peter Apps, "West Struggles With Russia's 'Ambiguous Warfare' Tactics," *Reuters*, November 27, 2014, available at http://www.reuters.com/article/us-russia-nato-security-idUSKCNoJBoBU20141127. See also

Paul Hockenos, "Baltic Russians Could Be the Next Pawns in New Cold War," Al-Jazeera, April 11, 2015, available at http://america.aljazeera.com/opinions/2015/4/in-the-new-cold-war-baltic-russians-could-be-the-next-pawns.html and Agnia Grigas, "Are the Baltic States at Risk of Russian Aggression?" The Hill, April 13, 2015, available at http://thehill.com/blogs/congress-blog/foreign-policy/238457-are-the-baltic-states-at-risk-of-russian-aggression

^{47.} For the author's views on how to do so, see "Defining Strategic Stability: Reconciling Stability and Deterrence," in *Strategic Stability: Contending Interpretations*. E. Colby and M. Gerson., Eds. Carlisle, PA: Strategic Studies Institute, 2013; Elbridge Colby, "Countering Russian Nuclear Strategy in Central Europe," Center for the New American Security, November 11, 2015 available at http://www.cnas.org/opinion/countering-russian-nuclear-strategy-in-central-europe#.VnljovFGtsM; and Elbridge Colby and Jonathan Solomon, "Facing Russia: Conventional Defence and Deterrence in Europe," *Survival* 57:6 (December 2015/January 2016), 21-50.

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