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Arctic Irregular Operations Enhanced by Integrating Indigenous Capabilities

KEY TAKEAWAYS

- The Arctic operational environment amplifies the challenges of hybrid and irregular warfare tactics due to sparse populations, the tyranny of time and distance, limited infrastructure, and degraded communications, which complicate attribution, response, and sustained operations.
- Russia exploits human terrain knowledge in the Arctic to enhance irregular and hybrid operations conducted below the threshold of armed conflict.
- Allied models such as the Canadian Rangers and Norwegian Total Defense have institutionalized varying degrees of indigenous integration into national security frameworks, enhancing persistent presence and resilience in the Arctic.
- Indigenous and local Arctic partners can provide asymmetric advantages in mobility, detection, environmental consideration, and sustainment when intelligence, surveillance, and reconnaissance (ISR); domain awareness; communications; and navigation systems are degraded.

The Arctic Operational Environment and Irregular Competition

The Arctic operational environment (OE) magnifies the effectiveness of irregular and hybrid warfare due to its sparse populations, vast distances, limited infrastructure, and fragile communications networks. In the North American and Russian Arctic, these challenges are driven by the presence of permafrost. Conversely, the lack of sea ice along the entire coast of Norway and most of the Kola Peninsula means there is no permafrost in the European North except at very high altitudes, enabling Norway, Sweden, and Finland to build and maintain normal infrastructure. Yet, all Arctic nations suffer from significantly degraded communication above the Arctic Circle because of sparse populations not generating enough demand for communications infrastructure and a lack of satellites able to maintain a geosynchronous orbit.

The Arctic's human terrain varies significantly by continent, requiring tailored integration strategies that reflect local societal structures and political realities. In North America, indigenous peoples make up about 89 percent of the population north of the Arctic Circle, while in Europe, roughly 96 percent are nonindigenous, with Sámi communities comprising about 4 percent. The Russian Arctic is more complex, with ethnic Russians totaling approximately 1.17 million, nonethnic

Russian residents about 1.03 million, and residents from legally recognized indigenous groups numbering around 138,000.

	NORTH AMERICA	ASIA	EUROPE
Indigenous	89%	46%	4%
Nonindigenous	11%	54%	96%

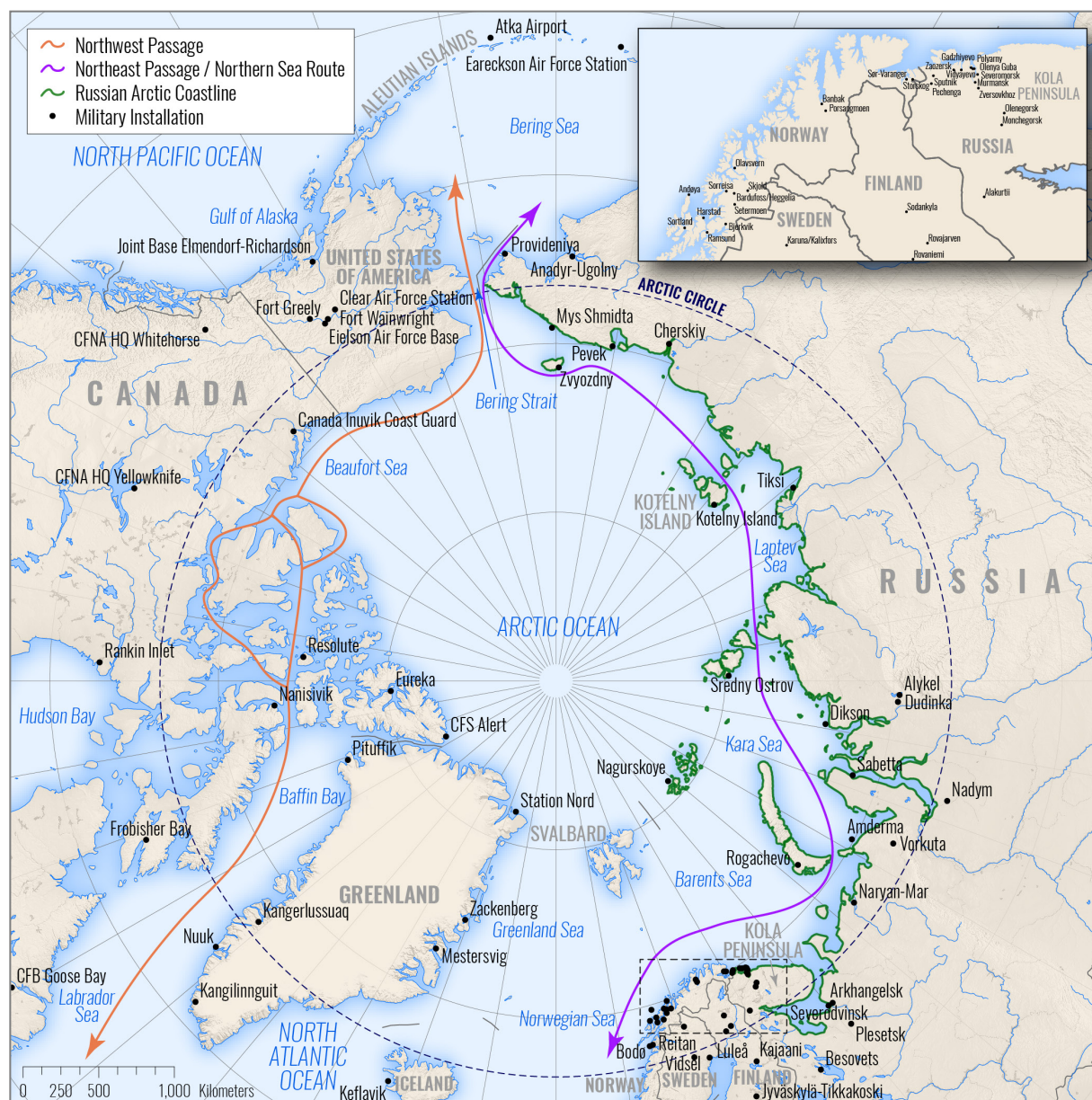
Figure 1: Percent of Indigenous and Nonindigenous Population Residing North of the Arctic Circle by Continent (Source: T2COM G-2)

Russia's Advantage in the Arctic's Human Terrain

Russia's Arctic strategy integrates persistent military presence, civilian-masked hybrid tactics, and embedded human terrain familiarity to operate effectively below the threshold of large-scale combat operations (LSCO). Russian Arctic activity is closely integrated with its broader Baltic and North Atlantic strategy, with the Barents Sea serving as a critical corridor for Russia's maritime maneuver and strategic depth. Although Russia's capacity for sustained LSCO has been degraded by the war in Ukraine, its ability to conduct irregular and hybrid activity in the Arctic remains significant. This distinction matters, because Russia does not need to mass forces in the Arctic to impose costs, create ambiguity, disrupt allied decisionmaking, or probe NATO response thresholds. Russia has demonstrated sustained proficiency in exploiting these conditions through electronic warfare (EW), air and maritime probing, snap exercises, and gray-zone naval activity—particularly in and around the Barents Sea and the Norwegian High North, including the highly contested Bear and Greenland-Iceland-United Kingdom Gaps. These operations shape the environment; reinforce extended bastion defense on the Kola Peninsula; secure Northern Fleet access to the North Atlantic; and probe NATO cohesion, resolve, and response thresholds.

The Arctic OE magnifies hybrid and irregular approaches because it makes persistence, attribution, and response unusually difficult. Sparse populations limit the number of observers able to distinguish routine activity from anomalous behavior. Vast distances slow response times and increase dependence on prepositioned assets, local knowledge, and resilient logistics. Limited infrastructure creates chokepoints around ports, airfields, communications nodes, and maritime corridors. Fragile communications networks make EW, precision navigation jamming, spoofing, and deception especially disruptive. These conditions allow deniable, ambiguous, and incremental coercive activity to achieve effects disproportionate to the size of the force employed.

Russia has spent decades cultivating human terrain knowledge through a persistent military presence, embedded civil-military relationships, and robust joint and national annual exercises. This, combined with the familiarity with Arctic logistics, allow Russian forces to operate with greater confidence and persistence under degraded conditions. While figures vary, the consensus is that Russia has reopened dozens of Cold War-era Arctic military bases since 2000, continuously staffing 30 to 40 military sites compared to around 36 sites across all NATO members.¹ Nearly half of the global Arctic population lives in Russian territory, with Russia accounting for 53 percent of the Arctic Ocean coastline. Additionally, Russia is the only country to operate a fleet of nuclear-powered icebreakers, enabling civilian-front entities—including fishing vessels, tour operators, and commercial shipping—to mask intelligence collection and maritime presence operations in the Arctic.^{2,3}



Indigenous Forces and Arctic Security Models

Indigenous integration offers a practical way to offset Russia's advantage in persistent presence and environmental familiarity. Indigenous Arctic inhabitants span more than 40 distinct groups and possess an enduring presence and legitimacy in the operating environment.⁴ These communities have survived and adapted, developing unparalleled expertise in navigation, weather, terrain, and sustainment under extreme conditions. The indigenous peoples also often comprise a close-knit network who communicate and share knowledge. They share culture, challenges, and language connections that are impervious to national boundaries and can facilitate environmental adaptation and integration to critical force projection-related lines of operation and effort.

Allied experiences highlight that integrating indigenous partners can significantly enhance surveillance, resilience, and deterrence capabilities in remote Arctic regions. In Canada, the Canadian Rangers—comprising more than 5,000 personnel, 23 percent identifying as indigenous—provide persistent presence, reconnaissance, and search-and-rescue capabilities across Canada’s Arctic and sub-Arctic regions. Funded by the Canadian Army as part of Canada’s Reserve Force, they improve domain awareness where technology and remote sensing are limited.⁵ In Norway, cooperation between the armed forces and Sámi communities for surveillance, mobility, and sustainment in remote areas is institutionalized at the local level. Members of the Sámi community participate in the volunteer Norwegian Home Guard—Norway does not have a Canadian Ranger equivalent—and indigenous cooperation is largely informal.

Historical precedents illustrate indigenous partners’ military relevance. During World War II, the Alaska Territorial Guard played a decisive role in Homeland defense, including monitoring Alaska’s coastline, identifying potential Japanese movements, and placing and securing crucial logistics caches along transport corridors. The Alaska Territorial Guard was dissolved after World War II, and no organization has filled the gap since.

IMPLICATIONS FOR THE U.S. ARMY

The evolving Arctic threat environment reveals a growing asymmetry favoring actors with persistent presence, local knowledge, and hybrid adaptability. Russia’s persistent Arctic operations indicate future competition will hinge on ambiguity, probing, and attribution challenges rather than conventional force-on-force engagements.

- The OE will increasingly reward forces that integrate technical ISR with distributed, culturally embedded human sensing networks, enhancing domain awareness under contested communications and degraded ISR conditions. Indigenous and local partnerships can fuse human observation, environmental knowledge, allied ISR, and SOF capabilities to reduce adversary ambiguity, improve attribution of hybrid activities, and support escalation control.
- Leveraging indigenous people’s knowledge to develop resilient sensor and logistics networks supports reduced logistical footprints and improved signature management, as well as complicates adversary targeting, thereby enhancing sustained operations despite environmental and EW challenges.
- A dual-posture approach—securing critical infrastructure collaboratively with indigenous partners while developing contested-area capabilities—aligns with the 2024 Department of Defense Arctic Strategy’s emphasis on partnerships, campaigning, and domain awareness below LSCO thresholds.

Scenario: Sámi Integration in Counterhybrid Operations — Barents Sea

Timeframe: Competition–Crisis Phase (Year +2)

Area of Operations: Finnmark, Kirkenes–Pasvik border sector, Barents Sea approaches

Operational Context: Kirkenes, northeastern Norway, lies near Russia’s militarized Kola Peninsula. Moscow frequently deploys military vessels disguised as civilian ships into Kirkenes’ coastal waters, while GPS interference and ambiguous activity generate persistent uncertainty for Norwegian defenses.

Russian Hybrid Activity: Russian actors use civilian fronts to gather intelligence and conduct low-signature EW that degrade NATO navigation and ISR. These deniable operations complicate attribution and increase friction across Iceland-to-Barents NATO networks.

Operational Challenge: Degraded ISR from electronic interference, weather masking, and legal constraints limits persistent situational awareness. Reliance on technical sensors and patrols alone risks escalation or misattribution.

Role of Sámi and Indigenous Integration: Sámi residents of Finnmark hold generational knowledge of local terrain, sea conditions, and environmental cues that aid real-time detection of anomalies beyond technical sensors. Integrated into allied teams, Sámi observers can:

- Identify unusual vessel or fishing activity;
- Correlate environmental and cultural context with ISR data to enhance attribution;
- Provide trusted early warnings of movements in fjords and coastal waters during polar night and degraded communications.

Impact: This integration enables U.S. Army Special Forces and reconnaissance units to cue ISR, prioritize surveillance, and position forces on key lines of communication without large conventional footprints that risk escalation. Working with Norwegian partners, they can leverage Sámi human sensing to refine joint ISR targeting, protect infrastructure, and constrain Russian freedom of maneuver. SOF access to the otherwise inaccessible indigenous ecosystem supports critical intelligence collection and warfighting functions essential for Arctic operations.

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