

Russia and strategic non-nuclear deterrence

Capabilities, limitations and challenges

Summary

- An analysis of Russian military theory and practice suggests that Russia's views have undergone an evolution, moving from reliance on nuclear deterrence towards a greater emphasis on non-nuclear deterrence. The development of Russia's new long-range precision-guided weapons strongly supports the notion of such a shift.
- At the same time, Russia is pressing ahead with the development of both non-nuclear and nuclear capabilities. It ceaselessly emphasizes its nuclear weapons, and its nuclear projects continue to proliferate.
- In Russian theory and practice, nuclear and non-nuclear (conventional) deterrence are inextricably linked. A picture emerges of a flexible package of capabilities, with non-nuclear strategic systems complementing non-strategic and strategic nuclear weapons.
- In anything less than large-scale high-intensity warfare, Russia's non-nuclear strategic deterrent is valid conceptually and has clear practical utility.
- This paper examines Russian non-nuclear deterrence in its primary, military manifestations. It outlines the capabilities involved in the exercise of non-nuclear deterrence and explores its potential limitations as well as its ambiguities. Studying these nuances offers a way to gain a fuller understanding of the challenges that they present, including for NATO.

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Introduction

An analysis of Russian military theory and practice suggests that Russia's views have undergone an evolution, moving from reliance on nuclear deterrence towards a greater emphasis on non-nuclear deterrence. Uncertainty surrounds this emphasis, both conceptually and practically.

Confusingly, Russia ceaselessly emphasizes its nuclear weapons, and its nuclear projects continue to proliferate. Such actions could be construed as evidence that the value of nuclear weapons remains undiminished for Russia. The primary function of Russia's strategic nuclear deterrent is arguably political, whether or not it regards it exclusively as such. By contrast, some of the systems that underpin Russia's non-nuclear deterrent can be and have been used by it in anger, which demonstrates their coercive potential.

This paper examines Russian non-nuclear deterrence in its primary, military manifestations. It outlines the capabilities involved in the exercise of non-nuclear deterrence and explores its potential limitations and ambiguities. Studying these nuances will help to further an understanding of how Russian deterrence doctrine may be implemented in war-fighting. The paper identifies the challenges presented by Russia's strategic military non-nuclear deterrence concept and capabilities, for the country itself as well as for NATO.

Russia's strategic deterrence concept

The evolution of Russia's views from nuclear towards non-nuclear deterrence has been comprehensively explored.¹

This evolution can be traced through doctrinal milestones. It stems from the 2000 Military Doctrine's emphasis on nuclear deterrence against all threats, including conventional, at a time of military weakness. It is further evidenced in the 2010 Military Doctrine's imposition of stricter conditions for nuclear use. This was coupled with the introduction of the concept of 'strategic deterrence' as a combination of military and non-military deterrence. These shifts accompanied a major overhaul of the military and an unprecedented rearmament programme with massive investment that was to span a decade. The final stage in the evolution was reached with the enshrinement, in the 2014 Military Doctrine, of the notion of non-nuclear deterrence, underpinned by further substantial conventional advances.

As a national security concept, Russian 'strategic deterrence' is expansive and includes military and non-military, nuclear and non-nuclear, defensive and offensive deterrence tools. It applies when at peace and at war. In effect, it combines elements of containment, deterrence and coercion, with the aim

¹ For example, see Ven Bruusgaard, K. (2016), 'Russian Strategic Deterrence', *Survival*, 58(4): pp. 7–26, doi:10.1080/00396338.2016.1207945; and Kofman, M., Fink, A. and Edmonds, J. (2020), *Russian Strategy for Escalation Management: Evolution of Key Concepts*, CNA, <https://russianmilitaryanalysis.files.wordpress.com/2020/04/russian-strategy-for-escalation-management-main-concepts.pdf> (accessed 3 Jun. 2021).

of ‘using all means available to deter or dominate conflict’.² The Russian Ministry of Defence’s *Military Encyclopaedia* defines ‘strategic deterrence’ as:

A coordinated system of use-of-force and non-use-of-force measures taken consecutively or simultaneously by one side in relation to another to keep the latter from any military actions that inflict or may inflict damage on the former on a strategic scale.³

The entry lists measures classed as ‘use-of-force’ (*silovyye*), which include nuclear use, and ‘non-use-of-force’ or non-military (*nesilovyye*), which include ‘political, diplomatic, legal, economic, ideological, scientific-technical and others’.⁴ Although not identified specifically, information operations, and cyber operations as their subset,⁵ must be assumed to be part of the latter, as must a set of ‘hybrid’ measures that span both categories.

Russian military writings now talk about deterrence or containment through intimidation (*sderzhivaniye putem ustrasheniya*),⁶ even though historically this was used to frame the deterrent policies of other, hostile nations, with connotations suggestive of ‘nuclear blackmail’.⁷ US Cold War policies were described by Soviet leaders as containment through intimidation. Yet recently, the intimidation element of Russia’s own deterrent policy has been on prominent display, as has Russia’s nuclear deterrent, including with clearly aggressive rather than defensive intent. In the latest escalation of tensions with Ukraine in the spring of 2021, for instance, the means by which Russia strove to attain whatever objectives it had were, beyond any reasonable doubt, an exercise in intimidation.

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Russia invariably frames its military and non-military action alike as defensive.⁸ Yet the dynamics of deterrence are reciprocal, with concomitant complications including provocation, arms races or inadvertent escalation. In short, this concept of ‘strategic deterrence’ fails to appreciate that deterrent action could be construed as offensive by the other side. The country’s leadership could thus fall victim to its own conceptualization of deterrence as a response to perceived aggression.

² Ven Bruusgaard (2016), ‘Russian Strategic Deterrence’.

³ Russian Ministry of Defence website (n.d.), *Военно-энциклопедический словарь* [Military-Encyclopaedic Dictionary], <http://encyclopedia.mil.ru/encyclopedia/dictionary/details.htm?id=14206@morfDictionary> (accessed 3 Jun. 2021).

⁴ Ibid.

⁵ Akimenko, V. and Giles, K. (2020), ‘Russia’s Cyber and Information Warfare’, in *The Future of Cybersecurity across the Asia-Pacific*, Roundtable from Asia Policy 15.2, National Bureau of Asian Research (NBR), 29 April 2020, <https://www.nbr.org/publication/the-future-of-cybersecurity-across-the-asia-pacific>.

⁶ For example, Kalinkin, D. A., Khryapin, A. L., and Matvichuk, V. V. (2015), ‘Стратегическое сдерживание в условиях создания США глобальной системы ПРО и средств глобального удара’ [Strategic Deterrence in the Context of the US Global Ballistic-Missile Defence System and Means for Global Strike], *Voyennaya Mysl* [Military Thought], no. 1, January 2015, pp. 18–22.

⁷ Ven Bruusgaard (2016), ‘Russian Strategic Deterrence’.

⁸ Ibid.

Furthermore, problems arise when it transpires that Russia's and NATO's concepts of what constitutes defensive action are at odds with each other. For instance, if Russia considered its annexation of Crimea to have been a defensive manoeuvre to prevent NATO's encroachment through Ukraine,⁹ it could take similar action elsewhere. And, as it has done over Crimea, Russia could proceed to using threats, including nuclear, to prevent any resistance or intervention.

The 2014 Military Doctrine defined non-nuclear deterrence as:

A complex of foreign policy, military and military-technical measures aimed at preventing aggression against the Russian Federation through non-nuclear means.¹⁰

Military and political leaders have signalled an increased emphasis specifically on non-nuclear military deterrence. In 2019, Chief of the General Staff Valeriy Gerasimov spoke of 'an urgent task in the development of military strategy to substantiate and improve nuclear and non-nuclear deterrence measures'.¹¹ In December 2020, President Vladimir Putin acknowledged the potential of the non-nuclear deterrent. While 'the first task is to maintain the high combat readiness of the nuclear forces [and] the development of all components of the nuclear triad,' he said, 'second, it is equally important to strengthen the potential of non-nuclear deterrent forces, first of all precision weapons'.¹²

Under the broad umbrella of strategic deterrence, nuclear and non-nuclear deterrence are, in addition to elements such as force posture, to be executed via demonstrative deployments, demonstrative use of force and a single strike, or grouped strikes, to inflict 'unacceptable' damage. The intention is to manipulate the adversary's cost-benefit calculus, rather than aiming for pure prevention or effective defence.¹³

Russia's strategic non-nuclear deterrent

The development of Russia's new long-range precision-guided weapons strongly supports the notion that the country's leadership has been placing greater emphasis on non-nuclear strategic military deterrence.

Kinetic offensive conventional strategic-deterrence capabilities typically include long-range precision-strike weapons against land/sea targets. Kinetic defensive conventional strategic-deterrence capabilities include aerospace defence systems; these include air and missile defence, which could also function offensively,

⁹ Treisman, D. (2016), 'Why Putin Took Crimea: The Gambler in the Kremlin', *Foreign Affairs*, May/June 2016, <https://www.foreignaffairs.com/articles/ukraine/2016-04-18/why-russian-president-putin-took-crimea-from-ukraine> (accessed 3 Jun. 2021).

¹⁰ Rossiyskaya Gazeta (2014), 'Военная доктрина Российской Федерации' [Military Doctrine of the Russian Federation], Article 8, Clause n [n], 30 December 2014, <https://rg.ru/2014/12/30/doktrina-dok.html> (accessed 3 Jun. 2021). English version: The Embassy of the Russian Federation to the United Kingdom of Great Britain and Northern Ireland (2015), 'The Military Doctrine of the Russian Federation', 29 June 2015, <https://rusemb.org.uk/press/2029> (accessed 3 Jun. 2021).

¹¹ Sviridova, A. (2019), 'Векторы развития военной стратегии' [Military strategy development vectors], *Krasnaya Zvezda*, 4 March 2019, <http://redstar.ru/vektory-razvitiya-voennoj-strategii> (accessed 3 Jun. 2021).

¹² Official website of the President of Russia (2020), 'Расширенное заседание коллегии Минобороны' [Expanded meeting of the Ministry of Defence Board], 21 December 2020, <http://kremlin.ru/events/president/news/64684> (accessed 3 Jun. 2021).

¹³ Private correspondence with Dr Richard Connolly, Eastern Advisory Group, May 2021. Dr Connolly's remarks are cited with his permission.

as in the case of anti-satellite capabilities. Electronic warfare capabilities and directed-energy weapons span offensive and defensive uses. These systems are well publicized and include the following:

- **Iskander-M:** The Iskander family of ground-launched ballistic and cruise missiles, the first to enter service and now in widespread use. The 9K720 Iskander (SS-26 Stone) is a ground-mobile short-range (though possibly longer-range) missile system that was reportedly first used in combat during the 2008 war with Georgia. It is dual-capable, conventional/nuclear. The range of its 9M723 ballistic missile is officially put at up to 500 km, but is in practice uncertain, and could possibly be longer.¹⁴ Alternatively, the Iskander can carry a cruise missile, 9M728 (SSC-7 and R-500 among its several designations). The US government also assesses that Russia – in violation of the now defunct Intermediate-Range Nuclear Forces (INF) Treaty – has developed and deployed a longer-range dual-capable ground-launched cruise missile, identified as the 9M729 (SSC-8 Screwdriver)¹⁵ with a range of 2,500 km.¹⁶ Other range estimates are even greater.
- **Kalibr-NK/-PL:** The Kalibr family of naval cruise missiles, ship-borne ('NK') and submarine-launched ('PL'). In addition to its anti-ship (3M54) and anti-submarine (91R) cruise missile versions (SS-N-27 Sizzler), the family includes a land attack cruise missile (LACM). The Kalibr design is also dual-capable. The conventionally armed 3M14 Kalibr LACM (SS-N-30) has been used operationally against targets in Syria. Whereas the range of the anti-ship SS-N-27 is comparatively short at 220 to 300 km,¹⁷ the range of the SS-N-30 LACM is put at up to 2,500 km.¹⁸ Work is reportedly in progress on a new variant, the Kalibr-M cruise missile, with a range of 4,500 km. Ostensibly in response to the US decision to terminate the INF Treaty, work to develop a ground-launched version of the Kalibr has also begun.
- **Kh-101/Kh-102:** A family of dual-capable air-launched cruise missiles (Kh-101/-102/AS-23A/B Kodiak). These are 'stealth' precision-guided subsonic missiles with a low radar cross-section (reportedly 0.01 square metres), also designed to fly at terrain-hugging low altitudes to complicate detection with radar. The Kh-101/AS-23A is conventional and has been used against targets in Syria. The Kh-102/AS-23B is nuclear.¹⁹ Estimates for its range vary between 2,500 km and 5,500 km.

¹⁴ Palowski, J. (2016), 'Iskander Missiles Kill The INF Treaty. Berlin and Prague in Danger', Defence24, 12 October 2016, <https://www.defence24.com/iskander-missiles-kill-the-inf-treaty-berlin-and-prague-in-danger> (accessed 3 Jun. 2021).

¹⁵ It is assessed that Russia has up to 100 of these non-INF Treaty compliant SSC-8/Novator 9M729 GLCMs. Roberts, C. (2020), 'Revelations About Russia's Nuclear Deterrence Policy', War on The Rocks, 19 June 2020, <https://warontherocks.com/2020/06/revelations-about-russias-nuclear-deterrence-policy> (accessed 3 Jun. 2021).

¹⁶ Missile Defense Project (2018), 'SSC-8 (9M729)', Missile Threat, Center for Strategic and International Studies, 23 October 2018, last modified 30 June 2020, <https://missilethreat.csis.org/missile/ssc-8-novator-9m729> (accessed 3 Jun. 2021).

¹⁷ Missile Defense Project (2017), 'SS-N-27 "Sizzler"', Missile Threat, Center for Strategic and International Studies, 9 January 2017, last modified 10 December 2019, <https://missilethreat.csis.org/missile/ss-n-27-sizzler> (accessed 20 Jul. 2021).

¹⁸ Missile Defense Project (2016), 'SS-N-30A (3M-14 Kalibr)', Missile Threat, Center for Strategic and International Studies, 11 August 2016, last modified 15 June 2018, <https://missilethreat.csis.org/missile/ss-n-30a> (accessed 20 Jul. 2021).

¹⁹ Missile Defense Project (2017), 'Kh-101/Kh-102', Missile Threat, Center for Strategic and International Studies, 26 October 2017, last modified 15 June 2018, <https://missilethreat.csis.org/missile/kh-101-kh-102> (accessed 3 Jun. 2021).

- **Kinzhal [Dagger] 9-S-7760:** An air-launched hypersonic or semi-hypersonic ballistic missile with a claimed range of 1,500–2,000 km, fielded on a modernized supersonic MiG-31 fighter-interceptor (collectively the 9-A-7660 system). The Kinzhal can be used against targets on land and at sea; it can be nuclear- or conventionally armed; and, though not sustainably hypersonic, it can reach hypersonic speeds. It is claimed to be highly manoeuvrable, with stealth characteristics. It is assumed that the Kinzhal is a variant of the Iskander-M system's 9M723 ballistic missile.
- **Tsirkon [Zircon] 3M22:** A dual-capable hypersonic cruise missile with a claimed range of up to 1,000 km, test-fired on several occasions in late 2020 and again in July 2021 from the lead Gorshkov-class (Project 22350) guided-missile frigate *Admiral Gorshkov*, reportedly against practice targets at sea and on land but to less than half its maximum range. If the project proves successful, it is likely also capable of being launched from submarines.
- Various other dual-capable, conventional or directed-energy systems which range from anti-access/area denial capabilities, including air defence (S-300 Favorit, S-350 Vityaz, S-400 Triumf and future S-500 Prometey) and coastal defence (Bal/Bastion) missile systems, to missile defence interceptor systems with anti-satellite capability, and to the Peresvet laser with comparable capability, as has been claimed.
- **Electronic warfare (EW)** systems that include a wide variety of systems such as the tactical Borisoglebsk-2,²⁰ designed to jam radio and satellite communications and navigation in the HF/VHF/UHF spectrum;²¹ the Palantin ground-mobile system designed to suppress communications and reconnaissance at the 'operational-tactical' level that can also be used to network the operation of other EW systems; the 'strategic' Murmansk-BN system designed to suppress high-frequency signals over a wide area (reportedly hundreds of square kilometres);²² and the Krasukha²³ family of EW systems intended to suppress airborne and space-based radar systems (Krasukha-2O and Krasukha-4S). Aerial EW platforms include the Khibiny pod, a self-protection system developed in parallel with the Sukhoi Su-34 (Fullback) multi-role fighter-bomber; and the Ilyushin Il-22PP Porubshchik ('Lumberjack') which, though based on the old four-turboprop Ilyushin Il-18 (Coot) airframe and of which there are just three in service, is designed to jam the radars of airborne early-warning aircraft, air defence missile systems and unmanned aerial vehicles (UAVs).

Other potential non-nuclear strategic deterrent systems include: current systems such as the Kh-555, a conventionally armed variant of the Kh-55 (AS-15 Kent) long-range nuclear air-launched cruise missile, and the Kh-32, a 1,000-km-range development of the Kh-22 (AS-4 Kitchen) air-launched anti-ship missile, both variants dual-capable, conventional/nuclear; other air-launched, seaborne and

²⁰ Kjellén, J. (2018), *Russian Electronic Warfare: The role of Electronic Warfare in the Russian Armed Forces*, Swedish Defence Research Agency (FOI), <https://www.foi.se/en/foi/reports/report-summary.html?reportNo=FOI-R--4625--SE> (accessed 3 Jun. 2021).

²¹ McDermott, R. N. (2017), *Russia's Electronic Warfare Capabilities to 2025: Challenging NATO in the Electromagnetic Spectrum*, International Centre for Defence and Security, https://icds.ee/wp-content/uploads/2018/ICDS_Report_Russias_Electronic_Warfare_to_2025.pdf (accessed 3 Jun. 2021).

²² Kjellén (2018), *Russian Electronic Warfare*.

²³ Ibid.

ground-launched missiles; and future developments, such as an air-launched hypersonic missile code-named Gremlin (also known as GZUR – the Russian contraction for Hypersonic Guided Missile) and a new ground-forces hypersonic surface-to-surface missile named Hermes or Klevok-D2, described as an ‘Iskander-junior’, though both of these are likely to be shorter-range missiles.

All the missile systems listed above are – as applied to this category – long-range precision-strike weapons, abbreviated in Russian as VTO-BD (*vysokotochnoye oruzhiye bol’shey dal’nosti*).²⁴ All are supported by improved general-purpose-forces defensive and offensive arms, encompassing armour (including tanks), artillery (including rocket artillery), combat aircraft, fighting ships, other missile systems and other systems. They collectively augment the deterrent effect of Russia’s nuclear forces.

Nuclear, non-nuclear, deterrence, war-fighting

In Russian theory and practice, nuclear and non-nuclear (conventional) deterrence are inextricably linked. Several factors determine the relationship between the two, including such considerations as credibility and utility.

Nuclear and non-nuclear: complementary capabilities

Conventional inferiority can cause some militaries to seek increased reliance on nuclear deterrence; others strive to improve their conventional capabilities to overcome it.²⁵ Russia is an example of both. If conventional inferiority were Russia’s central driver, it could be expected to invest less in its nuclear arsenal as it develops further conventional capabilities. Russia, however, pursues conventional and nuclear development in parallel.

It is likely that improved conventional capabilities will serve to provide Russia with more options before it decides to use nuclear weapons.

One likely explanation for this is that, as non-nuclear deterrence depends largely on the availability of long-range precision-guided weapons as its principal offensive component, the number of appropriate conventional strike systems available to Russia is deemed insufficient – especially if its strategists consider a conflict with NATO to be more likely rather than less.

The analytical consensus is that to Russia, conventional capabilities are no substitute for nuclear capabilities or vice versa. Instead, they are complementary, with ‘interchangeable conventional and nuclear options’ being capitalized upon for

²⁴ For the Iskander and the Kalibr, for example, the CEP (circular error probable) indicator of accuracy is put at 5 metres. McDermott, R. N. and Bukkvoll, T. (2017), *Russia in the Precision-Strike regime – military theory, procurement and operational impact*, Norwegian Defence Research Establishment (FFI), <https://publications.ffi.no/nb/item/asset/dspace:2671/17-00979.pdf> (accessed 3 Jun. 2021).

²⁵ As explored in Ven Bruusgaard, K. (2021), ‘Russian nuclear strategy and conventional inferiority’, *Journal of Strategic Studies*, 44(1): pp. 3–35, doi:10.1080/01402390.2020.1818070.

deterrent effect and military utility.²⁶ It is thus likely that improved conventional capabilities will serve to provide Russia with more options before it decides to use nuclear weapons.

Thus, a combination of factors is likely to determine the relationship between nuclear and non-nuclear deterrence. These factors range from a persistent perception of conventional inferiority and the availability of conventional strike assets, to considerations such as the greater flexibility as well as credibility which the mix of deterrent assets provide.

Nuclear or non-nuclear: an ambiguous picture

Following the logic of nuclear-conventional integration, Russian practice also resembles a melting pot of nuclear and non-nuclear deterrence capabilities. In the absence of appropriate communication from Russia about the relationship between these capabilities, uncertainty about it prevails, as the examples below illustrate. Indications of greater emphasis on non-nuclear deterrence can be read into practical activities such as the Grom (Thunder) 2019 strategic-deterrence exercise.²⁷ This featured the use of Iskander and Kalibr dual-capable systems, potentially among other dual capabilities, alongside nuclear-only strategic offensive arms. A series of what was described as Iskander cruise missile launches took place in Russia's southern and eastern regions. In addition, surface ships launched Kalibr cruise missiles from the Barents and Caspian Seas. Unspecified air-launched cruise missiles were also test-fired in Russia's northern and eastern regions in the potentially non-nuclear component of the exercise. However, none of these test-fires was communicated as such. Russia went to considerable lengths to emphasize the involvement of 'strategic-deterrence forces',²⁸ rather than 'strategic nuclear forces', a more usual term in Russian to refer to deterrence. Although at no point expressly communicated, the exercising of dual-capable systems can be assumed to have been practice for non-nuclear deterrence, but it remains unclear to what extent, if any, non-nuclear deterrence was part of the package.

Confusingly, the equivalent activity in the following year, 2020, appeared to revert to exclusively or predominantly nuclear deterrence. In December, Putin led a 'strategic offensive forces' command-and-control exercise, which included Yars intercontinental ballistic missiles, Sineva submarine-launched ballistic missiles (SLBM) and unspecified air-launched cruise missiles being test-fired during the exercise.²⁹ This was followed up with a Tsirkon hypersonic missile test launch from the *Admiral Gorshkov*, and the sequence culminated in a four-missile Bulava SLBM test-fire from the strategic submarine *Vladimir Monomakh*. Unlike

²⁶ Ven Bruusgaard (2021), 'Russian nuclear strategy and conventional inferiority'.

²⁷ For an analysis of the messaging component of Grom 2019, see Petraitis, D., Ratsiborynska, V. and Akimenko, V. (2020), *Russia's Strategic Exercises: Messages and Implications*, NATO Strategic Communications Centre of Excellence, <https://stratcomcoe.org/publications/russias-strategic-exercises-messages-and-implications/30> (accessed 3 Jun. 2021).

²⁸ Russian Ministry of Defence (2020), 'В рамках СКШВ «Гром-2019» проведена тренировка с силами стратегического сдерживания' [Training with strategic deterrent forces conducted as part of the *Grom 2019* strategic command-post exercise], 17 October 2020, https://function.mil.ru/news_page/country/more.htm?id=12257332@egNews (accessed 3 Jun. 2021).

²⁹ Russian Ministry of Defence (2020), 'В Вооруженных Силах проведена тренировка по управлению стратегическими наступательными силами' [Armed Forces conduct strategic offensive forces command and control training], 9 December 2020, https://function.mil.ru/news_page/country/more.htm?id=12329304@egNews (accessed 3 Jun. 2021).

in Grom 2019, no Iskander or Kalibr dual-capable missile systems were involved, although the Tsirkon is another dual-capable system. Again unlike in Grom 2019, the involvement of the nuclear deterrent was emphasized to the exclusion of other systems.³⁰

Integration

The Russian forces are sometimes described as functionally divided into general-purpose and strategic-deterrence forces. The latter include strategic offensive forces (composed of strategic nuclear, non-strategic nuclear and strategic conventional capabilities) and strategic defensive forces (composed of missile attack warning, space surveillance, and missile, space and air defence capabilities in support of strategic offensive forces use).³¹ However, such a functional distinction is far from obvious. Instead, their description in Russian sources reveals a seamless integration of strategic-deterrence and general-purpose forces. Strategic-deterrence forces include ‘non-strategic nuclear forces’ functionally as part of strategic-deterrence forces but organizationally as part of general-purpose forces; and ‘strategic non-nuclear forces’, namely ‘formations and military units of general-purpose forces armed with strategic non-nuclear weapons of various basing’.³²

The question arises of why Russian non-nuclear deterrence is based on specific capabilities rather than general-purpose forces and their capacity for war-fighting. That is the general Western formulation of deterrence, and emphasizes deterrence by denial via conventional parity or superiority. Both theoretical and practical considerations are pertinent here.

Conceptually, specific capabilities are viewed as especially valuable for the purpose of non-nuclear deterrence. Russia’s present military strategy is described by its military leadership as ‘active defence’,³³ which is characterized by a series of anticipatory measures to deter an opponent pre-conflict and a specific formulation on the conduct of combat operations in wartime. Rather than one of denial, it is a concept of operations based on disorganization and attrition.³⁴ The active component signifies persistent engagement via sustained strikes with long-range conventional systems as a crucial capability against critical enablers, infrastructure, command and control, and logistics.³⁵

In practice, as alluded to above, Russia’s perception of its own conventional inferiority must also be factored in, including, in this case, as an element that also dictates the integration of various force elements, nuclear and non-nuclear, strategic-deterrence and general-purpose.

³⁰ ‘The forces and assets of the ground, sea and air components of Russia’s strategic nuclear forces were involved in the training,’ the ministry said. Russian Ministry of Defence (2020), ‘В Вооруженных Силах проведена тренировка по управлению стратегическими наступательными силами’ [Armed Forces conduct strategic offensive forces command and control training].

³¹ Kalinkin et al. (2015), ‘Strategic Deterrence’.

³² Ibid.

³³ Sviridova (2019), ‘Military strategy development vectors’.

³⁴ Private correspondence with Dr Richard Connolly, Eastern Advisory Group, May 2021.

³⁵ Ibid.

Deterrence

The debate about non-nuclear deterrence in Russian military writings has been comprehensively explored.³⁶ Their premise is that the threat of nuclear use early on in a conflict would be not credible, hence the need for conventional capabilities for deterrence and escalation-management purposes as capabilities improve.

Seen from another angle, Russian military doctrine distinguishes between local, regional and global, large-scale conflict. Russian writings have traditionally envisioned the application of non-nuclear strategic deterrence to deter levels of conflict in a two-tier system.³⁷ Regional deterrence, for instance, can presuppose the threat of the massive use of strategic non-nuclear forces or non-strategic nuclear forces.³⁸ This is more evidence of a ‘habitual’ emphasis on the interchangeability of conventional precision-strike and non-strategic nuclear weapons.³⁹ As one Russian article puts it: ‘Conventional weapons could carry out missions similar to those of nuclear weapons, such as demonstration strikes and limited strikes aimed at de-escalation, and to take out objects of critical importance to the enemy’.⁴⁰

The premise is that the threat of nuclear use early on in a conflict would be not credible, hence the need for conventional capabilities for deterrence and escalation-management purposes as capabilities improve.

An article from 2019 considered transition towards a deterrence system with greater integration of strategic conventional capabilities.⁴¹ In addition to its proposal to switch from the current two-tier deterrence system (nuclear global and regional) to a broader, three-tier deterrence system, not nuclear-focused (global, regional and local), it outlined the objectives assigned to strategic conventional weapons in each tier: at the local level, conventional deterrence against non-nuclear adversaries; at the regional level, in the pre-nuclear stage to ‘soften the suddenness of the transition from a failure of deterrence of threats during a crisis toward countering them with the means of last resort’; and at

³⁶ See, for example, Fink, A. and Kofman, M. (2020), *Russian Strategy for Escalation Management: Key Debates and Players in Military Thought*, CNA, <https://russianmilitaryanalysis.files.wordpress.com/2020/04/russian-strategy-for-escalation-management-key-debates-and-players-in-military-thought.pdf> (accessed 3 Jun. 2021).

³⁷ Ven Bruusgaard (2016), ‘Russian Strategic Deterrence’.

³⁸ Kalinkin et al. (2015), ‘Strategic Deterrence’.

³⁹ Ibid.

⁴⁰ Sobolevskiy, V. A., Protasov, A. A. and Sukhorutchenko, V. V. (2014), ‘Планирование применения стратегических вооружений’ [Planning for the Use of Strategic Weapons], *Voyennaya Mysl* [Military Thought], no. 7, July 2014, pp. 9–27; as noted in Ven Bruusgaard (2016), ‘Russian Strategic Deterrence’.

⁴¹ Sterlin, A. E., Protasov, A. A. and Kreydin, S. V. (2019), ‘Современные трансформации концепций и силовых инструментов стратегического сдерживания’ [Modern transformations of the concepts and forceful instruments of strategic deterrence], *Voyennaya Mysl* [Military Thought], no. 8, August 2019; as noted in Fink and Kofman (2020), *Russian Strategy for Escalation Management: Key Debates*.

the global level, other pre-nuclear functions including ‘managed countervalue escalation’ against an opponent’s targets such as fuel and energy infrastructure, the impact on which is characterized by inflicting ‘dosed damage’.

War-fighting

In a natural extension to the deterrence function of non-nuclear strategic capabilities, Russian writings consider their potential use in actual war-fighting.

In one of the latest examples, a December 2020 article discussed specific scenarios for strategic non-nuclear deterrence and use of two of the latest systems: the Peresvet ‘combat laser’ and the Kinzhal air-launched ‘hypersonic’ missile.⁴² Peresvet is described as a system effective against ‘enemy space-based optical-electronic reconnaissance assets’. In addition to the deterrent ‘demonstration’ use of the Kinzhal, broad potential applications are outlined and include strikes against ‘critical enemy [government, economic and military] infrastructure’ in the ‘pre-nuclear’ phase of armed conflict. Confusingly, however, the article ends with a reference to two other strategic-deterrence systems in the context of strategic non-nuclear deterrence, both nuclear-powered and stated to be nuclear-armed. One is the ‘unlimited-range’ nuclear-powered Burevestnik cruise missile. The other is the nuclear-powered Poseydon unmanned underwater vehicle.

Another December 2020 article argued the case for a massive simultaneous air strike against critical NATO ‘multi-domain’ capabilities to pre-emptively disrupt an ‘integrated massive air strike’.⁴³ In a key argument, the article notes that Russia: ‘[...] is able to move from the policy of containment against a potential adversary by means of nuclear weapons to the policy of intimidation [threat] to inflict unacceptable comprehensive destruction with all types of weapons as part of preventive action when faced with the threat of a local war.’

Conceptually, the emphasis shifts from layered air and missile defence to pre-emption. The article envisions the use of artillery (including rocket artillery), tactical and operational-tactical missiles, and aircraft including helicopters and UAVs – integrated in a ‘reconnaissance and strike system’ to deliver near-instant effects. The article looks to the future by, for example, envisaging the use of systems such as the Kinzhal being complemented with electromagnetic-pulse (EMP) weapons. Presumably non-nuclear, these use what are described as UAV-based ‘UHF munitions’.⁴⁴

⁴² Yevsyukov, A. V. and Khryapin, A. L. (2020), ‘Роль новых систем стратегических вооружений в обеспечении стратегического сдерживания’ [The role of new strategic weapons systems to ensure strategic deterrence], *Voyennaya Mysl* [Military Thought], no. 12, pp. 26–30, December 2020, <https://vm.ric.mil.ru/upload/site178/AMle6v9c7.pdf> (accessed 3 Jun. 2021).

⁴³ Stuchinskiy, V. I. and Korolkov, M. V. (2020), ‘Обоснование боевого применения авиации для срыва интегрированного массированного воздушного удара в многосферной операции противника’ [Rationale for the combat application of aviation to interdict an integrated massive air strike in an adversary multi-domain operation], *Vozdushno-kosmicheskiye sily: teoriya i praktika* [Aerospace forces: theory and practice], no. 16, pp. 29–36, December 2020, <https://vva.mil.ru/upload/site21/Ndz0E2BEpk.pdf> (accessed 3 Jun. 2021).

⁴⁴ Ibid. This is possibly in the category which Russia refers to as ‘weapons based on new physical principles’, including directed-energy, EMP, EW and other emerging-technologies weapons.

Russia's non-nuclear deterrent: uncertainty and complexity

There are theoretical and practical limitations, uncertainties and complexities associated with Russia's greater emphasis on strategic non-nuclear deterrence. Some pose a challenge for Russia to overcome; others pose a challenge for NATO to appreciate fully what it faces. It is possible that these uncertainties and ambiguities are intentional on Russia's part. Without clear communication from Russia, however, uncertainty can give rise to misinterpretation and to potential miscalculation. Counterproductively for Russia, it is also more likely to cause NATO to adopt countervailing measures, which could include more confrontational deployment patterns for existing weapons or the development of new weapons.

Limitations

In Russia's case, these limitations include the capacity of Russia's non-nuclear strategic deterrent, which is open to question. For example, the Russian Navy continues to be limited in the number of Kalibr missiles it can deploy,⁴⁵ given the limited number of ships in service (single digits in each of the main three classes, though more units are being built or retrofitted) and their shallow magazines.⁴⁶

The presumed shorter range of the Iskander surface-to-surface missile system is compensated for by its far greater number, although the missiles also have to be dispersed across Russia from east to west (albeit likely with a larger concentration in the west).⁴⁷ The original plans reportedly called for at least 10 brigades of 12 two-missile launchers each, for a total of 120 launchers (240 missiles) to be in service by 2020.⁴⁸ In each brigade, the number of two-missile launchers is reported to be matched by the number of two-missile reload vehicles, 12 per brigade, for a total of another 240 missiles.⁴⁹ More recent reports, however, state that the number of Iskander brigades is now 13,⁵⁰ for a total of as many as up to 624 missiles deployed operationally (plus any stockpile in reserve).

⁴⁵ For example, a total of 70 Kalibr LACM were fired from multiple Navy platforms over the first two years of Russia's air campaign over Syria (2015–17, the most intensive phase of the campaign), over ranges of up to 1,500 km. TASS (2017), 'Применение крылатых ракет "Калибр" в сирийской кампании. Досье' [The use of Kalibr cruise missiles in the Syrian campaign. Dossier], 22 September 2017, <https://tass.ru/info/4296661> (accessed 3 Jun. 2021). According to open sources, at least 20 more were fired during the rest of 2017 and early 2018, for a total of up to 100 launched from the three main Kalibr-armed vessel classes. These are the Admiral Grigorovich-class frigate (likely two units operational), the Buyan/Buyan-M-class corvette (likely five) and Improved Kilo-class diesel-electric (DE) submarine (likely four).

⁴⁶ Kofman, M. (2020), 'The Role of Nuclear Forces in Russian Maritime Strategy', in Medcalf, R., Mansted, K., Frühling, S. and Goldrick, J. (eds) (2020), *The Future Of The Undersea Deterrent: A Global Survey*, Undersea Deterrence Project, Indo-Pacific Strategy Series, National Security College, Australian National University, https://nsc.crawford.anu.edu.au/sites/default/files/publication/nsc_crawford_anu_edu_au/2020-02/the_future_of_the_undersea_deterrent.pdf (accessed 3 Jun. 2021). Each Improved Kilo DE submarine is armed with four Kalibr-PL ('submarine') cruise missiles. Each of the surface combatants of the two main classes is armed with eight Kalibr-NK ('surface') cruise missiles, LACM or otherwise.

⁴⁷ According to an open-source unit location table, five of the original 10 units are deployed in the west. MilitaryRussia.ru (2018), 'Комплекс 9К720 Искандер – SS-26 STONE – Структура комплекса и хронология' [9K720 Iskander system – SS-26 STONE – System structure and chronology], 30 December 2018, <http://militaryrussia.ru/blog/topic-832.html> (accessed 3 Jun. 2021).

⁴⁸ Ibid.

⁴⁹ Ibid.

⁵⁰ Centre for the Analysis of Strategy and Technology (2019), 'В Южном военном округе сформирована новая ракетная бригада' [New missile brigade formed in Southern Military District], 19 March 2019, <https://bmpd.livejournal.com/3574400.html> (accessed 3 Jun. 2021).

In the sub-strategic hypersonic category, the Kinzhal's availability is likely to remain limited given the relatively small number of MiG-31K platforms planned for deployment (unlikely to exceed 50). This is despite talk of the Kinzhal's adaptation for other aerial platforms such as the Tupolev Tu-22M3/-22M3M Backfire intermediate-range and Tu-160M/-160M2 Blackjack strategic supersonic bombers, or even the Sukhoi Su-34 and Su-57 Felon fifth-generation fighter aircraft. All of them would require extensive modification, as the MiG did. By contrast, the Tsirkon, if successful, is likely to proliferate, as it will be launched from universal vertical launch systems aboard submarines; modern frigates, corvettes and upgraded Soviet legacy ships; and coastal defence systems. Once deployed aboard submarines such as the Yasen-M class, the Tsirkon could put the US coastline at risk. Overall, and in view of hypersonic weapons' perceived greater efficacy, the Tsirkon could become an important element of non-nuclear deterrence. It is also more versatile than other systems, with greater implications for escalation management or war-fighting concepts – but only if the design proves viable and Russian industry can ensure sufficient production.

Russia has limited production capacity to sustain a numbers-game arms race, which any attempt to match NATO system for system in conventional arms would entail.⁵¹ To be truly effective, conventional strategic deterrence must rely on a massive arsenal of weapons. However, conventional high-precision weapons remain especially expensive to manufacture.⁵² Russia is unlikely to be in possession of enough such weapons at the moment and is unlikely to possess enough soon, although in the eventuality of large-scale conflict, considerations of the opposite side's pain threshold apply.⁵³ What is more, the military-industrial complex cannot be isolated from technological, institutional, structural and increasingly financial problems in Russia's economy.

Estimates put current annual Kalibr and Iskander-M production at more than 100 and around 50 respectively, and they project an annual maximum Tsirkon production volume of 50.⁵⁴ Even if production were to continue apace or gather momentum, the availability of Kalibr and Tsirkon launch platforms in particular, which these systems share (not only with each other but also with other mission-specific members of the Kalibr family, such as its anti-ship variants), is likely to remain a bottleneck unless these systems are adapted for other launch platforms, such as aerial, or new similar systems enter service.

Two further challenges have been identified by Russian military analysts. First, the need to modernize the stock of warheads to improve destructive power, as current capabilities require considerable expenditure of missiles to destroy critically important targets: a ratio which the military wishes to reduce

⁵¹ Baev, P. K. (2019), 'Russia Enters a Treacherous New Post-Arms Control World', The Jamestown Foundation, *Eurasia Daily Monitor* 16(13): 4 February 2019, <https://jamestown.org/program/russia-enters-a-treacherous-new-post-arms-control-world> (accessed 3 Jun. 2021).

⁵² McDermott and Bukkvoll (2017), *Russia in the Precision-Strike regime*.

⁵³ See, for example, Slipchenko, V. I. (1997), 'Войны шестого поколения' ('Sixth-Generation Wars'), *Yezhednevnyaya gazeta Leningradskogo voyennogo okruga* [Daily newspaper of Leningrad Military District], 7 May 1997. Slipchenko calculated that 9,000 precision missiles would be needed to destroy 300 critical hypothetical strategic objects of the country under attack – a rate of 30 missiles per target. Described in Bērziņš, J. (2019), 'Not "Hybrid" but New Generation Warfare', in Howard, G. E. and Czekaj, M. (eds) (2019), *Russia's Military Strategy and Doctrine*, The Jamestown Foundation, February 2019, https://www.academia.edu/38492527/Not_Hybrid_but_New_Generation_Warfare (accessed 3 Jun. 2021).

⁵⁴ Private correspondence with Dr Richard Connolly, Eastern Advisory Group, May 2021.

significantly. Second, the need to improve the terminal accuracy of the emerging groups of hypersonic systems.⁵⁵ Inescapably, factors such as these reignite the debate on the importance of non-strategic nuclear weapons.

While hypersonic systems are hard to intercept, they suffer from deficits in the ability to target moving objects at significant ranges. There is a capable 'reconnaissance-strike' contour or kill-chain that links sensors, communications and strike systems at tactical-operational depths; however, longer-range capability of this kind (beyond the 500-km range) is thought to be limited, especially at sea. Tsirkon and Kinzhal are constrained in what Russians describe as the 'far sea zone' because of the limited assets available to target them at their maximum range. Maritime patrol aviation is limited in availability and is vulnerable to interception. Larger and stationary over-the-horizon radar arrays are of limited utility at engagement ranges of more than 500 km from the Russian coastline. Space-based assets consist of several electronic intelligence satellites. In effect, the Russian forces are heavily armed but in some respects blind, notably at sea.⁵⁶

Russia's selection of targets for conventional precision-strike effect is particularly relevant in view of its proclivity to target an adversary indiscriminately, as seen in Syria and Chechnya. Attention must therefore be paid to Russia's views on the use of non-nuclear strategic systems against counterforce or countervalue targets. According to one Russian military academic:

The Americans understand perfectly well that even in the case of an exclusively conventional war (which itself seems impossible) with Russia or China, the destruction of nuclear power plants, chemical plants, and dams is inevitable. After which civilized life (or life itself) on this territory will not be possible for many years or possibly forever.⁵⁷

Therefore, it would perhaps come as no great surprise that countervalue applications are prioritized if the conventional long-range strike arsenal remains limited.⁵⁸

Calculations compare the quantity of conventional firepower and the number of nuclear warheads deemed necessary to disable a target.⁵⁹ From this perspective, the territorial expanse of NATO creates a large theatre of war, with hundreds of potential military and non-military targets to engage. The ability to attack such a large number of critical targets is likely to remain a challenge for Russia for the time being at least, given economic and capacity constraints on amassing a quantitatively, if not qualitatively, adequate conventional long-range precision-guided strike capability.⁶⁰

⁵⁵ Ibid.

⁵⁶ Ibid.

⁵⁷ Quoted in Reach, C. (2020), 'Review of Strategic Deterrence book: The work of Burenok and Pechatnov (2011)', Russia Strategic Initiative (RSI) webinar, 3 December. The book, *Strategic Deterrence* by V. M. Burenok and Y. A. Pechatnov, is described as highly influential in shaping Russian deterrence concepts and in particular the role of conventional long-range precision munitions in non-nuclear deterrence.

⁵⁸ Reach (2020), 'Review of Strategic Deterrence book'.

⁵⁹ Westerlund, F., Oxenstierna, S., Persson, G. and Kjellén, J. (2019), *Russian Military Capability in a Ten-Year Perspective – 2019*, Swedish Defence Research Agency (FOI), pp. 62, 67, https://www.researchgate.net/publication/337948965_Russian_Military_Capability_in_a_Ten-Year_Perspective_-_2019 (accessed 3 Jun. 2021). For example, the ratio of conventional to nuclear warheads required to disable an airfield is given as 7:1–35 conventional warheads or 5 nuclear.

⁶⁰ Reach (2020), 'Review of Strategic Deterrence book'.

Ambivalence

Russia's military thinkers are said to believe that strategic conventional capabilities have the flexibility to function as an element of strategic deterrence.⁶¹ Yet Russia continues to emphasize nuclear weapons in rhetoric, declaratory policy, military writings, practical activities and capability development.

On the one hand, some of the rhetoric suggests that Russia's leadership is aware of the potential benefits that a greater emphasis on non-nuclear deterrence could bring. In 2017 Minister of Defence Sergei Shoigu stated: 'In the future, a gradual transfer of the deterrent factor from the nuclear to the non-nuclear plane is possible, which should reduce the level of international tension [and] strengthen confidence measures'.⁶² Yet time after time, nuclear weapons are rhetorically emphasized and in effect prioritized in discussions concerning strategic deterrence, even when accompanied by reference to non-nuclear deterrence.

Some of the rhetoric suggests that Russia's leadership is aware of the potential benefits that a greater emphasis on non-nuclear deterrence could bring.

Even as the 2014 Military Doctrine introduced the notion of non-nuclear deterrence, it continued to prioritize nuclear weapons for conflict prevention. In addition, since its publication and that of the 2015 National Security Strategy, several doctrinal and other declaratory documents have addressed nuclear deterrence.⁶³ The use of non-strategic nuclear weapons has also been directly referenced in the naval context.⁶⁴ Yet no non-nuclear military deterrence doctrine exists. Thus, although parts of the non-nuclear deterrent are well established, threats that would warrant a non-nuclear response remain largely unidentified in theoretical and official writings.⁶⁵

⁶¹ Kofman et al. (2020), *Russian Strategy for Escalation Management: Evolution*, p. 57.

⁶² Russian Ministry of Defence (2017), 'Министр обороны России провел установочную лекцию курса «Армия и общество»' [Russian Defence Minister gives introductory lecture for the 'Army and Society' course], 12 January 2017, https://function.mil.ru/news_page/country/more.htm?id=12108199@egNews (accessed 3 Jun. 2021).

⁶³ See, for example, Official website of the President of Russia (2020), 'Основы государственной политики Российской Федерации в области ядерного сдерживания' [Basic Principles of the State Policy of the Russian Federation on Nuclear Deterrence], 2 June 2020, <http://kremlin.ru/acts/bank/45562> (accessed 3 Jun. 2021). English version: The Ministry of Foreign Affairs of the Russian Federation (2020), 'Basic Principles of State Policy of the Russian Federation on Nuclear Deterrence', 8 June 2020, https://www.mid.ru/en/foreign_policy/international_safety/disarmament/-/asset_publisher/rp0fiUBmANaH/content/id/4152094 (accessed 3 Jun. 2021); and Sterlin, A. Y. and Khryapin, A. L. (2020), 'Об основах государственной политики Российской Федерации в области ядерного сдерживания' [On the Basic Principles of State Policy of the Russian Federation on Nuclear Deterrence], *Krasnaya Zvezda*, 7 August 2020, <http://redstar.ru/ob-osnovah-gosudarstvennoj-politiki-rossijskoj-federatsii-v-oblasti-yadernogo-sderzhivaniya> (accessed 3 Jun. 2021).

⁶⁴ Official website of the President of Russia (2017), 'Основы государственной политики Российской Федерации в области военно-морской деятельности на период до 2030 года' [Basic Principles of the State Policy of the Russian Federation in the Field of Naval Activities for the Period to 2030], 20 July 2017, <http://kremlin.ru/acts/bank/42117> (accessed 3 Jun. 2021).

⁶⁵ Ven Bruusgaard (2016), 'Russian Strategic Deterrence'.

Russian military writings are equally ambivalent about the merits of non-nuclear deterrence. Though one of the recent articles mentioned above considers its value, that article also posits that conventional weapons are not as cost-effective as nuclear weapons – and that Russia will continue to rely on the latter to deal with threats at the global and regional levels, including through greater integration across the conventional and nuclear domains.⁶⁶ In the past, others have argued against greater reliance on conventional precision strikes on the grounds that these are not as cost-effective as nuclear weapons and are less credible than preventive nuclear threats in regional conflicts.⁶⁷ Non-strategic nuclear weapons in particular have also often been commended as an asymmetric tool of choice.⁶⁸

In another example, a 2019 article argued that Russia will still need to rely on preventive nuclear threats as its ability to retaliate with its strategic conventional weapons is not sufficient to prevent regional or global war.⁶⁹ No one, the argument goes, has ever prevented such a conflict with a threat of non-nuclear retaliation.⁷⁰ A presentation in October 2020 tellingly referred to nuclear as ‘a poor man’s weapons’, arguing:

If you compare the investment necessary to build [...] a simple nuclear device and a means to deliver it over a particular range, on the one hand, and the investment necessary to build a full-fledged non-nuclear deterrence system, complete with long-range precision-guided weapons and intelligence/reconnaissance systems, these two just do not compare.⁷¹

In practice, Russia’s budgetary and other constraints may come to trump any theory.

Dual capability

Most – if not all – of the Russian systems listed above are dual-capable, as are most new Russian missile systems.⁷² They are clearly of value for strategic deterrence purposes, as any nuclear-capable systems are. But the flexibility that this dual conventional/nuclear capability affords can also be of value in operational terms.

The perennial question is whether Russia perceives nuclear weapons as having battlefield utility – as a war-fighting weapon rather than a deterrent. For strategic deterrence purposes, the answer could be both. It is possible that Russia behaves as though nuclear weapons have a battlefield utility and as though it is planning

⁶⁶ Sterlin et al. (2019), ‘Современные трансформации концепций и силовых инструментов стратегического сдерживания’ [Modern transformations of the concepts and forceful instruments of strategic deterrence].

⁶⁷ Polegayev, V. I. (2008), ‘Неядерное стратегическое сдерживание: мифы и реальность’ [Non-nuclear strategic deterrence: myths and reality], *Strategicheskaya stabilnost*, 1.

⁶⁸ Kofman et al. (2020), *Russian Strategy for Escalation Management: Evolution*, p. 58.

⁶⁹ Пономарев, С. А., Поддубный, В. В. and Polegayev, V. I. (2019), ‘Критерии и показатели неядерного сдерживания: военный аспект’ [Criteria and indicators of non-nuclear deterrence: military aspect], *Voyennaya Mysl* [Military Thought], Number 11.

⁷⁰ As explored in Fink and Kofman (2020), *Russian Strategy for Escalation Management: Key Debates*, pp. 31–33. Russia, the Russian authors argued, does not currently have the non-nuclear capabilities to inflict unacceptable damage on an adversary able to conduct ‘distance wars’.

⁷¹ Centre for the Analysis of Strategy and Technology (2020), ‘Ядерное оружие и военный потенциал: концептуальное и практическое измерение’ [Nuclear Weapons and Military Capabilities: Conceptual and Practical Dimension], ‘Ogarkov Readings’ presentation in Moscow (on 30 October 2020), 3 November 2020, <https://bmpd.livejournal.com/4178346.html> (accessed 3 Jun. 2021).

⁷² Sokov, N. (2020), ‘«Теперь я жалею, что ввел этот термин в широкий оборот»’ (‘I now regret I introduced this term into a wide circulation’), *Kommersant*, 15 July 2020, <https://www.kommersant.ru/doc/4416562> (accessed 3 Jun. 2021).

future warfare with that in mind as a way to enhance the deterrent value of its nuclear weapons. It is also possible that emphasizing the dual capability of these systems serves to boost their deterrent value.

Meanwhile, the flexibility derived from dual capabilities can serve various purposes and supports the flexibility that Russian planners seek to derive from the integration of nuclear and non-nuclear.

The relationship between nuclear and non-nuclear can be said to be zero-sum: any increase in the proportion of one results in a decrease in that of the other, with implications for the operational-utility value attached to dual capabilities. Given the limited numbers involved and other constraints, it is prudent to assume that where dual capability is present, nuclear is more than just a deterrent and could be used in a global or even regional conflict.

Conclusions

The Russian view of strategic deterrence is holistic. It presupposes continuous enactment and features a complex interrelationship between multiple elements: peacetime, pre-war and intra-war deterrence; global and regional deterrence; military and non-military deterrence; and nuclear and non-nuclear deterrence. Despite the greater emphasis on non-nuclear strategic deterrence, Russia continues to prioritize nuclear weapons. Non-nuclear deterrence cannot exist independently of nuclear deterrence. A picture emerges of a flexible package of capabilities, with non-nuclear strategic systems complementing non-strategic and strategic nuclear weapons. Further non-nuclear options are likely to become available as their development continues – notably, if successful, hypersonic weapons, even though the debate continues on the merits of this technology.⁷³

In anything less than large-scale high-intensity warfare, Russia's non-nuclear strategic deterrent is valid conceptually and has clear practical utility. Not only do the cases of Ukraine and Syria demonstrate its willingness to use military force, but they also prove that the non-nuclear deterrent has matured from theory to practice. In a scenario involving a qualitative and quantitative peer or a superior force, the outcome would be different. Added to that, capability and capacity constraints and limitations abound. Yet notwithstanding these caveats, Russia's non-nuclear deterrent still warrants attention.

⁷³ Freedberg, Jr, S. J. (2021), 'EXCLUSIVE: Pentagon's Hypersonics Director Rebutts The Critics', Breaking Defense, 1 February 2021, <https://breakingdefense.com/2021/02/exclusive-pentagons-hypersonics-director-rebutts-the-critics> (accessed 3 Jun. 2021).

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