

*Frozen Fronts and Fragile Lines:
Finland 1939–1944 Meets Ukraine 2022–2026*

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Modern conflicts reveal that material superiority alone rarely ensures battlefield success. The war in Ukraine since 2022 underscores how the organization, sustainment, and adaptation of logistical networks can decisively shape outcomes, often surpassing the impact of troop numbers or armament volumes. Ukrainian forces demonstrate that endurance, operational flexibility, and effective use of terrain can secure a lasting advantage against a more heavily equipped adversary. Historical precedent reinforces this observation: Finland's resistance against the Soviet Union between 1939 and 1944 shows that an apparently weaker State can achieve strategic leverage through careful preparation and resource management. By structuring defences around mobility, dispersing critical assets, and executing targeted operations, Finland sustained long-term

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military and diplomatic resilience. Comparing these cases highlights how anticipating challenges and mobilizing both human and technical capacities can convert vulnerability into an instrument of influence, allowing a country to shape the trajectory of conflict and mitigate conventional disadvantages while preserving sovereignty and strategic options.

The Finnish example further illustrates logistics as a critical tool of resistance. From the outset of hostilities, Finnish planners prioritized supply anticipation, route diversification, and troop movements adapted to challenging terrain, transforming harsh winter conditions into operational advantages. Depots were meticulously organized, local knowledge leveraged, and forces deployed with flexibility, enabling sustained operations despite casualties and relentless pressure from the Red Army. Beyond tactical management, Finnish strategy encompassed a long-term vision aimed at preserving the State, maintaining governmental structures, and creating conditions for a favourable political or military reversal. Material planning combined with operational adaptability allowed Finland to transform initial inferiority into relative strategic strength, demonstrating that foresight, coordination, and endurance can outweigh numerical or technological disadvantage. Such lessons resonate in modern conflicts, revealing the decisive role of preparation and flexible resource management in shaping outcomes without relying exclusively on sheer military power.

A dual historical and contemporary perspective illuminates how nations can defend territory against materially superior adversaries. In both Finland eight decades ago and Ukraine today, logistical proficiency, structural resilience, and adaptive operations proved vital for sustaining resistance and safeguarding sovereignty. Strategic foresight, organizational flexibility, and collective endurance emerge as decisive factors in navigating extreme constraints, preserving operational autonomy, and shaping hostilities. Military engagements thus constitute complex interactions among resources, time, territory, and national will, wherein anticipatory planning and efficient logistics function as instruments of strategic leverage. By combining long-term preparation with responsive operational conduct, States can convert apparent vulnerabilities into strategic advantages, aligning tactical effort with overarching political aims and maintaining the capacity to respond to evolving battlefield challenges. Rather than asserting a strict historical analogy, the present analysis examines key operational variables—logistical organization, terrain adaptation, and sustained military effort—through which smaller

States have offset material asymmetries. Methodological principles and sources underpinning this comparison are detailed in the following box.

Methodological Box

This article employs a historical-comparative approach within strategic studies to identify the structural variables that determine the capacity of a militarily inferior actor to resist an adversary with material superiority. The comparison focuses on two distinct historical contexts—Finland confronting the Soviet Union between 1939 and 1944, and Ukraine confronting Russia since 2022—understood not as strictly analogous cases but as strategic situations presenting comparable constraints. The goal is not to establish historical equivalence between these conflicts, but to isolate recurring mechanisms of military adaptation. This approach draws on the tradition of historical comparison, which allows for the identification of structural regularities across differentiated national trajectories.¹ By concentrating on these two cases, the analysis highlights the institutional and operational configurations likely to account for forms of strategic resilience. Three interdependent variables are emphasized: logistical organization, adaptation to terrain, and the capacity to sustain military effort over time.

The study relies primarily on literature in military history, strategic studies, and international relations. For the Finnish case, historiographical analyses of the Winter War and Continuation War illuminate operational adaptation by an army confronting a numerically and technologically superior adversary. The Ukrainian case is examined through contemporary studies produced by research centers specializing in international security, documenting the operational evolution of the conflict since February 2022. The objective is not to produce an exhaustive typology of asymmetric conflicts, but to identify causal configurations that clarify the relationship between logistical organization and strategic endurance. This methodology aligns with Charles C. Ragin's notion of comparative analysis of a small number of cases, identifying relevant combinations of explanatory variables,² a widely recognized approach in

¹ Barrington Moore, Jr. *Social Origins of Dictatorship and Democracy: Lord and Peasant in the Making of the Modern World* (Boston MA: Beacon Press, 1993 (1966)).

² Charles C. Ragin, *The Comparative Method, Moving Beyond Qualitative and Quantitative Strategies* (Oakland CA: University of California Press, 2014) (1987).

international relations and the social sciences for generating theoretical hypotheses from case studies.³

Why Logistics Made the Finnish Resistance Work

The Winter War of 1939–1940 demonstrates how a small nation confronting overwhelming numerical and material disadvantages can transform constraints into operational advantages. Finland, lacking mechanization and heavy weaponry, relied on anticipation, resource organization, and terrain exploitation rather than direct confrontation. Soldiers were trained to operate in extreme cold across snow-laden forests and frozen lakes, turning natural obstacles into tactical assets. Decentralized depots provided ammunition, fuel, and provisions, allowing units to act independently while sustaining cohesion. Mobility, local initiative, and mastery of the environment enabled Finnish forces to maintain the initiative, slow Soviet advances, and prolong resistance. Operational decisions were shaped by terrain, climate, and logistics rather than sheer numbers. By integrating foresight, adaptability, and planning, Finland preserved sovereignty and combat effectiveness despite its limitations. This example offers enduring lessons for modern military analysis, highlighting how small forces can challenge technologically or numerically superior adversaries.

Terrain Edge

The war erupted within a complex geopolitical context. Stalin aimed to secure Leningrad and the Baltic approaches through Karelia while compensating for leadership gaps caused by the purges of 1937–1938, which weakened operational command.⁴ Finland's refusal of Soviet demands—including territorial concessions, establishment of naval bases, and dismantling of fortifications—led to a planned invasion intended to neutralize resistance swiftly before external intervention.⁵ Soviet doctrine relied on coordinated motorized infantry, heavy artillery, armoured units, and air support,

³ Alexander L. George, Andrew Bennett, *Case Studies and Theory Development in the Social Sciences*. (Cambridge MA: The MIT Press, 2005).

⁴ Nick Baron. "Stalinist Planning as Political Practice: Control and Repression on the Soviet Periphery, 1935–1938," *Europe–Asia Studies* 56, 3 (2004): pp. 439–462.

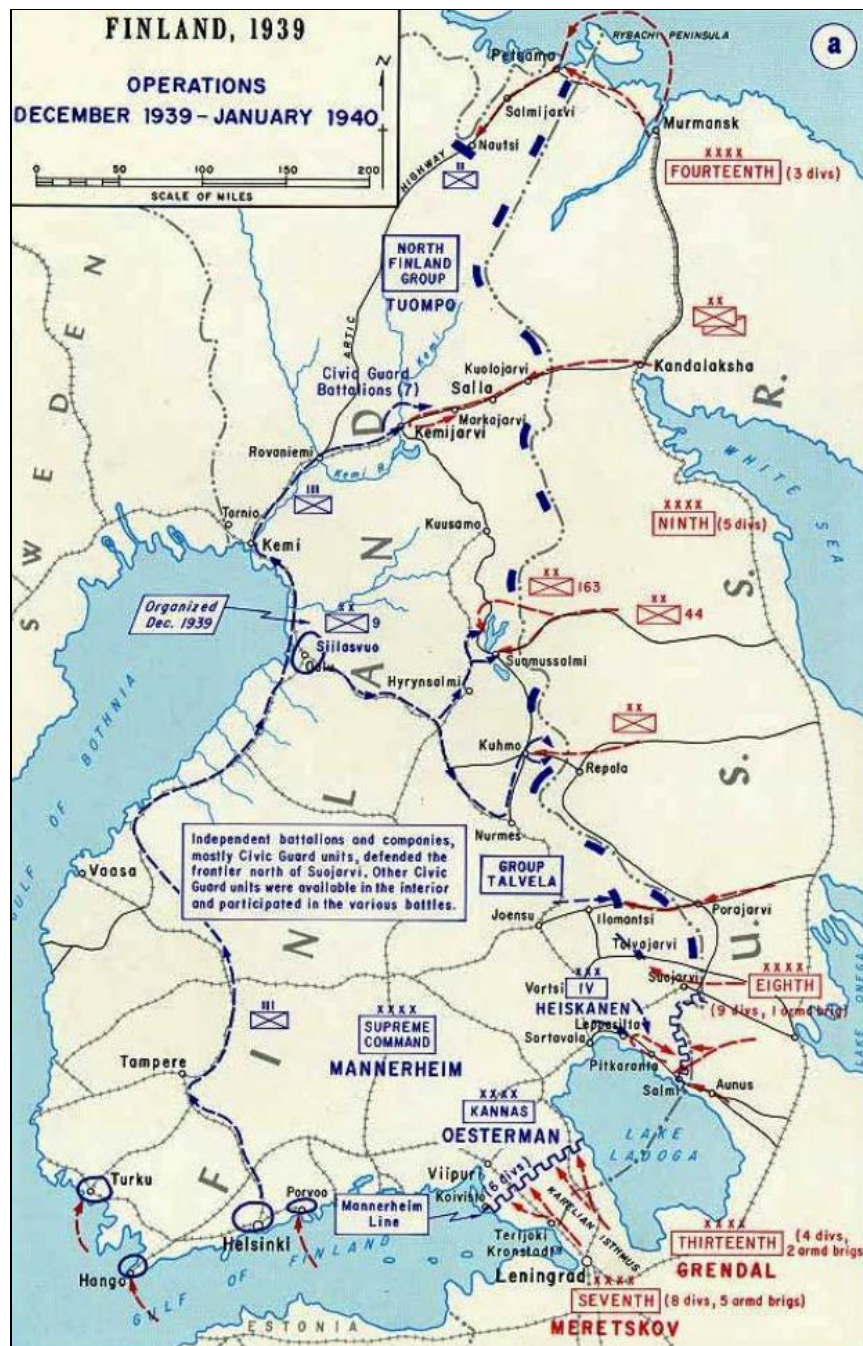
⁵ Ohto Manninen. "The Winter War in Global Perspective," *The RUSI Journal* 148, 2 (2003): pp. 78–83.

projecting rapid conquest on paper. Yet the operational environment—narrow roads and extreme winter conditions—limited mechanized mobility and exposed rigid formations. The environmental constraints combined with Finnish tactics and fixed defences, such as the Mannerheim Line, to blunt the Soviet advance and turn what was expected to be a swift campaign into a protracted struggle.⁶ Finnish forces exploited the specific context to fragment and canalize Soviet units, as shown in Figure 1, imposing delays and significant attrition. Operational success rested on integrating environmental knowledge with flexible deployment, highlighting that superior numbers and equipment cannot compensate for deficiencies in terrain mastery, as emphasized by Philip Jowett.⁷

⁶ David Murphy, *The Finnish–Soviet Winter War 1939–40: Stalin’s Hollow Victory* (Oxford: Osprey Publishing, 2021).

⁷ Philip Jowett, *The Winter War 1939–40*. (Havertown PA: Casemate Publishing, 2023).

Figure 1. First phase of the Winter War 1939–40



Source: Department of History of the US Military Academy.

Soviet reliance on predictable supply routes amplified operational vulnerability. Columns advancing along narrow roads were repeatedly subjected to ambushes and harassment, while snow-covered terrain restricted mechanized movement and delayed reinforcements. Finnish troops, primarily reservists, exploited these constraints through dispersed operations and decentralized command, isolating detachments and systematically disrupting cohesion.⁸ Pre-positioned depots allowed units to operate independently for extended periods, sustaining continuous pressure. Combined with local initiative and operational flexibility, this integrated logistical and tactical approach enabled Finnish forces to impose effects far beyond their numerical and material capacity. Repeated harassment, coordinated raids, and targeted strikes on supply lines amplified the impact of even small units. This asymmetry demonstrates that mastery of terrain, anticipatory planning, and resilient logistics can offset material inferiority. These operational lessons remain instructive for small States confronting technologically or numerically superior adversaries, highlighting the enduring value of preparation, adaptability, and initiative.

Finnish soldiers' upbringing and experience provided a decisive edge. Many combatants originated from rural regions, developing natural skills in snow navigation, camouflage, hunting, and winter survival.⁹ Command structures emphasized local initiative, enabling small units to exploit forests, lakes, and narrow trails for ambushes, raids, and harassment, including operations deep behind enemy lines. Pre-positioned supplies ensured that detachments remained operational without relying on vulnerable main roads, sustaining pressure and cohesion. The integration of environmental familiarity, individual skill, and meticulous logistical planning allowed Finnish forces to amplify combat effectiveness, turning geographical and material constraints into strategic advantages. Each maneuver demonstrated that flexibility, preparation, and initiative could disrupt conventional Soviet expectations and create disproportionate effects on enemy formations. These enduring principles, highlighted by Jared Diamond, remain instructive for small forces confronting technologically or numerically superior adversaries in complex terrains.¹⁰

⁸ Allan F. Chew, "Fighting the Russians in Winter: Three Case Studies," *Leavenworth Papers* 5. (Fort Leavenworth KS: US Army Command & General Staff College, 1981).

⁹ Jeremy M. McKenzie, Chad M. Pillai, Ryan R. Duffy, and Jahara Matissek, "Fighting and Winning in the Arctic: Improving Polar Warfare Capabilities," *Defense & Security Analysis* 40, 4 (2024): pp. 519–539.

¹⁰ Jared Diamond, *Upheaval: Turning Points for Nations in Crisis* (New York: Little, Brown & Company, 2019).

Supply Foresight

Central to Finland's strategy was the creation of a dispersed and adaptable logistical network. Prior to hostilities, planners established depots throughout the country, including remote and difficult-to-access areas, to ensure that units could operate independently if conventional supply lines were disrupted. Geographic and climatic constraints—including limited roads, snow-covered expanses, and sub-zero temperatures—were incorporated into planning to maintain operational autonomy. During the invasion, these preparations proved decisive: Soviet reliance on predictable routes made columns vulnerable, while Finnish forces leveraged decentralized command and local initiative to exploit gaps. This network ensured continuous operational capacity, allowing small units to execute independent missions while maintaining cohesion, illustrating that effective logistics underpins both tactical and strategic resilience. Such pre-positioned resources provided commanders with flexibility to respond dynamically to battlefield developments.¹¹

Delivery methods further enhanced operational effectiveness. Skis, sleds, horses, and propeller-driven snow sleds (*aerosanis*) transported ammunition, fuel, and food to dispersed units, often bypassing roads used by Soviet columns. This system enabled a continuous supply even under extreme conditions or enemy observation. Decentralized logistics maintained morale and combat readiness, allowing persistent harassment of Soviet formations. *Motti* tactics, integrating mobility, terrain familiarity, and logistic foresight, fragmented enemy columns while minimizing Finnish casualties. This combination of adaptive transport, resource management, and operational autonomy illustrates that the capacity to anticipate, distribute, and sustain resources is as crucial as battlefield skill when confronting a numerically superior foe, echoing observations by Pasi Tuunainen and reinforcing the importance of pre-emptive planning in asymmetric warfare.¹²

¹¹ Pasi Tuunainen, *Finnish Military Effectiveness in the Winter War, 1939–1940* (London: Palgrave Macmillan, 2016).

¹² Pasi Tuunainen, "Motti Tactics in Finnish Military Historiography since World War II," *International Bibliography of Military History* 33, 2 (2013): pp. 121–147.

Mobility Leverage

Mobility served as the primary multiplier of Finnish effectiveness, transforming environmental challenges into operational advantages. Light detachments equipped with skis, sleds, and *aerosanis* traversed terrain inaccessible to mechanized Soviet units.¹³ These units executed ambushes, raids, and harassment deep behind enemy lines, targeting supply routes and isolating columns. Decentralized command encouraged local initiative, allowing small units to coordinate actions while adapting to rapidly changing circumstances. Operational planning integrated mobility with pre-positioned logistics and environmental awareness, enabling units to maintain readiness and offensive capacity even when isolated. Each movement forced the Soviets to disperse forces, defend extended supply lines, and continuously respond to threats, slowing their advance and amplifying the impact of smaller Finnish detachments. By exploiting terrain, mobility, and foresight, Finland achieved strategic effects far beyond what conventional assessments of force size or firepower would suggest. Archival documentation and firsthand accounts indicate that these mobile operations inflicted substantial losses and disrupted Soviet operational cohesion.¹⁴

Finnish units combined intimate terrain knowledge, winter survival skills, and adaptive logistics to sustain continuous offensive pressure across secondary roads, repeatedly targeting supply and command elements to fragment enemy formations. Decentralized execution, supported by pre-positioned supplies, ensured operational continuity and maintained troop morale despite limited manpower. Mobility, initiative, and flexible command allowed Finnish forces to act independently while amplifying the impact of small units. By integrating logistical foresight, environmental adaptation, and agile maneuvering, Finland demonstrated that strategic and tactical success against a materially superior opponent depended not on numerical advantage but on the intelligent exploitation of terrain and resources. As Russell D. Harris underlines, the Soviet inability to destroy the Finnish army in both 1939–40 and 1944 reflects a deeper failure to achieve their own operational ambitions, underscoring how resilient and

¹³ Dustin E. Lawrence, *Mobility in the Arctic: Applying Lessons from the Past to the New Operational Environment* (Fort Leavenworth KS: US Army Command & General Staff College, 2022).

¹⁴ Roger R. Reese. "Lessons of the Winter War: A Study in the Military Effectiveness of the Red Army, 1939–1940," *The Journal of Military History* 72, 3 (2008): pp. 825–852.

adaptive defences can neutralize doctrinally superior—but rigid—offensive systems.¹⁵ These operations confirm analysis of the decisive interplay among logistics, mobility, and operational strategy, offering enduring lessons for small-State military planning.¹⁶

Winter War Blueprint

The Winter War shows how a small State can leverage apparent weaknesses — geography, climate, limited manpower — into strategic strength. Confronted with the vastly superior forces of the Red Army, Finland avoided head-on confrontation and instead bet on pre-war logistical foresight, dispersed supply lines and flexible, decentralized operations. Thanks to an efficient supply and maintenance network capable of functioning throughout the winter, Finnish units remained operational even in remote sectors. On the tactical level, Finnish forces relied on small-unit actions, rapid flanking, and guerrilla-style raids to harass Soviet columns, cut their supply and communications, and exploit their immobility—rather than face them in open battle. As argued by Henrik C.-W. Raftsjø, it was precisely this combination of terrain-adapted tactics, decentralized command and intimate familiarity with harsh winter conditions that accounted for Finland’s relative military effectiveness.¹⁷ Ultimately, this approach enabled Finland to inflict disproportionate costs on a materially superior adversary, delay and frustrate its advance, and thereby win time for diplomatic negotiations. When the Moscow Peace Treaty was signed, Finland lost territory but preserved its sovereignty and core institutions. The Winter War underscores that anticipatory logistical planning, tactical flexibility and adaptation to local conditions can convert structural vulnerability into lasting political and military leverage.

Logistics in Action

Finnish military logistics functioned as the backbone of national strategy rather than a mere support mechanism.¹⁸ Facing an adversary superior in manpower, armour,

¹⁵ Russell D. Harris, *The Finnish Campaigns: Failure of Soviet Operational Art in World War II*. (Quantico VA: USMC Command & Staff College, 2013).

¹⁶ Pasi Tuunainen, 2016, *ibid*.

¹⁷ Henrik C.-W. Raftsjø, *Tactics vs. Intelligence: Explaining Finnish Effectiveness in The Winter War* (Brussels: Brussels School of International Studies, 2018).

¹⁸ Vladimir Prebilič, “Theoretical Aspects of Military Logistics,” *Defence & Security Analysis* 22, 2 (2006): pp.159–177.

artillery, and air power, Finland implemented decentralized depots of food, ammunition, and fuel, often in concealed locations, ensuring unit autonomy even if conventional lines were disrupted.¹⁹ Small, mobile detachments could then conduct continuous harassment, raids, and defensive maneuvers without interruption. Logistics integrated with operational flexibility, environmental knowledge, and local initiative allowed the Finns to control both time and space, converting numerical and material inferiority into a strategic advantage. Units on skis, sleds, and *aerosanis* bypassed monitored roads, striking Soviet communication lines and withdrawing before counteraction. Beyond tactical mobility, sustainability depended on maintaining equipment, rotating units, managing casualties, and adjusting to extreme terrain and climate. Each logistical decision amplified combat effectiveness, preserved morale, and imposed disproportionate costs on the enemy. Collectively, these measures transformed the flow of supplies and operational planning into a decisive instrument of endurance, initiative, and power projection.

Finnish logistics extended far beyond the technical management of supplies; it structured an adaptive and highly mobile form of warfare that capitalized on environmental conditions and the country's limited resources. Frozen lakes, dense forests, and an extensive network of secondary roads enabled fragmentation and disorientation of Soviet formations. Archival evidence and firsthand testimonies highlight the disproportionate impact that such mobile operations had on enemy cohesion, tempo, and morale.²⁰ By combining pre-positioned stockpiles with flexible command arrangements and detailed terrain knowledge, Finnish forces maintained continuous operational pressure while limiting their own expenditure of manpower and materiel. As Per Skoglund's recent broader framework suggests, logistics became inseparable from strategic endurance: every element—from stockpile distribution to transport choices—functioned as a lever enabling sustained resistance and shaping diplomatic calculations.²¹ Through foresight, adaptability, and maneuver, Finland constrained a materially superior adversary and preserved the capacity for decisive

¹⁹ Pasi Tuunainen, 2016, *ibid.*

²⁰ Roger R. Reese, *ibid.*

²¹ Per Skoglund, "Logistics Cooperation for Modern War," in *Modern War and Grey Zones: Design for Small States*, edited by Marzena Zakowska and David Last (London: Routledge, 2025), pp, 127–138.

action, illustrating how resilient logistics can offset structural vulnerabilities in small-State warfare.

Diplomacy in Motion

The strategic endurance achieved through logistics directly shaped the diplomatic outcome of the Winter War. This endurance mattered all the more because the Soviet leadership had entered the war with profound miscalculations about Finnish resistance, underestimating both the scale of the conflict and the international repercussions their attack would generate.²² The Treaty of Moscow, signed on March 12, 1940, required Finland to cede part of Karelia, including Viipuri, some Baltic Sea islands, and northern border areas, representing roughly 11 percent of territory and 30 percent of industrial capacity.²³ Despite apparent concessions, the treaty preserved Finland's independence and institutional continuity. Gordon F. Sander emphasizes that the outcome was derived not from conventional victory but from the Finns' capacity to sustain operations under extreme conditions, exhausting the aggressor and forcing compromise.²⁴ Kimmo Rentola further underscores that Stalin's failure to achieve full occupation was part of a broader pattern in which Finland repeatedly evaded Soviet attempts to impose political domination, not only in 1939–1940 but throughout the subsequent decade.²⁵ The endurance under pressure transformed logistical effort into *political leverage*, demonstrating that meticulous planning and operational continuity can generate favourable outcomes even against overwhelmingly stronger opponents.

Pragmatic diplomacy also set the stage for the Continuation War (1941–1944). Maintaining a trained army, functional logistics, and stockpiles allowed Finland to approach renewed hostilities with strategic foresight. By summer 1941, forces recaptured large parts of the Karelian Isthmus and Ladoga Karelia through rapid mobilization,

²² Kimmo Rentola, "Intelligence and Stalin's Two Crucial Decisions in the Winter War, 1939–40," *The International History Review* 35 5 (2013): pp. 1089–1112.

²³ Maria Lähteenmäki, "Bad Blood and Humiliation: Finns' Experiences of the Moscow Peace Negotiations in 1940," *Nordia Geographical Publications* 43, 1 (2014): pp. 101–113.

²⁴ Gordon F. Sander, *The Hundred Day Winter War: Finland's Gallant Stand Against the Soviet Army*. (Lawrence KS: University Press of Kansas, 2013).

²⁵ Kimmo Rentola, *How Finland Survived Stalin: From Winter War to Cold War, 1939–1950* (New Haven CT: Yale University Press, 2024).

rearmament, and efficient infrastructure use.²⁶ Lauri Hannikainen frames this reconquest as a deliberate objective for a State lacking conventional superiority,²⁷ while Jared Diamond underscores the importance of honest national self-assessment.²⁸ The collective memory of the Winter War, coupled with demonstrated logistical and tactical competence, cultivated a long-term strategic culture. Even a small State with minimal external support can survive, maintain operational capacity, and aspire to recover lost ground, demonstrating that logistics can extend beyond supply to serve as an instrument of sovereignty, endurance, and long-term political-military strategy.

From Finland to Ukraine

Finland's experience with the Soviet Union demonstrates how careful planning, adaptive logistics, and knowledge of terrain can turn apparent disadvantages into strategic advantages. By establishing decentralized depots, maintaining flexible resupply, and training troops to operate in snow-covered terrain, Finnish forces imposed continuous pressure on a materially superior adversary. Mobility, anticipation, and local initiative allowed them to slow Soviet advances and extend the conflict, ultimately shaping the diplomatic outcome. While comparisons with Ukraine must be cautious due to differences in technology, geography, and geopolitics, the principle of logistics as a force multiplier remains relevant. Vitaliy Chorny highlights that Ukraine's ability to counter Russia's numerical and material superiority depends on modernizing supply chains, industrial capacity, and strategic planning.²⁹ The Finnish example illustrates that resilience, preparation, and operational flexibility can transform limitations into instruments of national survival and negotiation. Even a small State can leverage logistics and foresight to prolong resistance, impose costs on an attacker, and preserve sovereignty, offering lessons for asymmetric conflicts in the modern era.

²⁶ Vesa Nenye, Peter Munter, Toni Wirtanen, and Chris Birks, *Finland at War: The Continuation and Lapland Wars 1941–45* (Oxford: Osprey Publishing, 2016).

²⁷ Lauri Hannikainen, "Finland's Continuation War (1941–1944): War of Aggression or Defence? War of Alliance or Separate War? Analyzed from the International—Especially Legal—Perspective," *Baltic Yearbook of International Law Online* 17, 1 (2020): pp. 77–121.

²⁸ Jared Diamond, *Ibid.* According to the author, an honest national self-assessment of economic, social, and geopolitical strengths and weaknesses is one of the twelve factors that influence the outcome of a crisis.

²⁹ Vitaliy Chorny, "Experience of Finland during the Winter War of 1939–1940: Conclusions for Ukraine," *Social Development & Security* 9, 3 (2019): pp. 37–55.

Structural Patterns

A clear parallel between Finland in 1939–1944 and Ukraine since February 2022 lies in the initial imbalance of power, in which the aggressor possesses overwhelming advantages in manpower, equipment, and firepower. In the Finnish case, the Red Army deployed multiple mechanized and armoured divisions, yet Finnish logistics offset this disparity through decentralized depots, off-road mobility, and systematic adaptation to harsh winter conditions and densely forested areas. Russia experienced a comparable dynamic: although it projected massive troop movements in the first days of the war to topple Ukraine rapidly (see Figure 2), it ultimately became bogged down. Despite numerical and technological superiority, Russia faced disrupted supply lines, a strong dependence on rail transport, and low operational flexibility—vulnerabilities that Ukrainian forces exploited with considerable effectiveness.³⁰ Paul Robinson emphasizes that control of logistical flows remains a decisive factor in modern warfare,³¹ while Geoffrey Roberts notes that perceptions of existential threat strongly shape the decision to wage war.³² Both cases demonstrate that logistics, operational resilience, and terrain adaptation can transform apparent inferiority into strategic leverage, enabling prolonged resistance, imposing disproportionate costs, and creating openings for diplomatic or operational maneuver.

³⁰ Gilles A. Paché. “A ‘Ukrainian Campaign’ for the Russian Armed Forces? Logistical Deficiencies during the Invasion of Ukraine 2022,” *Journal of Applied Business & Economics* 24, 3 (2022): pp. . 247–255; Per Skoglund, Tore Listou, and Thomas Ekström. “Russian Logistics in the Ukrainian War: Can Operational Failures Be Attributed to Logistics?” *Scandinavian Journal of Military Studies* 5, 1 (2022): pp. 99–110.

³¹ Paul Robinson. “The Russia-Ukraine Conflict and the (Un)Changing Character of War,” *Journal of Military & Strategic Studies* 22, 2 (2022): pp. 65–88.

³² Geoffrey Roberts, “‘Now or Never:’ The Immediate Origins of Putin’s Preventative War on Ukraine,” *Journal of Military & Strategic Studies* 22, 2 (2022): pp. 3–27.

Figure 2. The flawed analytical presumption of a swift Ukrainian collapse



Source: *The Washington Post*, 4 March 2022.

Another point of convergence concerns the critical role of supply chains in sustaining long-term defence. Finland maintained operational effectiveness despite heavy casualties—more than 25,000 killed or missing and 43,000 wounded in a population of 3.7 million—through dispersed depots, climate-adapted support, continuous equipment maintenance, and maximum unit mobility.³³ Ukrainian forces face similar challenges: Matthieu Anquez shows that Russian difficulties largely stem from inadequate logistics, rigid supply systems, and vulnerable resources.³⁴ These examples illustrate that, even with modern technologies and AI, the effectiveness of a military force

³³ Pasi Tuunainen, 2016, *ibid*.

³⁴ Matthieu Anquez, "Guerre en Ukraine: Les erreurs russes à la lumière de 'Barbarossa,'" *Défense & Sécurité Internationale* 163 (2023): pp. 82–87.

depends on the sustainable management of resources on the ground. Logistics transforms preparation and time into strategic instruments, enabling smaller forces to maintain operational tempo, resist superior adversaries, and convert material and numerical limitations into operational leverage. The combination of anticipation, flexibility, and careful coordination defines whether asymmetric resistance can achieve tangible military and political outcomes.

The differences between the two contexts remain significant, cautioning against a mechanical application of a “Finnish model” to Ukraine. Modern warfare integrates conventional combat, cyber operations, drones, airpower, hybrid tactics, and international influence—far beyond the wintry forests of Finland in 1939. Finland’s recent strategic realignment and accession to NATO illustrate lessons drawn from Ukraine’s resilience, highlighting the importance of societal cohesion, preparedness, and adaptive policy in borderland regions.³⁵ Observing regional conflicts, nations often recalibrate both operational and strategic approaches to strengthen security. Finland’s population benefited from cultural, demographic, and climatic homogeneity, with military structures adapted to extreme winters. Ukraine, by contrast, faces a highly heterogeneous environment—plains, forests, urban centers—with varying weather, population densities, and civilian constraints, complicating defence planning. Sustained international support, continuous arms deliveries, and diplomatic engagement further distinguish the Ukrainian case. Consequently, the Finnish precedent serves as a heuristic, not a blueprint; its lessons—logistical foresight, adaptive mobility, and operational resilience—must be applied contextually, accounting for the unique geographic, demographic, technological, and political challenges Ukraine confronts.

Three Operational Lessons

Finland’s preparation in 1939 combined dispersed stockpiles, pre-positioned depots, and flexible delivery of ammunition, fuel, and food, tailored to topographical and climatic constraints. These arrangements reduced vulnerability to enemy breaches and enabled units, even isolated, to sustain operations. Coordinating reserves, maintaining equipment, and rapidly moving resources allowed a numerically inferior force to exert

³⁵ Jussi P. Laine, “Border Anxiety and Resilience: Finland’s Strategic Shift in a New Geopolitical Era,” *Journal of Contemporary Central & Eastern Europe* 34, 1 (2026): pp. 197–211.

continuous operational pressure. Pasi Tuunainen underscores logistics as a force multiplier, converting material disadvantage into enduring strategic leverage.³⁶ Applied to Ukraine, the first lesson is clear: maintaining supply lines under attack and infrastructure disruption is essential. Logistics structures the capacity to resist, endure, and preserve strategic cohesion, while simultaneously serving as an indirect bargaining instrument to influence the balance of power, even against technologically superior adversaries. Effective management of resources determines whether a defence can withstand sustained assaults, highlighting the strategic importance of anticipation, preparation, and mobility over sheer numbers.

The second lesson highlights preparation and operational flexibility. Finland did not improvise its defence; it anticipated terrain and climate constraints and planned for isolated units. Supply routes were diversified, local maintenance of weapons and vehicles ensured continuous operational capacity, and the population supported logistical efforts under extreme conditions. As Catherine Moriarty notes, this adaptive posture extended beyond military structures to encompass a broader national ecosystem—social, architectural, and environmental—designed to strengthen collective resilience.³⁷ The combination of anticipation, terrain mastery, and tactical adaptation gave Finnish forces leverage in diplomatic negotiations with the Soviet Union. Resistance also relied on paramilitary and territorial defence structures, which provided early warning, shaped the operational environment, and gradually wore down the adversary.³⁸ Applied to Ukraine, the Finnish experience illustrates that military effectiveness depends not only on troop numbers but also on the management of resource flows, mobility, and protection of critical infrastructure. Robust and context-adapted logistics can prolong resistance, reduce vulnerability, and enhance strategic and diplomatic influence.

It is important to emphasize that populations in border regions cultivate distinct forms of resilience, grounded in both everyday experience and shared cultural and

³⁶ Pasi Tuunainen, 2016, Ibid.

³⁷ Catherine Moriarty, "Environments of Defence: Finland and the Winter War," *Fabrications* 32, 1 (2022): pp. 6–30.

³⁸ Alastair Finlan, "Resistance and the Modern State: Exploring a Society-Based Resistance Capability Pathway for Sweden in the Shadow of the War in Ukraine," *Journal of Military & Strategic Studies* 23, 2 (2024): pp. 53–73.

economic practices.³⁹ Inhabitants learn to adapt to crises and unforeseen disruptions, sustain their social and commercial networks, and maintain business continuity despite external pressures, including border restrictions or conflicts in neighbouring areas. These local capacities complement formal military and logistical structures by reinforcing social cohesion and regional stability. The Finnish-Russian border experience demonstrates that mechanisms such as community support, cross-border economic routines, and shared cultural practices can convert apparent vulnerabilities into instruments of strategic resistance. In the Ukrainian context, such insights suggest that civil society can function as a force multiplier for resilience: by supporting military operations, sustaining economic and social continuity, and preserving collective morale, it directly contributes to prolonging resistance, imposing costs on the aggressor, and expanding the scope for political negotiation beyond purely military considerations.

The third lesson, emphasized by Mark O. Gul, concerns the dynamic nature of adaptation and external alignment.⁴⁰ Finland's forces continuously adjusted to Soviet tactical innovations through local initiative, rapid maneuvering, and flexible deployment, demonstrating the critical role of learning under combat pressure. The author also highlights the strategic implications of anticipating external support: while Finland expected aid from Sweden and other partners, much of this assistance never materialized, yet even the expectation influenced Soviet calculations and constrained their options, ultimately shaping the Moscow Peace Treaty. Applied to Ukraine, this underscores that the mere anticipation of international aid can shape operational and strategic decision-making by both defenders and aggressors. At the same time, reliance on expected support that is delayed or partial can expose critical vulnerabilities, demanding that domestic logistical resilience remain the foundation of defence. Ukrainian forces must therefore combine adaptive tactics, resilient supply chains, and careful coordination with allies, recognizing that strategic endurance depends not only on external assistance but also on the ability to sustain operations independently.

³⁹ Katarzyna Stokłosa, and Jussi P. Laine, "Resilience in the Finnish-Russian Border Region and Russia's War against Ukraine: From the Perspective of Locally Engaged People," *The Soviet & Post-Soviet Review* 51, 2 (2024): pp. 149–169.

⁴⁰ Mark O. Gul, *A Just and Durable Peace for Ukraine: Lessons Learned from Wars in Finland, the Korean Peninsula, and the Former Yugoslavia that Can Shape the US Approach to the Endgame of Russia's War*. (Norfolk VA: Joint Forces Staff College, 2024).

Discussion and Conclusion

The Finnish experience underscores how preparation, planning, and adaptation can shape the outcome of an asymmetric conflict. Despite numerical and material disadvantages, Finland leveraged intimate knowledge of its terrain, harsh climatic conditions, and a disciplined conscription system to maximize every available resource. Logistics functioned not merely as auxiliary support but as a genuine strategic instrument, enabling Finnish forces to transform an initially unfavourable balance of power into a managed form of attrition that imposed costs exceeding Soviet expectations. This capacity to endure and to inflict operational disruption created the diplomatic leverage that ultimately permitted Finland to negotiate from a position stronger than its material situation might have suggested. More broadly, the case demonstrates how logistical foresight, tactical flexibility, and coherent political objectives can shape conflict trajectories without providing a universal formula for contemporary crises. Instead, it offers a conceptual framework for analyzing how preparation, adaptation, and negotiation interact, reminding us that brute force alone rarely determines the outcome of protracted wars, especially when strategic asymmetries operate across environmental, organizational, and political dimensions.

History, however, never supplies templates that can be transposed without careful adaptation. Each conflict is embedded within a specific political environment, technological landscape, geographical setting, and societal structure. Finland in 1939–1944, therefore, cannot serve as a ready-made model for current conflicts, where advanced sensors, precision strike capabilities, faster communications, and the involvement of multinational actors profoundly alter strategic dynamics. Organized resistance, even when effective, brings significant human and material costs, and the temptation to romanticize “heroic endurance” often obscures these realities. Historical analysis should therefore avoid simplistic analogies and resist the inclination to craft narratives that conveniently echo present-day situations. Its value lies instead in clarifying structural factors—such as logistics, mobilization capacities, and societal cohesion—that shape military and diplomatic outcomes. Recognizing the limits of analogy is essential to avoid analytical distortions, unrealistic expectations, or policy recommendations that overlook the profound differences between past and present. In short, the purpose is neither imitation nor idealization but the formulation of a cautious,

contextualized understanding of how disadvantaged actors navigate strategic constraints while managing the costs of resistance.

Three broad conclusions emerge from the Finnish case. First, logistics stands as a central strategic variable that determines the sustainability, resilience, and operational effectiveness of forces operating under adverse conditions. Far from being a secondary consideration, it defines how long a country can endure, how effectively it can distribute limited resources, and how much strategic initiative it can maintain. Second, the interaction between military resistance and diplomacy is crucial: endurance can become a form of political capital, shaping negotiations and altering adversaries' calculations. Third, strategic success depends on integrating terrain, infrastructure, climatic realities, and societal capacities into a coherent approach rather than relying on technological superiority or external guarantees alone. The Finnish case illustrates how historical inquiry helps identify organizational and structural determinants of effectiveness without promising replicability. It encourages contemporary analysts to place logistics at the heart of defence planning, on equal footing with advanced technologies, doctrinal innovation, and alliance structures such as NATO, thereby offering a more holistic understanding of what enables smaller States to withstand powerful adversaries.

Several research paths remain open in the study of asymmetric conflicts and contemporary defence strategies. First, comparative analyses of logistical resilience across different wars could clarify the conditions that enable disadvantaged forces to prolong resistance, preserve operational coherence, and expand their diplomatic room for maneuver. Such studies would illuminate the thresholds beyond which endurance translates into meaningful political influence. Second, the relationship between battlefield performance and diplomatic leverage merits deeper examination, particularly how operational outcomes—whether tactical successes or sustained resilience—shape negotiation dynamics with both adversaries and external actors. Third, the territorial and social foundations of resistance, including local communities, cultural cohesion, and societal willingness to absorb costs, constitute a field of inquiry still insufficiently explored despite its strategic importance. Investigating how populations sustain military operations over time would shed light on the sociopolitical preconditions of resilience. Together, these avenues provide a productive framework for analyzing how States survive against superior adversaries while insisting on the necessary caution: historical

cases illuminate possibilities, but context ultimately determines outcomes, and any analogy must be used with precision to avoid serious interpretive errors.

From a contemporary perspective, the Finnish experience offers valuable insights when examining States facing hybrid and asymmetric threats, such as Ukraine and the Baltic States vis-à-vis Russia.⁴¹ Deterrence of a materially superior adversary depends not only on conventional military forces but on an integrated approach combining civilian resilience, institutional coordination, and international cooperation. Strategic preparedness involves securing critical infrastructure, strengthening communication networks, and establishing responsive systems capable of countering both conventional and hybrid operations, including cyber and information warfare. Collective security guarantees, such as those provided by NATO, amplify the effect of limited national resources by raising the potential costs for an aggressor and expanding political negotiation space. The combination of endurance, multilateral support, and the ability to absorb material or psychological shocks allows a State to convert apparent vulnerabilities into strategic leverage. However, effectiveness remains contingent on context-specific factors, including social cohesion, geography, institutional maturity, and adversary character. Thus, while the Finnish case highlights the centrality of logistics and planning, contemporary States can adapt these principles to calibrate credible deterrence without attempting to replicate historical circumstances.

⁴¹ David Takacs, "Ukraine's Deterrence Failure: Lessons for the Baltic States," *Journal on Baltic Security* 3, 1 (2017): pp. 1–10.

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