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Cold climate, hot region: What's next in the Arctic

APRIL 2026

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The race for the Arctic is in full swing

The Arctic has quickly become one of the world's most strategically significant regions. This shift became apparent when US President Donald Trump reignited discussions about American control over Greenland, a self-governing territory within the Kingdom of Denmark. His demands deeply unsettled NATO partners and raised concerns about the stability of the transatlantic alliance. In February 2026, Denmark's King Frederik visited Greenland for three days to boost morale in local communities, highlighting the region's growing political sensitivity.

Shortly thereafter, troops from 14 NATO nations conducted the large-scale Cold Response 2026 exercise in northern Norway, Finland, and the surrounding seas. Although this exercise is held regularly every two years, it drew particular public attention this time. Considering the impact of wars in Ukraine and Iran, the EU is currently reviewing its Arctic policy, and oil and gas companies are seizing the moment to push for expanded Arctic drilling.
The conclusion of the aforementioned developments is clear:
The geopolitical importance of the Arctic will certainly persist for the foreseeable future.

Introduction – An overview of the Arctic

The Arctic region lies north of the Arctic Circle (66°34' N) and encompasses the northernmost regions of Norway, Sweden, Finland, Russia, the United States, Canada, Iceland, and Greenland (a territory of Denmark). It includes the Arctic Ocean and surrounding seas. This vast region spans approximately 20 million square kilometers and is home to nearly four million people. It has long, cold winters and cool summers, and it is one of the regions most affected by global warming.
Sea ice extent fluctuates dramatically, shrinking to approximately 4 million square kilometers in September and expanding to about 15 million square kilometers in March.

The Arctic states - Norway, Sweden, Finland, Russia, the US, Canada, Iceland, and Denmark - are represented in the Arctic Council, established in 1996.
The Arctic Council is an intergovernmental forum that promotes cooperation in the Arctic across six focus areas: Arctic peoples, biodiversity, climate, oceans, pollutants, and emergencies. In addition to the member states, the Council includes six permanent participants representing indigenous groups, six working groups, 13 observer states, and 25 observer organizations. Much of the Arctic is divided into exclusive economic zones, extending 200 nautical miles from national coastlines and granting states control over natural resources.

Politically, the Arctic comprises eight countries that also form the Arctic council

Members of the Arctic Council (Arctic states)

Observer states in the Arctic Council

Source Wikipedia, The Arctic Council

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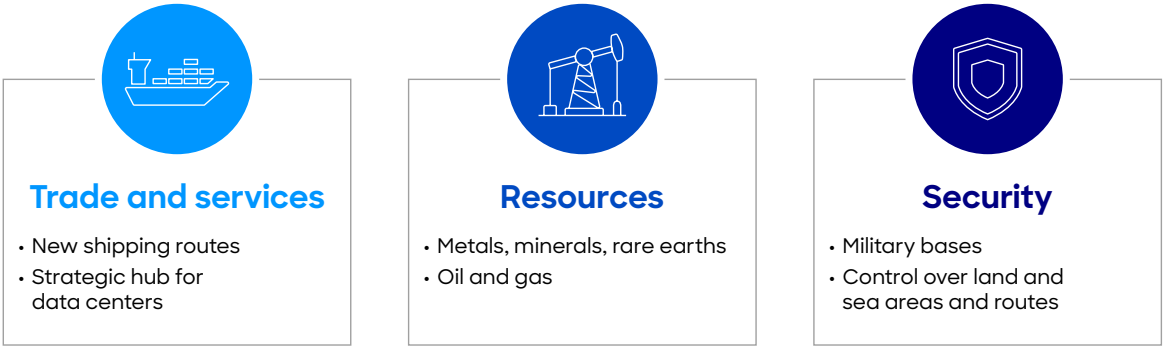
Why the Arctic matters more than ever

The Arctic's growing significance stems from a confluence of factors, including new commercial shipping opportunities, abundant natural resources, and heightened geopolitical competition. These dynamics are challenging international relationships, as evidenced by the dispute between the US and Europe over Greenland. However, the Arctic Council plays only a limited role in managing these tensions because its mandate excludes military security issues.

The cold region is getting hotter

Literally due to climate change, but also due to its growing economic and geopolitical importance



Source Roland Berger

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New shipping routes promise shorter trade paths

Climate change is opening new sea routes that could significantly reduce shipping times and costs between Asia, Europe, and North America. This has sparked global interest in controlling the developing Arctic shipping lanes. The Arctic offers shorter shipping routes for approximately 80 % of the world's industrialized nations, allowing for lower fuel consumption, reduced emissions, and faster delivery of goods.

Three major routes illustrate this transformation. The Northwest Passage (NWP) passes through the Canadian Arctic Archipelago and offers a shorter route between Asia and the eastern United States. However, it remains difficult to navigate due to ice conditions and limited infrastructure. Canada regards the NWP as internal waters, while several other states view it as an international strait. The Northern Sea Route (NSR), which runs along Russia's Arctic coastline, can reduce travel time between Europe and Asia by 10–15 days. Russia has invested heavily in new ports, icebreakers, and navigation systems, and now has a fleet of over 40 icebreakers, which gives it a significant advantage in the region.

The Transpolar Sea Route (TSR), which crosses the central Arctic Ocean, is currently impassable but may become viable as ice melt accelerates. The United States faces the strategic challenge of balancing access to the TSR, a greater military presence in the Arctic, and cooperation with Russia – an issue known as the "Arctic Trilemma."

Interest is not limited to Arctic countries. China's introduction of the "Polar Silk Road" in 2018 marked a decisive step incorporating Arctic sea lanes into the Belt and Road Initiative. Chinese state-owned firms have supported infrastructure development along Russia's Arctic coastline, including telecommunications and feasibility projects related to the Digital Silk Road.

Arctic shipping activity has already risen sharply. From 2013 to 2023, ship traffic increased by 37 %, driven by the continued retreat of sea ice and growing economic prospects. A modest shift in global shipping patterns could have significant consequences given that 90 % of traded goods move by sea. However, Arctic routes require specialized vessels and support fleets, which adds complexity and cost.

New shipping routes in the Arctic offer potential to reduce transit times and costs between Asia, Europe, and North America

New shipping routes across the Arctic

Source Center for International Maritime Security, Maritime Fairtrade, Observer Research Foundation, Visual Capitalist, The Arctic Council

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Data centers are moving north

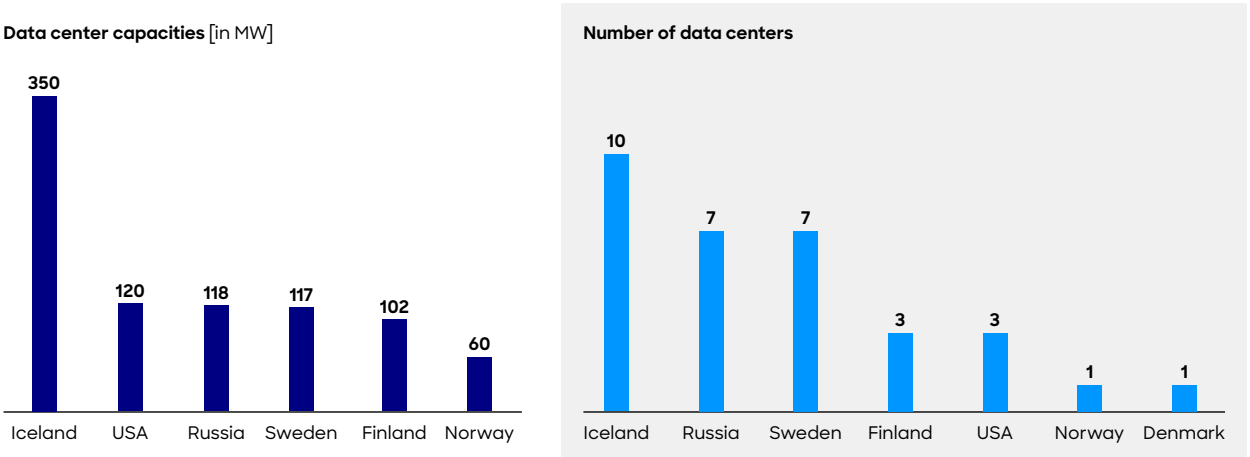
The number of data centers around the world has grown exponentially in recent years. These facilities are essential for all kinds of digital services and advanced technologies, such as artificial intelligence, 5G, and the Internet of Things. They consume enormous amounts of electricity, especially for cooling purposes. In 2024, data centers accounted for approximately 1.5 % of the global electricity demand. Projections suggest that this figure could reach 130 GW by 2028.

Northern regions have emerged as attractive locations for data centers. These areas offer natural cooling conditions and access to low-carbon energy sources, such as hydropower and geothermal energy. Scandinavian countries, as well as Iceland, have exceptionally low carbon intensities – up to 23 times lower than Russia, where natural gas dominates the energy mix. The cold climate sharply reduces the energy needed for cooling, which significantly lowers emissions and operational costs.

As of September 2025, 32 data centers were operating across the Arctic, with Iceland leading in both number and capacity. Verne Global's 140 MW facility in Iceland is the largest in the region. Major global tech firms are also investing: Meta operates a large data center in Luleå, Sweden, and Google has purchased land in Finland for future expansion.

Low temperatures and renewable energy make the Arctic a hotspot for data centers

Operational data centers in the Arctic[1]



1 As of September 2025; only data centers located in the Arctic regions of each country were included

Source Arctic Today, Data Center Platform, Data Center Map, Datacenters.com, Inflect, other open data sources

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The Arctic is home to critical resources

The Arctic holds some of the world's richest untapped reserves of energy resources, minerals, and rare earth elements. Estimates suggest the region contains approximately 13 % of the planet's undiscovered oil and 30 % of its undiscovered natural gas. However, the commercial appeal of Arctic hydrocarbons is limited due to declining global oil demand and increasing supplies from the US and Qatar.

A more promising opportunity lies in the minerals required for the global energy transition. These include cobalt, graphite, lithium, and nickel for batteries; zinc for renewable technologies; copper for electrical systems; and rare earth elements, which are essential for civilian and defense applications. Greenland alone has reserves of 43 of the 50 minerals that the US government classifies as critical, including 42 million metric tons of rare earths - about 120 times the volume mined globally in 2023.
Despite its potential, much of the Arctic remains geologically unmapped. Large-scale mineral extraction is unlikely before the mid-2030s due to the region's challenging conditions, although technological innovation - including ice-capable drilling platforms, autonomous vehicles, and heavy-lift drones - is accelerating. Demand for critical minerals is expected to double by 2040. To reduce dependence on China, Western nations are exploring Arctic deposits. Seven of the eight Arctic nations belong to NATO, so future resource projects may restrict Chinese involvement, raising political and technological implications.

The Arctic hosts vast reserves of energy resources, metals, and minerals but harsh conditions make extraction challenging

The Arctic: Metals and minerals deposits

Russia
Aluminum, cobalt, copper, nickel, rare earths, silver

Finland
Cobalt, copper, graphite, lithium, nickel

Sweden
Copper, rare earths, silver, zinc

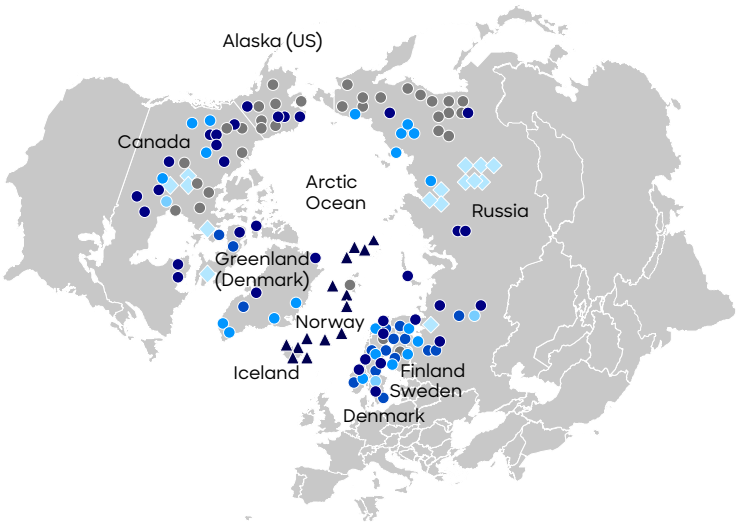
Norway
Copper, nickel, silver

Greenland (Denmark)
Cobalt, copper, graphite, lithium, nickel, rare earths

Iceland
Aluminum

Alaska (US)
Copper, rare earths, silver, zinc

Canada
Copper, nickel, rare earths, zinc



Source Geological Survey of Norway, The Arctic Institute, The Economist

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Large oil and gas deposits await exploration

Though exploration remains limited, the Arctic's sedimentary basins contain vast, untapped fossil fuel reserves. Major fields have been identified through land-based efforts, such as the Prudhoe Bay Oil Field in Alaska and the Tazovskoye Field in Russia. Scientists estimate that roughly 412 billion barrels of oil equivalent are located north of the Arctic Circle. Over 87 % of these resources are concentrated in seven major basins, of which the resource-richest are the West Siberian Basin, the Arctic Alaska Basin, and the East Barents Basin.

The wars in Ukraine and Iran restrict the global supply of oil and gas and increase the value of the energy reserves in the Arctic. Asia and Europe are most vulnerable to an energy crisis. Thus, the EU is reviewing its Arctic policy, and oil and gas companies – particularly from Norway – are seizing the moment to push for expanded Arctic drilling. The main argument they're making is energy security: With Iran blocking the unimpeded passage of the Strait of Hormuz and ongoing disruption from the Ukraine war having already cut Russian gas supplies, Europe is at risk of energy supply shortages damaging the economy and households.

Norway supplies nearly a third of Europe's gas needs, and its politicians and business circles have been quick to lobby for a planned EU ban on Arctic drilling to be scrapped. But critics warn that Arctic areas near Russia are strategically vulnerable.

So far, undiscovered Arctic oil and gas deposits are estimated to be huge

Undiscovered oil and gas deposits in the largest Arctic basin provinces[1]

Petroleum province	Crude oil[2]	Natural gas[3]	Natural gas liquids[2]	Total[4]
West Siberian Basin	3.66	651.50	20.33	132.57
Arctic Alaska Basin	29.96	221.40	5.90	72.77
East Barents Basin	7.41	317.56	1.42	61.76
East Greenland Rift Basin	8.90	86.18	8.12	31.39
Yenisey-Khatanga Basin	5.58	99.96	2.68	24.92
Amerasian Basin	9.72	56.89	0.54	19.75
West Greenland-East Canada Basin	7.27	51.82	1.15	17.06

1 Values in the table refer to undiscovered technically recoverable, conventional oil and natural gas resources for the seven largest Arctic basin provinces; 2 Billion barrels; 3 Trillion cubic feet; 4 Oil equivalent in billions of barrels

Source Geology.com

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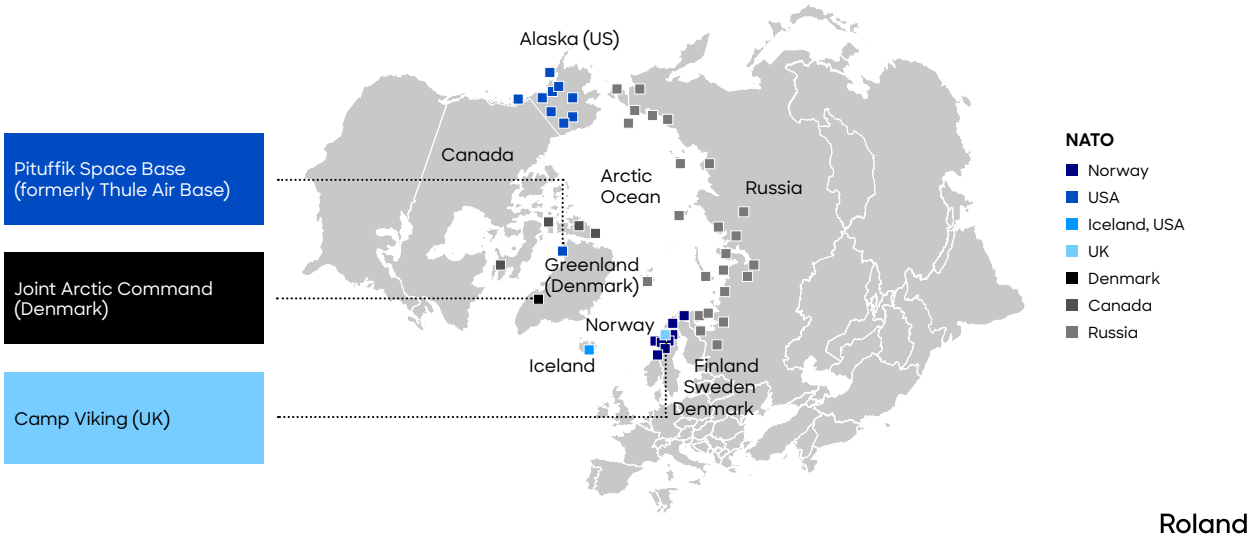
NATO, Russia, and China compete for influence

The Arctic is a critical access point between North America and Europe. Russia has invested heavily in military infrastructure there, establishing a new Arctic Command, reopening Soviet-era bases, and testing with advanced weapons systems. China's presence is also growing as it seeks secure trade and resource access routes.

Russia and China's ambitions and efforts, as well as their deepening cooperation, challenge NATO's strategic posture. The alliance has significantly increased its focus on the region. Military exercises and readiness operations have become routine to ensure that forces can operate effectively in extreme conditions and adapt to changing circumstances due to climate change.

NATO and Russia vie for Arctic influence with strong military presence; China partners with Russia to secure its interests

Main military bases in the Arctic



Source Statista, Militarybases.com, Globalsecurity.org, Canadian Global Affairs Institute via Foreign Policy, NATO

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"Russia and China surge north, forcing NATO to train for a warming warzone."

Greenland's central strategic role

Greenland, the world's largest island, is located between the Arctic and the Atlantic Ocean. Although it is part of the Kingdom of Denmark, Greenland exercises substantial self-rule. Due to its geography - four-fifths of the island is covered by an enormous ice sheet - its 56,000 inhabitants live almost exclusively along the coast. Nuuk is the capital.

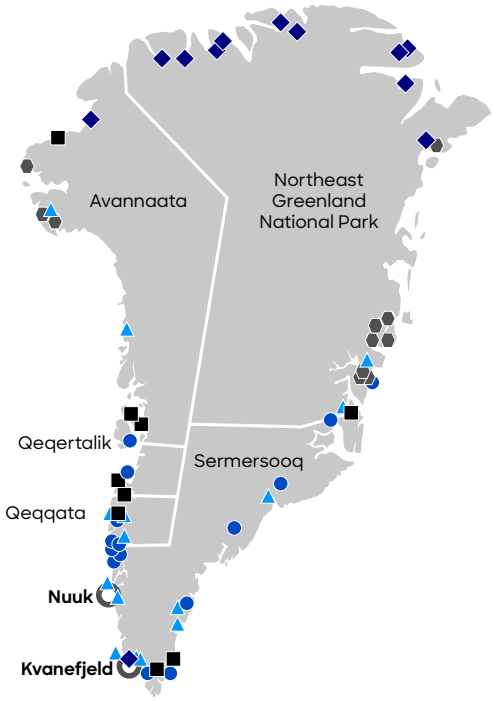
Greenland contains significant mineral wealth, though only a small portion has been fully assessed. The ice sheet hinders geological analysis, and while warming may improve access to known deposits, major new exploration areas remain inaccessible. The United States' interest in acquiring Greenland reflects both its strategic location and its resource potential.

Greenland is the biggest island globally and hosts huge reserves of minerals

Mineral resources in Greenland

Estimated volume of critical mineral resources

Zinc	Unknown, but large
Rare earths	**36.2 m metric tons**
Nickel	**3,800 m metric tons**
Graphite	**6.9 m metric tons**
Copper	**3.68 m metric tons**



Source Orennia, Government of Greenland, Nature, Geological Survey of Denmark and Greenland, American Action Forum

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"Greenland's ice-bound vastness masks strategic power – self-ruled, resource-rich, and pivotal between Arctic and Atlantic."

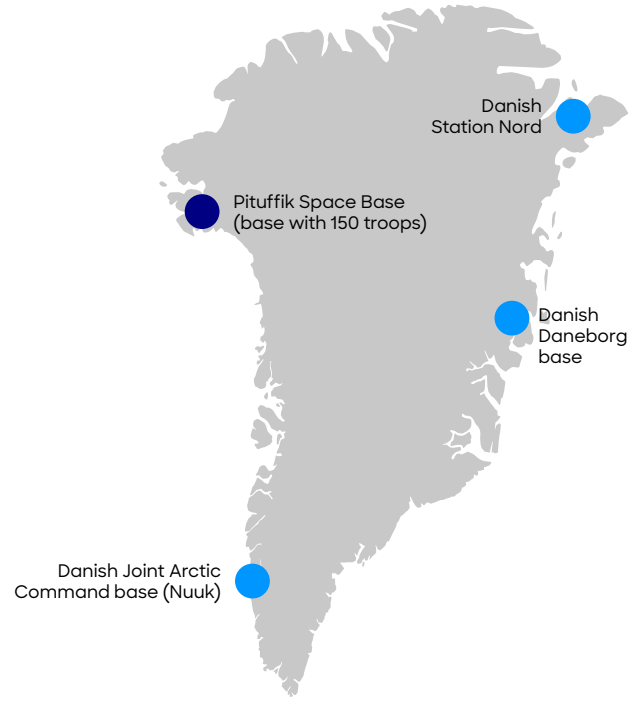
The Greenland crisis and its implications

President Trump's renewed efforts in 2025-26 to acquire Greenland resulted in a major diplomatic confrontation. Denmark and Greenland refused, prompting Trump to escalate the situation by threatening military action and proposing a 25 % tariff on EU goods. These moves sparked widespread protests in Denmark and Greenland and raised fears of a transatlantic trade war. At the 2026 World Economic Forum in Davos, Trump reversed course after speaking with NATO leaders. However, Denmark and Greenland reaffirmed that sovereignty was non-negotiable.

The defense of Greenland remains the responsibility of Denmark, supported by NATO. A 1951 bilateral agreement permits a US military presence on the island, though only one base, Pituffik Space Base, remains active today.

Greenland's location makes it a crucial geostrategic checkpoint

Major military bases in Greenland



Danish military base

US military base

Source Euractiv

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Iceland and Svalbard: Other key strategic islands

While Greenland dominates discussions, Iceland and Svalbard also hold major strategic importance. With 390,000 inhabitants, Iceland sits between the Arctic Ocean and the North Atlantic. Although it is not an EU member, Iceland is deeply integrated through the European Economic Area and Schengen. Following renewed geopolitical tensions and US tariffs in 2025, Iceland is once again considering EU membership, with a referendum anticipated by 2027.

Svalbard, a Norwegian archipelago with about 2,900 residents, has become a focal point for competition between major powers. Russia and China are becoming more active there, often employing gray zone tactics to test Norway's authority.

While the Svalbard Treaty grants Norway sovereignty, it also guarantees equal commercial access to all signatories. Traditional mining has nearly disappeared, and tourism and research now dominate. Russia maintains a symbolic mining presence in Barentsburg, and both Russia and China are expanding their scientific and tourism activities.

What's next in the Arctic

The Arctic will remain a key arena for geopolitical tensions and economic transformation. New shipping routes, the expansion of data centers, and the demand for critical minerals and energy will shape the region's development. As global powers compete for influence, military activity and the strategic role of Greenland, Iceland, and Svalbard will intensify. Recent events, such as King Frederik's visit to Greenland and the Cold Response 2026 exercise, highlight that the future of the Arctic is about far more than just resources – it is also about sovereignty, security, and maintaining balance in a rapidly changing world.

Further reading

- ➔ *MACROECONOMICS & GEOPOLITICS*
- ➔ *SEISMIC SHIFTS*
- ➔ *REBALANCING CANADA'S DEFENSE INDUSTRIAL BASE*

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