Systemy Logistyczne Wojsk
Zeszyt 65(2026)
s. 9-24

Instytut Logistyki
Wydział Bezpieczeństwa, Logistyki i Zarządzania
Wojskowa Akademia Techniczna w Warszawie

Military Logistics Systems
Volume 65(2026)
pp. 9-24

Institute of Logistics
Faculty of Security, Logistics and Management
Military University of Technology in Warsaw

DOI: 10.37055/slw/242077
Article type: Original research article

ISSN 1508-5430
eISSN 2719-7689

ASSESSMENT OF THE URGENT OPERATIONAL REQUIREMENT PROCEDURE FOR ACCELERATED MILITARY EQUIPMENT REPLENISHMENT IN POLAND IN THE CONTEXT OF THE RUSSIAN–UKRAINIAN WAR

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Abstract.
The Russian–Ukrainian war and Poland's extensive military assistance to Ukraine have increased pressure on the rapid replenishment of selected military equipment resources. However, the practical role of accelerated defence procurement mechanisms in translating urgent acquisitions into sustainable military capability remains insufficiently examined. The aim of this study is to assess how the Urgent Operational Requirement (UOR) procedure may support the accelerated replenishment of selected categories of military equipment in the Polish Armed Forces under conditions of crisis-driven resource depletion. The study asks under what conditions UOR can support such replenishment and hypothesises

that its contribution to operational capability is indirect and conditional upon subsequent implementation and logistical support. A qualitative research design combining legal-normative analysis, structured document analysis and comparative case-based analysis was applied. The empirical analysis focused on K9A1 self-propelled howitzers and M1A1 Abrams tanks during 2022–2025. The findings document contract-to-first-delivery intervals of 102 days for K9A1 and approximately 175 days for M1A1, alongside training, ammunition, maintenance and logistics provisions. These intervals do not quantify time savings attributable to UOR. Public evidence confirms the UOR-related status of the Korean procurement programme, whereas the M1A1 acquisition provides particularly strong evidence of crisis-driven equipment replenishment. The hypothesis is partially supported. UOR may facilitate accelerated procurement, but procurement speed alone does not constitute restored operational capability. The study contributes to military logistics by identifying the conditions linking accelerated acquisition, equipment replenishment and sustainable military readiness.

Keywords:
urgent operational requirement; military equipment procurement; military logistics; equipment replenishment; military readiness

Introduction

The Russian–Ukrainian war has increased pressure on defence planning, military readiness and equipment replenishment in Central and Eastern Europe (Ratti 2023, pp. 73–89, Gryz 2024, pp. 81–102). For Poland, these challenges are particularly relevant because military readiness depends not only on equipment availability but also on the logistics required to sustain it (Pawlisiak 2016, pp. 260–274, Lubiewski and Dróżdż 2021, pp. 49–60).

Poland has transferred substantial quantities of military equipment to Ukraine (Prezydent Rzeczypospolitej Polskiej 2025, Ośrodek Studiów Wschodnich 2025). In selected categories, these transfers generated a documented requirement for accelerated replenishment of Polish military resources (Sejm Rzeczypospolitej Polskiej 2022).

Decision No. 116/MON of 1 September 2021 defines the Urgent Operational Requirement (UOR) procedure as an acquisition pathway for immediate equipment needs arising from circumstances that could not have been foreseen during planning despite due diligence (Minister Obrony Narodowej 2021a). Existing research addresses the war's security consequences, defence modernisation and procurement (Antczak and Stolarz 2022, pp. 187–210, Ratti 2023, pp. 73–89, Gryz 2024, pp. 81–102), but the practical role of UOR in crisis-driven equipment replenishment and the conditions affecting its contribution to military readiness remain insufficiently examined.

The research problem therefore concerns the conditions under which the UOR procedure can contribute to the accelerated replenishment of military equipment following crisis-driven depletion of defence resources, and the extent to which accelerated procurement can subsequently support the restoration of usable military capability. The aim of the article is to assess how the UOR procedure may support the accelerated replenishment of selected categories of military equipment in the

Polish Armed Forces under conditions of crisis-driven resource depletion associated with the Russian–Ukrainian war.

Research question (RQ): Under what conditions can the Urgent Operational Requirement procedure support the accelerated replenishment of selected categories of military equipment in Poland following crisis-driven resource depletion?

Research hypothesis (H1): The UOR procedure can support short-term military equipment replenishment by shortening selected procurement pathways; however, its contribution to the restoration of usable military capability is indirect and conditional upon equipment delivery, introduction into service, training, personnel, ammunition, logistics, maintenance, infrastructure and integration into long-term force planning.

The empirical analysis covers 24 February 2022–31 December 2025 and is limited to Poland and the Polish Armed Forces; the normative analysis covers the regulatory framework from 2021 onwards. The logistical contribution lies in distinguishing acquisition from capability restoration through delivery, fielding, training, personnel, ammunition, maintenance, logistics, infrastructure and force integration.

Literature Review

The Russian–Ukrainian war has reshaped the security environment in Central and Eastern Europe and affected North Atlantic Treaty Organization (NATO) and national defence planning (Ratti 2023, pp. 73–89, Gryz 2024, pp. 81–102). Research also addresses hybrid pressures and the position of smaller states within alliance and defence-industrial structures (Kaźmierczak and Laskowski 2024, pp. 117–129, Béraud-Sudreau and Schmitt 2024, pp. 711–731). This literature explains the strategic context of accelerated modernisation but gives less attention to the institutional and logistical mechanisms used to replenish depleted military resources.

A second strand concerns defence procurement and modernisation. European studies identify trade-offs among industrial autonomy, cost, acquisition strategy and procurement cooperation (Calcara 2020, pp. 799–815, Droff and Malizard 2023, pp. 18–34). Polish research similarly examines armaments-industry strategy and equipment-acquisition arrangements (Antczak and Stolarz 2022, pp. 187–210, Nowakowska-Krystman et al. 2022, pp. 211–234). These studies explain procurement choices and institutional coordination but provide limited empirical evidence on accelerated replenishment under crisis-driven depletion.

Emergency procurement literature shows that exceptional procedures may be used where extreme urgency and unforeseeable events make ordinary timelines impracticable, subject to defined legal conditions (Sejm Rzeczypospolitej Polskiej 2019, Telles 2022, pp. 215–228). In Poland, Decision No. 116/MON establishes UOR for immediate equipment needs that could not have been anticipated during planning

despite due diligence (Minister Obrony Narodowej 2021a). However, the literature provides little empirical assessment of how this mechanism operates in practice or how accelerated acquisition connects with delivery, fielding and sustainment.

Research on the war's defence-industrial effects identifies post-2022 changes in Central and Eastern European procurement and cooperation, constraints on rapid output expansion, and vulnerabilities in the European defence technological and industrial base (Chovančík and Krpec 2023, pp. 369–386, Caverley 2023, pp. 606–623, Fiott 2023, pp. 7–17). Yet it does not explain in detail how donor states translate crisis-driven depletion into specific replenishment procedures.

From a military logistics perspective, equipment acquisition alone does not restore operational capability. Readiness depends on interrelated acquisition, distribution, maintenance, training and sustainment processes (Yoho et al. 2013, pp. 80–96, Pawlisiak 2016, pp. 260–274, Kurek 2021, pp. 5–24), while the Russo–Ukrainian conflict demonstrates the operational importance of replenishment and sustainment (Ti and Kinsey 2023, pp. 381–398). The resulting research gap lies at the intersection of crisis-driven depletion, accelerated defence procurement and military logistics: insufficient evidence exists on the conditions under which an urgent requirement progresses through contracting and delivery to fielding, training, logistical support and maintenance. This gap provides the basis for the research problem addressed in this study.

Research Methodology

This study uses a qualitative design combining legal-normative analysis, structured document analysis and comparative case analysis to assess when UOR may support accelerated equipment replenishment while distinguishing procurement from restoration of usable military capability.

The normative analysis covers the Polish acquisition framework from 2021 onwards, with particular emphasis on Decision No. 116/MON. The empirical period is 24 February 2022–31 December 2025. Sources comprise legal and normative acts; Ministry of National Defence and Armament Agency documents; parliamentary and governmental materials; official information on contracts, deliveries, service introduction, training and logistical support; analytical reports; and peer-reviewed literature. Later source verification did not extend this empirical window; only information about events up to 31 December 2025 was included.

Sources were included when they provided verifiable evidence on at least one analytical category: requirement or depletion, procurement pathway, contract date, quantity, delivery, service introduction, training, ammunition, logistics, maintenance, or the relationship between procurement and resource depletion. Unsupported

general commentary was excluded. Where sources overlapped, official primary evidence was prioritised and cross-checked where possible.

K9A1 self-propelled howitzers and M1A1 Abrams tanks were selected purposively because both involved major land-force procurements implemented rapidly during intensified military support to Ukraine, generated substantial training and logistics requirements, and offered sufficient public evidence for structured comparison. They also differ in the strength of public evidence linking them to UOR, which is treated as an analytical distinction.

A case was classified as UOR-related only when an official source explicitly associated the relevant programme or equipment category with UOR. Where evidence confirmed accelerated replenishment but not the formal UOR status of the specific contract, the case was classified as accelerated replenishment. Each case was analysed according to the sequence: depletion or urgent requirement → procurement pathway → contract and quantity → delivery → service introduction → training → ammunition and logistics → maintenance → usable military capability. Contract-to-first-delivery intervals were calculated from reliable public dates but were not treated as UOR time savings because no valid standard-procurement counterfactual was available.

H1 was assessed in two stages: first, whether UOR provides a mechanism designed to enable accelerated procurement; second, whether accelerated acquisition was followed by delivery, service introduction, training, ammunition, logistics, maintenance and force integration. Contract signature alone was not treated as evidence of restored capability. Validation relied on triangulation of procedural and implementation evidence.

The study is limited by restricted public access to individual UOR decisions and defence-procurement documentation. No comprehensive public register of UOR procurements for 2022–2025 was identified, and public evidence does not permit a robust quantitative comparison with equivalent standard procedures. The findings therefore concern the UOR mechanism and selected publicly verifiable cases rather than the full population of Polish UOR acquisitions.

Results

1. The UOR framework provides an accelerated procurement pathway, but does not itself constitute capability restoration

The analysis of the Polish military equipment acquisition framework confirms that the Urgent Operational Requirement (UOR) constitutes a distinct pathway within the military equipment procurement system. Decision No. 116/MON provides for the acquisition of new equipment, equipment already in use by the Polish Armed Forces, and equipment required under an urgent operational requirement (Minister Obrony Narodowej 2021a). The institutional framework also includes the Armament

Agency, which began operating on 1 January 2022 under Order No. 74/MON, and the Technical Modernisation Council, whose role is defined in Decision No. 117/MON (Minister Obrony Narodowej 2021b, Minister Obrony Narodowej 2021d).

Under Decision No. 116/MON, the UOR pathway addresses an immediate requirement to acquire new military equipment or modernise existing equipment where the need could not have been foreseen during the planning process despite due diligence. A UOR request must identify the operational requirement and the required deadline, justify the urgency, specify the equipment or critical tactical and technical requirements, identify available market solutions, address classified-information requirements and indicate the required quantity. The Armament Agency supplements the request with an estimated acquisition cost and a time-cost analysis, after which ministerial approval is required (Minister Obrony Narodowej 2021a).

Once approved, the requirement is integrated into the relevant planning and financing arrangements, including the Technical Modernisation Plan (Minister Obrony Narodowej 2021c). Depending on the legal and procurement circumstances, implementation may involve accelerated or exceptional acquisition arrangements, including negotiated or single-source procedures (Sejm Rzeczypospolitej Polskiej 2019).

The normative analysis therefore supports the first part of the research hypothesis insofar as UOR provides an institutional mechanism designed to enable accelerated procurement. It does not, however, establish that the procedure automatically reduces procurement time by a specified amount, nor that procurement itself restores operational capability. Delivery, fielding, training, ammunition, maintenance, infrastructure and logistical support remain separate requirements.

2. Military assistance to Ukraine generated documented replenishment pressure

Reported Polish military assistance amounted to approximately PLN 15 billion and included more than 350 tanks, over 250 BWP-1 infantry fighting vehicles, artillery, armoured vehicles, MiG-29 aircraft, Mi-24 helicopters and ammunition (Prezydent Rzeczypospolitej Polskiej 2025, Ośrodek Studiów Wschodnich 2025). These transfers matter here as evidence of pressure on equipment categories requiring replenishment, rather than as a complete inventory of assistance.

The clearest documented relationship concerns armoured forces. In its response to parliamentary question No. 35052, the Ministry of National Defence linked the war, escalation risk and T-72 donations to the need to restore combat-equipment potential rapidly, explicitly identifying the planned acquisition of 116 M1A1 Abrams tanks in that context (Sejm Rzeczypospolitej Polskiej 2022).

The artillery relationship is less direct: the examined sources do not establish that each K9A1 replaced a specific donated system. K9A1 is therefore interpreted within urgent artillery replenishment and reinforcement. For M1A1, the evidence

directly documents the depletion–replenishment relationship; for K9A1, it more clearly establishes the urgency and UOR-related status of the Korean programme.

3. K9A1: UOR-related accelerated procurement evidenced at programme level

The first analysed case concerns the acquisition of K9A1 155 mm self-propelled howitzers from the Republic of Korea. An official Ministry of National Defence response to parliamentary question No. 42660 stated that the military equipment procured in the Republic of Korea had been identified as an Urgent Operational Requirement within the Armed Forces Reinforcement Package for 2023–2025 and was introduced into the Technical Modernisation Plan on that basis (Sejm Rzeczypospolitej Polskiej 2023).

This statement supports classifying the Korean procurement programme, including K9A1, as UOR-related at programme level. The individual approved UOR request for the 26 August 2022 contract is not publicly available, so its formal UOR status cannot be independently verified at contract level.

The first executive contract for K9A1 howitzers was concluded on 26 August 2022 between the Armament Agency and Hanwha Defense. It provided for the acquisition of 212 K9A1 self-propelled howitzers, together with a training package, logistics package, ammunition stock and manufacturer support (Ministerstwo Obrony Narodowej 2022). The contract value was approximately USD 2.4 billion net. The first 24 K9A1 howitzers were unloaded in Gdynia on 6 December 2022 and reached the military unit in Węgorzewo on 12 December 2022 (Ministerstwo Obrony Narodowej 2023c).

The contract-to-first-delivery interval was 102 days. It documents rapid implementation, not time saved through UOR: no valid public counterfactual exists for an equivalent acquisition under a standard pathway.

Evidence of implementation extends beyond physical delivery. On 23 February 2023, Polish crews conducted the first live firing in Poland using K9A1 howitzers. Official information also confirmed the presence of K9A1 systems in the 1st Masurian Artillery Brigade and their use in training by Polish crews (Ministerstwo Obrony Narodowej 2023c).

The procurement also incorporated elements directly relevant to logistics and sustainment: ammunition, training, logistical support, manufacturer service support, Polish communications equipment and integration with the TOPAZ battle-management/fire-control environment. The framework agreement additionally envisaged technology transfer and the establishment of domestic servicing capabilities (Agencja Uzbrojenia 2022).

Delivery of all 212 K9A1 howitzers under the first executive contract was completed in December 2025 (Świerkowski 2025). The case documents delivery, fielding, training and logistical support, but does not show that UOR alone generated capability; implementation after acquisition remained necessary.

4. M1A1 Abrams: accelerated replenishment explicitly linked to post-donation equipment depletion

For the 116 M1A1 Abrams tanks, the strongest public evidence links donations to replenishment. In September 2022, the Ministry of National Defence linked the war, escalation risk and T-72 transfers to the urgent restoration of Polish land forces' combat potential, identifying the planned acquisition of 116 M1A1 as part of that response (Sejm Rzeczypospolitej Polskiej 2022).

The contract for 116 M1A1 Abrams tanks was approved on 4 January 2023. In addition to the tanks, it covered 12 M88A2 HERCULES recovery vehicles, eight M1074 Joint Assault Bridges, six M577 command vehicles and 26 NG SECM workshops, together with training and logistics packages. The wider project also included combat and training ammunition (Ministerstwo Obrony Narodowej 2023a).

The logistics package comprised spare and consumable parts, servicing equipment, mobile repair workshops and diagnostic equipment. Training covered instructors, crews and technical personnel. These provisions show why accelerated replenishment requires more than the primary combat platform.

The first batch of 14 M1A1 tanks and three M88A2 vehicles was accepted on 28 June 2023. The contract-to-first-delivery interval was therefore approximately 175 days (Ministerstwo Obrony Narodowej 2023b). Deliveries of all 116 M1A1 tanks were completed in June 2024, and the tanks entered service with the 18th Mechanised Division (Ministerstwo Obrony Narodowej 2024).

The 175-day interval does not quantify UOR time savings because no equivalent standard-procurement counterfactual is publicly available. Parliamentary and governmental sources document accelerated replenishment after donations, but no public primary UOR request or equivalent document was identified confirming the formal UOR status of the 4 January 2023 contract. M1A1 is therefore classified as an accelerated replenishment case with a documented depletion–replenishment link. Delivery completion and service introduction do not independently establish unit-level operational readiness.

5. Comparative findings

The comparison presented in Table 1 forms the basis for evaluating the similarities and differences between the two equipment procurement cases with regard to the research question.

Table 1. Comparative evidence for the K9A1 and M1A1 Abrams procurement cases

Analytical criterion	K9A1	M1A1 Abrams
Crisis/urgent requirement	Publicly documented	Publicly documented
Relationship to post-2022 replenishment pressure	Evidenced at programme level	Explicitly linked to T-72 donations

Table 1 (continued)

Analytical criterion	K9A1	M1A1 Abrams
Public UOR evidence	UOR-related at programme level	Specific contract not directly confirmed in an identified primary UOR document
Contract date	26 August 2022	4 January 2023
Quantity	212 K9A1	116 M1A1
First delivery to Poland	6 December 2022	28 June 2023
Contract-to-first-delivery interval	102 days	175 days
Delivery status by end of study period	212 delivered	116 delivered
Training	Publicly documented	Publicly documented
Logistics package	Publicly documented	Publicly documented
Ammunition	Publicly documented	Publicly documented
Introduction into Polish formations	Publicly documented	Publicly documented
Evidence of practical military use/training	Publicly documented	Service introduction documented
Analytical classification	UOR-related accelerated procurement case	Accelerated replenishment case

Source: own analysis based on cited sources

The comparison in Table 1 confirms that both cases involved the rapid replenishment of military equipment; however, only the K9A1 procurement programme has a publicly documented link to the UOR procedure. Regarding the research question, the results partially support hypothesis H1, indicating that accelerated procurement can facilitate resource replenishment, whereas the restoration of operational capabilities remains contingent upon logistical support, training, and the operational fielding of the equipment.

The cases demonstrate rapid first deliveries followed by training, logistical support and introduction into formations. Delivery completion is documented for both cases. K9A1 live firing and M1A1 introduction into service provide evidence of implementation, but do not establish a common, independently measured level of operational readiness. Procurement and delivery indicators therefore cannot substitute for an assessment of sustainable capability.

Public evidence is stronger for implementation milestones than for the formal status of individual contracts. One case is UOR-related at programme level; the other documents accelerated replenishment. The absence of a complete public UOR register prevents these cases from establishing the total number of UOR procedures

in 2022–2025. Neither delivery interval measures a causal UOR advantage over an equivalent standard procurement.

Discussion

The findings distinguish three connected phases: identifying an urgent requirement and selecting a procurement pathway; converting the contract into physical equipment availability; and integrating delivered equipment into a sustainable military capability. UOR primarily enables the first phase. Its logistical significance depends on continuity across the subsequent phases, rather than on contract signature alone (Pawlisiak 2016, pp. 260–274, Minister Obrony Narodowej 2021a).

In the first phase, the institutional value of UOR lies in allowing an unforeseen urgent requirement to enter the acquisition process outside the normal long-term planning sequence. The Korean programme provides official evidence of this link between urgent identification and inclusion in the Technical Modernisation Plan (Sejm Rzeczypospolitej Polskiej 2023). This finding complements procurement research on institutional coordination and adaptation to changing security and market conditions (Calcara 2020, pp. 799–815, Nowakowska-Krystman et al. 2022, pp. 211–234, Droff and Malizard 2023, pp. 18–34).

The second phase produced first-delivery intervals of 102 and approximately 175 days. These are observable implementation outcomes, not estimates of procedural time savings. The lack of an equivalent standard-procurement counterfactual prevents attribution of a particular reduction to UOR. Procurement speed also depends on industrial capacity, market conditions, acquisition strategy and the procurement channel (Calcara 2020, pp. 799–815, Droff and Malizard 2023, pp. 18–34). The results consequently support an enabling mechanism without establishing its independent quantitative effect.

In the third phase, both packages show why equipment availability and usable capability are distinct. K9A1 delivery was followed by crew training and live firing; M1A1 acquisition included support vehicles, workshops, diagnostic equipment and training for crews and technical personnel (Ministerstwo Obrony Narodowej 2023a, Ministerstwo Obrony Narodowej 2023c). The documented requirement to adapt Abrams logistical infrastructure further demonstrates that readiness depends on implementation beyond delivery (Sejm Rzeczypospolitej Polskiej 2022). This is consistent with logistics research treating resources, personnel, maintenance and sustainment as interdependent foundations of military effectiveness (Pawlisiak 2016, pp. 260–274, Kurek 2021, pp. 5–24).

M1A1 directly links T-72 donations to restoring combat potential; K9A1 establishes the UOR-related character of a programme without proving one-for-one

replacement of donated artillery. Replenishment purpose and formal procurement status are distinct: rapid delivery alone does not prove UOR application.

Acceleration entails trade-offs. Less time for competition, comparative evaluation, standardisation and long-term planning may increase the importance of lifecycle support, spare-parts availability, training and domestic maintenance capacity. These are potential risks and planning requirements, not measured adverse outcomes of the two contracts. Defence-procurement and industrial research identifies related tensions among speed, cost, industrial capacity, autonomy and sustainment (Calcara 2020, pp. 799–815, Nowakowska-Krystman et al. 2022, pp. 211–234, Fiott 2023, pp. 7–17). Official plans for domestic production, servicing and supply chains for Korean equipment illustrate the need to connect initial acquisition with longer-term support (Agencja Uzbrojenia 2022).

The answer to RQ is therefore conditional: UOR can support accelerated replenishment when a qualifying urgent requirement is identified, an appropriate procurement pathway and available supplier can be mobilised, and delivery is followed by fielding, trained personnel, ammunition, maintenance, logistics, infrastructure and force integration. This sequence identifies where procurement speed may become operationally meaningful. The absence of a complete UOR register limits generalisation beyond the selected cases; restricted procedural documentation and the missing counterfactual prevent a population-wide effectiveness estimate.

The findings may inform Poland's ability to perform national and allied defence tasks. NATO interoperability, collective deterrence and strategic resilience were not measured and remain possible implications of effective capability restoration, not demonstrated effects of UOR (Ratti 2023, pp. 73–89, Gryz 2024, pp. 81–102).

Conclusions

The study assessed UOR as a mechanism supporting selected equipment replenishment in Poland under crisis-driven depletion associated with the Russian–Ukrainian war. The normative framework enables a response to qualifying urgent needs; the cases document rapid delivery and subsequent implementation. Accelerated procurement is not equivalent to restored operational capability.

In answer to RQ, UOR can support replenishment when the urgent requirement, procurement pathway and supplier availability are matched by delivery, introduction into service, training, personnel, ammunition, logistics, maintenance, infrastructure and integration into force planning. These conditions connect the acquisition decision to the prospect of sustainable military capability.

The research hypothesis is partially supported. The evidence supports the proposition that the UOR framework can facilitate short-term military equipment replenishment by enabling accelerated procurement. Its contribution to usable

capability remains indirect and conditional on implementation and sustainment. The observed 102-day K9A1 and approximately 175-day M1A1 intervals establish rapid first deliveries, but do not quantify the shortening of procurement pathways attributable to UOR.

K9A1 provides UOR-related programme evidence, while M1A1 supplies a directly documented link between T-72 donations and the requirement to restore combat potential. Neither classification should be extended beyond the available evidence. Delivery, training and service introduction indicate progress in implementation, but do not independently establish the full restoration of operational capability.

The logistical contribution is the distinction between procurement milestones and the requirements for sustained use. For defence planners, accelerated acquisition should be coordinated from the outset with fielding, training, personnel, ammunition supply, maintenance, spare parts, technical support, infrastructure and lifecycle planning. Speed becomes operationally meaningful through this integration (Pawlisiak 2016, pp. 260–274, Kurek 2021, pp. 5–24).

The absent public UOR register, restricted contract-level procedural evidence and lack of a standard-procurement counterfactual preclude a statistical assessment of overall UOR effectiveness. Further research should examine additional confirmed UOR cases, comparable timelines, lifecycle costs, maintenance performance and long-term force integration. Effects on NATO interoperability, deterrence and resilience require separate empirical investigation.

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Author Contributions

Andrzej Bujak, Artur Szymonik, Anna Jurczak and Bartosz Jasiulewicz contributed equally to the conceptualisation and design of the study, the collection and analysis of source materials, the interpretation of the findings, and the preparation and critical revision of the manuscript. All authors have read and approved the final version of the manuscript and agree to be accountable for its content.

Funding
This research received no external funding.

Data Availability Statement
No new datasets were generated or analysed in this study. All materials and data used in the analysis are publicly available and have been cited in the manuscript.

Conflict of Interest Statement
The authors declare no conflict of interest.

Use of AI Tools
AI tools were used to support the translation of the manuscript into English and minor language and editorial refinement. All AI-assisted outputs were reviewed and verified by the authors. The authors take full responsibility for the accuracy, integrity and final content of the manuscript.

Ethics Approval and Consent to Participate
Not applicable. The study did not involve human participants, personal data, surveys, interviews or experiments requiring ethics approval or informed consent.

Third-Party Materials
No third-party materials requiring permission were reproduced in the manuscript. The table was prepared by the authors on the basis of publicly available sources cited in the manuscript.

Acknowledgements
Not applicable.

Accepted: 24.10.2026
Received: 23.07.2025

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