Arctic Review on Law and Politics Vol. 13, 2022, pp. 34–52

The Russian Northern Fleet and the (Re)militarisation of the Arctic

Jonas Kjellén

Swedish Defence Research Agency, Sweden

Abstract

Over the last decade, Russia has considerably ramped up its military presence in the Arctic. This is something that attracted much attention from Western countries, especially against the backdrop of deteriorated relations and general mistrust following the annexation of Crimea in 2014. Current developments are to some extent familiar, as they echo the militarisation of the Arctic during the Cold War and the attendant US-Soviet tensions. Although comparisons with the Soviet Union's Arctic military posture lie close at hand, we need to analyse Russia's current military build-up in the Arctic with fresh eyes. Two of the most indicative developments were studied. Firstly, the formation of a single Arctic military command, with its implications for a reassessment of the Arctic strategic direction; secondly, the physical expansion of its Arctic military footprint, which includes both the construction of modern facilities and the increased activity of its armed forces there. In both these developments, the Northern Fleet is taking on a leading role, but the overall military posture relies on other military and civilian actors as well, and is closely related to security concerns of the developing latitudinal axis of the Northern Sea Route, rather than the Cold War longitudinal axis of a massive nuclear weapons exchange.

Keywords: Russia, armed forces, Northern Fleet, High North, Arctic, bastion, Northern Sea Route, C2, joint strategic command, militarisation, climate change

Responsible Editor: Njord Wegge, Norwegian Defence University College, Norway

Received: June 2021; Accepted: December 2021; Published: March 2022

1 Introduction

Early on in the post-Cold War world, the Arctic swiftly transitioned from being a region of high military tension to one mainly characterised by cooperation and stability. The end of the East-West ideological confrontation resulted in the fading of the imminent transpolar nuclear threat. Propelled by Russia's economic and political

Correspondence to: Jonas Kjellén, e-mail: jonas.kjellen@foi.se

^{© 2022} Jonas Kjellén. This is an Open Access article distributed under the terms of the Creative Commons CC-BY 4.0 License. eISSN 2387-4562. https://arcticreview.no.

Citation: Jonas Kjellén. "The Russian Northern Fleet and the (Re)militarisation of the Arctic" Arctic Review on Law and Politics, Vol. 13, 2022, pp. 34–52. http://dx.doi.org/10.23865/arctic.v13.3338

turmoil in the 1990s, the Russian Armed Forces – spawned from the Soviet armed forces – entered a state of decay that lasted decades. However, by 2021, Russia had experienced two decades of generally high economic growth, largely driven by exploiting the hydrocarbon riches of the Russian Arctic. This enabled a thorough military modernisation, commenced in 2009–10, which has backed a more assertive and confrontational foreign policy. This development has once again spilled over into the Arctic region.

This article aims to study Russia's renewed military interest in the Arctic, and the overarching research question guiding this work is: *how should Russia's enhanced military focus in the Arctic be interpreted?* For this, two specific developments are studied: firstly, the establishing of a single Arctic command based on the Northern Fleet headquarters; secondly, the expansion of Russia's Arctic military footprint. There are indeed other ways to approach this subject, such as the study of official documents and statements on how Moscow perceives security in the Arctic, but the two themes studied here are perhaps the most indicative. The present article relies on publicly available sources, including academic articles, specialised literature, newspaper reporting, and official Russian government information such as press releases.

To further focus my research and my somewhat open-ended research question, the concluding analysis explores the degree to which the current events are best characterized as something new. 'Remilitarisation' is commonly used to describe current developments, suggesting it is feasible to interpret today's military build-up against the backdrop of the Soviet Arctic military posture.¹ Indeed, with Russo-Western relations once again at a low, the notion of an emerging new Cold War in the Arctic is not far-fetched. This does not necessarily imply that Cold War notions are entirely fit for elucidating current developments. On the one hand, there are similarities: the Northern Fleet remains Russia's main military force in the Arctic and sustaining nuclear second-strike capacity is still its most central task. On the other hand, the ideological bipolarity of the Cold War is gone, as is the conventional military capacity to counterbalance the world's sole remaining superpower, the USA, or even less the combined forces of NATO.² Accelerating effects of global climate change are also reshaping the geopolitics of the Arctic. In 2012, due to the lowest concentration of sea ice ever observed in the Arctic, the Northern Sea Route (NSR) was already open for shipping in mid-July.³

2 Command and control for Arctic operations

The accomplishment of two ostensibly, separate measures has led to an increase in the Northern Fleet's status, and transformed it into Russia's leading Arctic military command body. First, in December 2014, a Joint Strategic Command (JSC) was formed, on the basis of the Northern Fleet headquarters. This was the fifth JSC formed since 2010, when four JSCs were formed on the basis of MD headquarters. Then, by presidential order on 1 January 2021, the Northern Fleet

attained the status of being one of the main military-administrative entities of the Armed Forces.⁴

Whereas the formation of a Northern Fleet JSC in 2014 has been crucial for Russia's Arctic military build-up, it is easy to overstress the significance of the Northern Fleet becoming one of the main military-administrative entities on par with the military districts (MDs). In order to understand how these changes affect Arctic operations, it is necessary to go back to the 2009–10 reform, in which high readiness and joint operations were emphasised over territorial military-administrative tasks such as draft and mobilisation. This is beneficial for operations in the Arctic where the population is small and the coordinating civilian and military capabilities provide greater returns in terms of efficiency.

2.1 The remodelling of Military Districts in 2010

During the Cold War, the Soviet Union shaped its Armed Forces in order to be able to field and sustain large ground force formations and dispatch them to the European theatre. Thus, the Soviet armed forces were built on principles of mass mobilisation, cadre units and maintaining a vast organisation for rear service and logistics. Administering this required an enormous military apparatus, in which the MDs and their military commissariats played a vital role. Based on Russia's administrative-territorial division, the MDs primarily exercised administrative command, whereas operational command was highly centralised to the General Staff and other central command bodies.⁵

In 2010, as a key step in the ongoing military reform, the six MDs were reduced to four. Although adjustments to the MD organisation had occurred several times since the early 1990s, this time it was coupled with a radical break from Soviet principles of military organisation that, despite attempted reforms, had remained virtually untouched in the post-Soviet period. ⁶ Aspects such as availability and readiness of forces now prevailed over scalable capabilities. As a result, the remnants of the Soviet mobilisation system were practically dismantled. About 95 per cent of the military commissariats disbanded, from over 1600 down to 80 agencies nationwide.⁷ Indeed, streamlining and creating larger entities made the remaining agencies more effective, but, simultaneously, the MDs' administrative tasks were radically cut, making large numbers of military and civilian positions redundant. Simultaneously, central military command bodies, including service branch main commands and the General Staff, were trimmed down in a similarly radical fashion. Almost 80 per cent of the personnel, often of senior rank, were made redundant.

The two parallel processes of eliminating the obsolete administrative tasks of the MDs and decentralising strategic command resulted in the formation of JSCs based on the MD headquarters. Decentralising command to the regional level had been both suggested and tried earlier, but now these plans were put into practice on a large scale.⁸ This transformation from primarily administrative to operational commands was reflected in how the boundaries of the new MDs were sketched. The names of the new MDs – the *Western*, *Southern*, *Central* and *Eastern* – reveal that the emphasis was on operational direction rather than territorial administrative responsibility, reflected by the geographical names of the former MDs (for example the *Moscow* MD).

With the JSCs, the highest level of military command was no longer entirely centralised; the status of the MDs was elevated from operational-strategic to strategic formations. Of the many implications, three stand out. First, the former MD headquarters became joint forces commands, as all four Navy fleets were subordinated to the new JSCs.⁹ Second, contrary to the old MDs, which were destined to transform into fronts in wartime, the JSCs were designed to facilitate a seamless transition from peace to war. Third, and relatedly, the JSCs were tasked with improved discretion in coordinating military planning and operations with regional non-military uniformed forces and civilian organisations.¹⁰ This included achieving strengthened competence by temporarily subordinating other units, including both units belonging to other parts of the Armed Forces, as well as forces belonging to other uniformed ministries, such as the FSB Border Troops and the National Guard.¹¹

Why not a Northern Fleet JSC in 2010?

It is reasonable to ask why a *Northern* (Arctic) strategic direction was not already considered in 2010. In fact, with Russian Arctic territories divided among three of the new MDs, it is fair to state that the region was largely neglected in the reform. This is likely due to both an unwillingness and inability to pursue a comprehensive Arctic strategy at the time. Although Russia's policy towards the Arctic had been increasingly assertive towards the end of the 2000s, in 2008 the Russian leadership seemingly shifted its approach to a more cooperative one, which lasted until 2012, when relations with the West began to deteriorate again.¹² In addition, the key focus of the reform was to eliminate administrative and bureaucratic remnants of the mass-mobilisation army, with the largely unreformed MDs as the main targets. Unlike other strategic directions, the main challenge in the northern direction was not an unreformed, but rather a non-existing military structure. Hence, forming a fifth JSC based on the Northern Fleet headquarters would have added a layer of complexity that could have diverted focus from the reform's main objective.

2.2 Northern Fleet's increase in status 2014-21

In December 2014, a fifth JSC that included the Arctic region in its area-ofresponsibility (AOR) was formed, based on the Northern Fleet headquarters. This was the first major modification of the new Armed Forces structure established in 2010 and based on the same template as the four JSCs formed then, which means that it is likely similar in all key respects. With the JSC, the Northern Fleet headquarters

took charge of the control and command of Arctic military operations, which also implied a few more subtle shifts. First, it became a strategic formation, on par with the MDs, which provided an improved position for advancing naval and Arctic policies in the military-political system. Second, the shift of command from the Western JSC (St. Petersburg) to the Northern Fleet JSC (Severomorsk) increased the focus on the Arctic, and the proximity to Murmansk facilitated coordination with key Arctic state and non-state actors located there.¹³ Last but not least, the JSC comes with strengthened provisions for temporarily subordinating other units (military or non-military) operating within its AOR. Due to the uneven distribution of Northern Fleet forces along Russia's Arctic coastline, and the reliance on other state actors, this is likely significantly more important for conducting operations there than in most other regions.

In 2010, when the first JSCs were formed, the MDs retained their status as Russia's main military-administrative entities, whereas this status was not bestowed on the Northern Fleet when its JSC was formed in 2014. However, as noted above, the military reform lessened the administrative burden of the MDs; the tasks retained were generally of little direct importance to operations. These tasks include conducting the annual draft, providing entitlements to service members and military retirees, coordinating military mobilisation, and organising patriotic work, such as overseeing the patriotic youth movement, *Yunarmiya*. Nevertheless, in 2015, shortly after the Northern Fleet JSC was formed, command over the military commissariats located in three of the more populous constituent entities in the western Arctic region was transferred to the Northern Fleet.¹⁴ Thus, the presidential executive order from January 2021 was merely a formality, even if it set the Northern Fleet on equal terms with the four MDs and permanently endowed it with military-administrative responsibility over the western parts of the Russian Arctic.

It is often suggested that the latest status change, in January 2021, is simply the creation of 'a fifth military district'.¹⁵ This notion is problematic for at least two reasons. Firstly, it is overly simplistic and fails to grasp that the more important aspects of military command and control in the Arctic were put in place already in 2014, with the creation of a JSC for Arctic operations. Indeed, having attained militaryadministrative responsibility in the most populous constituent entities in the Western Russian Arctic, the Northern Fleet somewhat resembles an MD. At the same time, several recently formed Northern Fleet units are permanently stationed at garrisons located on Eastern MD territory, which does not make sense from the perspective of MD logic. Secondly, and worse, the view that it's merely a 'fifth military district' can be directly misleading, due to overlooking the fact that the centrality of MDs has changed substantially since Soviet times. In 2010, strategic command and control in the armed forces was reformed, introducing a new strategic level command body, thereby shifting and somewhat diminishing the rationale behind the MDs. Its earlier emphasis on administering the mobilisation of a mass army was substituted with a focus on heading operations within its AOR.

3 Russia's Arctic military posture

In this section, Russia's ongoing militarisation of the Arctic is analysed by studying how its military capabilities, activities, and infrastructure have developed in the region over the last decade (2011–21). The Northern Fleet is in focus, but other military and state actors are also important. The study illuminates whether the recent Arctic focus is merely an effect of the ongoing general modernisation of the armed forces and the retaking of lost capabilities, or something entirely new. Consequently, this section's empirical presentation of Russia's current Arctic military posture is preceded by a summary of the concepts that have spurred periods of Arctic militarisation in the 20th century.

A Historical Perspective on Russia's Arctic military posture

Human activities in the Russian Arctic region were long restricted to those of Indigenous peoples and occasional polar expeditions. Imperial Russia had already established a naval base in the sub-arctic city of Arkhangelsk in the 1800s, but it was not until the early 20th century that Imperial Russia and then the early Soviet state possessed an enduring naval presence in the Arctic, on the Kola Peninsula.¹⁶ Although its military posture was gradually strengthened, it was not comparable to the force surge that took place during World War II (WWII): first, in 1941, when Germany occupied parts of the Peninsula; and then in 1944 when the Red Army launched the Petsamo-Kirkenes offensive to drive the *Wehrmacht* back into Norway.

The end of WWII did not result in shifting the military focus away from the Arctic. The emergence of nuclear weapons and nuclear-powered propulsion, in combination with the advent of the Cold War, increased the significance of the circumpolar region in at least two ways. First, as the shortest flight route from the US was transpolar, both sides were certain that a surprise attack would come over the Arctic.¹⁷ Therefore, soon after WWII, construction began on a chain of airfields and radar stations along the Soviet northern coastline and archipelagos.¹⁸ Second, the new Cold War security environment also led to a shift in balance among the Soviet fleets. The Northern Fleet had always been inferior to the Baltic and Black Sea Fleets but, in the late 1950s/early 1960s, it became the largest of the Soviet fleets.¹⁹ This was possible largely due to the southern Barents Sea being ice-free in winter, enabling safe year-round entry and exit to naval bases, even for vessels lacking ice-reinforced hulls.

The Northern Fleet's ascendance was largely due to the Soviet emphasis on submarines, particularly nuclear-powered submarines armed with nuclear-tipped ballistic missiles (SSBNs), which needed access to the world oceans to sustain the nuclear second-strike capability. This resulted in a 'third battle of the Atlantic,' a cat-andmouse game of submarines and anti-submarine warfare (ASW) played throughout the Cold War.²⁰ Over time, technological progress substantially increased missile range, and SSBNs could reach their targets from near-home waters. This had a

significant impact on Soviet naval strategy, which was centred on a 'bastion' concept, i.e., a maritime region close to Soviet shores, where SSBNs could linger, enjoying the full protection of air defence, naval and air forces. Two Soviet SSBN bastions were formed, in the Barents Sea region and the Sea of Okhotsk.²¹

This 'bastion' notion survived the collapse of the Soviet Union, but economic hardship in the 1990s made it hard for Russia to uphold its credibility.²² The formerly balanced distribution of SSBNs between the Northern and Pacific Fleets began to tilt towards the former, both in quantity and quality.²³ Relatedly, to save on expensive upkeep, much of the cost-intensive Arctic military infrastructure elsewhere than the Kola Peninsula was abandoned. The concentration of forces there, and the Northern Fleet, were promoted out of necessity rather than strategic considerations.

3.1 The Northern Fleet

In post-Soviet Russia, the Northern Fleet has retained its position as Russia's main military force in the Arctic. Most of its tasks do not relate to the region itself, but include maintaining a persistent presence throughout the North Atlantic, conducting out-of-area operations on a global scale and, not least, sustaining the naval retaliatory nuclear-strike capability. Distinguishing capabilities developed for operations in the Arctic from those merely based there is analytically challenging.²⁴ One way is to differentiate its capacity to project naval and overall military might in, for example, Russia's western Arctic (the Barents Sea) from that in the central Arctic region (the Kara, Laptev and East-Siberian seas).

Russia's western Arctic region

The majority of the Northern Fleet's bases and garrisons are located in a relatively small area in the westernmost part of the Kola Peninsula. Its main components are five operational formations, which all contain a number of tactical units. Three of these are naval formations, whereas the others include one air and air-defence forces army (AADA) and one army corps. The Northern Fleet also subordinates a few notable, separate units, such as the surface ship unit that includes, for example, Russia's sole aircraft carrier and the 25,000 tonne Kirov-class battlecruiser, *Piotr Velikiy*.²⁵

Map 1 portrays a selection of important Northern Fleet bases, garrisons, and military installations, as well as civilian ports, in the greater Kola Peninsula region. As noted earlier, the concentration of bases on the Kola Peninsula is largely a result of the fact that the southern Barents Sea is ice-free in winter, enabling year-round unfettered access to the Atlantic for Northern Fleet vessels. On shore, the naval grouping is supported and protected by a dense network of air-defence units, aviation regiments and land forces.²⁶ While this stronghold can amass a fair amount of military force for operations in the Barents Sea area, its further reach into the Arctic is severely restricted by distance and climate.



Map 1. A selection of Northern Fleet and civilian objects in the Barents Sea region.

The most conspicuous indications of militarisation in the western Arctic beyond the Kola Peninsula are the construction of military infrastructure, and deployments to archipelagos north and east of the Barents Sea. On Franz Josef Land, adjacent to the recently modernised Nagurskove airfield, an architecturally spectacular military base was constructed. Reflecting its design, it has been suggestively dubbed the Arctic Shamrock; it has a capacity to accommodate some 150 soldiers.²⁷ Radar units were among the first systems to be deployed to the new base, but as of 2021 the short-range Pantsir-SA surface-to-air missile (SAM) system, and the Bastion-P coastal defence missile system, were also installed.²⁸ Further east, on Graham Bell Island, a dual-use air-surveillance radar station has been constructed, adjacent to a small airfield.²⁹ On Novaya Zemlya, a new air-defence missile regiment was formed in late 2015, and in 2019 re-armed with the modern S-400 SAM system.³⁰ Situated close to the recently modernised Rogachevo airfield, the new regiment is the most northerly military unit with conscripts. Aircraft, including both attack and reconnaissance versions of the Su-24 as well as MiG-31BM interceptors, belonging to the composite aviation regiment in Monchegorsk (Kola Peninsula), are conducting increasingly frequent temporary deployments to Rogachevo and Nagurskoye.³¹

The deployment of additional SAM and radar units throughout Russia's western Arctic archipelagos, combined with an extended AOR for Northern Fleet interceptors, has substantially improved the air defence capabilities there. The simultaneous and general modernisation of forces and infrastructure on the Kola Peninsula also adds to the multi-domain awareness and military power projection capability over the Barents Sea. An example is the construction of a chain of five *Rezonans-N* radars, designed to detect very small, or stealth, targets, along Russian coastlines in the western Arctic.³² Parallel to the strengthening of aerial surveillance, efforts have also been made to improve situational awareness in other domains in the Arctic. For example, a hydro-acoustic surveillance system, comprised of fixed sensors and possibly autonomous underwater vehicles, has been constructed in the Barents Sea region.³³ Sea-surface surveillance has been enhanced by, for example, the formation of the first regimental level unmanned aerial vehicle (UAV) unit within the Armed Forces.³⁴ Range is currently limited, due to a lack of long-range UAVs in the Armed Forces inventory, but the development of those capabilities is a priority.

All these measures combined have certainly strengthened the defence of the Kola Peninsula and the provision for sustaining a SSBN 'bastion' strategy and ensure that surface combatants can safely exit into the North Atlantic. However, with the new military installations out on the western Arctic archipelagos, the Barents Sea, and thereby the entry/exit point of the NSR, is militarily enclosed in an unparalleled way.

The central Arctic

The concentration of its forces to the Kola Peninsula makes operations in the marginal seas of the central Arctic significantly more demanding for the Northern Fleet, and it has historically had little experience of naval operations east of the Barents Sea.³⁵ Vast distances are merely one of several complicating factors. Sparsely populated, the region offers fewer civilian ports, airfields and other infrastructure that could support operations, and as seasonal ice withdraws later in the central marginal seas, the assistance of civilian icebreakers is often required, even for summer and autumn navigation. Nonetheless, development there largely follows the same pattern as in the western Arctic archipelagos, with the construction of a military base, formation of new air-defence units and modernisation of airfields.

On Kotelny (New Siberian Islands), the construction of a second Arctic base, called *Northern Trefoil*, began in 2013–14. Although less spectacular, from an architectural standpoint, than the *Arctic Shamrock*, on Franz Josef Land, it is similar in size and comprised of similar capabilities, including radar units, the *Pantsir-SA* short-range SAM system, and the *Bastion-P* coastal defence missile system.³⁶ Additionally, the adjacent Temp airfield has been thoroughly modernised. The radar unit on Kotelny provides aerial awareness for the second Northern Fleet air defence division, which was formed in Tiksi, most likely in late 2018. New permanent garrisons have been constructed for the new division and, in 2020, its as yet sole SAM regiment, equipped with the S-300 long-range SAM system, entered service.³⁷ A small Northern Fleet outpost has also been established on Srednyi Island (Severnaya Zemlya). Notably, these Northern Fleet facilities in the central Arctic are located on military-administrative territories of the Central and Eastern MDs.



Map 2. A selection of Russian military and civilian infrastructure throughout the Arctic.

In addition to the permanent outposts and bases established, the Northern Fleet has also ramped up its naval activity in the central Arctic. Since 2012, annual expeditions usually composed of one major surface combatant, a few large landing ships, and seagoing auxiliary vessels such as salvage tugs, have been conducted in the region.³⁸ Still, surface ship operations are usually restricted to August–October, when seasonal ice is at a minimum.³⁹ When required, the expeditions are assisted by civilian nuclear-powered icebreakers operated by Atomflot.⁴⁰ Concurrently, expeditions using oceanographic research or hydrographic survey vessels have also become more frequent. Since 2017, the Northern Fleet hydrographic survey service, together with the Russian Geographical Society, have regularly conducted expeditions.⁴¹

Most of the warships used for Arctic naval operations belong to the Kola Flotilla, with *Udaloy*-class destroyers and *Ropucha*-class large landing ships being the most commonly used, while the latter are often used to deploy small tactical units of either naval infantry or motorised rifle units on unimproved Arctic shores. Thus, the formation in December 2014 of the second Northern Fleet motorised rifle brigade, specialised in operating in the Arctic environment, both adds to the defence of the Kola Peninsula and provides supplementary Arctic expeditionary capacity.⁴² Naval aviation maritime patrol and ASW aircraft, based at Severomorsk-1 (Kola Peninsula) and Kipelovo air base (Vologda District), regularly operate in the Arctic. ASW missions are most frequent in the Barents Sea region, but the Tu-142 long-range ASW aircraft and the rotary-wing aircraft based on ships are also used for ice reconnaissance.⁴³

As noted above, although the Northern Fleet can be considered a latent Arctic force, in reality most of its vessels are rarely, or never, employed on Arctic missions. Warships of the 43rd Missile Ship Diviziya, the main Northern Fleet surface

combatant unit, have only occasionally participated in Arctic expeditions and the vessels of White Sea Naval Base primarily support the shipbuilding industry. The third naval formation, the Submarine Command, is less restricted by the Arctic climate and operates a wide selection of nuclear-powered submarines, including SSBN, attack (SSN), cruise-missile (SSGN), and special-purpose submarines. Although SSBNs frequently operate under the polar ice and are designed to surface through ice, their mission is exclusively to maintain the retaliatory strike regime. However, the new *Severodvinsk*-class SSGN supposedly has improved capabilities to surface through ice in order to covertly launch cruise missiles.⁴⁴

Currently, relatively few Northern Fleet ships have ice-reinforced hulls, but the Fleet has recently begun to receive new ships designed for the Arctic climate. The clearest examples are the *Muromets*-class icebreaker, *Ilya Muromets*, commissioned in 2017, and its smaller sister ship, expected to enter service in 2022.⁴⁵ Two 7000-tonne *Papanin*-class Arctic patrol ships are under construction, with commissioning expected in 2023–24. Although these will have almost no restrictions for Arctic summer and autumn navigation, restrictions on their conducting unassisted patrols in Arctic marginal seas in winter and spring will mean that their ice class is not comparable with that of full-fledged icebreakers. Several new seagoing auxiliary vessels delivered in 2018–20 are slightly reinforced for operating in ice conditions. These include the logistics ship, *Elbrus*, the medium tanker, *Akademik Pashin*, the hydrographic survey vessel, *Nikolai Skosyrev*, and the research vessel, *Akademik Aleksandrov*.

The commissioning of ice-classed vessels will improve the Northern Fleet capability for Arctic naval operations. However, most new Northern Fleet surface ships, such as *Gorshkov*-class frigates and *Ivan Gren*-class landing ships, lack ice-reinforced hulls and will have severe seasonal restrictions, remaining dependent on the support of icebreakers for operations in Arctic waters for most of the year. Nonetheless, regular surface combatants and landing ships are increasingly used for operations in the central Arctic marginal seas during the early to mid-autumn months.

3.2 The Eastern Military District

In the central Arctic region, garrisons located in Tiksi and on Kotelnyi Island are under the operational command of the Northern Fleet JSC. This is completely in line with the reformed Arctic command and control structure, even though they are located on the military-administrative territory of the Eastern MD. This is not the case in the easternmost part of the Russian Arctic, where the units located there are under operational control of the Eastern JSC, partly through the activities of the Pacific Fleet. Map 2 shows an approximation of the AOR demarcation line between the Northern Fleet JSC and the Pacific Fleet.⁴⁶ This division of responsibility is indeed practical, considering the long distance from the Kola Peninsula, but at the same time, it contradicts the overarching rationale of the Northern Fleet's leading military operations in the Arctic. This arrangement should not be seen as a shared responsibility for the Arctic region, but rather that the proximity to the US (Alaska), to the east, outweighs the security challenges emanating from the Arctic Ocean and is therefore not considered part of the Arctic strategic direction. The same is also likely to be true in Russia's western Arctic (Barents Sea), but is more difficult to distinguish, as the Northern Fleet AOR runs continuously from the Northern Atlantic into the Arctic.

The eastern Arctic region

The Eastern MD and the Pacific Fleet have the role of gatekeeper of the eastern NSR entry/exit point in a way that is similar to the Northern Fleet's in the west, but the expansion and strengthening of Arctic military installations has been more modest in the eastern Arctic. The construction of a third Arctic base, the *Polar Star*, commenced in 2015–16 on Wrangel Island. This was later than the western and central Arctic military bases and construction has been slower, likely because of the recently disclosed rampant corruption involving its construction.⁴⁷ The base has a more basic outfit but it is likely that it will gradually become more similar to the other two Arctic bases. With no indications of deployment of SAM or coastal missile systems at the base, its primary function in 2021 is likely operating air-surveillance radars.⁴⁸ Lacking a proper airfield, the base is dependent on a small, not yet modernised airfield located on Cape Schmidt, on the Russian continental shore, where a military meteorological and flight control station is also located.⁴⁹

In several ways, the Pacific Fleet's naval aviation mirrors the posture of its Northern Fleet counterpart in the Barents Sea region, but on a smaller scale. The Pacific Fleet's naval aviation has gradually improved conditions for air operations in the Arctic region, particularly through the use of the civilian Anadyr airport as a forward operating base. Both Pacific Fleet MiG-31BM interceptors, normally based at Yelizovo air base, on Kamchatka, and reconnaissance UAVs are permanently deployed at the Anadyr base.⁵⁰ Long-range maritime patrol aircraft based in Yelizovo and Kamennyy Ruchey (Khabarovsk Krai) are predominantly used not only for patrols over the northwestern Pacific, but also over the Arctic. Lastly, the construction of a chain of *Rezonans-N* stealth radars, similar to the one in the Barents Sea region, will commence in the Far East in coming years.⁵¹

The Pacific Fleet naval formation on the eastern seaboard of the Kamchatka Peninsula is eastern Russia's closest permanent naval base to Arctic waters. It is primarily home to the Pacific Fleet nuclear-powered submarines, but also some surface combatants, including two *Steregushchy*-class corvettes commissioned in 2016–17. Although ships of the Pacific Fleet do not conduct navigation deep into the Arctic with the same regularity as the Northern Fleet, naval operations in the Bering Strait and the Chukchi Sea are becoming increasingly common. The Pacific Fleet will not receive new ice-classed ships to the same extent as the Northern Fleet. Nonetheless, the Russian Navy's sole ice-classed salvage and rescue vessel (*Belousov*-class) is

operated by the Pacific Fleet. In addition, two small tankers (Project 03182) with rudimentary ice-going capabilities are currently being built for the Pacific Fleet.

3.3 The Aerospace Forces and the Airborne Troops

As noted earlier, naval aviation forces of both the Northern and Pacific fleets are increasingly employed in the Arctic. Nevertheless, the Aerospace Forces remain central to Russia's military posture in the Arctic, and are vital for a number of tasks. The three most important components for Arctic air operations are the Military Transport Aviation (MTA), the Long-Range Aviation (LRA), and the military and dual-use space-based assets controlled by the Space Troops.

Although medium and light transport aircraft are found within both the Russian fleets and MDs, the strategic transport capacity of MTA is indispensable for swift military deployments throughout the Arctic. During winter and spring, aerial transport conducted by the MTA is often the only viable means of transportation throughout Russia's Arctic archipelagos. The modernised network of Arctic airfields has facilitated air transport in the region, but the main airframe relied on by the MTA, the Il-76 strategic airlifter, is also adapted for landings and take-offs from unprepared airstrips. The MTA also provides extensive Arctic deployment of Airborne Troops units.

The LRA is becoming more frequently used for long-range patrols over the Arctic region. The modernisation and extension of several Arctic air bases and civilian airports is permitting operations by a wider set of aircraft, such as strategic bombers. Tu-22M3 heavy bombers of the LRA are permanently based at Olenegorsk, on the Kola Peninsula, but airfield modernisation has also enabled forward deployment of strategic bombers, such as the Tu-95MS (turboprop) and the Tu-160 (supersonic) aircraft. Although strategic bombers are part of the nuclear triad, the adoption of the new Kh-101 conventional warhead air-launched cruise missile has made the capability more versatile. Temporary deployments are not restricted to the Severomorsk-1 and Vorkuta airbases, as both the Nagurskoye air base (Franz Josef Land) and the Anadyr airport have been upgraded to enable forward deployment of strategic bombers.⁵² The LRA also provides aerial refuelling to extend the operational range of tactical-operational aircraft, such as Su-24s and MiG-31BMs, as well as strategic bombers and maritime patrol aircraft.

Since 2015, the Russian Space Forces has been part of the Aerospace Forces, and space assets are growing ever more important for ensuring communication and providing situational awareness and navigational support in the Arctic region. Russia still relies heavily on the civilian (American) satellite communication system, Iridium.⁵³ However, with the new *Meridian-M* communications satellite (the first was launched in 2019), the Russian Armed Forces has substantially improved its means of communication in the Arctic.⁵⁴ In addition, the first of two Roscosmos *Arktika-M* weather satellites, which will support both civilian and naval Arctic navigation, was launched in 2021.⁵⁵

In addition to the Arctic expeditionary force of the Northern Fleet, the deployment of Airborne Troops units to the Arctic is also steadily growing. Their mobility and elite unit status make them ideal for swift deployments to remote places throughout the Arctic archipelagos. Since 2014, they have conducted several spectacular Arctic parachuting exercises, including a battalion-size landing exercise at the Temp air base; landings close to the North Pole; and a high-altitude jump conducted on Franz Josef Land.⁵⁶ It is possible that, through their participation in several of these exercises, the 98th Guards Airborne Division, based in Ivanovo, is becoming somewhat specialised in conducting Arctic operations. Moreover, units associated with the Russian Special Forces Command regularly train for Arctic missions.⁵⁷

3.4 Civilian-military interdependencies and Arctic dual-use infrastructure

It is important to recall that Russia's military build-up in the Arctic is part of a comprehensive strategy to develop the region in many respects. ⁵⁸ Russia's general expansion of both civilian and military Arctic activities makes them mutually reinforcing. A growth in shipping keeps ice channels open for all purposes, and improved civilian infrastructure in combination with state subsidies has probably strengthened Arctic communities in for example Novaya Zemlya and Tiksi, and made it easier for the Ministry of Defence (MoD) to locate and staff permanent garrisons there.⁵⁹ However, in a way that is unusual for the Armed Forces, in order to operate in the region it is also directly dependent on other services provided by other state actors and on sharing infrastructure. Examples of this are the reliance on the icebreaker fleet operated by Atomflot, the modernising of the transport infrastructure, including ports and airports, along the NSR, and the construction of dual-use Air Traffic Control (ATC) radars.

In 2020, the Russian MoD was involved in the reconstruction of sixteen ports and nineteen airfields throughout the Arctic.⁶⁰ Many of the modernised or reconstructed airfields in the Arctic archipelagos are exclusively for the needs of the Armed Forces, but in regard to Alykel and Anadyr, the MoD is adding military facilities to already existing civilian airports.⁶¹ Similarly, several civilian ports along the NSR are being improved to fulfil a wide range of needs. For example, by 2022 the civilian port in Dikson will be thoroughly upgraded and turned into a dual-use port, and by 2025 a similar upgrade of port infrastructure in Tiksi is scheduled for completion.⁶² Concurrently with the development of infrastructure along the NSR, the Russian Marine Rescue Service is presently expanding the network of search-and-rescue (SAR) stations along the Arctic shoreline and modernising its ship inventory, more than doubling the number of ice-class vessels.⁶³ Even more expansive is the modernisation of the Russian fleet of nuclear-powered icebreakers, which will have been more or less fully renewed by the mid-2020s.⁶⁴ Although the Russian Navy is constantly improving its capabilities for unsupported Arctic navigation and SAR, its reliance on other state actors will continue to be high.

From 2007–15, a state programme intended to create a dual-use Unified Automated Radar System was executed.⁶⁵ Since the Soviet aerial surveillance system in the Arctic had been practically dismantled, the programme was more about constructing new, rather than integrating existing, capabilities. Over the course of the last decade, several Sopka-2 dual-use ATC radars have been constructed at several locations throughout the Russian Arctic, including all three Arctic bases. When combined with data from new fixed military radars as well as interceptors on patrol, Russia's air domain surveillance in the Arctic has been considerably upgraded.

Russian state actors other than the Navy are also expanding their capabilities to patrol there. In addition to constructing two *Papanin*-class Arctic patrol ships for the Navy, construction of two more for the Coast Guard commenced in July 2020.⁶⁶ Thus, for the NSR constabulary mission, the Navy will not be the sole actor with substantial capabilities for operating in Arctic waters. Similarly, expansion of Arctic research, highlighted by the current construction of the 10,000-ton drifting platform, *North Pole*, will probably also benefit the Navy's hydrographical, oceanographic and meteorological research.

4 Interpreting the (re)militarisation of the Russian Arctic

The security environment in the Arctic is changing and Russia is grappling with the new circumstances. In doing so, due to its size and deteriorated relations with other Arctic states, Russia is shaping the security environment with its actions, which over the course of the last decade have increasingly been to improve its military muscle. Interpreting what is driving these developments is important in order to come up with sound and purposeful responses.

Considering that the Soviet Union had a significant military presence in the Arctic previously, its militarisation is far from new, so it is not entirely correct to describe Russia's ongoing military build-up there as *militarisation*. Portraying it as a Russian *remilitarisation* of the Arctic, however, is even more problematic, as this suggests that the premise for Russia's current military build-up is the same as the Soviet Union's. There are certainly similarities, but the current emphasis is predominantly centred on a latitudinal (east-west) axis and on the securitising of the NSR in a time of accelerating climate change, adding to or even somewhat replacing the longitudinal axis shaped by ICBMs and strategic bombers travelling across the North Pole. Hence, the Russian Arctic is not merely the theatre for a nuclear exchange, but is increasingly more important to Russia in its own right.

The Northern Fleet is Russia's primary naval formation, with many of its current tasks chiselled out during the Cold War. In comparison to the extent of its traditional tasks, its engagement in the central Arctic seems negligible. Nevertheless, as Russia's main military force in the Arctic, during the last decade it has adapted to a new geostrategic landscape of improved naval connectivity in the Arctic Ocean. In spite of its limited history of operations east of the Barents Sea, the Northern Fleet area-of-responsibility has expanded to include the marginal seas of the central Arctic, thereby securitising the shipping route along the Russian Arctic coast, i.e., the Northern Sea Route. This is despite a rather modest history of Arctic operations beyond the Barents Sea.

There is, however, more to this Russian militarisation and military posture in the Arctic, and it would be a mistake to equate it to the aggregate force of the Northern Fleet; a closer look reveals several noteworthy traits. First, although the western and central parts of circumpolar Russia are within the Northern Fleet AOR, the responsibility for the easternmost part lies with the Eastern MD. Thus, it is likely that neither the Barents Sea nor the part of the Chukchi Sea east of Wrangel Island are considered part of the Arctic strategic direction. However, both regions form the entry/exit points of the NSR, and the eastern part has been militarily reinforced, in a fashion similar to the Barents Sea but on a smaller scale. Second, only a relatively small portion of Northern Fleet assets is regularly used for Arctic operations; an even smaller portion is especially adapted to, or trains for, that climate. Although, Arctic capabilities organic to the Northern Fleet will gradually increase in future, other parts of the Armed Forces are also developing and improving capabilities adapted to operations in an Arctic climate. The Arctic military posture, generally, also benefits from concerted state effort to develop the region, as Russia often seeks dualuse solutions for the Arctic military presence. This leads to a third point: recent changes in the Armed Forces command and control, breaking with core principles of Soviet military organisation, has improved the provisions for the Northern Fleet to temporarily subordinate units belonging to other parts of the Armed forces, as well as coordinate with civilian state actors in the region. The latest step in increasing its status, taken in January 2021 when the Northern Fleet became a militaryadministrative entity on par with the military districts, was merely a formalisation of measures already taken in 2015 and will not impact significantly on Russia's Arctic military posture.

NOTES

- See, for example, Kristian Åtland (2011) "Russia's Armed Forces and the Arctic: All quiet on the Northern Front?" *Contemporary Security Policy*, 32:2, 267–285 (2011); Marlene Laruelle (2020) "Russia's Arctic Policy. A Power Strategy and Its Limits" *Russie. Nei. Visions*, No. 117, Ifri, March (2020).
- Indeed, Russia can locally outnumber NATO forces in its border regions, i.e., the Baltic region or in the 'High North', (northern Scandinavia), but the overall military balance tilts assertively towards NATO. See Krister Pallin Western Military Capability in Northern Europe 2020, FOI-R--5012--SE (2021): 95–96.
- See Rebecca Lindsey and Michon Scott, "Climate Change: Arctic Sea Ice," 8 September 2020. Available at: https://www.climate.gov/news-features/understanding-climate/climatechange-minimum-arctic-sea-ice-extent
- 4. President of Russia "Ukaz Prezidenta Rossiyskoy Federatsii ot 21.12.2020 g. No 803," 21 December 2020. Available at: http://publication.pravo.gov.ru/Document/View/0001202012210110

- 5. Valerii Gerasimov "Tezisy vystupleniya nachalnika Generalnogo shtaba Vooruzhennykh Sil Rossiyskoy Federatsii," *Ministry of Defence*, 24 April 2015. Available at: https://sc.mil.ru/ social/sport/news/more.htm?id=12024031@egNews
- 6. For a thorough account on post-soviet reform of Russian military command & control, see Greg Whisler "Strategic Command and Control in the Russian Armed Forces: Untangling the General Staff, Military Districts & Service Main Commands (Part Three)" *The Journal of Slavic Military Studies* 33 (2020): 237–258.
- 7. Lenta "Chislo voyenkomatov v Rossii sokratyat v 20 raz," 30 September 2009. Available at: https://lenta.ru/news/2009/09/30/voenkomats/
- 8. Boltenkov et al., *Novaya Armiya Rossii* (Moscow: Centre for Analysis of Strategies and Technologies, 2010). Available at: http://www.cast.ru/files/New_Russian_Army_sm.pdf
- 9. The only exception being the Central JSC, which does not have naval forces under its command.
- 10. Gerasimov "Tezisy vystupleniia." (2015).
- 11. President of Russia "Ob utverzhdenii Polozheniya o voyennom okruge Vooruzhennykh Sil Rossiyskoy Federatsii," 19 April 2017. Available at: http://www.kremlin.ru/acts/bank/41873.
- 12. Ekaterina Klimenko. "Russia's Arctic Security Policy. Still Quiet in the High North?" *SIPRI Policy Paper 45*, (February 2016): 5–6.
- 13. Tass "Minoborony predlagayet uzakonit status Severnogo flota kak otdelnogo voyennogo okruga," 7 August, 2019. Available at: https://tass.ru/armiya-i-opk/6741637
- 14. Ministry of Defence "Na Severnyy flot napravlena ocherednaya komanda prizyvnikov iz Murmanskoy oblasti," 14 May 2016. Available at: http://mil.ru/et/news/more.htm? id=12085245@egNews&_print=true
- 15. See for example the Wikipedia-article on the 'Northern Military District'. Available at: https://en.wikipedia.org/wiki/Northern_Military_District_(Russia)
- Yevgeniy Bey "Obespecheniye voyennoy bezopasnosti Rossiy v Arktike: istoriya voprosa," Voyennaya Mysl 12, 14–25 (2020).
- Depledge, Duncan; Boulègue, Mathieu; Foxall, Andrew & Tulupov, Dmitriy "Why we need to talk about military activity in the Arctic: Towards an Arctic Military Code of Conduct", *Arctic Yearbook 2019*. Available at: https://arcticyearbook.com/images/yearbook/2019/ Briefing-Notes/4_AY2019_BN_Depledge.pdf
- Pavel Palchikov "Kholodnaya voyna v studenoy Arktike" *Aviation Explorer*, 4 February 2015. Available at: https://www.aex.ru/docs/8/2015/2/4/2183/
- 19. Norman Polmar et al., *Admiral Gorshkov: The ManWho Challenged the U.S. Navy*, (Annapolis: Naval Institute Press, 2019): 110–125.
- 20. Owen Cote R. Jr, "The Third Battle" *The Newport Papers*. 16 (2003). Available at: https://digital-commons.usnwc.edu/newport-papers/38
- 21. Gjert-Lage Dyndal "The Rise of the Soviet Navy, a re-visited Western view," Kungliga Krigsvetenskapliga Akademins skrift, 3 (2013). Available at: https://kkrva.se/hot/2013:3/dyndal_the_rise.pdf; Breemer, Jan S. "The Soviet SSBN Bastions: Why Explanations Matter", The RUSI Journal, 132: 2 (1989): 39–44.
- 22. For an example of how 'Bastion' thinking has survived into the post-Soviet period, see Kristian Åtland "The Introduction, Adoption and Implementation of Russia's Northern Strategic Bastion Concept, 1992–1999" *The Journal of Slavic military studies*, 11 (2007): 499–528.
- 23. Ibid., 512.
- 24. The distinction between forces merely located in or aimed at operations in the Arctic has been highlighted by others. See for example; Pavel K. Baev "Russia's Ambivalent Status-Quo/Revisionist Policies in the Arctic." *Arctic Review on Law and Politics*, 9 (2018): 408–424.

- 25. For a more detailed overview of the Northern Fleet organisation, see Jonas Kjellén and Nils Dahlquist "Russia's Armed Forces in 2019" *Russian Military Capability in a Ten-Year Perspective 2019* (2019). Available at: https://www.foi.se/rest-api/report/FOI-R--4758--SE
- 26. 'Land forces' are here defined as ground forces, coastal forces, combat support and logistical units.
- 27. *Tass* "Inostrannym zhurnalistam pokazali rossiiskuiu voennuiu bazu v Arktike", 17 May 2021. Available at: https://tass.ru/armiya-i-opk/11396071
- 28. Ibid.
- 29. Sergey Khlopkov *et al.* "Obespecheniye radioelektronnoy zashchitu mezhvedomstvennoy gruppirovki voysk v Arkticheskoy zone" *Voyennaya Mysl*, 4 (2021): 59–60.
- 30. Anna Vikhrova "'Tyazhelovesy' na zashchite arktiki" *Na Strazhe Zapolyarya*, 5 February 2021. Available at: https://ric.mil.ru/upload/site173/X5AiFxVWqS.pdf
- 31. Anna Vikhrova "Supostat ne proletit" *Na Strazhe Zapolyarya*, 22 January, 2021. Available at: https://ric.mil.ru/upload/site173/Lw8ffyx3Vp.pdf
- 32. *Tass* "RLS 'Rezonans-N' zastupit na boyevoe dezhurstvo na Novoy Zemle ne pozdneye iyunya," 14 April 2021. Available at: https://tass.ru/armiya-i-opk/11140991
- Aleksey Ramm "Rossiya razvorachivayet globalnuyu sistemu morskogo slezheniya," *Izvestiya*,
 26 November 2016. Available at: https://iz.ru/news/647107
- 34. Anna Korolkov "U pervogo polka BPLA morskaya propiska," *Krasnaya Zvezda*, 28 December, 2017. Available at: http://archive.redstar.ru/index.php/newspaper/item/35528-u-pervogo-polka-bpla-morskaya-propiska
- 35. Baev 2018, pp. 418.
- 36. Heather Conley *et al.* "The Ice Curtain. Bringing transparency to the Arctic," *CSIS Briefs*, March 2020. Available at: https://www.csis.org/analysis/ice-curtain-protecting-arctic-motherland
- 37. Aleksey Karpychev "Vnov sformirovannyy 414-y zenitnyy raketnyy polk zastupil na boyevoye dezhurstvo," 3 April 2020. Available at: https://altyn73.livejournal.com/1429184.html.
- Ministry of Defence "Otryad korabley Severnogo flota prodolzhil arkticheskiy pokhod,"
 8 September 2017. Available at: http://function.mil.ru/news_page/country/more.htm? id=12141394@egNews
- 39. Lindsey and Scott "Climate Change: Arctic sea ice."
- 40. Atomflot is an enterprise of the Rosatom State Corporation.
- 41. Viktoria Bodrova "Ne teryayte uyekhala v arktiku," *Na Strazhe Zapolyarya*, 22 January 2021. Available at: https://ric.mil.ru/upload/site173/Lw8ffyx3Vp.pdf
- 42. Ministry of Defence "Otryad boyevykh korabley i sudov pribyl k arkhipelagu Novosibirskie ostrova," 14 September 2015, Available at: https://function.mil.ru/news_page/intrel/more. htm?id=12055868@egNews&_print=true
- 43. Ministry of Defence "Samolety dalney protivolodochnoy aviatsiy Severnogo flota proveli ledovuyu razvedku v Arktike," 6 September 2020. Available at: https://function.mil.ru/news_page/country/more.htm?id=12312741@egNews
- 44. Aleksei Ramm and Bogdan Stepanov "Podlenoye vremya: lodki proyekta 'Yasen' smogut zapuskat 'Tsirkony' v Arktike," *Izvestiya*, 2 June 2020. Available at: https://iz.ru/1018369/ aleksei-ramm-bogdan-stepovoi/podlednoe-vremia-lodki-proekta-iasen-smogut-zapuskat-tcirkony-v-arktike
- 45. *Boyevoye Vakhta* "Evpatiy Kolovrat' budet sluzhit v Arkticheskoy zone," 13 November 2020. Available at: https://ric.mil.ru/upload/site173/B15k3PnzJz.pdf
- 46. I.e. the Pacific Fleet in the maritime domain.
- Lenta "Stalo izvestno o novykh khishcheniyakh pri stroitelstve voyennykh obektov v Arktike,"
 27 October 2021. Available at: https://lenta.ru/news/2021/10/27/gorbachev/

- 48. Barents Observer "VKS vystraivayut novyy arkticheskiy rubezh," 17 January 2017. Available at: https://thebarentsobserver.com/ru/security/2017/01/vks-vystraivayut-novyyarkticheskiy-rubezh
- 49. Ministry of Defence "Na myse Shmidta vpervyye nachal raboty sputnikovyy meterologicheskiy kompleks VVO," 2 August 2017. Available at: https://function.mil.ru/news_page/ country/more.htm?id=12135935@egNews
- 50. Ministry of Defence "Ekipazhi istrebiteley MiG-31BM morskoy aviatsii Tikhookenskogo flota zastupili na boyevoye dezhurstvo v Arktike," 1 December 2020. Available at: https:// function.mil.ru/news_page/country/more.htm?id=12327769@egNews
- 51. Gavrilov, Yuriy "Dalniy Vostok zashchityat RLS novogo pokoleniya 'Rezonans-N,'" Rossiyskaya Gazeta, 24 August, 2021. Available at: https://rg.ru/2021/08/24/reg-dfo/dalnijvostok-prikroiut-rls-novogo-pokoleniia-rezonans-n.html
- 52. Aleksandr Aleksandrov "Letali i letat budem," *Krasnaia Zvezda*, 18 May 2018. Available at: http://redstar.ru/letali-i-letat-budem/
- 53. Anton Valagin "Minoborony RF podklyuchitsya k sputnikovoy svyazi SShA," *Rossiyskaya Gazeta*, 16 October 2018. Available at: https://rg.ru/2018/10/16/minoborony-rf-podkliuchit-sia-k-sputnikovoj-sviazi-ssha.html
- 54. Aleksey Ramm et al. "Vse Sevmorputem: svyaz v Arktike obespechat voyennyye sputniki," *Izvestyia*, 4 June 2019. Available at: https://iz.ru/884961/aleksei-ramm-roman-kretcul-bog-dan-stepovoi/vse-sevmorputem-sviaz-v-arktike-obespechat-voennye-sputniki
- 55. Roscosmos "'Arktika-M' ne tolko snimki," 29 March 2021. Available at: https://www.roscosmos.ru/30523/
- 56. Anastasiya Sviridova "Arkticheskiy rekord rossiyskikh desantnikov," 27 April 2020. Available at: http://redstar.ru/arkticheskij-rekord-rossijskih-desantnikov/
- 57. Voennaya priomka "Pervyy. Spetsialnyy. Arkticheskiy. Chast 1," *Telekanal Zvezda*, 12 May 2019. Available at: https://tvzvezda.ru/schedule/programs/201412231323-1cpc.htm/ 20195121050-nB9fg.html/player/
- 58. Pär Gustafsson "Russia's Ambitions in the Arctic Towards 2035," FOI Memo 7624, Stockholm, October (2021).
- 59. Vikhrova "'Tyazhelovesy.'"
- 60. Bey (2020): 24.
- 61. Barents Observer "VKS vystraivayut novyy arkticheskiy rubezh," 14 January 2017. Available at: https://thebarentsobserver.com/ru/security/2017/01/vks-vystraivayut-novyy-arkticheskiy-rubezh
- 62. Tass "Komanduyushchiy Sevflotom: rekonstruktsiya portov Dikson i Tiksi uluchshit bezopasnost v Arktike," 6 December 2019. Available at: https://tass.ru/armiya-i-opk/7285477
- Morspas "Morspassluzhba poluchit k 2030 godu 19 novykh sudov i 4 arkticheskikh bazy," 3 November 2020. Available at: http://morspas.com/news/morspassluzhba-poluchit-k-2030godu-19-novyh-sudov-i-4-arkticheskih-bazy.html
- 64. Malte Humpert "Russia Begins Construction on Fifth Nuclear Icebreaker as Arctic Sees Record Shipping Traffic," 22 December 2020. Available at: https://www.highnorthnews.com/en/russia-begins-construction-fifth-nuclear-icebreaker-arctic-sees-record-shipping-traffic
- 65. Andrei Koban and Dmitrii Samotonin "Nauchno-tekhnichskiye problem razvitiya federalnoy sistemy razvedki i kontrolya vozdushnogo prostranstva Rossiyskoy Federatsii i puti ikh resheniya," *Voyennaya Mysl* 4 (2017): 14–18.
- 66. Cast "Zalozhen pogranichnyy storozhevoy korabl ledovogo klassa 'Purga' proyekta 23550," *BMPD Blog*, 26 July 2020. Available at: https://bmpd.livejournal.com/4098267.html