



The militarization and nuclear preparedness in The Arctic: Russia's escalating threat amidst the Ukraine conflict

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Abstract

The Arctic is undergoing significant transformation due to geopolitical tensions, environmental shifts, and emerging risks, all of which are reshaping emergency management efforts in the region. The Russia-Ukraine conflict, marked by escalating nuclear threats from Russia, has heightened global concerns over the potential use of nuclear weapons, complicating an already fragile security situation. Russia's militarisation in the Arctic, including the deployment of nuclear assets and the development of floating nuclear reactors, poses extraordinary risks to the region. The long-standing history of nuclear activities in the Arctic, coupled with Russia's modernization of intercontinental ballistic missile systems like the RS-28 Sarmat, further intensifies the threat of nuclear escalation. The Northern Sea Route (NSR), newly accessible due to ice melt, has become a strategic focal point, consolidating Russia's Arctic ambitions and prompting increased military activity from NATO and Arctic States.

The Arctic's vast energy reserves and new trade routes have made it a battleground for supremacy, further destabilizing global security. Indigenous and local communities face heightened vulnerabilities, with increased risks of radiological and nuclear threats exacerbating environmental and socio-political challenges. International bodies like the International Atomic Energy Agency (IAEA) and the Arctic Council are working to mitigate these risks, focusing on nuclear preparedness and emergency response strategies. However, as militarization intensifies, a more robust global response is necessary to safeguard the region. Cooperation, transparency, and strengthened international frameworks are essential to mitigating the growing nuclear and radiological risks in the Arctic, ensuring the future of this fragile region.

Keywords: Arctic, northern sea route, militarization, global security, NATO, ukraine

Introduction

The security environment in and around the Arctic is becoming increasingly militarized and dangerous. In March 2024, 20,000 NATO troops conducted the largest ever war exercise named "Joint Viking" and "Joint Warrior", in the Arctic, Finland and Sweden also participated. First, Finland became the member of NATO. On 7 March 2024, Sweden also became a full member of NATO. To remind, about 19000 soldiers of France had carried out the biggest maneuver from April 17 to May 5, 2023, in the last 10 years by "Orion 23" related to the war exercise; 600 German soldiers practiced the defense of Lithuania in an exercise called "Griffin Lightning". NATO classified this exercise as a defensive exercise^[1]. Obviously, such exercises are one of in the chain of exercises that have been regularly organized and demonstrate the strategic significance of the Arctic.

Russian Geographical Dominance over the Arctic region

The Russian Arctic, in fact, is an immense territory that stretches over 24,150 kilometers of coastline and includes: the whole of the Murmansk Region, the Nenets, Yamal-Nenets and Chukotka Autonomous Okrugs and the Komi Republic; the northern municipalities of the Arkhangelsk Region, Krasnoyarsk Krai, the Republic of Sakha (Yakutia) and the Republic of Karelia and the archipelagoes and islands in the Russian portion of the Arctic Ocean.

In fact, Russia stretches over 53 percent of the Arctic Ocean coastline. Approximately two and a half million of Russia's inhabitants live in Arctic territory, accounting for nearly half of the population living in the Arctic worldwide^[2].

Russia sees its vast Arctic territory, therefore, as a vital strategic interest and has been building up its military

capabilities in the region for years, obviously responded as the West regarding them as 'belligerent activities'.

The Arctic region is strategically very important in terms of energy, trade and security. America, China and other countries are engaged in increasing their control in this region. Energy resources are fundamental to economic growth. Control over these resources is considered necessary for national power. We live in an energy-centric world. The control and supply of oil, gas and other energy resources are responsible for unequal access to these resources. Many countries are suppliers, many are recipients, many are not suppliers but control supply. But one thing is common, that every country is dependent on these resources and cannot develop without them.

The Arctic region has been recognized as a huge extracted and non-extracted energy resource region in the modern world. A 2008 US Geological Survey report estimated that "about 22 percent of the undiscovered, technically recoverable resources in the world" lie above the Arctic Circle in the amount of 90 billion barrels' worth of oil reserves, 1,670 trillion cubic feet of natural gas reserves, and 44 billion barrels' worth of natural gas liquids (NGLs). While currently supplying only 10 percent of the world's oil and 25 percent of the world's natural gas, the Arctic is, obviously, an economically attractive source of future energy resources. The scientific, industrial, trade and exploration activities in the Arctic region have raised concern among international communities about regional sustainability and environmental protection^[3].

Ukraine is about 5727 kilometers away from the Arctic region. The heat of the Russia-Ukraine conflict is obviously

visible in the Arctic. It is well accepted that the center of present cold war is the Arctic.

To remind, the Ukraine crisis has had an impact on the functioning of a number of multilateral organizations including the Arctic Council. The functioning of it was paused since 04 March 2022, the Russia was the Chair of the Council (2021-2023) [4]. Norway took over the Arctic Council's rotating chairmanship from Russia in May 2023 that will last until 2025. The Arctic Council consists of eight Arctic States; Canada, Denmark, Finland, Iceland, Norway, Sweden, Russia and the U.S. [5] the Chairmanship of the Arctic Council rotates every two years among the Arctic States.

Interestingly, Russia has taken the Presidency of the UN Security Council in April 2023 for a month as the provisions of the UN. The last time Russia had the Presidency in February 2022 when it began 'military operations' in Ukraine.

Recent nuclear signaling by Russia amidst its ongoing invasion of Ukraine highlights the persistent threat of nuclear escalation as long as these weapons remain in existence.

On November 19, 2024, Russia formally adopted a new nuclear weapons doctrine, initially announced in September 2024. This updated policy asserts that Russia could employ nuclear weapons in response to an attack on its territory by a non-nuclear-armed State supported by a nuclear-armed one. While experts continue to debate the novelty of this doctrine, given similar statements in the past, the nuclear threat and the escalatory intentions it signals must be taken seriously.

The International Campaign to Abolish nuclear weapons (ICAN) condemned the doctrine upon its announcement in September 2024, stating: "Today's updates to Russia's nuclear doctrine outlining when Russia would use nuclear weapons are dangerously ambiguous. They blur the distinction between conventional and nuclear attacks, undermining predictability and increasing the risk of nuclear war.

Two days later, on November 21, 2024, following a U.S. policy shift permitting Ukraine to use American-supplied long-range missiles within Russian territory, reports emerged of a missile strike in the Ukrainian city of Dnipro. While initial reports suggested the use of an intercontinental ballistic missile (ICBM), Russian President Vladimir Putin later clarified that it was a "new" intermediate-range ballistic missile launched in response to U.S. plans to produce and deploy similar missiles. A Pentagon spokesperson noted that the U.S. had been pre-notified of the launch through nuclear risk reduction channels. The incident underscores the heightened risk of miscalculation in a nuclear-armed world. The launch of a nuclear-capable missile, even if unarmed, can easily be misinterpreted in the chaos of conflict, risking inadvertent escalation. Historical incidents of false alarms have brought the world perilously close to nuclear catastrophe.

ICAN Executive Director Melissa Parke emphasized: "As long as nuclear weapons exist, so does the risk of nuclear war. Mistakes can swiftly escalate into catastrophic nuclear exchanges. Silence or ambivalence risks normalizing such reckless behaviour. All nations must urgently join the Treaty on the Prohibition of nuclear weapons."

Most of the world's nations have chosen to reject nuclear weapons by joining the Treaty on the Prohibition of Nuclear

Weapons (TPNW), the only international agreement that explicitly bans all nuclear weapons activities, including threats of use. Treaty members consistently and unequivocally condemn all nuclear threats, reaffirming the need for urgent global action to eliminate the threat posed by these weapons.

This paper analyses the fallout of the current militarization and nuclear preparedness in the Arctic following Russia-Ukraine crisis. To remind, Eurasian Times had reported on 23 October, 2022, titled "US, Russia Boost Military Presence around North Pole; Experts Say after Ukraine, Arctic Could Be the Next 'Battleground,'" [6]

The Emerging Polarized Geo-Politics of the Arctic

The Russia-Ukraine armed conflict has polarized the power players. The U.S. has been successful in keeping the EU nations with Australia, Canada etc. nations together against the Russia and has claimed to isolate Russia on Ukraine. While Russia has gained leverage in Africa, Iran, India, and China maintaining trade in spite of sanctions. Russia has organized military exercises too in which the countries of Asia-Africa-Latin America participated. India is maintaining the neutral status and appealed for peace many times. Due to this unexpected long drawn battle, the militarization of the Arctic, Black Sea and adjoining region are increasing. The threat of World War III is also anticipated. The threat of use of nuclear weapons has also turned the political environment nervous. Thus, the geo-politics of the Arctic region has been seriously jeopardized. Since, the Arctic has huge energy storage of natural gas, oil, hydrocarbons etc. and Russia being the largest Arctic State based on size, population, and military forces stationed in the region, therefore, the Arctic is considered next battleground after Ukraine. The U.S. and Russia, two biggest nuclear power and the China as emerging world power are engaged in war like preparations in the region [7].

Russian increasing military activities in the Arctic

Russia sees its vast Arctic territory as a vital strategic interest. Russia, therefore, has been building its military capabilities in the region. Russia in 2022 established a new "Arctic command" and four new Arctic brigades, while renovating airfields and deep-water ports in the region [8].

In September 2022, Russian organized a large-scale military drill named UMKA-2022 in Chukchi Sea an eastern stretch of the Arctic Ocean that separates Russia from the Alaska region of the U.S. In this exercise, Russian nuclear-powered submarines - the Omsk and Novosibirsk - demonstrated their capabilities and fired anti-ship cruise missiles from the Chukchi Sea, hitting targets at a distance of 400 kilometers (250 miles) [9].

Russia also conducted military exercises on 01-07 September 2022, in the Russia's Far East named Vostok 2022. This exercise was conducted at seven different places simultaneously. It was reported that about 50,000 troops, 5000 units of weapons and military equipment's, 140 aircrafts, 60 warships, military boats-vessels took part in the exercises [10].

President Putin himself observed this exercise which shows the strategic preference of the Arctic region for Russia. It is also significant to note that the army contingents from Azerbaijan, Algeria, Armenia, Belarus, India, Kazakhstan, Kyrgyzstan, China, Laos, Mongolia, Myanmar, Nicaragua, Syria, and Tajikistan also participated in this military drill.

^[11] It demonstrated that Russia is not isolated and Russia was trying to strengthen its relationship with the Central Asian and Southeast Asian countries including India.

The gap between Russia and America -West is gradually growing. President Vladimir Putin on 31 July, 2022 signed a new naval doctrine which recognizes the United States as the Russia's main rival. The doctrine specified Russia's global maritime ambitions in the Arctic and in the Black Sea ^[12].

The Doctrine sees the present status of the world as dangerous. The Doctrine claimed that revised Security Strategy of Russia and identifies the increased number of Russia's national interests in the World's Ocean, from eight to fourteen. The development of the Arctic zone of the Russian Federation (AZRF) and the Northern Sea Route (NSR) has been added to the list of national interests ^[13]. Thus, the geopolitical reasons have placed the Arctic at priority region for Russia.

Russia has natural dominance in the Arctic region. The ongoing gas and energy trade tensions between Russia and the European Union, the increasing energy trade of Russia with China and India, China's new trade energy relations emerging with the west and growing demand of such trade in local currency are the factors who have affected international order. Since the Arctic is the vital source of Russia's energy supply, its militarization is also followed by Russia. In response, the U.S. is also increasing and expanding its military muscles in the Arctic where most of the regional countries are members of the NATO.

U.S. militarization

The Russia-Ukraine conflict has involved all the Arctic States. The six members of the Arctic Council, Finland is the latest, are NATO members. The Sweden membership to the Alliance is under process. The EU-U.S. and the NATO are regularly supplying Ukraine with arms and other military equipment's; therefore, the conflict has become a part of power competition in the Arctic.

The Chair of the NATO Military Committee, Admiral Bauer during the Arctic Circle Assembly meet on 14-15 October, 2022 in Iceland has also expressed that once Finland and Sweden join NATO Alliance, seven of the eight members of the Arctic Council will be NATO Allies then, obviously, NATO's role in the Arctic region will be more strengthened ^[14].

On this pattern, the Pentagon announced on 07 October 2022 that it has established an Arctic Strategy and Global Resilience Office which would be led by Iris Ferguson as Deputy Assistant Secretary of Defence for the Arctic. She will oversee several elements of the White House's Arctic strategy, such as coordinating with U.S. security partners and force modernization of U.S. forces. On the same day U.S. released its ten years vision on "The National Strategy for the Arctic Region" which reflected the U.S. forces modernization strategy ^[15].

The document focuses on the increasing strategic competition in the Arctic. The document is of the opinion that Russia's invasion in Ukraine and the Chinese advances in the Arctic region have compelled the U.S. to increase its military presence to counter this threat. The Chinese identification as a "near Arctic" country and its ambitious to build "Polar Silk Road" through the Arctic is a cause of concern ^[16].

The U.S. document revealed that over the last decade, the China has doubled its investments, with a focus on critical mineral extraction; expanded its scientific activities; and used these scientific engagements to conduct dual-use research with intelligence or military applications in the Arctic.

The document also acknowledges that Russia has reopened and modernized hundreds of Soviet-era military bases in the region in the last ten years. The new strategy highlights that Moscow is "deploying new coastal and air defence missile systems and upgraded submarines; and increasing military exercises and raining operations with a new combatant command equivalent for the Arctic." In response, the document declared that the U.S. would increase its military capability in the region. It is significant to note that the U.S. Keeps more than 22,000 active-duty troops in Alaska and has a base in Greenland ^[17].

The Biden administration also released a 80-page unclassified National Defence Strategy on 27 October 2022 which claimed to be aimed at China and Russia. The document views China strategic competitor, and Russia as an "acute threat" capable of cyber and missile attacks on the U.S. ^[18].

The U.S. administration also released the classified Nuclear Posture Review with National Defence Strategy first time. Its publication was substantially delayed, likely due to Russia's invasion of Ukraine. Unlike previous NPRs, the 2022 version is embedded into the National Defence Strategy document alongside the Missile Defence Review. The unclassified version of the Nuclear Posture Review stressed nuclear warfare mechanism ^[19].

The NPR document gives special importance to raise robust nuclear command, control and communications through satellites and cyberspace so that the U.S. army can contain Russia and China who are also big nuclear power ^[20].

The longevity of the Russia-Ukraine conflict has gradually raised threat of use of nuclear weapons and it is projected in recently released defense documents. President Putin had already warned in September 2022 that he would use nuclear weapons to defend Russian territory after annexing four regions of Ukraine. The Russian Ministry of Defence has already conveyed to the world that it had information about the Kyiv regime's planning to commit a provocation by exploding the so-called "dirty bomb" or low-power nuclear warhead ^[21].

In addition to nuclear threat, the new era of weapon technology like supersonic weapons and the drones are also highlighted in Russia-Ukraine conflict that has triggered militarization of the Arctic region.

The use of drones in modern warfare also came on the front in Russia-Ukraine conflict under most modernized weaponry. The Russia-Ukraine war has shown that the combat drones are becoming a new normal on the battlefield ^[22].

To recall, the Ukraine has carried out a "massive" drone attack on the Black Sea Fleet in the Crimean port city of Sevastopol as Russia alleged, damaging one warship. Nine drones were said to be used as BBC reported ^[23].

The next example of importance of drone may be found in the US Army Declaration on 24 October, 2022 at the Annual AUSA (Association of the United States Army) Meeting to replace Shadow 200 is the smallest of the Shadow family of unmanned aircraft systems developed by

AAI. It is in operational service with the US Army and US Marine Corps^[24].

Beyond drones, the U.S. Has already declared its initiation of obtaining next generation weaponry. In September 2022, the Under Secretary of the US Army, Gabe Camarillo had announced that the first American hypersonic weapon to boost next-generation battlefield capabilities in addition to 24 new systems would continue to be deployed as planned in 2023 under massive modernization plan^[25].

Chinese Xingkong-2 and Dongfeng-17, hypersonic weapons and Russian Kinzhal have already been demonstrated^[26]. The use of hypersonic weapons may change the nature of today's warfare as drones have done today. The modernization of weapons is also becoming significant with the expansion of conflicts. The rivalry may not be confined within a limited region. Geopolitics obviously expands interest, cooperation, coordination and conflicts too.

The militarization of the Arctic has become more sensitive, therefore, with the expansion of Russia-Ukraine military conflict from the Arctic to Black Sea region. The Ukraine's trade happens through the Black Sea. The Black Sea region is considered Russia's gateway to other regions such as the Eastern Mediterranean, the Middle East, and Africa. Russia has already annexed almost 20 percent of Ukraine territory linking southwestern Russia to the warm water ports of the Black Sea. The result is the Black Sea region has become a Centre of power rivalry and the militarization linked with the Arctic region.

The U.S. Secretary of State Mr. Antony J. Blinken and Romanian Foreign Minister Mr. Bogdan Aurescu at a Joint Press release on 29 November, 2022 said that the U.S. will consolidate the allied defence and deterrence position in the region of the Black Sea. Thus, Russia-Ukraine military conflict has aggravated militarization from the Arctic to the Black Sea region^[27].

Thus, the defence documents of Russia and the U.S.-Russian Naval Doctrine, the U.S. strategy document on the Arctic, National Defence Strategy, National Posture Review - perceive each other as main rivals. The both sides' documents show renewed and increased power rivalry that became more highlighted after Russia-Ukraine military conflict. The power bloc's rivalry and military competition are leading them to acquire more modernized weaponry and make forces more professional for nuclear warfare. The Russia-China proximity that displayed at President XI visit to Russia in March 2023 further polarized Russia-West relations with China seems at the Russian side.

These developments have led some experts to comment that there is a gradual increase in the importance of the Arctic within the military strategy of the Arctic nations and it might in the future lead to increase military presence in the region. Thus, the militarization by the U.S. and Russia is growing amid Ukraine conflict which heating the Arctic environment.

Conclusion

The demand for peace is being pushed but neither side seemed to be ready for diplomacy and establish peace. Both sides want security assurances and alleging others to jeopardize it. The U.S., and the western countries are arming the Ukraine to counter the Russian offence. The Russian forces have captured about 20 percent of area of Ukraine. It is assumed that this conflict is basically originated by the power competition in the Arctic region who has rich energy

resources. It is, therefore, perceived that this conflict may spread to the Arctic region where local countries are NATO members, Finland is the latest. In the age of globalization and inter-dependent world the increasing militarization of the Arctic region is revealing nervous and confusing signals that worry the world.

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