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THE ISSUE

The impact of Russia's war in Ukraine has been felt in the Arctic. The region's primary diplomatic venue is paused, and military tensions are increasing. When Sweden and Finland join the North Atlantic Treaty Organization (NATO), every Arctic country save Russia will be a member of the U.S.-led alliance. The war has not diminished Russia's core economic and security interests in the region, but it has had some impact on its military readiness there in the short term, especially in terms of ground capabilities, if not at sea or in the air. In addition, there are some preliminary indications that sanctions and export controls may diminish Russia's ability to deploy precision munitions to the Arctic to a degree. At the same time, Russia's use of hybrid tactics in the region seems to be increasing in both frequency and severity. The United States and NATO will need to take stock of these developments in a region they have not historically prioritized as they begin to implement their new, respective strategies.

INTRODUCTION

Russia's unprovoked and brutal invasion of Ukraine in February 2022 disrupted the European security architecture and altered the risk calculus underpinning the foreign and security policies of its neighbors. This shift was also stark in the Arctic, which had for a long time been hailed by many as a highly cooperative and unusually peaceful part of international affairs.¹

First, the Arctic Council ceased to function when its seven members other than Russia suspended participation in official meetings.² This left the region without its main intergovernmental venue for cooperation. Next, in search of security, Finland and Sweden requested to join NATO.³ Furthermore, Russian "hybrid tactics"—to now possibly also include the sabotage of the Nord Stream pipelines, as well as that of undersea cables in the Arctic and near-Arctic,⁴ among other activities—have raised the level of alarm in NATO members like Norway and nearby states.⁵ Finally, the increased security concerns are also seen in newly released policy documents, such as the U.S. Arctic

Strategy.⁶ The first U.S. government-wide Arctic strategy since 2013, it states that Russia's war in Ukraine has "raised geopolitical tensions in the Arctic" and created "new risks of unintended conflict," a point that is also emphasized in the U.S. National Security Strategy (NSS).⁷ However, the Arctic has not been a top security priority for the United States or NATO in recent years, and there are weighty arguments that this might be a problem that needs addressing as tensions rise.⁸

Russia's military interests in the Arctic are ostensibly defensive: to defend its second-strike, sea-based nuclear deterrent capability operating out of the Kola Peninsula; to defend the homeland; and to protect its regional economic endeavors, especially oil and gas megaprojects like the Yamal LNG and Vostok Oil ventures, and the Northern Sea Route (NSR), which Russia views ambitiously as a future global trade thoroughfare.⁹

Russia also has offensive goals.¹⁰ First, it seeks to use the Arctic as a staging ground for power projection, especially into the North Atlantic Ocean via the Greenland-Iceland-

UK (GIUK) Gap. 11 Second, it may consider hybrid activities to intimidate or coerce European Arctic countries. Finally, in an unlikely-but not unthinkable-wider NATO-Russia conflict, having escalated to a war, one can imagine Moscow risking a limited incursion into Norway or Finland in a bid to protect its critical nuclear assets in the Kola Peninsula by creating greater defensive depth through, for example, the establishment of more western anti-access/ area denial system systems at relatively easily defended sites west of its border. This scenario resembles Cold Warera fears. A perhaps more likely modern conflict scenario could involve long-range precision strikes of high-value assets like the Norwegian or future Finnish F-35s and the infrastructure needed to keep them flying.¹² In addition, in accordance with basic military-strategic theory, one can also assume that command and control sites, radars, and important bases supporting key naval capabilities or antisubmarine warfare planes such as *P-8 Poseidon* maritime patrol aircraft would be attractive targets.

The war in Ukraine has not materially changed these Russian core interests. The need to protect the nuclear second-strike capability based out of the Kola Peninsula will be undiminished, and even heightened, in the likely event that Finland joins NATO. If and when this scenario plays out, critical military installations such as the Northern Fleet's strategic submarine base at Gadzhiyevo will be less than 200 kilometers away from the border of a new NATO country. 13 As a response, Russian defense minister Sergei Shoigu, after meeting with President Putin, stated in December that new military bases would be established: "Given NATO's desire to build up military potential near the Russian borders, as well as to expand the North Atlantic Alliance at the expense of Finland and Sweden, retaliatory measures are required to create an appropriate grouping of troops in Northwest Russia."14

Furthermore, despite the diminishing European market for Russian Arctic fossil fuels—and the evaporation of foreign investment in such projects from sanctioning countries¹⁵—there is little evidence Putin intends to reduce his economic ambitions in the region: an NSR development plan including roughly 1.8 trillion rubles in funding was approved in August 2022,16 and work continues on oil megaprojects.¹⁷ It is reasonable to assume Russia will maintain its regional military posture commensurately.

This paper first reviews Russia's prewar Arctic military assets before investigating which of these assets have been used and potentially lost in the invasion of Ukraine. Taking stock of these potential war damages, as well as the impact of sanctions on Russia's defense industry, the third section assesses the relative attractiveness of hybrid tactics for Russia to assert itself in the Arctic. The fourth section analyzes some implications of these findings for NATO and the United States.

Figure 1: Spotlight on Northern Europe and Western Russian Arctic



Source: CSIS research and analysis.

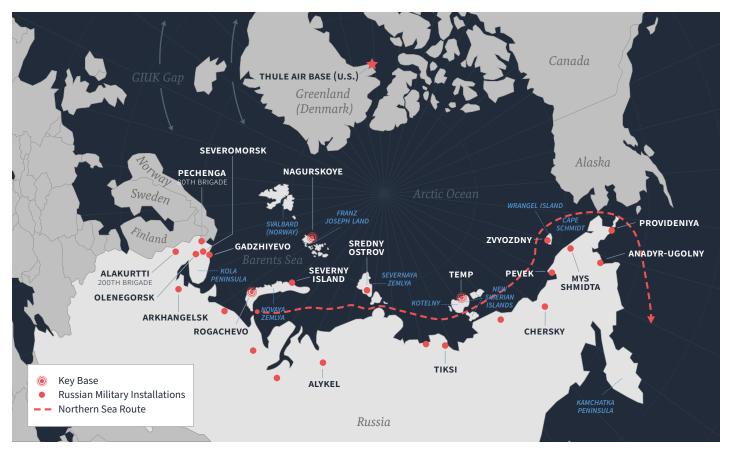
SECTION ONE: RUSSIAN CONVENTIONAL MILITARY CAPACITY IN THE ARCTIC **BEFORE THE WAR**

COMMAND AND UNIT STRUCTURES

The Northern Fleet Joint Strategic Command is Russia's Arctic military command and the core of its regional presence. The fleet's area of responsibility includes the western and central Arctic. The Eastern Military District commander is responsible for the eastern Arctic, all the way to the Bering Strait. 18 The fleet's primary responsibilities are to defend and ensure beneficial operational conditions for Russia's second-strike nuclear capability, as well as the homeland.

The Northern Fleet has five operational formations, each with several tactical units. Most are housed on the Kola Peninsula. These include three naval formations, the 45th Air and Air-Defense Forces Army (AADA), and the 14th Army Corps. 19 The naval formations include the Northern Fleet's Submarine Command and fleet, as well as the Kola Flotilla, which contains most naval assets intended for Arctic-specific use, including some main surface

Figure 2: Russian Arctic Military Installations



Source: CSIS research and analysis.

combatants.²⁰ There is also the 61st Naval Infantry Brigade, which includes some reconnaissance forces among other assets, as well as special forces units in Polyarny.²¹ The 45th ADAA was formed in December 2015.²² Its precise tactical makeup is not publicly available, but reports indicate that it bears responsibility for anti-missile systems and distributed units on bases in the central Russian Arctic.²³ The two main units of the 14th Army Corps are the 200th Motorized Rifle Brigade and the 80th Arctic Motor Rifle Brigade, in addition to other smaller subordinated units working on tasks like command and control, among other roles.24

The Northern Fleet also oversees the restoration of dozens of Soviet-era military installations that now dot the Russian Arctic, east of the Kola Peninsula. These installations vary in size and the degree to which they host troops and kinetic capabilities. Roughly, there are 3 major bases,²⁵ around 13 airfields, 10 radar stations, 20 border outposts, and 10 emergency rescue stations.²⁶ Finally, there are military assets that are not based in the Arctic but should be considered in the analysis. For example, two Russian airborne assault units are assigned to help protect



Russian Akula-class submarine K-335 Gepard.

Photo: Ministry of Defence of the Russian Federation via Wikimedia Commons (CC BY 4.0).

the Kola Peninsula: the 76th Guards Air Assault Division and the 98th Guards Airborne Division.²⁷ These divisions. as well as the 106th Guards Airborne Division, have trained for Arctic-specific missions.²⁸

SPECIFIC CAPABILITIES

• Submarines. The Northern Fleet hosts eight of Russia's ballistic missile submarines (SSBNs) of the Delta IV and Borei classes.²⁹ Their purpose is strategic: to maintain Russia's retaliatory nuclear strike capability. 30 The Delta IV submarines are each capable of carrying 16 SS-N-23 Sineva submarine-launched ballistic missiles (SLBMs),³¹ as well as, reportedly, the SS-N-15 Starfish anti-submarine missile.32 The Borei submarines can carry 16 SS-N-32 Bulava SLBMs.33 The Northern Fleet is believed to have approximately 16 other active combat submarines, including six nuclear-powered attack submarines (SSNs) of the Akula, Victor III, and Sierra II classes, five nuclear-powered guided missile submarines (SSGNs) of the Severodvinsk and Oscar I/ II classes, and five Kilo-class diesel submarines (SSKs).34 The upgraded Akula-class submarine will reportedly be armed with some variant of the Kalibr missile.35 The Sevorodvinsk submarines carry two variants of the Kalibr-both the land attack missile (SS-N-30) and the anti-ship variant (SS-N-27).³⁶ The formidable submarine is also armed with the SS-N-26 Strobile anti-ship cruise missile, i.e. the P-800 Oniks.³⁷ The Oscar II-class is armed with SS-N-19 Shipwreck and SS-N-16 Stallion anti-ship missiles.³⁸ Victor III and Sierra II submarines are armed with the SS-N-21 Sampson cruise missile.³⁹ One could also argue that the Northern Fleet has access



Russian aircraft carrier Admiral Kuznetsov tied up at a Rosatomflot moorage of the Russian northern port city of Murmansk on May 19, 2018.

Photo: Alexander Nemenov/AFP via Getty Images

- to auxiliary submarines for noncombat functions, ostensibly including undersea research, but most likely also including covert tasks, even though these officially report to the Main Directorate of Deep-Sea Research. 40 Not all submarines are made equal, of course—some are outdated and noisy, and some have limited combat potential. Overall, anti-submarine warfare experts consider Russia's subsurface fleet to be formidable.⁴¹ The deployments of the Kalibr are especially notable: it is a long-range precision missile at the high end of Russian capabilities. It gives the Russian Navy the ability to hit distant targets-between 1,500 and 2,500 kilometersfrom platforms that can be difficult to detect.⁴²
- **Surface Combatants.** As of 2019, the Northern Fleet officially had 37 surface vessels, including 10 operational large vessels and the Admiral Kuznetsov aircraft carrier (the only one in The Russian Navy)⁴³, although the latter was damaged in a pair of accidents a few years earlier and will likely not re-enter service before 2024.44 The Admiral Kuznetsov is armed with the SS-N-19 Shipwreck anti-ship missile and the SA-N-9 Gauntlet surface-to-air missile, among other systems. 45 The fleet's flagship vessel is the Kirov-class nuclear-powered missile cruiser Pyotr Velikiy.46 Kirov-class cruisers also use the Shipwreck and Gauntlet systems, as well as other surface-to-air missiles. 47 A second Kirov-class cruiser has been under reconstruction since 1999; although The Russian Navy
 - claims it will be back in service in 2023, work on this vessel has repeatedly been extended.⁴⁸ There is a Slava-class guided missile destroyer (the Marshal Ustinov), which uses the SS-N-12 Sandbox anti-ship missile, as well as having surface-to-air missile systems.⁴⁹ There are also two Gorshkov-class frigates,50 which are armed with both the land-attack and anti-ship variants of the Kalibr, as well as Oniks missiles.⁵¹ two Udaloy I/II-class anti-submarine warfare ships, and one Sovremenny-class destroyer that uses the SS-N-22 Sunburn anti-ship missile.⁵² The fleet has an estimated eight landing ships (Ropucha- and Ivan Gren-class).53 It also has two ice-class ships of its own and can call on 46 "civilian" icebreakers.54 It also has a small fleet of minesweepers. Finally, there are ice-reinforced auxiliary vessels, such as a logistics ship, a tanker, and two research vessels.55
 - Ground Capabilities. Russia's major ground capabilities are limited in the Arctic. According

to a prewar study from the Royal United Services Institute (RUSI), the three brigades had between them approximately 50 tanks, 450 armored personnel carriers, and an indeterminate number of "crosscountry vehicles and multipurpose articulated tracker carriers," as well as various artillery systems and some attack aviation capacity.⁵⁶

- Air Combat Capabilities. According to RUSI, Russia has four major air units in the Arctic.⁵⁷ At Severomorsk, there are two: the 279th Shipborne Fighter Regiment with approximately 24 Su-33 fighter jets and the 100th Shipborne Fighter Regiment with 24 MiG-29K fighters. At Monchegorsk, the 98th Mixed Air Regiment has an estimated 12 MIG-31BMs, 12 Su-24Ms, and an indeterminate number of Su-24MR reconnaissance crafts.⁵⁸ Finally, there is an uncrewed aerial vehicle (UAV) regiment at Severomorsk, as well as maritime patrol aircraft like the Il-38N and Tu-42.59 Before the war in Ukraine, there were also an estimated 30 bombers under the command of the Northern Fleet, many of which were housed at Olenya under the control of the 40th Mixed Aviation Regiment. 60 In addition, there are occasionally Tu-95 and Tu-160 bombers forward deployed across the Arctic.61
- Missile Capabilities. The distinction between defensive and offensive missile capabilities is not sharp in practice, 62 and the below capabilities can be used for multiple ends. The Northern Fleet operates a "hardened, Arctic-capable, multilayered air defence and sea denial system," which is part of the Bastion defense concept. 63



Russian S-400 anti-aircraft missile launching system is displayed at the exposition field in Kubinka Patriot Park outside Moscow on August 22, 2017.

Photo: Alexander Nemenov/AFP via Getty Images



Russian strategic bomber TU-95 surrounded by MiG-29 flies over Monino airfield, some 40 kilometers from Moscow, during an air show marking the 95th anniversary of the foundation of the Russian air force on August 11, 2007.

Photo: Stringer/AFP via Getty Images

In addition to the key air defense capabilities on the Kola Peninsula,⁶⁴ including the S-400 system, there are three Arctic bases most critical to this concept: Nagurskoye, on Alexandra Land Island, Franz Josef Land; Temp base on the main New Siberian Island in the east; and Rogachevo base on Novaya Zemlya. 65 Each has some combination of long-range S-300 and S-400 anti-air systems, medium-range P-800 Oniks anti-ship missiles, short-range Pantsir and Tor M2DT surface-toair systems, and coastal defense K-300P Bastion-P and 4K51 Rubezh systems. In addition, the S-400 is deployed at Severodvinsk,66 and the S-300 system is deployed at Olengorsk on the Kola Peninsula and to the Tiksi air base in the eastern Russian Arctic.⁶⁷ The latter system, it should be noted, has been reported as being used in a surface-to-surface offensive role in Ukraine.68 As the S-400 is a similar system, it may be similarly versatile.⁶⁹

Furthermore, the Northern Fleet reportedly "holds 20 percent of Russia's precision strike capability in peacetime, and possesses the launch platforms of all its air-launched Kinzhal [hypersonic] ballistic missiles."70 Kinzhal missiles have reportedly been fielded on bombers and MiG-31s. In addition, the Admiral Gorshkov frigate and Sevorodvinsk submarines have tested the hypersonic Tsirkon anti-ship missile in the Arctic at least eight times since fall 2020.71 Both the Sevorodvinsk- and Oscar II-class submarines are able to launch both the Tsirkon and the supersonic P-800 Oniks cruise missiles, making them "increasingly lethal at long ranges."72 The fleet's largest ammunition storage for



Nagurskoye Air Base in Alexandra Land.

Photo: Ministry of Defence of the Russian Federation via Wikimedia Commons (CC BY 4.0).

submarine-launched ballistic missiles is at Okolnaya Bay on the Kola Peninsula.73 The result of all this is a dense missile defense network with offensive potential in the western Russian Arctic that becomes more open as one moves eastward.

- **Domain Awareness.** Russia claims to have deployed its Rezonans-N radar system to bases on Novaya Zemlya, the Kanin Nos Peninsula, and at Indiga.⁷⁴ These systems may be notable in that, according to some Russian sources. they can detect hypersonic missiles and stealth planes and possess supposedly advanced over-the-horizon capabilities.75 It is not clear, however, if the indication and warning they can provide against stealth aircraft can come early enough to ensure interception.⁷⁶ There is reportedly also a "dual-use air-surveillance radar station" on Graham Bell Island.⁷⁷ Sopka-2 radar systems are deployed at the Temp, Nagurskoye, and Rogachevo air bases.⁷⁸ Finally, Russia has some space-based intelligence, surveillance, and reconnaissance (ISR) capabilities pertaining to the Arctic, including Meridian-M communications satellites and an Arktika-M weather satellite for navigation support.⁷⁹
- Electronic Warfare. Russia reportedly maintains electronic, or electromagnetic,80 warfare centers at Severomorsk, Kamchatka, and Primorsky Krai.⁸¹ Analysts note that the systems likely deployed to centers such as these could facilitate anti-submarine warfare and interfere with maritime communications.⁸² Russia's doctrine emphasizes electronic warfare.83 It may be used to jam Western communications, radars, and datalinks for one of several purposes: to confuse an adversary, to blind them, and/or to

lengthen or interrupt adversary decisionmaking processes and kill chains.84 If used well, this can provide a battlefield advantage. This capability can also be used maliciously in peacetime, as Section Two describes.

SECTION TWO: IMPACT OF THE WAR ON RUSSIA'S CONVENTIONAL CAPACITY

DIRECT IMPACT OF THE WAR

Establishing credible unclassified reports of destroyed Russian assets or decimated units is challenging, but a few assertions can be made. First, relatively early in the war, some Northern Fleet naval assets were sent to the Mediterranean Sea, the Black Sea, or Ukraine itself, including the *Marshal Ustinov*⁸⁵—which is now one of only two remaining Slava-class cruisers after the sinking of the *Moskva* in April—and three large landing ships. 86 Second, the three large landing ships carry an estimated 30 tanks and 1,000 troops between them but, even though they took off from a Northern Fleet port originally, they made a port call in Kaliningrad before sailing south to the Black Sea.⁸⁷ It is therefore highly likely that some assets the ships were transporting were not from the Northern Fleet. Third, no Northern Fleet warships or submarines have been reported destroyed in the conflict. The Marshal Ustinov left the region during the summer88, and at least one of the landing ships has been seen in the Arctic as recently as September.89 Fourth, there are no credible reports that any of the Northern Fleet air combat capabilities identified above have been destroyed in the conflict.

Fifth, and most notably, there are reports that several Russian Arctic units have been deteriorated, especially ground forces. The 200th Motorized Rifle Brigade and 61st Independent Naval Brigade have been involved in the fighting in Ukraine⁹⁰, as has the 80th Arctic Motor Rifle Brigade and the 76th Guards Air Assault Division. 91 What is more, there is reason to believe one battalion tactical group of the 200th has been not only involved in the fighting but effectively wiped out: an adviser to Ukrainian president Volodymyr Zelenskyy asserted in March that 645 of the group's 648 soldiers had been killed. 92 Eighteen of the tanks confirmed to be destroyed in Ukraine are T-80BVMs, a type that the 200th had at its disposal.⁹³ Finally, a Northern Fleet unit of marines that reportedly "trained for reconnaissance and sabotage operations behind enemy lines," the Special Underwater Forces unit 69068, may have been effectively eliminated.94 However, as the war goes on, credible independent verification of the war losses is difficult to obtain.

IMPACT OF SANCTIONS

In addition to direct attrition due to the war, it may be useful to consider the impact of sanctions and export controls on the Russian economy and defense industry, both with respect to forthcoming capabilities destined for the Northern Fleet and to advanced systems in the Arctic that depend on foreign technology and may be in demand for Russia's war in Ukraine.

To the first question, there is a sizeable list of assets that the Northern Fleet is supposed to receive in the coming years. Another Borei-class SSBN is due to join the fleet,95 as are the following submarines: three Akula SSNs undergoing refits to, it is believed, give them the ability to launch Kalibr cruise missiles;96 three more Severodvinsk SSGNs;97 and an indeterminate number of next-generation Lada-class SSKs.98 The ambitious Lider-class destroyer project had intended to build eight of these advanced vessels, which would have been split between the Northern and Pacific Fleets. 99 Even before the recent round of sanctions, the project was beset by difficulties and a reported lack of funding. 100 Its current status is not clear based on public information. As noted earlier, the Admiral Kuznetsov aircraft carrier is currently undergoing repairs. A second diesel-electric icebreaker may be forthcoming for the navy, as well as one new Arctic patrol icebreaker. 101 Two more Rezonans-N complexes are expected to be constructed by the end of the year. 102 Russia also intends to launch three more Arktika-M satellites by 2025 and has claimed that two early-warning Voronezh systems will be operational by the end of 2022. 103 Finally, it has been speculated that Russia's long-rumored, nuclear-enabled, autonomous torpedo drone, the Poseidon, could be based on the Kola Peninsula.104

The overall state of the Russian economy and the impact of sanctions may affect its ability to field these and other capabilities on schedule. Sanctions have already significantly impacted the Russian economy. Some analysts predict it will not return to prewar levels until the end of the decade, and the threat of secondary sanctions will only increase over time. 105 Some sectors have been significantly affected and, as of June 2022, imports from sanctioning countries had "collapsed by 50 percent or more in comparison" to the same period in 2021.¹⁰⁶ Russia has already fallen into a recession.¹⁰⁷ At the same time, there are signs of resilience. Russia has shown some ability to source goods from some non-sanctioning countries, and India and China have increased oil purchases, compensating so far for the loss of the EU market. 108 Furthermore, the Russian defense

sector is relatively less dependent on imports than those of other countries. 109 Moscow is willing to prop up the sector and divert funding to it at the expense of others, such as healthcare or education. 110 Experts have estimated that defense spending in the first seven months of 2022 exceeded the same period in 2021 by about \$20 billion, and the defense procurement budget may have increased by roughly 45 percent over the past year. 111 Overall, there is some consensus among experts that the Russian defense industry will still be able to produce less sophisticated weapons systems, but that high-tech capabilities will be an issue, both because of export controls and because of brain drain. 112 Despite attempts to increase its self-sufficiency in the last eight years, Russia has relied on foreign technology in its defense, especially when it comes to high-end computer chips. 113 For example, as of June, Russia's main armored vehicle manufacturer had ceased tank production for lack of foreign parts;¹¹⁴ tank variants like the T-90 rely on Western electronics. 115 Even parts of Russia's military tactical communications system reportedly depend on Western components. 116

A few specific findings are relevant to the Arctic theater. First, Ukrainian forces found five U.S.-made chips in a captured Pantsir air defense system, 117 which has been deployed to the major bases on Alexandra Land Island, the New Siberian Islands, and Novaya Zemlya, as well as on the Kola Peninsula; 118 it was intended for use to support the 80th Arctic Motor Rifle Brigade. 119 Second, some precision-guided munitions also depend on Western components, including the Kalibr, Iskander-M, Kh-101, and 9M727 cruise missiles, 120 as well as the 9M549 guided artillery rocket. 121 The Kalibr is used—or intended for use by the Northern Fleet's Gorshkov frigates, Severodvinsk SSGNs, and Akula-class SSBNs, and was intended to be used by the Lider-class destroyers as well, if that project ever comes to fruition. 122 As of September, Ukrainian intelligence estimated Russia had used 55 percent of its stockpile of guided missiles, though these are dated numbers associated with very high uncertainty. 123 The Ukrainians similarly assessed that Russia was down to only four dozen hypersonic missiles. 124 Russia has in recent years often tested such missiles in the Arctic theater. 125 It also had plans to deploy some, such as the Kinzhal missile, to the region. 126 Without advanced and imported chips, Russia may not be able to fully build these stocks back up¹²⁷—though recent reporting from the New York Times indicates that the country may have some resilience in this regard. 128 Nonetheless, given the likely shortfall at present,

there may be a competition between missile needs in the Arctic and in other theaters like Ukraine.

To summarize, Russia's conventional land forces in the Kola Peninsula, including naval infantry and possibly special forces, are today depleted and substantially weakened. Russia's ability to successfully conduct a rapid conventional ground incursion toward its western neighbors in the Arctic is in the short term even more minimal than before the war. Its ability to do so in the medium and long term will depend on its ability to recruit new conscripts and train them for Arctic operations. There is also reason to think that the same issues relating to "low morale, poor execution of combined arms, subpar training, deficient logistics, [and] corruption" may bedevil Russian forces in the Arctic, as they have in Ukraine—though one should not underestimate Russia's potential to learn from its failures. 129

However, the toll from the Ukraine war is not necessarily reflected in the other service branches in the Russian Arctic. The naval components of Russia's Northern Fleet, particularly its strategic submarine fleet, continue to give Moscow a credible second-strike capability. One can also assume the same situation to be the case for Russia's strategic air force, as well as intelligence collection capabilities, special purpose ships and submarines, and other parts of the Kremlin's nonconventional powerprojecting apparatus. As such, Russia's ability to threaten the West in the Arctic with naval and air assets in the short term has been affected less. Its ability to do so in the medium to long term will depend on how sanctions impact its defense industry: given the assets the Northern Fleet was due to receive that are in varying stages of development or construction, it may be supposed that the fleet will be somewhat less formidable in 5-10 years than it might otherwise have been if sanctions had never been imposed. One potential weakness is that precision munitions will be harder to come by for the entire Russian armed forces, to include some Arctic capabilities. This may make certain offensive measures against Arctic NATO allies less attractive. such as the scenario discussed in section one, wherein Russia may consider, in the early stages of a wider NATO-Russia conflict, using such munitions to strike at key targets inside of Norway, Finland, or Sweden. Russia's Arctic air defense capacity is hardly affected at all, except to the extent that the Pantsir system will become more difficult to replace. While Russia has other advanced air defense systems in the region, such as the S-300 and S-400, those are intended for long-range protection; the Pantsir is used for short-range base defense. 130

SECTION THREE: HYBRID THREATS IN THE ARCTIC

With the conventional thus accounted for, it must be further noted that other capacities, such as Russia's propaganda machine and "hybrid" tools of influence, also continue to work at full steam. Observations from NATO's northern flank suggest that campaigns where hybrid instruments play a role might be on the rise in Russia's northern neighborhood. However, as the term "hybrid" often lacks a clear definition, this conceptual aspect needs to be addressed before laying out some empirical observations of Russia's increasing use of a hybrid playbook.

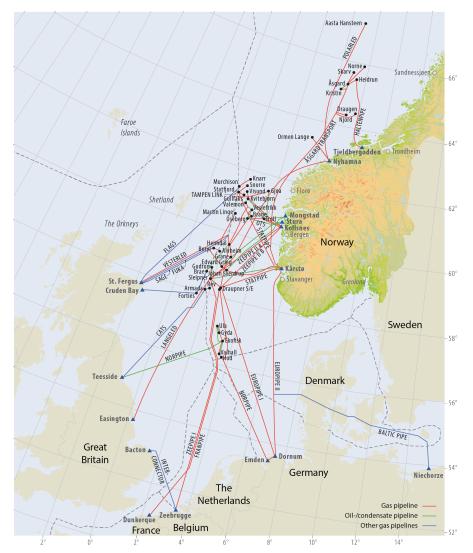
"Hybrid warfare" is a problematic term to define in a scientifically satisfactory way. It is often used interchangeably with "hybrid threats" or "hybrid influence," essentially being expressions for composite hostile activities in what has been described as the "gray" or "blurred zone" between peace and war. While it is hard to settle on a precise, commonly accepted definition, the connotation is nonetheless frequently used by policymakers, military experts, or in media when describing "gray zone events," or threats, that do not fit the traditional dichotomy of peace and war.

Building on the Multinational Capability Development Campaign's "Countering Hybrid warfare" project, in this publication we apply the term hybrid warfare to mean "the synchronized use of multiple instruments of power tailored to specific vulnerabilities across the full spectrum of societal functions to achieve synergistic effects." 131 These instruments of power are also designed to be under the threshold of what is viewed as an act of war, hence not triggering an Article 5 response from NATO.

When scrutinizing recent events in the northern parts of NATO's area of responsibility, Norway stands out as a country where multiple hybrid threats seem to have been observed recently. During fall 2022, numerous unidentified drones have flown over or around important parts of Norwegian communication infrastructure, airports, or military facilities. 132 In addition to these installations, large drones have also overflown oil and gas facilities, such as Kårstø, a crucial facility for processing and transporting gas out of Norway. 133 The flying of drones also included illegal photographing on Svalbard, the remote Norwegian archipelago between the North Pole and the northernmost tip of mainland Norway. 134 Suspicious activity also led to the arrest of no less than seven Russian citizens in a short amount of time in fall 2022 for illegal photographing across the country. 135 At about the same time, the Norwegian Police

Security Service arrested and charged an illegal Russian spy who was working under a fake identity as a researcher at University of Tromsø, Northern Norway. 136 Of other earlier suspicious activities that have been reported by media, the Russian Orthodox Church's friendship visit from the Russian border city of Severomorsk to Kirkenes deserves to be mentioned. As the priests arrived on the visit, they displayed an unusual interest in studying the Kirkenes' water supply. However, the desired on-site study trip was canceled by the mayor of Kirkenes after discreet advice from the Chief of Police in Finnmark. 137 Similarly, substantial parts of eastern Finnmark in northern Norway have for several years been affected by the jamming of GPS signals. 138 This electronic interference originates from

Figure 3: Pipelines on the Norwegian Continental Shelf



Source: "Oil Pipelines on the Norwegian Continental Shelf," Norwegian Petroleum Directorate, September 9, 2022, https://www.norskpetroleum.no/en/production-and-exports/the-oil-and-gas-pipeline-system/.

Russia and is affecting various nonmilitary activities in Finnmark, such as civilian aviation. As of today, Norwegian Aviation Authorities report that "the jamming from Russia is more frequent than ever before."139

In the aftermath of the sabotage of the Nord Stream 1 and 2 pipelines in the Baltic sea, Norway's gas pipelines to Europe have been recognized as a "prime target for sabotage." ¹⁴⁰ This realization comes after years of reporting on consistent suspicious Russian activities in the Norwegian littorals, where key ports and subsurface cables and pipelines have drawn a lot of interest from Russian "research" or fishing vessels. 141 Worrying reports, such as the cutting of a subsurface fiber-optic cable stretching from mainland Norway to Svalbard, 142 as well as the damage of fiber-optic

> submarine cables near the Faroe and Shetland Islands, point to a pattern fitting the traits of hybrid warfare. 143

Given Russia's conventionally weakened capacity in the Arctic, and the high tensions between Russia and the West, it is reasonable that such hybrid campaigns might turn out to be the preferred Russian tool to target communities in its Arctic neighborhood in the future, at least for the short and medium term. While it is debated what the true intention of the abovementioned campaigns might be, the actual mapping of potential targets is one hypothesis, while other likely intentions might simply be the desire to create uncertainty and fear in the population or to signal Russian dissatisfaction with Western policies.144

SECTION FOUR: IMPLICATIONS FOR NATO AND THE UNITED STATES

First, Russia's capacity to project power into the North Atlantic Ocean from the Arctic seems unchanged. This was the only threat pertaining to the Arctic, or High North, that NATO allies agreed to put in the new 2022 Strategic Concept, and so it is especially notable. 145 It was not specifically discussed in the U.S. Arctic strategy, but it is the United States, along with Canada, whose naval assets

would need to cross the North Atlantic Ocean to reinforce European allies in an Article 5 contingent. 46 Allied plans to invest in surveillance capabilities, especially radars in the area of the GIUK gap, will help mitigate this challenge. 147

Second, Russia's relative incapacity to threaten a conventional military land incursion into European Arctic allies will be welcome news to the Biden administration, whose recent strategic documents do not indicate a high prioritization of the region in terms of defense. Most notably, the NSS lists the Arctic last in its overview of regional policies. 148 The strategy is cautious about promising U.S. presence in the Arctic, saying it will only be exercised "as required, while reducing risk and preventing unnecessary escalation."149 The U.S. National Defense Strategy mentions the Arctic fleetingly and is also cautious: "U.S. activities and posture in the Arctic should be calibrated, as the Department preserves its focus on the Indo-Pacific region."150 Its emphasis is on stability, homeland defense, and maritime domain awareness, and there is no language in the Arctic section about deterring threats to Arctic allies and partners. This language does appear in the U.S. Arctic strategy, which states, "We will deter threats to the U.S. homeland and our allies by enhancing the capabilities required to defend our interests in the Arctic."151 The document promises needed investments in domain awareness capabilities and icebreakers. 152 Still, it also emphasizes avoiding escalation and notably states that it "may be possible to resume cooperation under certain conditions."153

Taken together, the three documents seem to indicate an administration that will take regional threats in the Arctic seriously and will likely continue to show occasional presence and participate in exercises, but that will prefer cautious actions so as not to threaten the relative stability of the region. Doing so allows the administration to focus on other geopolitical priorities, like China, and not excessively complicate other regional priorities like climate change research and economic development. One finding from this paper that may therefore be of interest is that there are indirect, light-touch ways to enhance Arctic security: effective imposition of the sanctions regime concerning dual-use computer chips seems to be one way to diminish the conventional Russian threat in the Arctic that does not involve deploying U.S. military assets or personnel to the region. If the administration is seeking to balance the need to protect allies and partners with a desire to not overly militarize the region, this could be notable.

Third, given the state of Russia's conventional armed forces, Russian aggression toward Arctic European states may continue to lean heavily on hybrid tools. There have been encouraging signs of a Western response to this, such as Norway's deployment of the Home Guard to protect critical infrastructure, and NATO allies' assistance to help them do so via increased allied ship patrols in the North Sea. 154 Norway also recently adopted its annual Flotex naval exercise to include a component focused on protecting oil and gas installations. 155 Even the U.S. Arctic strategy recognizes the challenge, promising to focus on "building the resilience of critical infrastructure," including against cyberattacks. 156 This is a welcome recognition from the Biden administration of Russia's penchant for using hybrid tactics in the High North—however, the administration may not yet have fully recognized that this tool is likely becoming more attractive to Russia in the Arctic, relative to conventional force. NATO allies like Norway, and future members like Sweden and Finland, may need to further impress this probability on the United States and other allies at the NATO level.

Finally, it is probably too early to give an accurate and comprehensive estimate of the future Russian warfighting capability in the Arctic, given the impact of the Ukraine war. It would be prudent, however, given what is known and what is coming to light, to revisit assumptions that guided prewar analysis, campaign modeling, and wargaming concerning the region. Indeed, U.S. military doctrine is explicit that assumptions should be constantly reconsidered in light of new information, 157 and NATO doctrine echoes this. As NATO's new Supreme Allied Commander Europe starts crafting the alliance's new regional defense plans, 158 there is an opportunity to consider some of these preliminary findings in High North scenarios. In the meantime, the old saying, sometimes attributed to Winston Churchill,159 that "Russia is never as strong as she looks; Russia is never as weak as she looks," might be a prudent approach for the West with respect to its security and defense planning in the Arctic.

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