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Authors

Evan Davis, Eric Hardwick, John Reznicek, Baibhav Saraf, & Roderick Toms
Northern Arizona University

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Editors

Stefanie Kunze: Stefanie.Kunze@nau.edu

Ibrahim Berrada: Ibrahim.Berrada@nau.edu

Correspondence

The NORPAK Review
Department of Sociology
Northern Arizona University
5 E McConnell Dr.
Flagstaff, AZ 86011
NORPAK@nau.edu

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The Paradoxical Relationship Between NATO's Operation Arctic Sentry Securitization Discourse and the Environmental Effects of Russian Shadow Fleets

*Evan Davis, Eric Hardwick, John Reznichuk, Baibhav Saraf, & Roderick Toms**

Abstract

This article examines the paradox between NATO's Operation Arctic Sentry and its environmental-security justification in the High North. Using Copenhagen School securitization theory, it analyzes how NATO frames Russian shadow fleets, regional instability, and climate change as threats requiring expanded military surveillance and preparedness. The article argues that this securitization legitimizes increased Arctic militarization while obscuring the environmental costs of drones, AI-enabled surveillance, military exercises, data infrastructure, and resource extraction. Although NATO presents Arctic Sentry as advancing environmental protection and security, its operational footprint may intensify ecological degradation, revealing a contradiction between climate stewardship and military expansion and regional dominance.

NATO's Operation Arctic Sentry Securitization Discourse

The rapid melting of Arctic ice due to human-caused climate change has made the High North increasingly politically and economically important. As nation-states and transnational entities alike scramble to make logistical sense of the ramifications, political actors increasingly need to prepare for a range of potential outcomes. NATO's inaugural Operation Arctic Sentry marks a significant moment in this evolution, where regional security and military preparedness must align with climate adaptation. One justification for Arctic Sentry is the interception of Russian shadow fleets, a growing network of aging, uninsured tankers that support Russia's military-industrial complex and pose a substantial risk to the environment. This paper does not dispute the environmental threat posed by the Russian shadow fleet; it examines a paradox in NATO's militarization discourse of the Arctic. Using the Copenhagen School's Securitization Theory as an analytical framework, this paper investigates how NATO's securitization discourse necessitates its military presence in the region while obscuring potential negative ecological impacts. Through an exploratory analysis of NATO's Arctic Sentry and by centering climate adaptation as a desirable outcome, this paper highlights the potential environmental implications of militarized surveillance in achieving climate policy objectives. Specifically, this article argues that NATO's Operation Arctic Sentry shows how climate change, resource pressures, and environmental vulnerability are increasingly securitized in the High North,

*Evan Davis, Eric Hardwick, John Reznichuk, Baibhav Saraf, and Roderick Toms are students within the Laboratory for Applied Northern Research at Northern Arizona University in Flagstaff, Arizona. Their collaborative research examines emerging political, environmental, and security issues affecting the Arctic and broader circumpolar North. This article represents the culmination of research conducted during the Spring 2026 semester.

turning ecological disruption into a strategic justification for expanded military presence, surveillance infrastructure, and competition over Arctic space and resources.

Russian Encroachment

NATO has expressed concern about the Russian shadow fleet as its realized and potential environmental impacts are becoming increasingly pressing (North Atlantic Treaty Organization, 2026a). First, the oil tankers used in shadow fleet operations pose a danger: they are often degraded and discharge excess oil, chemicals, and pollutants into the water, violating environmental regulations (Knapp et al., 2026). These oil tankers pass through particularly sensitive sea areas where marine habitats are already at risk due to human intervention. Not only has their residue harmed the environment, but their dated, unregulated nature also increases the risk of failure. For instance, these breakdowns led to the Prestige oil spill off the coast of Spain and have raised further concern, as preventive measures have routinely prevented additional spills (Gözübenli, 2025). Continued use of these oil tankers increases pollution hazards; early risk assessments estimate a 0.7% annual global increase and higher risk in all regions affected by shadow fleet distribution (Knapp et al., 2026). The oil tankers used in shadow fleet operations are particularly dangerous to the environment and the marine life they operate near. Unregulated oil tankers pose a notable environmental threat as they emit pollutants and constantly risk large oil spills.

Following the 2022 invasion of Ukraine, many NATO member states imposed sweeping sanctions targeting the Russian government, economy, and key industries. The United States imposed measures restricting Russia's access to global financial markets, energy-related resources, and military technologies to increase economic pressure on the Russian government (Douch et al., 2025). These sanctions imposed high economic costs and increased Russia's incentive to develop mechanisms to circumvent restrictions and maintain access to international markets.

Before 2022, Russia supplied approximately 11% of global oil, with the sector accounting for an estimated 15–20% of national GDP and nearly half of annual export revenues. By 2024, however, declining prices for seaborne Urals crude were generating substantial revenue losses, intensifying the economic pressures facing the Russian energy sector. Oil sanctions have reduced production and revenue, costing Russia an estimated \$50 billion since the war began (Spiro et al., 2025). As a result, Russia has used a shadow fleet in the Arctic to offset economic losses (Polemis & Likas, 2026a). As of 2025, even with the sanctions in place, Russia made 37.3 trillion rubles, or \$446 billion USD, in fossil fuel alone (Yermakov, 2026).

NATO Securitization: Operation Arctic Sentry

Under Operation Arctic Sentry, NATO's securitization of the North shifted beyond traditional maritime patrols toward an increasingly algorithmic model of surveillance, detection, and military decision-making. By deploying a mesh network of autonomous underwater vehicles and high-altitude pseudo-satellites, NATO uses AI to process vast quantities of geospatial data in real time. This approach is designed to identify the distinctive

acoustic and thermal signatures of non-compliant vessels that disable their automatic identification systems in an effort to reduce their detectability. The goal is to create a common operational picture that is predictive rather than reactive, by using machine learning to map deviation patterns in merchant vessel behavior.

Operation Arctic Sentry has shifted NATO towards a multi-domain training posture that treats cold-weather combat proficiency as a foundational requirement for alliance deterrence. The initiative incorporates flagship NATO drills such as Denmark's Arctic Endurance and Norway's Cold Response, the most recent of which deployed 32,000 soldiers from 14 nations across Norway and Finland in March of 2026 (North Atlantic Treaty Organization, 2026b; Norwegian Armed Forces, 2026). These exercises depart from traditional military rehearsals and are designed to validate emerging operational concepts in conditions where logistics, communications, and human endurance are severely degraded.

NATO's Cold Weather Operations Center, hosted by Norway, has become the institutional hub through which Nordic nations train allied forces, including U.S. Marines, in the techniques of surviving, concealing, and fighting in the Arctic's extreme environment (NATO Allied Command Transformation, 2023). The alliance is also investing in force-posture infrastructure to make these deployments sustainable. NATO established and expanded northern command structure includes a land command and forward-deployed forces in Finland, an integrated Nordic air division, and a combined air operations center based in Bodø, Norway, improving time between threat detection and response (Borsari & Davis, 2025).

The Shadow Fleet

The shadow fleet has increasingly shifted from a sanctions-enforcement concern into a broader security issue involving critical infrastructure protection, maritime surveillance, and alliance preparedness (Polemis & Likas, 2026a). This evolving security framing provides important context for the Arctic Sentry, where shadow-fleet activity forms part of a wider concern with maritime security and strategic infrastructure in the High North. The shift was reinforced by a series of undersea cable disruptions in the Baltic Sea, including the December 25, 2024, Eagle S incident. Finnish authorities alleged that the vessel dragged its anchor across the seabed, damaging an electricity interconnector and several telecommunications cables between Finland and Estonia (Bryant, 2025; Sutherland, 2025). The Baltic Sea NATO allies declared that Russia's shadow fleet poses a threat to maritime and environmental security both regionally and globally and affirmed their right, in accordance with international law, to take action against suspected vessels circumventing sanctions and threatening security, critical infrastructure, or the environment (Joint Statement, 2025; Pawlak, 2026).

As this security framing extended northward into the Arctic context, it carried with it an inherent tension between surveillance capacity and enforcement authority. In the Baltic, NATO and regional states increasingly relied on selective surveillance, vessel monitoring, information sharing, and coordinated maritime presence, while intervention capacity remained contingent on jurisdiction, legal authority, and national enforcement capabilities (Sisodia & Manhas, 2026). The Baltic Sentry therefore focused on deterrence and critical infrastructure protection rather than serving as an independent sanctions-enforcement mechanism.

The shadow fleet frame has thus served a dual function: it constructs a difficult-to-attribute security threat that supports persistent maritime surveillance while simultaneously revealing the limits of collective action where legal authority remains constrained. In the Arctic, Russia's growing use of remote locations such as Teriberka to support sanctioned LNG shipping demonstrates how it has adapted northern maritime infrastructure to sustain energy exports beyond conventional port networks and complicate Western monitoring and enforcement efforts (Rao, 2026). These activities increasingly overlap with the geographic space in which Arctic Sentry seeks to strengthen NATO surveillance and regional presence.

The Arctic Sentry shows how NATO approaches the securitization of the High North. Environmental risks, critical infrastructure, evasion, and military competition are increasingly discussed together as part of a wider Arctic security problem. For instance, in February 2026, NATO Secretary General, who met with the Allied Defence Ministers, recognized the importance of doing more to ensure the securitization of the Arctic and the High North. By establishing the Arctic Sentry, they legitimized this new security framework as a collective response to increased Russian military activity and growing Chinese involvement in the region. Moreover, Russia's war in Ukraine has also changed the broader European security environment in which these Arctic issues are understood (North Atlantic Treaty Organization, 2026b).

NATO's Securitization Discourse

Securitization theory is rooted in the work of Barry Buzan, Ole Wæver, and Jaap de Wilde (1998), whose seminal *Security: A New Framework* provides the theoretical grounding necessary for this investigation. Buzan et al., forward an important caveat: securitization cannot be understood as a rational response to an objective threat. Rather, as a rhetorical framing, securitization is instead a process of threat construction, in which a securitizing actor projects a threat onto an objective of political and strategic importance. Understood this way, NATO's Operation Arctic Sentry is not a measured response to a tangible threat, but a discursive construction that carries the weight of a reality requiring urgent political action.

Buzan et al. (1998) posit that, as a discursive framework, securitization practices comprise four components: the securitizing actor, the referent object, the audience, and the security sectors. This section will address each, using evidence from a content analysis of NATO actors' own communications about the launch of Operation Arctic Sentry.

Sperling and Webber (2017) consider the Copenhagen School framework through the concept of collective securitization, arguing that organizations like NATO can act as securitizing actors when member states validate and reinforce a shared understanding of threat. As a rhetorical framework, "securitisation is initiated by a speech act, a 'securitizing move' 'through which an intersubjective understanding is constructed within a political community to treat something as an existential threat to a valued referent object, and to enable a call for urgent and exceptional measures to deal with the threat'" (Buzan & Wæver, 2003, as cited in Sperling & Webber, 2017, p. 25). This process allows political actors to frame an issue as

requiring urgent action and to mobilize resources and institutional support toward a particular political response.

While NATO is the overall securitizing actor in this instance, it is important to break down the actions of specific state actors in constructing the threat to Arctic security. Major players include Denmark, Norway, Sweden, Germany, the United Kingdom, and the United States, each responding to perceived threats in its own way. For instance, Denmark and Norway have engaged in coordinated military exercises designed to bolster threat preparedness and protect key Arctic assets, with the Danish Defence stating that its work “ensures that NATO remains fit for the purpose to deter and defend every inch of Allied territory” (Danish Defence Command, 2026, para. 3). Sweden and Germany have made crucial infrastructural contributions to Arctic Sentry in the form of fighter aircraft, with the former positioning this move as an explicit attempt to safeguard assets against Russian arms and Russia-China cooperation in the region (North Atlantic Treaty Organization, 2026c). Finally, the United States and United Kingdom have taken on important command responsibilities through JFC Norfolk, which leads Arctic Sentry. In February 2026, NATO announced that the United Kingdom would assume command of JFC Norfolk from the United States as part of a broader redistribution of Alliance leadership responsibilities (North Atlantic Treaty Organization, 2026d).

In the context of securitization theory, these states are not simply reacting to an immediate threat. Rather, they help construct that threat through discourse, while military exercises, infrastructure investments, and joint operations become expressions of the legitimacy granted to that security framing. In collective securitization, the audience is not separate from the securitizing actor but helps constitute it. The relationship between the two therefore helps explain why some issues become securitized while others do not, and why particular policy responses follow. Within organizations such as NATO, “the member states serve as the validating audience of a securitisation move and provide an organisation with agency in responding to threat” (Sperling & Webber, 2017, p. 21). From this perspective, these states are not simply reacting to an immediate threat. They help construct that threat through discourse, while military exercises, infrastructure investments, and joint operations become material expressions of the legitimacy granted to that security framing.

Within securitization theory, the referent object becomes necessary to legitimize claims to urgent action by any political actor, and this referent object is readily apparent throughout the discourse of NATO's Arctic Sentry. In the context of Arctic Sentry, the Arctic itself becomes the intended object of political transformation, as NATO's official communications explain. Underlying these smaller referent objects is NATO's larger commitment to maintaining Ally sovereign hegemony in the region, which makes regional control the primary referent object. NATO's Arctic Sentry programming explicitly frames the Arctic and High North as “increasingly important for NATO's collective security. Seven of the eight Arctic states are NATO allies, the Alliance has a clear interest in preserving security, stability, and cooperation in the region” (North Atlantic Treaty Organization, 2026c, para. 1). This discourse reflects the efforts of NATO member states to assert and protect their sovereign interests in the region, a central objective of Arctic Sentry's implementation.

Interest in preserving regional security is complemented by specific regional projects, each constituting a separate security sector. In securitization theory, five such sectors exist, each conditioning how political actors define threats in relation to referent objects (Buzan et al., 1998). Arctic Sentry features three of these, with some more prominent than others. The most prominent is the military sector, which NATO engages with in its introductory paragraph. Here, NATO identifies the referent object as military infrastructure and transportation/communication routes, and introduces threat framing:

Russia has significantly increased its military activity in the region – setting up a new Arctic Command, opening new and former Soviet-era Arctic military sites (including airfields and deep-water ports), and testing novel weapons systems. China’s interest in the Arctic is also growing, as Beijing seeks to gain access to energy, critical minerals and sea lines of communication. Furthermore, increased Russia-China cooperation has strategic and operational implications for NATO’s deterrence and defence posture in the region. (NATO, 2026c, para. 3)

The economic and environmental sectors are mentioned briefly and implicitly, each viewed through the lens of referent objects and perceived threat. NATO mentions the impact of climate change on the Arctic, noting that melting sea ice opens new possibilities for mobility and complicates existing operational procedures. Here, the referent objects remain infrastructure and routes, but new threats are identified in the form of extreme environmental degradation and procedural difficulties. NATO makes clear that “its focus on the High North, ensuring that Allies in the Arctic are defended against all threats, and that sea routes of communication and reinforcement remain open” (NATO, 2026c, para. 5).

Through the framework of securitization theory elaborated above, NATO’s security paradox can begin to be resolved. By framing a specific political object in existential, urgent language, NATO has helped construct it as a credible security threat requiring collective action. This zero-sum framing of a specific political object creates the legitimacy needed for securitizing actors to take extraordinary actions that often defy the constraints of existing legal frameworks and institutional precedent (Buzan et al., 1998). Once securitization expands the range of politically legitimate action, organizations such as NATO may operate with fewer practical constraints, potentially creating conflict between security objectives and commitments to environmental protection and climate adaptation.

Ecological Paradox of NATO’s Operation Arctic Sentry Response

NATO’s response in the High North has taken on a multipronged approach, centralizing political immediacy into an argument for environmental concern. Its military response to the ecologically impactful Russian shadow fleets has reshaped an otherwise forward-facing security development into an act of global stewardship. However, the increased defensive infrastructure is not just a discursive plan constructed to discourage the continued use of the aging vessels, but also an integrated, resource-intensive operational force. NATO’s positional statement accepts that these security-based initiatives serve both global safety and environmental stewardship, but despite these directives, little evidence suggests that Arctic Sentry is presented as preventing the environmental consequences of its expanding military

and technological footprint. The environmental benefits associated with greater monitoring of shadow-fleet activity must therefore be weighed against the environmental costs of the military and technological infrastructure required to sustain Arctic Sentry. For instance, Arctic Sentry's Cold Response operation included 32,000 personnel, with over 11,500 as ground infantry (Norwegian Armed Forces, 2026). This operation required a significant number of personnel carriers, including an array of fighter and fueling jets (Crusher, 2026).

NATO's securitization of the High North through Operation Arctic Sentry reinforces sovereignty, territorial protection, sustained regional presence, access to strategic resources, and the defense of key Arctic routes. If Russian shadow fleets present both environmental and security risks, but the security threat is treated as more immediate, NATO may need to separate its environmental justifications from its security rationale. Doing so would reduce the paradoxical tension created by framing military expansion as environmental protection.

Conclusion

The dissipation of the Arctic ice cap has suddenly altered territorial, geopolitical, and ecological boundaries within the High North. With this new territorial access, NATO's Operation Arctic Sentry serves as a clear case study of how environmental and security discourse drives Arctic militarization. This securitization argues for ecological stewardship but requires intensive resource extraction for surveillance infrastructure and stresses the need for NATO's strategic dominance of the High North. This frames both Russia's need for resource imports and the climate crisis as logistical gateways for military expansion. Taken together, these dynamics reveal how environmental change and resource pressures can become strategic openings through which military presence, surveillance, and competition expand across the High North.

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