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# THE CHANGE IN THE ARCTIC'S STRATEGIC IMPORTANCE DURING THE COLD WAR

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ABSTRACT: Today, Trump's Greenland policy has brought the (potential) strategic importance of the Arctic in the East-West confrontation to the fore. However, this is not unprecedented, as there were already a number of strategic visions for the region during the Cold War. This paper examines the role of the Arctic in Cold War missile defence and nuclear plans and theories. The paper discusses how strategic changes have affected military presence in the Arctic during the Cold War, primarily from the US perspective, and what lessons can be identified from this today. It concludes that the US and NATO Arctic presence during the Cold War was strongly influenced by (nuclear) theoretical innovations, strategic changes, and military technological developments. As for NATO, the study also draws attention to how, at the conceptual level, the importance of the Arctic region has changed and evolved, as well as how it has become an operational arena in its own right.

KEYWORDS: Arctic, Greenland, Cold War, nuclear defence, USA

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### INTRODUCTION

The impact of the Russo-Ukrainian War on the Arctic and Donald Trump's comments on Greenland have highlighted that, although direct conflict in the Arctic is still not the most likely scenario, military considerations have returned to the Arctic after more than three decades. While the Arctic was free of armed conflicts after the break-up of the Soviet Union, the European Arctic was a dominant part of the Cold War 'front line' until the late 1980s, and one of the largest concentrations of military forces in the world was located there. This was mainly because nuclear weapons became the main deterrent, the shortest air route between the US and the USSR gave the region strategic importance for missile defence, and the fact that Alaska made the US and the USSR very close neighbours by sea and land, which was also not a negligible factor. Given that the military importance of the Arctic is once again coming to the fore today, it is important to know and understand the strategic aspects during the Cold War, because they may reappear in the face of great power confrontation, as we see in the case of Greenland.

Atland 2007, 7.

This paper examines how strategic changes affected military presence in the Arctic during the Cold War, primarily from the US perspective. It also discusses US considerations of the Arctic during the Second World War, how these changed during the Cold War, and how NATO's Arctic policy evolved.

# THE SECOND WORLD WAR - THE BASE OF THE US ARCTIC PRESENCE

Although the Arctic began to be seen as a key strategic area during the Cold War, the foundations for this began to be laid during World War II. It was on these foundations that the US began to build during the Cold War, and these guidelines are still relevant today when we talk about the return of the Arctic to Cold War significance.

The United States, as early as 1940, opened a consulate in Godthaab (now Nuuk) and the US Coast Guard patrolled the coast. Subsequently, the US presence on the island was further strengthened, and in 1941, an agreement was signed with Denmark giving the US the right to build and maintain infrastructure to help maintain Greenland's status. By the end of the war, the US maintained 13 military bases and four additional naval bases in Greenland. If all other climate monitoring bases are taken into account, this number is even higher (see Figure 1).<sup>2</sup>



Figure 1 Air bases, weather stations, and other posts in Greenland, 1940–1945 Source: Eger 2025.

<sup>&</sup>lt;sup>2</sup> Archer 2003, 128–129.

In light of today's political turns, it is important to point out that the US actually bypassed Copenhagen to reach an agreement on Greenland. Since Germany had invaded Denmark in June 1940, the USA considered that Denmark was not in a position to exercise its sovereign rights over Greenland, and so the Danish ambassador in Washington, Henrik Kauffman, with the support of the Greenland administration, played a key role in the negotiations and signed the 1941 agreement. After the agreement, Kauffman was dismissed by Danish Foreign Minister Erik Scavenius, and the agreement was ratified by the Danish parliament only after the war.<sup>3</sup> It is also relevant that the agreement mentions that Greenland is subject to the Monroe Doctrine.<sup>4</sup> Also linked to contemporary events, the US interests in Greenland in 1940–41 can be summarised in four main points:

- preventing enemy forces from entering North America;
- Greenland as a transit point to Europe, which was exploited to a considerable extent from 1942 onwards;
- meteorological information;
- a source of raw materials (Greenland's cryolite resources proved essential for US aluminium production).<sup>5</sup>

The strategic importance of Greenland, and thus the Arctic, for the US did not begin with the Cold War and the advent of nuclear weapons, but had already existed before. Although meteorological information may appear to be a somewhat negligible aspect at first sight, some authors wrote as early as 1950 that "Weather information is one of Greenland's most important exports, of interest to many countries, in peace as well as in war." In addition, because of its raw material supplies and location, the US could not afford not to exercise control over it during the war, even if it had to overstep Danish sovereignty.

## CHANGE OF US AND NATO STRATEGIC CONSIDERATIONS THAT INFLUENCED THE ARCTIC POSTURE

The post-war role of the Arctic reached a new level for the US, driven by fear of Soviet nuclear weapons<sup>7</sup> and its own deterrence-based nuclear strategy. To understand this, it is necessary to be familiar with the US thinking on nuclear weapons at the time.

Because of the unattainability of the goal set in the early years of the Cold War, namely to match the Soviet forces in numbers, NATO formally adopted the principle of mass retaliation by 1956, originally included in Eisenhower's 1953 New Look policy.<sup>8</sup> However, this strategy has proved divisive and has been criticised by many. One of these critics is Bernard Brodie, who in his 1959 book "Strategy in the Missile Age", gives a comprehensive overview of the thinking on nuclear strategy since the war and what he proposes as the main directions to follow.<sup>9</sup> According to Brodie, the atomic bomb has fundamentally changed defence, absolute security has disappeared, and a Soviet attack on the US would be catastrophic. Examining

<sup>&</sup>lt;sup>3</sup> Archer 2003, 129–130.

<sup>&</sup>lt;sup>4</sup> Agreement relating to the Defence of Greenland, signed at Washington, 1941, 111.

<sup>&</sup>lt;sup>5</sup> Archer 2003, 129.

<sup>&</sup>lt;sup>6</sup> Dunbar 1950, 138.

Archer 1988, 125.

<sup>&</sup>lt;sup>8</sup> Dyndal 2011, 564.

<sup>9</sup> Brodie 1959.

the possible uses of the atomic bomb, he concludes that preventive war is not realistic as long as the US is a democracy. In the case of pre-emptive war, it is doubtful what would provide sufficient justification for a strike, so it is also not suitable to build a strategy on, while mass retaliation is only credible in the case of an attack directly on the US; otherwise, it is not realistic for the opposing sides to take it seriously, as the Korean War proved. Instead, Brodie proposes the deterrence strategy that the US would eventually pursue during the Cold War. As part of this deterrence, it is important to maintain a large force because it is necessary for retaliatory capability, and the nuclear strike force must have a diverse range of delivery platforms, some of which must be located in well-defended locations for credible deterrence and retaliation.<sup>10</sup> The possibility of using nuclear weapons also changed rapidly, with the principle of flexible response replacing mass retaliation, which became official for the US in 1961–62 and for NATO in 1967.<sup>11</sup> It was also during this period that the Arctic began to gain military value at the NATO level due to changes in concepts. In 1962, the NATO Atlantic Policy Advisory Group's assessment of the strategic role of Northern Europe (Scandinavia) could be summarised in three points:

- 1. to prevent the Soviet Union from gaining access to temperate waters;
- 2. to serve as a base for counter-attack operations;
- 3. its location is suitable for detection and warning.<sup>12</sup>

With this being said, at this time, protection of the flanks was still a lesser priority for NATO. The meaning of the NATO Northern Flank as a concept also changed significantly during this period. Until the second half of the 1960s, it primarily meant the Baltic and southern Scandinavia and was understood as the tactical flank of the Central Front, but after that, the term came to mean the Arctic, as NATO's Northern Flank took on a meaning of its own.<sup>13</sup> The upvaluation of the flanks was due to the "Flexible Response" strategy (MC 14/3) issued by NATO's Military Committee.<sup>14</sup>

Under this concept, NATO envisaged three types of responses in the event of aggression. The first is direct defence, which aims to stop aggression at the level at which it attacks. The second is deliberate escalation, which is designed to escalate the aspect of the conflict where the Alliance has the advantage, and finally, the third is general nuclear response, which envisages a nuclear retaliatory strike in response to a Soviet nuclear strike. Its plausibility requires maintaining a credible nuclear strike capability at sea and in the air, as well as preparing to respond to smaller, limited incursions. This highlighted the flanks that had been previously considered less important. The emergence of the Arctic as a key theatre of war in NATO thinking can be traced back to another document that is now publicly available, the 1968 Concept for External Reinforcement of the Flanks. This directly followed from what was discussed above.

<sup>10</sup> Brodie 1959.

<sup>11</sup> Dyndal 2011, 565.

<sup>&</sup>lt;sup>12</sup> North Atlantic Council 1962, 7.

<sup>&</sup>lt;sup>13</sup> Dyndal 2011, 581.

<sup>&</sup>lt;sup>14</sup> Ibid 569.

<sup>&</sup>lt;sup>15</sup> North Atlantic Military Committee 1967, 10–11.

<sup>&</sup>lt;sup>16</sup> Dyndal 2011, 569.

<sup>&</sup>lt;sup>17</sup> North Atlantic Military Committee 1968.

This concept was central to NATO's strategy from the late 1960s onwards, a strategy that led to the modernisation of forces and infrastructures on the flanks. So, by the 1970s, a perception emerged, which remained until the end of the Cold War, that the military significance of the Arctic could be understood in its own right and that its military build-up could have a tangible impact on the strategic level.

### THE CHANGE IN THE US AND ALLIED STRATEGIC POSTURE AND PRESENCE IN THE ARCTIC DURING THE COLD WAR

The strategic revaluation of the Arctic during the Cold War was also reflected in its practical manifestations. According to some assessments, the creation of NATO was driven by the threat of Norway falling under Soviet influence.<sup>19</sup> This fear was not without foundation, as many Norwegians felt that they had been liberated by the Soviet Union after the war.<sup>20</sup> The United States explicitly steered Norway away from forming a third, neutral Scandinavian defence alliance, inviting it to join the emerging Western defence alliance instead. It did so by pointing out to the Norwegian government that it could not guarantee arms deliveries to a state outside its own alliance system.<sup>21</sup>

### Greenland in the Cold War

The post-war US presence in the Arctic developed most rapidly in Greenland, logically, since US troops were already present there during the war. After the war, the United States sought a location for its base as close as possible to the Soviet Union, but with as little political opposition as possible. Iceland and Greenland were perfectly suited to this.<sup>22</sup>

Therefore, after the war, the Denmark–Greenland–USA agreement needed to be sorted out to make it suitable for long-term cooperation. However, this was not an easy process, as the Danish government initially wanted to dissolve the agreement, believing that the US presence in Greenland would encourage the Soviet Union to establish a base on the island of Bronholm, which Denmark had occupied during the war. Therefore, Denmark refrained from any agreement with the US until 1948.<sup>23</sup> The new agreement had to wait until 1951, when the Danish government took on a greater role than before. Ironically, this agreement was also signed by Kauffman, but now as a minister, because he had been rehabilitated after the war.<sup>24</sup> This agreement emphasised the role of NATO and the joint defence of Greenland by the US and Denmark.

The new Soviet threat, combined with new weapons, demanded a different presence from the US in Greenland. While the strategic interests of the previous era did not require a major air base, the chances of a direct naval attack from the Arctic were considered negligible by US planners. By the 1950s, the global nuclear strategy had assigned a completely different

<sup>&</sup>lt;sup>18</sup> Dyndal 2011, 574.

<sup>19</sup> Allard 2001, 12.

<sup>&</sup>lt;sup>20</sup> NATO [no year]; Haraldsen 1997, 45.

<sup>&</sup>lt;sup>21</sup> Haraldsen 1997, 30–31.

<sup>&</sup>lt;sup>22</sup> Weiss 2001, 32–33.

<sup>&</sup>lt;sup>23</sup> Ibid 33.

<sup>&</sup>lt;sup>24</sup> Defense of Greenland 1951.

role to the Greenland presence.<sup>25</sup> In 1950, the US Joint Chiefs of Staff expected that the role of the region would be to launch air strikes against Soviet targets, while the Army and Navy would defend against Soviet air attacks in the Arctic. However, it was also anticipated that the role of the region would change in the future due to the sources of raw materials and long-range missiles.<sup>26</sup> Accordingly, the role of the Greenland bases was important to the US in terms of the strategic bomber fleet, reconnaissance, and transport across the Atlantic.<sup>27</sup> During this period, B-47 strategic bombers were designed to be used against Soviet industrial centres, capable of reaching target areas with an aerial refuelling when launched from Thule base (see Figure 2).<sup>28</sup>

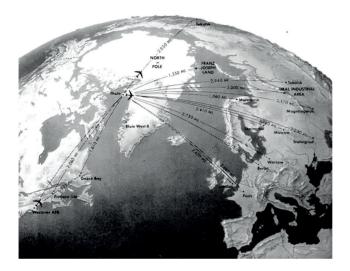


Figure 2 Arctic distances between the US, Europe, and the Soviet Union
Source: Doel et al. 2014. 67.

As the Soviet Union launched Sputnik and then developed intercontinental ballistic missiles in the second half of the 1950s, while the US developed long-range bombers, Greenland's role as a refuelling station decreased. Instead, it was used at this time to provide warning and communication and reduce the chances of the Soviet Union launching a surprise attack.<sup>29</sup> However, in reducing the nuclear threat, Greenland had another special role intended by the United States. As early as 1950, the Chief of the Joint Chiefs of Staff argued to the Secretary of Defense that it was necessary to obtain the right to store nuclear devices in Greenland, but the Military Liaison Committee of the Atomic Energy Commission and the Secretary of Defense rejected any mention of this in negotiations with the Danes. They argued that it would slow or stop the acquisition of other rights, and so the final agreement made no mention of nuclear weapons storage. This also meant that the agreement did not prohibit the storage of nuclear weapons.<sup>30</sup> After the 1951 settlement, the issue came back into focus as several strategic assessments questioned the effectiveness of the US nuclear

<sup>&</sup>lt;sup>25</sup> Archer 1988, 128.

<sup>&</sup>lt;sup>26</sup> Ibid 129.

<sup>&</sup>lt;sup>27</sup> Archer 2003, 132.

<sup>&</sup>lt;sup>28</sup> Archer 1988, 128.

<sup>&</sup>lt;sup>29</sup> Archer 2003, 132.

<sup>30</sup> Weiss 2001, 33.

capability. In a 1956 report, the National Security Council (NSC) Net Evaluation Subcommittee (NESC) emphasized that:

"if the United States should fail to maintain adequate alert nuclear forces that cannot be destroyed by surprise attack, the USSR by a nuclear attack on the continental United States will emerge as the dominant world power in 24 hours."<sup>31</sup>

Also in 1958, at the 384th NSC meeting, it was highlighted that:

"recent Soviet technological advances and the concurrent qualitative reductions in U.S. forces have combined to diminish that margin of U.S. military superiority. If these trends continue, it is estimated that this superiority will be lost in the foreseeable future."<sup>32</sup>

In addition, Albert Wohlstetter and his colleagues at the RAND Corporation also argued during this period that it was necessary to protect a relatively large number of bombers and missiles to sustain a second strike and credible deterrence. This is very similar to what Brodie argued shortly afterwards in his book cited earlier. According to Wohlstetter and his colleagues, vulnerable strategic forces not only lack sufficient deterrent power, but their vulnerability invites and encourages a first strike.<sup>33</sup>

These arguments were certainly taken seriously by the United States when planning Greenland's post-Cold War role. Project Iceworm was an ultimately failed endeavour, but it illustrates the strategic vision that the US wanted to give space to in the Arctic. The idea was to reduce the vulnerability of the nuclear warheads stored in Greenland, which was - as you can see - very high according to the assessments of the time, by creating a nuclear missile base system under the ice, where the warheads would be transported by rail through tunnels drilled into the ice from one launching station to another. New tunnels could shift the configuration of the system year by year, and missile locations would change minute by minute. The ultimate goal was to establish 2,100 launch points under ice. The missiles launched from here would have been able to hit 80% of Soviet and Eastern European targets. The base network would have been indestructible by air strikes, as it was expected that an 8-megaton warhead would have meant the loss of only one missile, so the system could only have been neutralised by conventional naval and land attacks.<sup>34</sup> However, the creation of the system was constrained by a number of problems. The political problem was that it would have required the approval of Denmark and NATO before it could be operated publicly. There were also technical challenges, as the tunnels of the only element of the system built, Camp Century, could only be maintained by removing 30 tonnes of ice and snow per week. However, the most significant objection was ultimately a change of opinion about the IRBMs (intermediate-range ballistic missiles) themselves, which were to be deployed in the base network. Their opponents have pointed out that they are vulnerable, complicated to operate, and their response time makes them unsuitable for retaliatory strikes, which would be more of a call to attack than a deterrence, and thus an incentive to launch them first.<sup>35</sup> Taking these into account, the project was finally cancelled in 1966.

<sup>31</sup> Roman 1995, 25.

<sup>&</sup>lt;sup>32</sup> Memorandum of Discussion at the 384th Meeting of the National Security Council, 1958.

<sup>33</sup> Dunn 1997, 9-11.

<sup>34</sup> Weiss 2001, 41-44.

<sup>35</sup> Ibid 49-56.

### Development of missile warning systems

Another iconic Cold War Arctic project was the deployment of early warning radar networks, but this project was crowned with success, and its successor system is in operation today. The Arctic was deemed particularly important to the continental defence of the US (and Canada), with the Distant Early Warning System (DEW) deployed in the 1950s, which was able to predict Soviet strategic bombers. The 22-station radar chain was completed in 1957, but had the serious shortcoming of being ineffective against intercontinental and submarine-launched missiles. These missiles were the main threat during the Cold War, and the defence line was considered obsolete soon after its completion.<sup>36</sup> Further developments were therefore needed, resulting in the creation of the North American Aerospace Defense Command (NORAD) in 1957 and the Ballistic Missile Early Warning System (BMEWS), which could also predict ballistic missile launches, by 1961. Out of the system's three radar stations, one was deployed in Alaska, one in Greenland, and one in Britain.

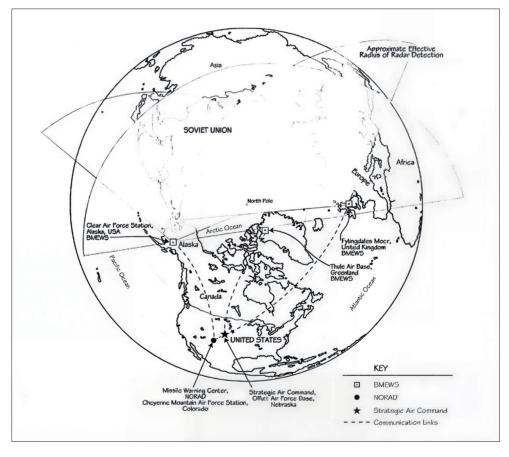


Figure 3 Ballistic Missile Early Warning System (BMEWS) Source: Historic American Engineering Record [no year].

<sup>36</sup> Harris 2006.

Its strategic importance lay in the fact that it was able to signal the impact of missiles at least 15 minutes in advance, thus allowing counter-strikes to be ordered. This made it possible to apply the principle of mutually assured destruction in practice.<sup>37</sup> Greenland's role was again significantly revalued and transformed in the 1980s by the modernisation of the BMEWS, as the old system was replaced by a ground-based radar system and the Thule base took on an increasing role in missile warning, space surveillance, and C3I tasks, as well as in anti-submarine warfare for NATO.<sup>38</sup> In 1985, Canada and the United States signed an agreement on the modernisation of air defence. As part of this agreement, DEW was replaced by the North Warning System (NWS), a system of 47 automatic radars along the coasts of Alaska and Canada, including short- and long-range radars.<sup>39</sup>

### **GIUK Gap**

In relation to Greenland, one cannot talk about the military importance of the Arctic in the Cold War without mentioning the GIUK gap. The GIUK gap is the sea gateway between Greenland, Iceland, and the UK, the main naval defence line between the mostly Russian (Soviet Union-) dominated Arctic and the NATO-controlled Atlantic region. This passage has become one of the most important routes since the beginning of the Cold War. It has significantly enhanced Iceland's strategic role and has been a key part of the US Atlantic strategy for decades. 40 In addition, in the early years of the Cold War, the US Navy identified the Barents Sea, the White Sea, and the Denmark Strait as the primary areas of operations for Soviet submarines, and therefore suggested they be defended by NATO.<sup>41</sup> In the early years of the Cold War, Soviet nuclear-powered ballistic missile submarines had to cross the GIUK to strike the United States, so NATO devoted considerable resources to monitoring the passage. In the 1950s and 1960s, the first line of defence at the waters off northern Norway consisted of nuclear-powered attack submarines (SSNs), NATO's carrier striking forces, ASW hunter-killer groups, and minelaying units. The GIUK Gap marked the second line of defence. Here, land-based patrol aircraft operating from Iceland and other locations, reinforced by sea-based aviation, were deployed.<sup>42</sup> In the 1970s, longerrange submarine-launched ballistic missiles (SLBMs) reduced the importance of crossing the GIUK Gateway for the purpose of attacking the continental US. With that being said, NATO's flexible response strategy at the time continued to give the Gateway strategic importance, as this posture required significant transatlantic support and continued to provide an incentive for Soviet submarines to break through the Gateway.<sup>43</sup>

In addition to Greenland, the Scandinavian Peninsula has also played a key role in the Arctic nuclear strategy. One reason is that from the beginning of the Cold War, it fell within the flight path of US nuclear strategic bombers (see Figure 2), while US aircraft carriers carried out force-projection missions in the Norwegian Sea.<sup>44</sup> However, it should be pointed

<sup>&</sup>lt;sup>37</sup> Historic American Engineering Record [no year].

<sup>&</sup>lt;sup>38</sup> Archer 2003, 135.

<sup>&</sup>lt;sup>39</sup> Stone 2024.

<sup>&</sup>lt;sup>40</sup> Orbaiceta 2023, 3-4.

<sup>&</sup>lt;sup>41</sup> Allard 2001, 12.

<sup>&</sup>lt;sup>42</sup> Ibid 16.

<sup>&</sup>lt;sup>43</sup> The GIUK Gap's strategic significance, 2019, 1.

<sup>44</sup> Dyndal 2011, 563.

out that Norway was the only country on the peninsula that was a member of NATO then, and the only NATO member that had a land border with Russia. After joining NATO, Norway assured the Soviet Union that no foreign troops would be stationed on its territory in peacetime. However, for NATO, a possible attack on the Scandinavian peninsula appeared to be a real threat.<sup>45</sup>

### CONCLUSION

So, as shown, US interests in Greenland and the wider Arctic did not start with Trump and will not end with him. During the Cold War, the region was primarily of military importance; economic considerations were not as important then as they are today. The end of the Cold War marked a sharp limit in the importance of the Arctic. Military considerations were pushed into the background, while economic issues came increasingly to the fore. The driving force behind this was that, with Russia weakening and US attention turning elsewhere after the Cold War, deterrence was no longer the focus of Russian–American relations.<sup>46</sup>

This study has only examined the military importance of the Arctic and the impact of larger strategic considerations on its regional implications, but it is important to bear in mind that by 2025, the Arctic has entered a new phase of strategic importance. Whereas military considerations dominated during the Cold War and economic considerations in the post-Cold War period until 2022, they now parallel each other. And since military considerations have been less prominent in the last 35 years, it is worth going back to the time when they were exclusively dominant, even if the Arctic operational environment today is different from that during the Cold War and is certain to change further in the future. It is enough to think that the Arctic is now shared exclusively between NATO and Russia, with no independent states in the region. This, if possible, raises the stakes even higher for the examination of military issues. A major difference in the actors present in the region is that during the Cold War, only the Arctic states were interested in the region, whereas today, many non-Arctic states, including the major powers, are also interested. Therefore, today we can no longer speak of a bipolar confrontation in the Arctic.

Another important difference is that the Arctic ice is retreating and is generally expected to continue to do so in the future. Although this trend did not start yesterday, it has a noticeable impact today, and its most profound strategic effects are yet to be seen. A completely ice-free Arctic, if it happens, will once again reshape the significance of the region. The final difference is caused by technological progress. While it can be argued that space technology and drone warfare may put to rest many aspects that were considered important in the Cold War, Greenland is the perfect case study of how technological advances have not removed the island's significance, merely redefined it.

Bearing in mind all these differences between the Cold War Arctic operational environment and today's Arctic, several lessons can still be identified. The first is that the US and NATO have a long-standing military interest in the region, which was not apparent after the Cold War, as military issues in the area have generally been relegated to the background. If military interests reappear, these old interests will also reemerge. Although economic

<sup>45</sup> NATO [no year].

<sup>46</sup> Huebert 2019.

considerations in general were not significant for the region at this time, Greenland was already an important source of raw materials for the US during the war, and the US military leadership anticipated the exploitation of these resources as early as the 1950s. The second lesson is that military presence in the Arctic has been fundamentally determined by ongoing technological developments. During the Cold War, this resulted in the periodically changing importance of a particular location and the transformation of its actual function. Nevertheless, the strategic positions and aspects that were important at the beginning of the Cold War, such as Greenland and the GIUK gap, have not lost their importance. Finally, an important lesson is that the Arctic confrontation during the Cold War was not primarily motivated by competition for the Arctic, but to secure areas (Greenland) from which to strike non-Arctic territories or to deter an attack from the Arctic (GIUK gap and warning system). This has been somewhat supplemented by the appreciation of resource deposits today, but in military terms, these considerations remain unchanged.

While the United States and NATO are the guardians of the status quo in the global international system and Russia and its allies are its challengers, the military significance of the Arctic is unwavering, given the pronounced proximity of the US and Russia to each other in the region. Therefore, the military significance of the Arctic today is the same as it was before, but different in nature.

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