September 2020





Russia's Military Build-Up in the Arctic: to What End?

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Abstract

In this CNA occasional paper, Dr. Katarzyna Zysk, a noted expert on Russia's strategy in the Arctic, examines the evolution of Russia's military posture in the Arctic, including current investments, training and exercises, and explores what the development trends over time can ultimately tell us about the end objectives for the revamped Russian military presence in the region. The paper clarifies the often-misleading definitions of the Russian Arctic and the competing narratives about Russian military development, and examines the expansive Russian threat perception in the Arctic as one of the primary driving forces for the regional military buildup. It discusses the roles of nuclear and nonnuclear defense and deterrence and analyses the relationship between nuclear and nonnuclear forces and missions, as well as the impact of this interaction on the shifting regional strategic equation. Finally, it identifies and systematizes key operational patterns in Russian military training and exercises in the region.

This report is part of a series generously funded by a grant from the Carnegie Corporation of New York.

CNA's Occasional Paper series is published by CNA, but the opinions expressed are those of the author(s) and do not necessarily reflect the views of CNA or the Department of the Navy.

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DISTRIBUTION STATEMENT A. Approved for public release: distribution unlimited. 09/01/2020

This work was performed under Specific Authority Contract No. G-19-56503

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Contents

2
4
6
10
13
16
21
21 21
21
23
26
28
29
32

Introduction

Russia's expanding military capabilities and the sharply increased activity of its armed forces in the Arctic continue to puzzle many outside observers: What war scenarios is Russia preparing for in this remote and relatively stable region? And what is driving Russia to prioritize the region and continue to inject new capabilities into all of its defense branches, expand its military infrastructure, and increase the quantity, scope, and complexity of its military exercises and training—even as the economic environment has become increasingly constrained, including periods of stagnation and recession, since 2014?

Unlike Russia's previous attempts at rebuilding the state's presence in the Arctic since the end of the Cold War, these efforts have been consistent and systematic, despite some overambitious timeframes and delays caused by structural and circumstantial obstacles. Russia's military ambitions in the region have gradually expanded, even though the official rhetoric and relatively modest plans formulated in 20081 were supported by statements that Russia had "no intentions to enhance its military presence or establish military forces in the Arctic." If this was ever the case, it has certainly changed. In particular, changes were made after the nationalist turn in Russian domestic and foreign policies following Vladimir Putin's return to power as president in 2012. Two years later, the Russian Ministry of Defense proclaimed that Russian forces would be stationed along the entire Russian Arctic coast on a permanent basis.³ While this objective remains aspirational to a large degree, the focus has brought a qualitative and quantitative change in the Russian military posture in the region. This is evidenced in several ways: modernized weapons and technology; an expanded military infrastructure; an improved strategic mobility and ability to conduct complex joint operations; shortened reaction times; and a consolidated command and control structure with the addition of the

¹ Osnovy gosudarstvennoi politiki Rossiiskoi Federatsii v Arktike na period do 2020 goda i dal'neishuyu perspektivu, Moscow, 18 Sept. 2008, www.scrf.gov.ru; "Remarks and answers to questions by Russian Minister of Foreign Affairs Sergey Lavrov at an open lecture on current issues in Russian foreign policy," Ministry of Foreign Affairs, Moscow, 20 Oct. 2014; Sergei Lavrov, quoted in "The Arctic is no place for military blocks," Voice of Russia, 15 Oct. 2009.

² "Lavrov: No Enhancement of Russian Military Presence in the North," Barents Observer, 30 Apr. 2009. Cf. Katarzyna Zysk, "Military Aspects of Russia's Arctic Policies: Hard Power and Natural Resources," in James Kraska (ed.), Arctic Circumpolar Security in an Age of Climate Change (Cambridge: Cambridge University Press, 2011), pp. 85–106.

³ "In 2014 Russia will station troops all over the Arctic region," RIA Novosti, 21 Oct. 2014.

Joint Strategic Command North (ob'edinionnoye strategicheskoye komandovanie (OSK) Sever) in 2014 and its transformation into Russia's fifth military district "Northern Fleet" in 2021.4

Combined with Russia's repeated demonstration of its willingness to use force (or threaten to use force) to achieve foreign policy objectives, the development has raised questions about Russia's intentions and end objectives behind its Arctic military buildup: What aspects of the regional development are so critical to Russia that it awards the Arctic such a high priority in defense spending? How have the strategic considerations evolved over the years? And, consequently, how are they reflected in the choice of prioritized capabilities and operational patterns?

One function of the displays of military capabilities and training is to communicate ambitions, power, determination, and competence in order to strengthen deterrence and influence potential adversaries, in addition to gathering the support of domestic audiences. Yet the actual investments and exercises viewed over time also provide useful indicators of the options that are available to—and are being considered by—the Russian military-political leadership, as well as the actual or likely ability of the armed forces to conduct certain operations. They also reveal the focus of the leadership on the type of security threats they see the need to prepare for, and the options considered in escalation management.

This study examines the evolution of Russia's military posture in the Arctic, including current investments, training and exercises, and explores what the development trends over time can ultimately tell us about the end objectives for the revamped Russian military force in the region.

First, the paper clarifies the often-misleading definitions of the Russian Arctic and the competing narratives about Russian military development. Second, it examines the expansive Russian threat perception in the Arctic as one of the primary driving forces for the regional military buildup. Third, it discusses the traditional role of nuclear defense and deterrence in the Arctic, which still constitutes the very foundation of the region's military-strategic importance to Moscow. Fourth, because the Arctic is not merely about the Kola Peninsula and its strategic submarines, the study examines the role of nonnuclear defense and deterrence, which has systematically expanded (in particular, since 2010). Fifth, the study analyses the relationship between nuclear and nonnuclear forces and missions, and the impact of this interaction on the shifting regional strategic equation. This section includes a discussion of the expanding Russian network of military bases and airfields. Next, the study identifies and systematizes key operational patterns in Russian military training and exercises in the region, with a special focus on naval forces, the air force and long-range aviation, and airborne troops and land forces. The final section of the paper presents the study's conclusions.

⁴ See Ukaz Prezidenta Rossiiskoi Federatsii ot 05.06.2020 № 374 "O voenno-administrativnom delenii Rossiiskoi Federatsii," Moscow, 5 June 2020, official portal of legal information in Russia, http://publication.pravo.gov.ru/Document/Text/0001202006050025.

Misleading Definition, Confusing **Narratives**

When discussing Russia's "military interests and activities in the Arctic," an important clarification is necessary to avoid a misleading imprecision. A fair share of the confusion in the debate about Russian strategic objectives, and whether the development is "modernization" or rather "militarization," has derived partly from a skewed perception of the "Russian Arctic region" as one monolithic space.

Indeed, the vast Arctic region, stretching across several thousand kilometers, is made up of diverse subregions. They play different roles in Russian strategic thinking, and, consequently, call for different sets of capabilities and types of military activity. In the 2010s, Russia increasingly focused on expanding its military infrastructure in the central and eastern parts of the Arctic. Still, the main point of gravity for its military activity and modernization has remained in the High North, or the European (or Western) Arctic, centered around the Northern Fleet and Russia's largest part of the strategic submarine fleet. The types and timeframes for security challenges and threats are also different for the various parts of the Russian Arctic: The development in the Western Arctic—which shares borders with NATO members and is where Russia has the most prospective natural resources—is an immediate concern. In the central and eastern parts of the region, most of the security challenges and threats are expected in the mid- to long-term future, providing Russia time to strengthen its military foothold before other stakeholders position themselves in the region, as the Russian official reasoning goes. Hence, Russia may have, for instance, a set of strategic objectives involving offensive capabilities and training in one part of the region that does not necessarily reflect its intentions, investments, and activities in another part.

In the same way, ever since Russia returned its attention to the Arctic in the early 2000s, there has been a long-running debate between competing narratives regarding the intent and rationale for Russia's large-scale military modernization or buildup in the Arctic: one represents an alarmist position, concerned that the ongoing "remilitarization" has offensive objectives and aims at winning a potential future conflict that may ensue as a result of Russia's expansionist designs for the region; and the other downplays the scope and importance of the military buildup, seeing it as merely a moderate and defense-oriented "modernization" needed after the decay of the 1990s, and aimed primarily at strengthening constabulary capability, surveillance, communication, and other means of increasing safety and security in the region.

Both views, however, are inaccurate. These divergent assessments of Russia's objectives in the Arctic derive from a focus on one side of the seemingly contradictory aspects of Russian regional policies. These aspects include broad international cooperation in a spectrum of fields, often accompanied by a constructive and conciliatory official rhetoric directed to other states, as well as a competition with and deterrence of potential rivals, and readiness to meet an extensive range of perceived threats in the Arctic with defensive and offensive capabilities. Hence, both cooperation and competition constitute an integral part of Russia's policies pursued toward the Arctic. Unlike many outside observers would be, Russia has been perfectly capable of living with this apparent ambivalence.

It is important to note that Russia has made efforts to keep tension levels low in the region and insulate Arctic affairs from other disputes, including spill-over from the war in Ukraine. It has several reasons for doing so. The first is its continued desire to avoid fueling Western security concerns, which could unleash security dilemma dynamics and lead to a further buildup in foreign military presence in the region. Second, Russia has much to gain from following the letter of the law and international cooperation in the region. As a large country with an extensive coastline, Russia is one of the main beneficiaries of the UN Convention on the Law of the Sea, both in terms of exclusive economic zones and in terms of the continental shelf that Russia aims to expand.⁵ Third, to achieve its Arctic economic development ambitions,⁶ Russia depends on foreign investments, technology, and know-how—hence international cooperation. This has been one reason for Russia's repeated attempts at diplomatic offensives to end the sanctions imposed in 2014 and get back to business as usual as soon as possible. In fact, the sluggish economic development in the region, including the slow pace of geological exploration of promising energy and mineral resources, is considered one of the main security threats to Russia.7

⁵ Katarzyna Zysk, "Russia turns north, again: interests, policies and the search for coherence," in Handbook of the Politics of the Arctic (Edward Elgar Publishing, 2015).

⁶ Cf. Ob osnovakh gosudarstvennoi politiki Rossiiskoi Federatsii v Arktike na period do 2035 goda, Moscow, 5 March 2020, President of the Russian Federation, http://kremlin.ru/acts/news/62947.

⁷ Ob osnovakh gosudarstvennoi politiki Rossiiskoi Federatsii v Arktike, 2020.

Russia's Threat Perception in the Arctic

To simplify the matter somewhat, one can say that the Russian Arctic policy may be seen as a working relationship between economic optimism and security pessimism. Russia has managed to move ahead with several energy development projects in the region, and to increase shipping volume along the Northern Sea Route (NSR). Still, Russia has not managed to reach its key 2008 development objectives for the Arctic, including transforming the region into the nation's foremost strategic base for natural resources by 2020.8 Despite the success of the onshore Yamal LNG project, the offshore ambitions remain largely unfulfilled: to date, the Prirazlomnoye oilfield in the Pechora Sea remains Russia's only Arctic offshore field in production. Similarly, the NSR has not turned into a major maritime corridor connecting Europe and Asia. The Arctic has therefore not contributed to the revival of the entire national economy, as some Russian authorities had hoped.9

However, these ambitions have been all but abandoned and, as indicated in the 2020 Russian Arctic policy document, the authorities appear to be determined to continue pushing for regional economic development.¹⁰ As a result, the anticipated increase in human activity contributes in part to driving further development of the armed forces. It creates new missions related to providing safety for the operations aimed to facilitate and support the regional economic development.

Simultaneously, Russia's push toward the north has been galvanized by a growing sense of urgency to strengthen the country's position in the face of regional symmetric and asymmetric security challenges and threats related to the expected growth in international activity. In a classic zero-sum game perspective, the assumption is that either Russia solidifies and expands its influence in the Arctic, or other stakeholders are going to drive Russia away from the region.¹¹ Seen from Moscow, the process requires not only beefing up surveillance and control

⁸ Osnovy gosudarstvennoi politiki Rossiiskoi Federatsii v Arktike, 2008.

⁹ Katarzyna Zysk, "Maritime Security and International Order at Sea in the Arctic," in Geoffrey Till, Robert Ross (eds.), International Order at Sea. How it is Challenged. How it is Maintained. (Palgrave MacMillan, 2016).

¹⁰ Ob osnovakh gosudarstvennoi politiki Rossiiskoi Federatsii v Arktike, 2020.

¹¹ Cf. interview with Secretary of the Russian Security Council, Nikolai Patrushev, "Sovbez v serdce Arktiki," Vesti Nedeli, 14 Sept. 2008, http://www.vesti7.ru. This widespread conviction can be found in many other official statements, cf. Dmitrii Medvedev, cited in Elena Krivyakina, "Otstupat' Rossii nekuda, pozadi - Arktika,"

of the extensive borders and territories, but also meeting potential future competition, seen as rapidly intensifying since at least 2008.12 This, despite the fact that in reality, international attention for the Arctic was not followed by a significant increase in military presence until after the decline in relations with Russia in the wake of its 2014 annexation of Crimea.

Russia's threat perception in the Arctic is extensive, encompassing both traditional and emerging security challenges and threats, on a timeline stretching from the present into the long-term future. These threats can be roughly divided into three main groups:

- 1. Threats of a regional character, from nonstate actors, with sources in the Arctic region
- 2. Threats of a regional and global character, from state and nonstate actors, with sources in the Arctic region
- 3. Threats of a global character, from state actors, with sources outside of the Arctic region

The first group, which is the least controversial, consists of asymmetrical challenges and threats directly related to the Russian large-scale economic development program—in particular, on the Arctic shelf and along the NSR. The Russian authorities expect that the human presence in the region is going to increase and can subsequently become a source of a broad range of asymmetric security challenges and threats, such as environmental disasters and accidents, the trafficking of people and illegal goods, the illegal exploitation of natural resources, or potential terrorist attacks on critical industrial infrastructure in the region. The development therefore requires stronger control of Russia's vast sea borders (approximately 20,000 km) and land borders (approximately 11,000 km), as well as an expanded infrastructure for search and rescue, crisis management, and disaster relief. Consequently, the development of Russia's presence has been supporting the need to create new missions for the armed forces and security agencies in the region, aimed at increasing the safety of the operations, providing logistical support, and securing and controlling the region.¹³

The second group, which other Arctic stakeholders find more controversial, encompasses potential threats from both state and nonstate actors related particularly to the rich Arctic energy resources, in combination with the dynamics of global energy markets. Since the early

Komsomolskaya pravda, 19 March 2010; Putin's remarks during meeting of the Security Council on state policy in the Arctic, President of Russia, Moscow, 22 Apr. 2014, http://en.kremlin.ru/events/president/news/20845.

¹² Interview with Nikolai Patrushev.

¹³ Katarzyna Zysk, "Mellom fredsretorikk og militær opprustning: Russlands sikkerhetspolitiske og militære atferd i nordområdene," in Norge og Russland. Sikkerhetspolitiske utfordringer i nordområdene (Universitetsforlaget, 2015), pp. 71-84.

2000s, the Russian top political and military leadership, including former president Dmitrii Medvedev and President Putin, as well as the General Staff, have argued that the expected growing global demand for energy, combined with declining production worldwide, may lead an increasing competition for energy reserves, including in the Arctic.¹⁴ Russia, the reasoning goes, with its enormous share of global natural resources, may in the future become an object of large-scale expansion by commercial and state actors. In the opinion of the chief of the General Staff, Valerii Gerasimov, the likelihood of that rivalry for energy resources may increase by 2030.15

This assessment may be easier to understand in light of the continued heavy dependence of the Russian economy and the state income on energy exports. Ultimately, it has a direct impact on Russia's ability to maintain its great power status with corresponding influence on world affairs. Despite a continued effort to diversify exports, energy dominated and accounted for 65 percent of Russia's total exports in 2018 (compared to 59 percent in 2017).16 The question is how the development of energy in other, more profitable and more easily accessible, regions, and the development of alternative energy sources, may influence the economic dimension of the Russian Arctic policies, and, consequently, its related threat perception and missions for the armed forces.

The third group comprises potential threats from state actors. For now, the probability of the Arctic becoming a source of a major confrontation between great powers remains low. However, there is a consensus that the possibility of a major crisis or a conflict occurring elsewhere that could affect the Arctic region is relatively high. Related to this assessment is a long-standing concern about the possibility of a massive conventional precision strike against critical Russian military and economic infrastructure inflicted at an early stage of a conflict by a superior military-technological adversary. As President Putin has argued, Russia must take

¹⁴ Strategiya natsional'noi bezopasnosti Rossiiskoi Federatsii na period do 2020 goda, Moskva, 12 May 2009, Security Council of the Russian Federation; Dmitrii Medvedev, "Vystupleniie na zasedanii Soveta Bezopasnosti po voprosam razvitiya sudostroyeniya," 9 June 2010, http://www.kremlin.ru.; Yelena Krivyakina, "Otstupat Rossii nekuda, pozadi - Arktika," Komsomolskaja pravda, 19 Mar. 2010; Vladislav Kulikov, "Granitsa menyaet zamki," Rossiiskaya gazeta, 2 June 2010; Deputy Chief of the General Staff Anatolii Nogovitsin, quoted in Olga Kolesnichenko, "Arktika - prioritet rossiiskoi vneshnei politiki," Voenno-promyshlennyi kuryer, 26 Aug. 2009; "Rossiya zadelayet arkticheskie 'dyry'," Izvestiya, 16 Apr. 2012.

¹⁵ Valerii Gerasimov cited in "Genshtab dolozhil o real'nykh rezul'tatakh voennoi reformy," Odnako.org, 14 Feb. 2013; see also Zysk, "Mellom fredsretorikk og militær opprustning."

¹⁶ Weaker Global Outlook Sharpens Focus on Domestic Reforms, 42nd issue of the Russia Economic Report, World Bank, 4 December 2019, http://documents.worldbank.org/curated/en/782731577724536539/Weaker-Global-Outlook-Sharpens-Focus-on-Domestic-Reforms.

such a possibility into account in the development of its armed forces.¹⁷ The assessment is that Russia has a limited ability to defend itself against such a strike, despite the successes of its sweeping military modernization since 2008.18 Notably, Russians also believe that such an attack could potentially come from the Arctic. In addition, they see the region as potentially playing a key role in US missile defense—yet another long-standing security concern.¹⁹

Overall, Russia sees the Arctic as a potential source of traditional and new types of challenges to national security. A representative example of this reasoning is a statement made by former commander in chief of the Russian Navy, Admiral Viktor Chirkov, in March 2014, that the Arctic polar region can be potentially creating new security threats against the whole Russian territory,²⁰ thus justifying military modernization and beefing up a broad spectrum of both nuclear and nonnuclear strategic and general purpose forces in the region.

¹⁷ See, for example, "Putin: Rossii nel'zya isklyuchat' opasnost' naneseniya obezoruzhivayushhego udara," Vzglyad, 19 June 2013.

¹⁸ Interview with Deputy Commander of the Russian Aerospace Defence Forces General Major Kirill Makarov, "Moskva prikryta ot udarov vozdushnogo protivnika s veroyatnosť vu 99%," Natsionaľ naya oborona, no. 1, 2018; Sergei Sukhanov, "VKO eto zadacha, a ne sistema," Vozdushno-kosmicheskaya oborona, 29 Mar. 2010; General Colonel Anatolii Khyupenen, "Vozdushno-kosmicheskii tupik — chast' I," Voyenno-promyshlennyi kuryer, 8 September 2014; Interview with Pavel Sozinov in "Genkonsturktor 'Almaz - Anteya': Rossiya sledit za perevooruzheniem armii SshA," RIA Novosti, 24 Apr. 2014.

¹⁹ See for instance Interesy Rossii na Severe Yevropy: v chiom oni?, Report by the Russian Council on Foreign and Defense Policy (SVOP), Moscow, Jan. 2001, http://www.svop.ru/public/docs_2001_1_11_1351071557.pdf; Lev Zakharov, "Prozaokeanskii severnyi sled," Na strazhe Zapolarya, 18 July 2007.

²⁰ "Glavkom VMF: iz pripolyusnykh raionov Arktiki mogut iskhodit' novye ugrozy bezopasnosti RF," Murmanskii Vestnik, 21 Mar. 2014.

Nuclear Forces and Missions in the Arctic

The traditional role of the Arctic in Russian military doctrine and strategy continues to be critical, not the least because it is the main basing and operational area for the largest segment of the Russian sea-based nuclear deterrent. The largely successful military modernization notwithstanding, Russia is not confident in its conventional capabilities alone, and is unlikely to become confident for some years to come (if this will ever be an option).²¹ Consequently, Russia has been expanding its arsenal of nuclear weapons through the continuing modernization and fielding of increasingly diverse and expanding capabilities, their delivery systems, and their supporting infrastructure.

A fair share of Russian political attention and defense spending has been devoted to modernizing the sea-based nuclear deterrent and supporting assets, not the least of which is the fourth-generation strategic submarines (SSBNs) of the Borei class—the soon-to-be backbone of the Russian sea-based nuclear deterrence. Two ships of this class have joined the Northern Fleet, one joined the Pacific Fleet, and four others are in different stages of construction.

The timeframe for acquiring, in total, eight SSBNs of this class has had to be moved forward several times; still, it is still one of few Russian shipbuilding programs that is not significantly delayed, which highlights the importance of these assets.²² Russia's long-term naval development for the period up to 2050 envisages a plan for building the fifth generation of strategic submarines after 2030.²³ Hence, it is likely that these capabilities will continue exerting an impact on the regional security environment in the foreseeable future. Additionally, Russia has added, and is building, new submarines, the most important being the Severodvinsk (or Yasen) multipurpose-class SSGN, and has modernized the older capacities, including six Delta IV SSBNs that the Borei class will gradually replace.

²¹ Katarzyna Zysk, "Escalation and nuclear weapons in Russia's military strategy," The RUSI Journal, 163:2: 4-15.

²² Some early announcements promised eight Borei SSBNs by 2015; the number was subsequently postponed to 2020, which was 50 percent achieved. Vladimir Shcherbakov, "Nash flot prevzoidët amerikanskii. No tol'ko po tipazhu," NVO, 25-31 Mar. 2011; Rear Admiral Lev Sidorenko, "Russian Navy future developments," Military Parade, no. 3, 2008; "L'vinaya dolya byudzheta MO idët VMF, v osnovnym yadernym silam – Ivanov," RIA Novosti, 3 June 2009.

²³ Interview with Vice Admiral Viktor Bursuk, deputy commander-in-chief of the Russian Navy for armament, "Programma korablestroeniya do 2050 goda," Voyennyi soviet, Ekho Moskvy, 25 Oct. 2014, https://echo.msk.ru/programs/voensovet/1424676-echo/.

Given the critical importance of assuring Russia second-strike capability, protecting the strategic submarines and their operational area still remains the top priority for the Northern Fleet. The bastion defense concept aims to ensure the survival and freedom of action of the SSBNs and their supporting infrastructure through several layers of defenses involving a combined use of naval, land-based, and air-based capabilities. Hence, in some crisis and conflict scenarios, Russia would likely aim to take control over maritime areas and other operational domains in parts of the Barents Sea and the Norwegian Sea, including the northern parts of the Norwegian territory (e.g., Bear Island, Svalbard), while aiming to deny control to the adversary farther south to the Greenland-Iceland-UK (GIUK) Gap, where Russia would be unlikely to establish control.24

The control denial operations could also encompass parts of the sea lines of communication (SLOCs) that could be important for US reinforcements going to Europe (e.g., to Norway and Denmark). From a quantitative perspective, the current number of Russian surface combatants and submarine forces do not appear to allow Russia to prioritize attacks on SLOCs in the North Atlantic. However, conflict scenarios will depend on multiple variables, including rapid reaction (significantly improved in Russia's case), the willingness to bear risk and cost, and assessments of the adversary's readiness to respond, to name but a few. It cannot be excluded that in some scenarios, the Russian naval and airborne assets may be dispatched to operate farther west and south in the North Atlantic in order to pose a threat to the SLOCs and thus force the adversary to disperse resources and complicate its risk calculus.

The importance of the Arctic region for nuclear missions could be further strengthened by the deployment of new types of nuclear weapons, such as the nuclear-powered dual-capable unmanned underwater vehicle Poseidon, likely tasked with destroying high-value targets such as infrastructure facilities, cities, ports, or large carrier groups, by producing radioactive tidal waves. It is to be delivered from the converted Antei 949A (Oscar-II) class submarine Belgorod, launched in 2019,²⁵ operated by the Main Directorate for Deep Sea Research (GUGI), with a crew from the Northern Fleet. Russia has also announced plans to operate Poseidon from the submarine of the project 09852 Khabarovsk, though the date for its launch is yet to be set.²⁶

Likewise, the Arctic region supports Russian air-based nuclear deterrence with several forward bases located along the Arctic coast (Olen'ya/Olenegorsk, Monchegorsk, Vorkuta,

²⁴ The Expert Commission on Norwegian Security and Defence Policy (Oslo: Norwegian Ministry of Defense, 2015), pp. 20-21, https://www.regjeringen.no/globalassets/departementene/fd/dokumenter/unified-effort.pdf.

²⁵ "Key facts about Russia's special-purpose nuclear-powered submarine Belgorod," TASS, 23 Apr. 2019.

²⁶ "Istochnik rasskazal, kogda proidet pervyi pusk 'Poseidona,'" RIA Novosti, 26 May 2020; "Istochnik nazval sroki spuska na vodu shtatnogo nositelya 'Poseidona,'" RIA Novosti, 27 July 2019.

Tiksi, and Anadyr)²⁷ that can be used for basing or dispersal of strategic bombers normally stationed at the main bases farther south, in Engels and Ukrainka. Furthermore, the region hosts important elements of infrastructure, including shipyards, intelligence installations, and, not least, the Plesetsk Cosmodrome located in the Arkhangelsk Oblast, which is, inter alia, used for launches of military satellites²⁸ and test launches of intercontinental ballistic missiles. In addition, the military-strategic importance of the Arctic region is connected to its value as a testing ground for new weapons and technology. This includes the nuclear-capable hypersonic missiles Kinzhal and Tsirkon, and the infamous nuclear-powered and nuclear-armed cruise missile Burevestnik.29

Given the long-term character of investments in the Russian nuclear strike capabilities, they are likely to continue to play a critical role in Russian military doctrine and strategy in the foreseeable future. Consequently, they will continue exerting a strong impact on the regional strategic environment, simultaneously intertwining the Arctic with Russia's interests and missions that go well beyond regional security dynamics.

²⁷ Alexander Stukalin, "Bears and Blackjacks Are Back. What Next?," The Moscow Defense Brief (22), 2010.

[&]quot;Cosmos-2542 launch from Plesetsk," Russian 25 Nuclear Forces blog, 2019, Nov. http://russianforces.org/blog/2019/11/cosmos-2532_launch_from_pleset.shtml.

²⁹ Poslanie Prezidenta Federal'nomu Sobraniyu, President of Russia, Moscow, 1 Mar. 2018, http://kremlin.ru/events/president/news/56957.

Nonnuclear Forces and Missions in the Arctic

Russia has systematically increased its reliance on nonnuclear long-range high-precision strike capabilities, as its conventional forces have been lifted from decay in the large-scale military modernization process. Russia formally introduced nonnuclear deterrence in its 2014 military doctrine and elevated the role of long-range precision weapons to the strategic level, highlighting their importance.³⁰ Russian authorities argue that while nuclear weapons remain the top priority, the objective is to increase the role of nonnuclear strategic weapons in national defense and deterrence.³¹ The development has direct implications for the military-strategic development in the Arctic.

Nonnuclear defense and deterrence encompasses all nonnuclear methods and means, but Russia attaches a particular importance to long-range precision strike weapons, as highlighted in the military doctrine of 2010 and in its 2014 update.³² Although they have been in development since the 1980s, an acceleration in their production and deployment has been seen since 2010.33 The arsenal includes the sea-launched cruise missile Kalibr, the air-launched cruise missiles Kh555/Kh-55SM and Kh-101, the ground-launched cruise missiles Iskander-K and the ballistic missile Iskander-M, and the ground-launched SSC-8/9M729 (prohibited under the INF Treaty).³⁴ These missiles allow Russia to engage land targets across Europe and large parts of Asia from international waters or from Russian airspace, in addition to delivering them

Voyennaya doktrina Rossiiskoi Federatsii, 26 Dec. 2014, Security Council of the Russian Federation, http://www.scrf.gov.ru/security/military/document129/.

^{31 &}quot;Istochniki: ispytaniya giperzvukovoi rakety "Kinzhal" vpervye proveli v Arktike," TASS, 30 Nov. 2019; "Proizvodstvo ballisticheskikh raket otstaet ot grafika," Nezavisimoe voennoe obozrenie, 27 Jan. 2017; Defence Minister Sergei Shoigu quoted in "Ministr oborony Rossii provel ustanovochnuvu lektsivu kursa 'Armiya i obshchestvo," Russian Ministry of Defense, 12 Jan. 2017, https://function.mil.ru/news_page /world/more.htm?id=12108199@egNews&_print=true.'

³² Voyennaya doktrina Rossiiskoi Federatsii na period do 2020 goda, Russian Ministry of Defence, 5 Feb. 2010, http://doc.mil.ru/documents/quick_search/more.htm?id=10363898@egNPA; Voyennaya doktrina, 2014.

³³ Roger N. McDermott and Tor Bukkvoll, Russia in the Precision-Strike Regime - Military Theory, Procurement and Operational Impact, Norwegian Defence Research Establishment (FFI), FFI-Rapport 17/00979, 1 Aug. 2017.

³⁴ Ørjan Askvik, Utvikling av langtrekkende konvensjonelle presisjonsvåpen – konsekvenser for Norges evne til avskrekking og forsvar mot angrep, Master's thesis (Oslo: Norwegian Defence University College, 2015); 2017 Report on Adherence to and Compliance with Arms Control, Nonproliferation, and Disarmament Agreements and Commitments, 14 Apr. 2017, https://www.state.gov/t/avc/rls/rpt/2017/270330.htm#INF.

as antiship cruise missiles. The range and stealth capability of these missiles, combined with their high-subsonic speed and low-altitude flight profile capability, aim to stress an enemy's ability to effectively defend itself.

In addition to its already significant arsenal of ballistic and cruise missiles, Russia has made progress in the development of the hypersonic missiles Kinzhal and Tsirkon (and boost-glide vehicle Avangard, deployed since December 2019) that aim to stress an adversary's ability to deter and defend, leaving it little time to react. The qualities of the hypersonic weapons, such as the ability to maneuver at speeds greater than five times the speed of sound and fly through "near space" (an operative domain that is poorly covered by US sensors), make it a particularly difficult target for US battle networks to track.³⁵

Most of the long-range precision weapons have been deployed in the Arctic, either temporarily (e.g., Iskander during the Zapad-2017 exercise)³⁶ or permanently (e.g., Kalibr), while plans call for others (Kinzhal and Tsirkon) to be deployed in the western parts of the region.³⁷ They support Russia's layered defense in the region, add to its flexibility, and offer it a broader range of options. The increased deployment of long-range precision weapons in the north is particularly important, since the availability of large ocean-going surface combatants remains limited. This is because of structural and circumstantial challenges in the Russian shipbuilding industry that for years has struggled to live up to President Putin's ambitions to rebuild Russia's blue-water navy.³⁸ Russia has managed to add new classes, such as the Admiral Gorshkov class frigate, and the Ivan Gren class large landing ship. It has also reintroduced, for the first time in post-Soviet history, military diesel-electric icebreakers: Ilya Muromets joined the Northern Fleet at the end of 2017, and Yevpatii Kolovrat is under construction.³⁹

³⁵ Robert O. Work, Greg Grant, Beating the Americans at their Own Game: An Offset Strategy with Chinese Characteristics, CNAS Report, Washington, DC, June 2019.

³⁶ According to the Head of the Norwegian Intelligence Service, Lieutenant General Morten Haga Lunde, quoted in: "Etterretningssjefen: - Flere terrorgrupper kan true Europa og Norge," Dagbladet, 5 Mar. 2018, https://www.dagbladet.no/nyheter/etterretningssjefen---flere-terrorgrupper-kan-true-europa-og-norge. /69576586; see also "Lecture by the Head of the Norwegian Intelligence Service, Lieutenant General Morten Haga on the Service's annual report on threat perception," Oslo Military Society, 5 Mar. 2018, https://www.vg.no/nyheter/innenriks/i/RxEXo8/e-sjefen-40-fremmedkrigere-med-tilknytning-til-norge.

³⁷ As suggested by the Russian General Staff, "Nachal'nik General'nogo shtaba Vooruzhennykh Sil Rossiiskoi Federatsii general armii Valerii Gerasimov vstretilsya s predstavitelyami voyenno-diplomaticheskogo korpusa, akkreditovannymi v Rossii," Ministry of Defence of the Russian Federation, 18 Dec. 2019, https://function.mil.ru/news_page/country/more.htm?id=12267331@egNewss.

³⁸ Cf. Katarzyna Zysk, "Russia's Naval Ambitions: Driving Forces and Constraints," in *Twenty-First Century Seapower:* Cooperation and Conflict at Sea (London: Routledge 2013); Liv K. Parnemo, "Russia's Naval Development - Grand Ambitions and Tactical Pragmatism," The Journal of Slavic Military Studies 32(1), 2019: 41-69.

³⁹ "Stalo izvestno o planakh osnastit' noveishii rossiiskii ledokol importnoi 'nachinkoi,'" *Vzglyad*, 21 Mar. 2020.

More generally, problems in the domestic defense industry, combined with the global financial crisis and other economic challenges (exacerbated by sanctions and the abrupt halt of defense cooperation with Western and other foreign partners) have further impeded Russia's oftenoverambitious major shipbuilding construction programs and further crippled surface naval ambitions.40

Russia has launched a program to support the development of indigenous import substitutes; however, it takes both time and resources to develop such alternatives—and the final product is often of lower quality at a higher price. Similarly, the ambition to build a new destroyer, such as the Lider class, and the new aircraft carrier Shtorm, discussed since the early 2000s, has also been postponed indefinitely.⁴¹

In order to maintain some ability to conduct long-range maritime operations, Russia is modernizing several large old Soviet warships, such as the nuclear-powered Kirov-class cruiser Admiral Nakhimov and the aircraft-carrying cruiser Admiral Kuznetsov—all deployed with the Northern Fleet. However, the shipbuilding industry has been struggling with both financing and a slow pace of modernization, resulting in several postponements of deadlines. In October 2018, the large floating dock used to upgrade large ships sank outside Murmansk, damaging Admiral Kuznetsov and exposing some of the problems in the shipbuilding industry. The modernization plans are therefore likely to be delayed even further.

Russia's pragmatic solution to the problem has been to focus on armament rather than platforms and to build smaller corvettes and frigates (which are cheaper and faster to build) and arm them with long-range precision weapons. Kalibr cruise missiles increase the range and impact of smaller vessels and somewhat reduce the need to approach targets. Russia demonstrated this for the first time in 2015 in the Kalibr attacks against targets in Syria launched from Buyan-M class and Gepard-class frigates in the Caspian Sea and from Kilo-class submarines in the Mediterranean. Another example of this reasoning is the idea to arm Ivan Papanin and Nikolai Zubov (project 23550), ice-class patrol ships for the Arctic, with Tsirkon antiship hypersonic cruise missile in the future, 42 though it remains to be seen whether and when this materializes.

⁴⁰ See, for instance, Richard Connolly, Russia's Response to Sanctions. How Western Economic Statecraft is Reshaping Political Economy in Russia (Cambridge University Press, 2018), 147-149; Atle Staalesen, "Aircraft carrier is damaged as dry dock sinks," The Independent Barents Observer, 30 Oct. 2018.

⁴¹ In July 2019, a competing design by the Neva Design Bureau of the potential new Russian aircraft carrier was presented at the International Naval Show, "Lamantin" (project 11430E). Aleksandra Arsent'eva, "V Peterburge predstavili novyi avianosets proyekta 'Lamantin,'" Krasnaya zvezda, 10 July 2019.

[&]quot;'Papanin' dlya Arktiki: v Rossii sozdan boevoi ledokol," Gazeta.ru, 25 Oct. 2019, https://www.gazeta.ru/army/2019/10/25/12777104.shtml.

The Nuclear-Nonnuclear Strike **Capabilities Nexus**

The Russian General Staff has argued that long-range precision strike capabilities may eventually allow Russia to shift the major share of strategic deterrence missions from the nuclear to the nonnuclear sphere,⁴³ which has been a subject of long-standing speculation among Russian and Western experts. However, this potential transition is still in the future and depends on whether the Russian national economy will allow a large acquisition of such weapons. Moreover, it demands an improvement to critical C2ISTAR infrastructure (command and control plus intelligence, surveillance, target acquisition, and reconnaissance) that would allow Russia to effectively locate and hit targets, particularly mobile targets, from longer distances.44

Still, the growing arsenal of Russia's nonnuclear long-range precision capabilities enhances its ability to escalate and carry out regional strikes. The 2012 Russian naval doctrine states that "under conditions of a deepening crisis situation turning into an armed conflict, Russia envisages a limited use of weapons, including high precision weapons, in order to de-escalate sources of tension and resolve the conflict situation on conditions favourable to Russia's interests."45 The version of the document updated in 2017 adds that with the development of long-range high-precision weapons, the Russian Navy has "a qualitatively new task"—i.e., the destruction of the adversary's military-economic potential by striking at "vital" objects from the sea. The priority is to be given to economic targets, along with the adversary's system of state governance.46 In conflict, the Russian Navy's role is to inflict "unacceptable" (nepriemlemyi) damage on the enemy. This includes damaging the adversary's fleet "at a level

^{43 &}quot;Proizvodstvo ballisticheskikh raket otstaet ot grafika."

⁴⁴ Robert Dalsjö, Christofer Berglund, Michael Jonsson, Bursting the Bubble. Russian A2/AD in the Baltic Sea Region: Capabilities, Countermeasures, and Implications, FOI Report, Mar. 2019; Michael Kofman, "Russian A2/AD: It is not overrated, poorly understood," Russia *Military* Analysis Blog, 25 Jan. 2020, just https://russianmilitaryanalysis.wordpress.com/2020/01/25/russian-a2-ad-it-is-not-overrated-just-poorlyunderstood/.

⁴⁵ Osnovy gosudarstvennoj politiki Rossijskoj Federatsij v oblasti voenno-morskoj devatel'nosti na period do 2020 goda, President of Russia, 29 May 2012, published in *Morskoi sbornik*. no. 8, Aug. 2012.

⁴⁶ General Valerii Gerasimov at the conference of the Academy of Military Sciences in Moscow on 24 March 2018, referred to in Krasnaya zvezda, 26 Mar. 2018, http://www.redstar.ru/index.php/news-menu/vesti/izvmf/baltijskij-flot/item/36626-voennaya-nauka-smotrit-v-budushchee.

not lower than critical" by using nonstrategic nuclear weapons to coerce the opponent to cease hostilities and back off "on terms favorable to Russia's national interests." 47

It is important to note that all Russian long-range precision-strike capabilities are being developed as dual-capable, i.e., able to carry both conventional and nuclear warheads. The 2017 naval doctrine highlights the important role of demonstrating the readiness to use force, including nonstrategic nuclear weapons "under conditions of escalation of a military conflict," as "an effective deterrent factor." 48

Hence, the expansion of the arsenal of long-range dual-capable strike systems increases Russia's flexibility and provides additional options in escalation management. However, the development does not diminish the role of nuclear weapons in the Northern Fleet's force structure. The Russian military strategy rather appears to be moving toward a greater integration and intertwining of nuclear and conventional capabilities and missions into a single weapon set, a complementary system in which nuclear and nonnuclear capabilities aim to amplify the other's effect in supporting Russian defense, deterrence, and a set of coercive options to choose from.⁴⁹ The question of how a potential deliberate escalation with the use of long-range and dual-capable precision weapons could be effectively employed without provoking a rapid nuclear retaliation has been thoroughly explored in other research works.⁵⁰ The blurring of the dividing line between nuclear and nonnuclear strike capabilities raises another broadly discussed problem—namely, the possibility of inadvertent escalation.⁵¹

Nevertheless, the deployment of long-range precision strike capabilities in the Western Arctic makes the operational environment in the region more complex and challenging for an adversary's forces. These capabilities boost Russia's defense and deterrence, providing additional means to control and deny access to large swaths of the European Arctic region and

⁴⁷ Osnovy gosudarstvennoi politiki Rossiiskoi Federatsii v oblasti voenno-morskoi deyatel'nosti na period do 2030 goda, President of Russia, Moscow, 20 July 2017, http://kremlin.ru/acts/bank/42117.

⁴⁸ Osnovy, 2017.

⁴⁹ Dave Johnson, Russia's Conventional Precision Strike Capabilities, Regional Crises, and Nuclear Thresholds, Livermore Papers on Global Security No. 3, Lawrence Livermore National Laboratory Center for Global Security Research, Feb. 2018; Zysk, "Escalation and Nuclear Weapons."

⁵⁰ Cf. Michael Kofman, Anya Fink, Jeffrey Edmonds, Russian Strategy for Escalation Management: Evolution of Key Concepts, CNA Research Memorandum, 2020; Johnson, Russia's Conventional Precision Strike Capabilities; Jeffrey Larsen (ed.), Kerry Kartchner (series ed.), On Limited Nuclear War in the 21st Century, 1st Edition (Stanford University Press, 2014).

⁵¹ Alexei Arbatov, Vladimir Dvorkin and Petr Topychkanov, Entanglement as a New Security Threat: A Russian Perspective, Carnegie Endowment for International Peace, 8 Nov. 2017; Pavel Podvig, "Blurring the Line Between Nuclear and Nonnuclear Weapons: Increasing the Risk of Accidental Nuclear War?," Bulletin of the Atomic Scientists 72, No. 3 (2016): 145-149.

North Atlantic. In particular, the anticipated introduction of hypersonic cruise missiles is likely to make defense against them prohibitively high and thus increase the likelihood that offense will dominate in a conventional strike. This, in turn, may create problems of crisis instability and arms-race instability, with profound implications for the regional strategic environment.⁵²

Russia continues to strengthen its conventional military foothold across the Arctic. This includes re-establishing selected military bases and constructing new ones, particularly in the Western Arctic (Rogachyovo at Novaya Zemlya; Srednii at Severnaya Zemlya; and Nagurskoye on Aleksandra Land in the Franz Joseph archipelago). In addition to large building infrastructure that is already developed,53 Russia plans to expand the runway on Aleksandra Land from 2,500 meters long to 3,500 meters long. 54 The objective is to station MiG-31 fighter jets and receive various other planes of the Aerospace Forces (e.g., the largest transport, bomber, and ASW planes), in addition to the naval aviation of the Northern Fleet. The base is supported with equipment specially designed for Arctic conditions, including snowmobiles, military trucks, helicopters, radar, and antiaircraft missile systems such as the S-300⁵⁵ and a planned delivery of hypersonic missiles.⁵⁶ Officially, Russia claims that the military bases are being built to provide an enhanced search and rescue capability in connection with the increase in traffic in the region.⁵⁷ This justification may be closer to reality in the case of military infrastructure that is being developed at the Kotelnyi in the New Siberian Islands (Central Arctic) and at Wrangel Island and Mys Shmidta (Eastern Arctic). Thus far, these assets appear to be predominantly defense oriented.

⁵² Dean Wilkening, "Hypersonic Weapons and Strategic Stability," Survival, 61:5 (2019): 129–148.

⁵³ According to official Russian sources, the base is now operational all year, "Samyi severnyi ayerodrom na ostrove Zemlya Aleksandry stal vsesezonnym," Ministry of Defense of the Russian Federation, 28 Apr. 2020, https://structure.mil.ru/structure/okruga/north/news/more.htm?id=12289270@egNews.

⁵⁴ According to satellite picture presented in the annual risk assessment by the Danish Military Intelligence Service, Efterretningsmæssig Risikovurdering 2019, Forsvarets Efterretningstjeneste, Copenhagen 2019, https://feddis.dk/Produkter/Risikovurderinger/Documents/Efterretningsmæssig%20Risikovurdering%202019.pdf, p.12-13.

^{55 &}quot;Rossiiskie desantniki vpervye v mirovoi istorii sovershili desantirovanie v sostave gruppy na novykh parashyutnykh sistemakh s vysoty 10 000 metrov v arkticheskikh usloviyakh," The Ministry of Defense of the Russian Federation, 26 Apr. 2020, https://function.mil.ru/news_page/country/more.htm?id=12288794@egNews.

⁵⁶ "Nachal'nik General'nogo shtaba Vooruzhennykh Sil Rossiiskoi Federatsii general armii Valerii Gerasimov vstretilsya s predstavitelyami."

⁵⁷ The Norwegian minister of defense, Frank Bakke-Jensen, referring to Russia's official explanation on the objective for the base, "Forsvarsministeren: Russland har gitt en annen forklaring på hva basen skal brukes til," TV2 Norway, 6 Dec. 2019, https://www.tv2.no/nyheter/11044764/.

A noteworthy aspect of the Russian approach to the Arctic is the development of dual-use civilian infrastructure and technology, including ports, harbors, and ships. One notable example is nuclear-powered icebreakers, which are essential for sustaining and expanding activity in the Arctic given variations in ice occurrence and thickness. The civilian icebreakers are managed by the Russian State Nuclear Energy Corporation (Rosatom), but have also been used to support military operations in the region, such as assisting the Northern Fleet in its voyages along the NSR. Another example is the idea to heavily arm Arctic patrol ships (the Papanin and Zubov classes) with defense electronic warfare capabilities, missile-defense systems and antiaircraft weapons, and even the above-mentioned hypersonic cruise missiles.⁵⁸

This approach may be dictated by pragmatism and necessity, given how difficult and expensive it is to develop and maintain infrastructure in this remote region under extreme climatic conditions. Still, this approach may have military-strategic implications, whether they are intended or not. For instance, civilian and nonmilitary means can be used to prepare and support kinetic operations in the region. It may render more difficult to distinguish between Russian military and nonmilitary operations, which can help pursue plausibly deniable actions. This, in turn, may help achieve surprise in the initial phase of a conflict by creating a difficulty in clear attribution, sowing confusion, and diverting decision-makers' attention, thus delaying or impeding a response to Russia's actions.

An important aspect of the Russian military development in the Arctic is means of warfare in the space and cyber domains. They are related to the critical importance the Russian General Staff attaches to winning and holding information superiority, seen as key in any contemporary conflict. The Russian Aerospace Forces integrate the previously separated offensive and defensive capabilities (e.g., air defense, missile defense, offensive electronic warfare, antispace capabilities, directed energy weapons)⁵⁹. The aforementioned Plesetsk Cosmodrome in the Russian northwest is also used for launches of antisatellite missiles.⁶⁰ Counternetwork capabilities are being developed to disrupt or degrade the backbone of US and NATO information technology enabled warfare and critical infrastructures, such as C4IRS and spacebased systems, and other complex technological warfare enablers that developed countries depend on.

^{58 &}quot;Papanin' dlya Arktiki"; "Arkticheskii strazhnik: kakim budet novyi boevoi ledokol Rossii," Voyennopromyshlennyi kur'er, 20 Apr. 2017.

⁵⁹ "Minoborony RF razmestilo boevyye lazery v mestakh dislokitsii," Nezavisimaya gazeta, 19 July 2018; "Na boyevoe dezhurstvo zastupili 'Peresvety,'" Krasnaya zvezda, 5 Dec. 2018.

⁶⁰ According to several sources, including the US Space Command, Russia tested such missiles in mid-April 2020. "Russia tests direct-ascent anti-satellite missile," US Space Command, Department of Defense, 16 Apr. 2020, https://www.spacecom.mil/MEDIA/NEWS-ARTICLES/Article/2151611/russia-tests-direct-ascent-anti-satellitemissile/.

In accordance with the Russian threat perception, including a possible missile attack from the northern strategic direction, Russia is fielding sophisticated weapons systems in the Arctic; strengthening control of the airspace with new radar stations; and deploying S-300 and S-400 air-defense missile systems on the Arctic islands, on the Kola Peninsula, and in Yakutia (the Sakha Republic) to protect the airspace of the Russian Arctic and the NSR. As a result, Russia has improved its early-warning capability and air defense, in addition to strengthening coastal defense with Bastion and Bal missile systems and the Arctic Pantsir-S1 short-range air defense missile system.

Military Exercises and Training in the Arctic

The development of Russia's strategic thinking and capabilities in the Arctic should also be examined against the pattern of its military exercises and training, which include preparations to meet a broad spectrum of challenges and threats, not the least from state adversaries. Since 2008, Russia has sharply increased not only the number, but also the scope and complexity, of military exercises in the region, with a special focus on improving rapid response to mitigate the vulnerability to surprise, conduct joint operations, and attain strategic mobility—all three of which are seen as central force multipliers.

Like those of other states, Russia's military exercises often have several objectives. In addition to improving performance, they may have an embedded political signaling function: to demonstrate ambitions and strengthen deterrence by projecting resolve, capability, and competence,⁶¹ and in this way influence the cost-benefit calculus of actual and potential rivals. Given that some Russian exercises—in particular, snap inspections that aim to test and improve readiness—have served in other regions as a cover for an upcoming attack (e.g., Georgia 2008, Ukraine 2014), they are also a source of a concern and a factor affecting regional stability by intimidation and projecting a sense of risk.

The Russian exercises and training in the Arctic often involve several types of forces. The following section is organized by the defense branch that has dominated in selected operations.

Naval forces

Second-strike capability and force dispersal

The fundamental role of nuclear defense and deterrence in Russia's military doctrine and strategy has been corroborated also by the exercise patterns of the Northern Fleet. In the first place, efforts have been devoted to restoring navigation capabilities under the Arctic ice, which continues to play a central role in supporting Russia's second-strike capability. Correspondingly, ballistic missile launches in circumpolar conditions are a priority mission.

⁶¹ Cf. Beatrice Heuser, Tormod Heier, Guillaume Lasconjarias (eds.), Military Exercises: Political Messaging and Strategic Impact, NATO Defense College, Forum Paper 26, 2018.

Since September 2006, after 11 years of suspension, Russia has conducted regular launches of ballistic missiles from SSBNs in the ice-covered polar region, to demonstrate functioning nuclear deterrence.⁶² One example was a response to a simulated missile attack on Russia in 2013, involving a launch of ICBMs and SLBMs by the Northern and Pacific Fleets from underwater positions, supported by firing cruise missiles from Tu-95MS strategic bombers, Iskander-M and Tochka-U.63

Furthermore, snap inspections and exercises have focused on improving a rapid dispersal of the Russian naval forces. Seen from Moscow, the region provides an opening to an attack on Russia from the northern strategic direction. In a conflict, Russia would likely expect an enemy to use the Norwegian Sea and the Barents Sea to conduct an assault on military facilities in and around the Kola Peninsula. The primary task for the Russian forces therefore would be to protect the SSBNs, and their support infrastructure and operational area.

To avoid being destroyed while in port, the Northern Fleet's naval task force groups would likely aim to rapidly achieve operational deployment in the Barents Sea and parts of the Norwegian Sea and the Arctic Ocean. A fair share of the major surface combatants, combat aircraft, and attack submarines⁶⁴ would be committed to operations in these waters to provide cover for the SSBNs. A rapid deployment of multiple Russian capacities in different directions simultaneously, as observed in recent years, is likely to challenge an effective surveillance of their movement by an adversary, thus strengthening the likelihood of survival and the freedom of operation for the SSBNs.

Some of the objectives of the Northern Fleet's exercises have been political signal messaging designed to have a strategic impact, aimed at demonstrating Russia's capability, commitment and resolve. For instance, in October 2019, most of the submarines of the Northern Fleet sailed from their bases on the Kola Peninsula to the Barents Sea and the Norwegian Sea. The objective was to far out in the North Atlantic Ocean as possible without being detected and thus demonstrate Russia's ability to threaten the US East Coast. The submarine force trained in

⁶² A. Gavrilenko, "Rossiiskii flot vernulsya v Arktiku", Krasnaya zvezda, 26 Sept. 2006; A. Shemetov, "O shturmanskoi sluzhbe Voenno-Morskogo Flota," Morskoi sbornik, Jan. 2007.

^{63 &}quot;Nachalnik Genshtaba general armii Valerii Gerasimov provyol selektornoe soveshchaniie s rukovodyashchim sostavom Vooruzhennykh Sil," Ministry of Defence of the Russian Federation, 31 Oct. 2013, http://function.mil.ru/news_page/country/more.htm?id=11863474@ egNews; Johan Norberg, Training to Fight -Russia's Major Military Exercises 2011-2014 (Stockholm: FOI, 2015), p. 43; Jacek Durkalec, Nuclear-Backed 'Little Green Men': Nuclear Messaging in the Ukraine Crisis (Warsaw: Polish Institute of International Affairs, 2015).

⁶⁴ Examples are attack submarines; a range of surface vessels, including heavy destroyers armed with antiship cruise missiles; and air power, including antiship/antisubmarine aircraft and missile defense components.

operating at great depths and testing new weapons,65 and likely tested Western reactions and capabilities to detect the ships.66

Supporting horizontal and vertical escalation

Another central feature of the exercises in the Arctic has been a rapid redeployment of warships from one remote naval theatre of operations to another, in addition to improving interoperability between the different Russian fleets. The maritime access from the Arctic into the Atlantic in the west (and into the Pacific in the east) is critically important to Russia because its naval potential remains divided between the four main bases—one each in the Pacific, the Barents Sea, the Black Sea, and the Baltic (in addition to the flotilla in the Caspian Sea). This strategy has expanded since 2008 to include supporting escalation management in conflicts with an epicenter outside the Arctic region.

For instance, in parallel with the strategic exercises Zapad-2009, Russia rehearsed conducting the Ladoga exercise in northwest Russia, stretching the front of confrontation over 1,500 km, with a depth of 300 km between Belarus and the Barents Sea. It demonstrated a horizontal and likely vertical escalation with the use of the Northern Fleet and the bastion defense.⁶⁷ Correspondingly, after the end of the Kavkaz-2012 strategic exercise, Russia started a joint interservice exercise on the Kola Peninsula with the Northern Fleet. The two exercises seemed connected in one large scenario that simulated a conflict on Russia's southern border, escalating into a regional war in which Russia deployed the bastion defense. The Northern Fleet deployed its strategic nuclear submarines to sea with the air, surface, and underwater cover, while conducting land-based defense of the naval bases, simulating a horizontal escalation by enemy forces.68

Similar operational logic could be observed during the strategic exercise Zapad-2013, which focused on a major joint interservice and interagency operation in a simulated confrontation

^{65 &}quot;Atomnye podlodki Severnogo flota ispytyut novoe oruzhie," Rossiiskaya gazeta, 27 Oct. 2019.

⁶⁶ Statement by the Norwegian Intelligence Service, quoted in "Hemmelig ubåt-operasjon: 'Målet er å vise at Russland kan nå USA'," NRK, 29 Oct. 2019, https://www.nrk.no/norge/hemmelig-ubat-operasjon_-_malet-er-avise-at-russland-kan-na-usa_-1.14761298.

⁶⁷ The exercises were formally separated, because Russia regularly avoided inviting international observers as is required by the Wien Document if more than 13,000 soldiers participate in an exercise. Presenting the exercises as two separate actions has helped Russia keep the numbers artificially down and international observers away. Jacob Kipp, "Zapad 2013: A Multifaceted Exercise with Unique Ingredients," in Liudas Zdanavičius and Matthew Czekaj (eds.), Russia's Zapad 2013 Military Exercise: Lessons for Baltic Regional Security (Washington, DC: The Jamestown Foundation, 2015); Roger McDermott, "Russia and Belarus Prepare Union Shield 2011," Eurasia Daily Monitor, 13 Sept. 2011.

⁶⁸ Norberg, *Training to Fight*, p. 33.

on Russia's western border—likely a regional war with NATO. In parallel, Russia has deployed the bastion defense in the north, with most of the Northern Fleet's strategic submarines and coastal defense formations, possibly reflecting preparation for escalation with conventional and nuclear weapons.⁶⁹ Correspondingly, the Kavkaz-2016 strategic exercise in the Southern Military District appeared to simulate repelling a NATO attack on Crimea.⁷⁰ The military operations included support by the Northern Fleet, the Black Sea Fleet, and the Caspian Sea Flotilla in large amphibious operations and the launch of Kalibr and Iskander cruise missiles. Furthermore, Zapad-2017 appeared to be a large-scale operation stretching from the northern regions and along the central front to the Black Sea. These exercises have demonstrated preparations to defend Russia's interests in both border regions simultaneously.⁷¹

These exercises appear to demonstrate that a major conflict involving Russia and at least one other great power or alliance in another region would have a direct impact on security in the European Arctic. Thus, Russia sees the High North, the Baltic, and to some extent the Black Sea, as forming an interconnected strategic space. Russia would likely try to avoid a protracted conflict against a militarily sophisticated, nuclear-armed adversary that could bring more resources to bear over time. Hence, it would likely aim to resolve the conflict as soon as possible on terms favorable to Russia's interests by a threat of or an actual deliberate escalation.⁷² The Northern Fleet appears therefore to be a useful tool for pressuring the adversary in order to reach a rapid conclusion of hostilities. This approach is compatible with Russia's focus in strategic exercises and several snap inspections on shortening reaction time and mitigating a vulnerability to surprise in order to avoid losing the strategic initiative during the first stages of a conflict, seen as key to its overall outcome. The Northern Fleet may also be important because escalation at sea may seem less destabilizing, providing the option to avoid targeting homelands of the adversaries.

There may be scenarios when a protracted conflict with another great power or alliance such as the US or NATO could be a more advantageous option to Russia than its rapid resolution. One example is when the engagement of the US, or NATO as a whole, would not be certain, either because of the ambiguity of a crisis situation, internal politics, and lack of unity among NATO member states, or because of another conflict ongoing simultaneously elsewhere, resulting in a dispersal of military resources and political attention.

⁶⁹ Norberg, *Training to Fight*, 34–37.

⁷⁰ Anna Maria Dyner, "Kavkaz 2016: The Next Test of Russia's Armed Forces," PISM Bulletin, Polish Institute of International Affairs, 20 Sept. 2016.

⁷¹ Chief of the Norwegian Defense Adm. Haakon Bruun-Hanssen, Gjennomføringsevne og modernisering, lecture at the Oslo Military Society, 22 Jan. 2018, https://oslomilsamfund.no/2018/01/22/foredrag-forsvarssjefens-arligestatusoppdatering-gjennomforingsevne-og-modernisering/.

⁷² Osnovy, 2017.

Russia has been testing and improving interoperability of its various fleets. One example was the exercise Okeanskii shchit-2019 in August 2019. In scale, complexity, and geographical scope, the exercise was one of the largest since the Cold War (and three times larger than the Okeanskii shchit-2018 exercise in the Mediterranean). The Northern, Baltic, and Black Sea Fleets were reinforced by the aviation of the Pacific Fleet, the Aerospace Forces, and resources of the Ministry of Emergencies. In total, 69 ships and support vessels from the Northern, Baltic, and Black Sea Fleets, 58 aircraft, and over 10,500 servicemen participated in the drills according to official Russian sources. Geographically, it encompassed the Barents, Norwegian, Northern, Baltic, and Mediterranean Seas, and parts of the Atlantic Ocean (in the northeast and Iberian Atlantic region).⁷³

According to the commander in chief of the Russian Navy, Admiral Nikolai Yevmenov, the objective of the exercise was to test and improve command and control of the internaval grouping, and improve its readiness to rapidly deploy forces in the operational area.⁷⁴ Given the combination of conventional and nuclear capabilities, the objective was also to demonstrate effective deterrence as well as rehearse the ability to deny NATO's access to the Baltic and the Norwegian Seas, and subsequently deploy the bastion defense in the Norwegian Sea.⁷⁵ According to the Norwegian Intelligence Service, parts of the bastion defense were established all the way down to the North Sea.⁷⁶ Such operations could pose a significant challenge to NATO's ability to reinforce its European members. The Russian fleets also trained in hunting adversary submarines and diverting them so that their long-range missiles could not reach Moscow.⁷⁷

Furthermore, the Northern Fleet supported other exercises, such as the annual strategic command-post exercise Grom-2019. It included military units of the Strategic Missile Forces, long-range and military transport aviation commands, and military units of the Western, Southern, Central, and Eastern Military Districts. The exercise aimed to train participants in the ability to use nuclear triad and strategic conventional forces. It illustrated an increase in

⁷³ "Deistvovali po yedinomu planu," *Krasnaya zvezda*, 19 Aug. 2019.

^{74 &}quot;Deistvovali po yedinomu planu."

⁷⁵ Chief of the Norwegian Defense Adm. Haakon Bruun-Hanssen, Status og utfordringer i Forsvaret, lecture at the Oslo Military Society, 20 January 2020, https://oslomilsamfund.no/2020/01/20/forsvarssjefens-tale-i-oslomilitaere-samfund-20-januar-2020/; "Forsvarssjefen om russisk militærøvelse: - En nasjonal utfordring", NRK, 14 Aug. 2019, https://www.nrk.no/urix/forsvarssjefen-om-russisk-militaerovelse_-_-en-nasjonal-utfordring-1.14660898.

⁷⁶ Fokus 2020: Etterretningstjenestens vurderinger av aktuelle sikkerhetsutfordringer (Oslo: The Norwegian Intelligence Service, Oslo), https://forsvaret.no/presse_/ForsvaretDocuments/Fokus2020-web.pdf.

⁷⁷ Bruun-Hanssen, Status og utfordringer i Forsvaret; "Forsvarssjefen om russisk militærøvelse."

Russia's ambition and capacity compared to previous exercises, including the launch of ICBMs, cruise missiles from strategic bombers, and Iskander ballistic missiles.⁷⁸

Russia's increased ability to move large military forces over long distances means that forces deployed and trained in the Arctic will not necessarily stay in the Arctic.⁷⁹ Examples are the deployment of the 200th Motorized Infantry Brigade of the Northern Fleet to Donbas, and the participation of the Northern Fleet in the strategic exercise Vostok-2018 in the Far East. Ships of the Northern Fleet sailed along the NSR, which was an expression of yet another operational trend in the Arctic: the expansion of the Northern Fleet's area of surface operations in the Arctic Ocean. The Northern Fleet has regularly deployed along the Northern Sea Route since 2012, involving, for instance, amphibious landing operations⁸⁰ and logistical support to the Arctic bases and their modernization.

The trend to move its Arctic forces to support operations in other theatres of military operations is likely to continue as long as Russia's military capability remains limited, despite its ongoing modernization. The Northern Fleet's ability to sail eastward using the NSR may be used more commonly in the future. It is likely to strengthen the Russian naval strategy by offering an option to link the Pacific and the Northern Fleets and facilitate the movement of submarines and surface combatants between the two key naval bases.

Defense against asymmetrical adversaries and threats

While a fair share of the conflict scenarios rehearsed in the Arctic focus on symmetrical adversaries, Russia also trains its forces to respond to potential asymmetrical threats. Terrorist attacks have been high on the agenda since early on. The Russian authorities are particularly sensitive to this threat and have been vocal about the possibility of terrorism migrating northward. The Northern Fleet's missions include preventing and responding to terrorist attacks (e.g., on gas pipelines and other important onshore and offshore transportation

⁷⁸ "V Moskve proshyol brifing, posvyashchennyi podgotovke i provedeniyu SKShU 'Grom-2019'", The Ministry of Defense of the Russian Federation, 14 Oct. 2019, https://function.mil.ru /news_page/country/more.htm?id=12256831@egNews; "Russia's Grom-2019 strategic nuclear exercise," Strategic Comments, 25:9 (2019): vii-ix.

⁷⁹ Katarzyna Zysk, "Geopolitics in the Arctic," ESPAS Annual Conference, "Global Trends to 2030: The Making of a New Geopolitical Order?" The European Political Strategy Centre of the European Commission and the European Parliamentary Research Service (EPRS) of the European Parliament, Brussels, 23 Nov. 2017.

^{80 &}quot;Northern Fleet held exercises with missile, air defense and artillery firings in the Arctic," Ministry of Defense of the Russian Federation. 17 Sept. 2015, https://eng.mil.ru/en/news_page/country /more.htm?id=12056488@egNews. See also "Russia's Northern Fleet fires Pantsyr-S1 air defense systems in Arctic drills," TASS, 17 Sept. 2015; "Morskoi desant arkticheskoi brigady SF vysadilsya na ostrov Kotel'nyj," Vesti, 15 Sept. 2015, http://www.vesti.ru/doc.html?id=2664330; "Russia's Northern Fleet Arctic brigade lands Marines on Kotelny Island for first time," TASS, 15 Sept. 2015.

infrastructure, including platforms, roadsteads, terminals, filling stations, harbors, and railways), as well as protecting facilities involved in the processing and production of nuclear weapons and nuclear fuel.⁸¹ Consequently, antiterrorist operations have been a recurring theme in regional exercises.⁸² Defense Minister Shoigu highlights that every year the Northern Fleet works with the Airborne Forces, Aerospace Forces, and Special Operations Forces "to defend important industrial facilities and protect Russia's economic interests in the Arctic zone."⁸³ Still, the types of forces and missions used in "antiterror operations" in the region suggest that some of these exercises serve other purposes, likely aimed at symmetrical state adversaries.⁸⁴

The Northern Fleet's tasks, moreover, include protection of maritime shipping on the NSR, including tankers carrying hydrocarbons and other trade commodities on their way to world markets. Providing search and rescue support, not least for shipping along the NSR, is another important task.⁸⁵ In situations requiring crisis management, disaster relief, and human assistance, the Northern Fleet will depend on cooperation with a range of civilian actors. Hence, in several major exercises Russia has increased its focus on improving its ability to plan and conduct integrated civil–military operations, which bear a resemblance to the total defense concept. For instance, during the Arktika–2014 exercise in August 2014, which rehearsed post-oil spill crisis management, participants included the Northern Fleet, the coast guard, and assets of the Ministry of Transport and Ministry of Emergency, as well as search and rescue capacities of the petroleum companies Gazprom and Lukoil.⁸⁶

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⁸¹ Cf. interview with commander in chief of the Russian Navy at the time, Admiral Vladimir Vysotskii, then commander of the Northern Fleet, "My obespechivaem bezopasnost' Rossii na vazhneishem strategicheskom napravlenii," *Orientir*, no. 6, June 2007; Admiral Mikhail Abramov, deputy commander in chief of the Russian navy, address at a conference organized by the Maritime Board, Moscow, 13 June 2007, http://www.morskayakollegiya.ru; *Concept for Use of the Russian Navy in Peacetime for the Period up to 2020*, Ministry of Defense of the Russian Federation, Jan. 2007, referred to in, e.g., Rear Admiral A. Yakovlev, "Kto vladaet Arktikoi, tot upravlaet mirom," *Morskoi sbornik*, Sept. 2008.

⁸² "Na Novoi Zemle proshlo antiterroristicheskoe uchenie s motostrelkovymi podrazdeleniyami arkticheskoi brigady Severnogo flota," Ministry of Defense of the Russian Federation, 7 Oct. 2015, http://structure.mil.ru/structure/okruga/west/news/more.htm?id=12060046@egNews.

^{83 &}quot;'Yeto tol'ko nachalo': zachem yesmincy VMS SShA vtorglis' v Barentsevo more," RIA Novosti, 7 May 2020.

⁸⁴ See also Ingvill Moe Elgsas, "Terror og beredskap i russisk Arktis," *IFS Insight*, 7/2019.

⁸⁵ For instance, "Yekipazh raketnogo kreisera 'Piotr Velikii' proviol uchenie po okazaniyu pomoshchi sudam, sleduyushchim Severnym morskim putiom," Ministry of Defense of the Russian Federation, 25 Sept. 2012, http://structure.mil.ru/structure/forces/navy/news/more.htm?id=11376485@egNews.

⁸⁶ "'Razliv'1200 tonn nefti likvidiruyut na rossiiskikh ucheniyakh 'Arktika'," RIA Novosti, 6 Aug. 2014; "Patrushev: SShA izoliruyut sebya, ne uchastvuya v Arkticheskom sovete," RIA Novosti, 8 Aug. 2014.

Air force and long-range aviation

In 2007, Russia resumed regular patrol flights with long-range bombers along the main Cold War routes toward the US and Canada, including across the Arctic and along the Norwegian coast. These operations have increased in scope and complexity over the years. Although the number of bomber flights and support aircraft varies annually, their activity has remained high, especially as seen in connection with other exercises and training in the region involving Aerospace Forces. Over the past few years, Russia has also conducted a full spectrum of military activity along the Northern Sea Route, particularly enhanced complexity in air force training.

In addition to operations supporting Russia's nuclear deterrence, the use of air force and longrange aviation has served the purpose of political signaling, particularly in the European Arctic. While the number of operations with offensive profiles has been lower there than in the Baltic and the Black Seas, there are several notable examples. For instance, on October 25, 2007, two supersonic Blackjack bombers flew close to Norwegian territory and went farther south toward the Netherlands, where NATO's defense ministers had gathered for a meeting in Nordwijk. The objective was to highlight the Russian protest against NATO's missile defense plans and discussions of Georgia's and Ukraine's NATO membership. The planes turned when they were 200 kilometers from Nordwijk, after simulating an attack with cruise missiles.⁸⁷

Other examples of operations with offensive profiles include the simulation of a bomber attack on the Norwegian Intelligence Service's radar installations in Vardø, close to the Russian border on March 24, 2017, involving a total of nine warplanes. The same year, on May 22, Russian bombers with an escort (a total of 12 aircraft) flew in tactical formations against a NATO naval force operating in the Norwegian Sea; they completed offensive profiles before returning to various bases on the Kola Peninsula. Five days later, a simulated attack operation involving nine Russian aircraft was aimed at installations of the Norwegian Intelligence Service in the Bodø area in Northern Norway, conducted in connection with a major Norwegian-led NATO air defense exercise in collaboration with Sweden and Finland.88

Russia also flexed its military muscles during other allied military activities in the Arctic region. During the Trident Juncture exercise in 2018, Russia sent several groups of strategic bombers,

[&]quot;Kald fred," Dokument 2, TV 2 Norway, 28 Apr. 2008, http://webtv.tv2.no/webtv/sumo /?treeId=33&progId=234287 (online 02.04.2008).

⁸⁸ Haga Lunde, lecture on the annual report on threat perception, Oslo Military Society, 5 Mar. 2018, https://www.vg.no/nyheter/innenriks/i/RxEXo8/e-sjefen-40-fremmedkrigere-med-tilknytning-til-norge.

some of which were armed with the KH-101 long-range cruise missile, from the Kola Peninsula and along the Norwegian coast.89

Provocative behavior and simulation of offensive operations fuel uncertainty about Russia's intentions, further galvanized by the significantly increased Russian military capability, and a growing regional asymmetry of power in the region. A similar effect has been caused by Russia's use of electronic warfare (EW) units in the region, which has affected both military and civilian aviation across the borders. For instance, a disruption of GPS signals was registered in Northern Norway over a period of several years, including in the autumn of 2017, in March 2018, during the Trident Juncture exercise in October-November 2018, and in January 2019.90 The reasons behind the disruptions varied, however. In some cases, they may have been unintended, such as in March 2018, when the signals came from Russian land forces that used electronic jamming against their own units during an exercise. 91 In other cases, such as during the Trident Juncture exercise the same year, the activity of the Russian EW appeared to be directed at the allied forces.92

In any case, the Russian use of electronic warfare in the region has been creating a new challenge for the safety of civilian activities in the region, as well as for allied military operations. In crisis and conflict, Russia could target the adversaries' C4ISR systems in a relatively cost-effective manner, causing significant damage and degrading the systems, yet keeping the attack under the threshold of provoking physical retribution by the adversary. Many of the Russian systems are mobile and thus hard to detect and neutralize. The Aerospace Forces are likely to support the objective of enabling freedom of action for the Russian forces, while denying the adversary conventional military superiority along the Russian periphery.

Airborne troops and land forces

The Russian authorities have been vocal about the need to employ airborne troops in Arctic operations. Given that vast parts of the region are nearly inaccessible, the use of paratroopers

⁸⁹ Head of the Norwegian Intelligence Service, Lieutenant General Morten Haga Lunde quoted in "E-tjenesten: Slik Putin på NAT0s storøvelse i Norge," TV2 Norway, Feb. 2019, https://www.vg.no/nyheter/innenriks/i/XwXQBo/e-tjenesten-slik-svarte-putin-paa-natos-storoevelse-i-norge

^{90 &}quot;E-tjenesten bekrefter: - GPS-utfall nær grensen til Russland", TV2 Norway, 15 Jan. 2019, https://www.tv2.no/nyheter/10346050/; Lecture by the Chief of the Norwegian Defense Adm. Haakon Bruun-Hanssen, at the Oslo Military Society, 22 Jan. 2019, https://forsvaret.no/aktuelt_/ForsvaretDocuments/2019-01-22%20%28U%29%20FSJ%20tale%200MS%202019.pdf.

^{91 &}quot;E-tjenesten bekrefter: - GPS-utfall nær grensen til Russland."

^{92 &}quot;E-tjenesten bekrefter: - GPS-utfall nær grensen til Russland"; Lecture by the Chief of the Norwegian Defense Adm. Haakon Bruun-Hanssen at the Oslo Military Society, 22 Jan. 2019.

is one way to rapidly deliver forces where needed. The first parachuting jump was carried out in March 2014, when a 350-strong battalion of the 98th Ivanovo Airborne Division landed on Kotelnyi Island, situated on the main line of the Northern Sea Route. Two other landing operations followed in April and September of that year, and they have been conducted relatively often since then.⁹³ More recently, Russian airborne troops were deployed in April 2020 from an Il-76 over Aleksandra Land from an altitude of 10,000 meters, with the use of a special parachute system and oxygen equipment.94 The paratroopers, including a reconnaissance unit made up of personnel from the tactical group of the Northern Fleet, rehearsed tactical operations simulating identification and destruction of a sabotage and reconnaissance group of the enemy, supported by the use of unmanned aerial vehicles for reconnaissance. Deputy Defense Minister Lieutenant General Yunus-bek Yevkurov announced that similar exercises would be conducted annually in different parts of the Arctic.95

Russian authorities describe the mission of the airborne troops in the region as control of the Russian Arctic territory, including the Northern Sea Route, as well as search and rescue in this difficult-to-access region. Skills acquired during exercises can be useful in operations in other regions as well; this may help explain the participation of forces from other member states in the Collective Rapid Response Forces of the Collective Security Treaty Organization, as well as Chechen special forces, in Arctic operations. 96 Yet they also bear hallmarks of signal effect operations, aimed at "showing the flag" and communicating the seriousness of Russia's intentions and ambitions and the strategic importance of the region to Moscow. Such spectacular and attention-grabbing training also provides Russia with an excellent opportunity to score "national pride" points with the domestic public.97

While Russia's primary focus has been on air, airspace, and maritime domains in the Arctic, the ground forces have been strengthened by elite mobile rapid-reaction brigades—or, as the official Russian state media has called them, the "Polar Bear Spetsnaz."98 The brigades consist

⁹³ Vladimir Mukhin, "Desantniki osvaivayut arkticheskii teatr voennykh deistvii," Nezavisimaya gazeta, 11 Apr. 2016.

^{94 &}quot;Rossiiskie desantniki vpervye v mirovoi istorii."

^{95 &}quot;Rossiiskie desantniki vpervye v mirovoi istorii."

^{96 &}quot;Chechenskii spetsnaz zavershil ekspeditsiyu na Severnyi polyus," Head and Government of the Chechen Republic, 13 Apr. 2016, http://www.chechnya.gov.ru/page.php?r=126&id=17862; Zysk, "Russia's Strategic Underbelly: Military Strategy, Capabilities and Operations in the Arctic", in *The Russian Military in a Contemporary Perspective*, ed. Stephen Blank (Carslie: Strategic Studies Institute of the US Army War College, 2019).

^{97 &}quot;Kadry unikal'nogo desantirovaniya VDV s vysoty desyati kilometrov," Telekanal Zvezda, 26 Apr. 2020, https://www.youtube.com/watch?v=Xm5YHPDfQTk.

^{98 &}quot;Russia's 'Polar Bear Spetznas' Step Up Defense of Country's Arctic Borders," Sputnik News, 12 July 2016.

of the 61st Naval Infantry Brigade, the 200th Motorized Rifle Brigade in Pechenga (located close to the Norwegian border), and the 80th Independent Motorized Rifle Brigade (located approximately 50 km from the border with Finland). Given the extreme climatic and operational conditions of service in the Arctic, Russia arms the ground forces with specialized equipment designed for Arctic conditions, including the Ratnik infantry combat system, allterrain vehicles (e.g., Vityaz DT-10MP), and Ruslan snowmobiles, as well as drones for surveillance, reconnaissance, and target acquisition. 99 The troops receive specialized training designed for Arctic conditions and exercise regularly, including in connection with the annual strategic exercises, such as Tsentr-2019.

⁹⁹ Cf. "Arkticheskie motostrelki Severnogo flota osvaivayut vozhdenie unikal'nyh vezdehodov," Ministry of Defence of the Russian Federation, 15 Jan. 2016, https://structure.mil.ru/structure/okruga/west/news /more.htm?id=12073818@egNews; "V Zapadnyi voyennyi okrug postupila pervaya partiya armeiskikh snegohodov," 20 Feb. 2016; https://www.youtube.com/watch?v=cemLkn]cNMg; "Artilleristy Severnogo flota otrabotali voprosy porazheniya bronetekhniki uslovnogo protivnika po celeukazaniyu s bespilotnykh letatel'nykh apparatov," Ministry of the Defense of the Russian Federation, 27 Feb. 2020, https://function.mil.ru/news_page/country/more.htm?id=12279635@egNews.

Conclusions

As a result of the sweeping modernization program ongoing in the armed forces since 2008, Russia has managed to significantly strengthen its military foothold in the Arctic across all defense branches, with special attention given to the maritime and aerospace domain. These advances have taken Russia a step closer to achieving the ultimate objective as defined in the 2008 Arctic policy document—to secure Russia's role as "the leading" Arctic power. The growing international interest in the Arctic since the turn of the millennium has blown a new life into Russia's extensive threat perception in the region. Prior to the 2014 nadir in its relations with the US and NATO, Russia saw a military race in the Arctic even where there was none. In a way, Russia has been racing with self-created phantoms, generated by its deeprooted and persisting sense of insecurity vis-à-vis other great powers, and further fueled by the need to justify its massive military investments in this remote and relatively stable region.

Russia has therefore improved its regional command and control, including its ability to rapidly transfer military units over long distances and carry out increasingly complex joint operations—thus adding new elements to the operational pattern and making it less predictable. Russia's preoccupation with mitigating vulnerability to a surprise attack (including defense against an incoming conventional missile attack) and the need to respond quickly, especially in scenarios involving a militarily sophisticated, nuclear-armed adversary, has resulted in a significantly reduced response time. In addition to further developing its capability for nuclear retaliation, Russia has strengthened its regional armed forces with a much higher precision and longer range of the conventional forces, providing an ability to fulfil a wider range of missions, while blurring the line between green- and blue-water capabilities. The current mix of capabilities provides Russia with a significantly strengthened defense and strategic deterrence, as well as a set of coercive (and blackmail) strategies to choose from. The defense of the Kola Peninsula has received a greater depth and reach. As result, the operational environment—particularly in the High North—has become more complex, while Russia's power projection options toward North America have increased, together with the ability to control and deny access to the western as well as central and eastern parts of the Arctic, including the NSR. Overall, the process has further deepened the asymmetry of power between Russia and other stakeholders in the Arctic.

As the development of Russian capabilities and operational patterns has demonstrated, the region plays an important role, not only in Russia's defense but also in potential offensive scenarios. Hence, while Russia prepares for the Arctic's specific challenges and threats, the armed forces are not limited to the Arctic region only; they can be also used in support of escalation management in a conflict occurring elsewhere. For instance, under certain

circumstances, the European part of the region could prove useful in exerting pressure on NATO, especially in a situation when US support and unity among the allies would be uncertain. Notably, Russian naval forces have the capability of being on standby on high alert for extended periods of time, even farther south and around the Norwegian Svalbard archipelago, threatening to attack or deliver strikes to critically important ground-based enemy targets, yet without violating national sovereignty until the moment of attack. Inadvertent escalation due to miscommunication or miscalculation is another possibility that could spark a crisis or conflict involving the Arctic.

One could argue that the vocal focus of the top Russian political and military leadership on the critical importance of the Arctic could be a strategic communication play, aimed at diverting competitors' attention and resources away from areas that are strategically more important. However, the massive investments in capabilities in multiple domains (maritime, aerospace, land, and electromagnetic) in the Arctic region, accompanied by a complex and expanding pattern of training and exercises, would make for an extravagantly lavish strategic communication strategy. Indeed, Russia has not shied away from exploiting the regional dynamics for rhetorical purposes—to signal power and ambitions, and deter potential rivals. Yet the systematic expansion of its military presence and capabilities in the region suggests that security challenges and threats related to the Arctic region (directly and indirectly) are taken seriously, however far-fetched some of them may appear to Western audiences.

Russia's extensive military investments underline its interest in, and long-term thinking about, the Arctic. Its determination to continue strengthening its regional military presence, even in an increasingly constrained budget environment, is further driven by the symbolically important place the Arctic holds in Russian history, in national identity, and in maintaining Russia's great power status, given the region's central place in Russian military doctrine and strategy, and the anticipated major role of Arctic energy reserves in Russia's economic future.

Nevertheless, there are justified questions regarding the sustainability of the Arctic investments, affected by an extensive list of weaknesses and vulnerabilities in the Russian military organization. 100 This concerns particularly the central and eastern Arctic, where the threat perception is driven by a nonlinear economic development, which most likely belongs to the medium- and long-term future. That said, Russia's displays of military might in the Arctic fall into the broader trend of national mobilization, resonating well with the more nationalisticoriented sector of the Russian public. Various Russian stakeholders, not least the militaryindustrial complex, have vested interests in continuing the extensive investments. Furthermore, after years of exploiting its grandiose Arctic development projects for domestic purposes, a significant reduction of those ambitions could potentially have a negative impact

¹⁰⁰ Katarzyna Zysk, "Russian Military Vulnerabilities: Perceptions and Misperceptions," CCW Russia Brief, Issue 6, Apr. 2020.

on the perception of the regime at home. Additionally, since the military domain is one of few success stories that the political and military leadership can tell domestic and international audiences - and one of few areas where Russia can play at the top international level,- there may still be strong incentives to resist any significant reduction in Russia's military presence and activity in the Arctic region. The ultimate choice of priorities will provide a reality check on the actual significance of the region in the Russian military-strategic landscape.

This report was written by CNA's Strategy, Policy, Plans, and Programs Division (SP3).

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