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CURRENT ISSUES OF SUPPLYING MATERIAL AND TECHNICAL RESOURCES TO THE UNITS OF THE NATIONAL GUARD OF UKRAINE IN THE AREAS OF TASK EXECUTION AS ASSIGNED

Based on an analysis of the experience gained from logistical operations during the full-scale invasion and contemporary armed conflicts, this paper summarizes and systematizes information regarding the examples of providing logistical support to units of the National Guard of Ukraine. It identifies problems related to the existing supply system of such resources. These issues include slow responses to changing conditions, insufficient availability of transport vehicles, and weak coordination between combat units and logistics components.

The article also considers practice in employing modern technologies. Examples include using drones for delivering material and technical resources, as well as the camouflage of vehicles and logistical routes. Additionally, the definition of the process of supplying these tools to units of the National Guard of Ukraine in their assigned task territories is provided.

The authors analyze main principles for organizing the delivery of logistical resources to the designated operational areas. They explore the core tasks for logistics groups under current conditions. The study evaluates advantages and disadvantages in the performance of units responsible for logistical support during their participation in operations (combat actions). It also identifies further research directions aimed at improving the system of supplying logistical support to the forces of the National Guard of Ukraine in the context of state security missions.

Keywords: *logistics, logistical support, combat operations, the National Guard of Ukraine.*

Statement of the problem. According to the law [1], military formations of the National Guard of Ukraine (NGU), in cooperation with other components of Ukraine's defense sector, participate in repelling armed aggression against Ukraine. They also engage in finishing military conflict through hostile (battle) efforts. The effectiveness of these tasks directly depends on the proper organization of logistical support. One of its critical measures is the timely delivery of material and technical resources (MTR). The purpose of promptly supplying MTR to operational areas is to equip NGU units with all necessary means. These resources are essential to sustain combat readiness, tactical responsiveness, resilience, and the effective accomplishment of service and battle tasks in the distinguished regions.

The search for effective ways to implement material and technical support functions for military forces has demonstrated that logistics is precisely such a form. The armed services of many countries maintain dedicated research institutes. These establishments develop military-beneficial engineering innovations, respond to market changes, and adapt "civilian" logistical solutions to suit army needs.

Unfortunately, the existing supply system of material and technical resources has several drawbacks. Among these are slow responses to changing situations, inadequate provision of transport vehicles, and weak coordination between combat units and logistics elements. These issues complicate the timely and uninterrupted provision of engineering resources to the zones of mission execution. Consequently, the current system cannot fully meet the MTR requirements of troops in military operation areas. This situation necessitates an in-depth analysis of existing experience, identification of problematic aspects, and a search for methods to enhance the effectiveness of logistical support for NGU units.

Analysis of recent research and publications. The issues related to the delivery of material and technical resources to military formations during hostilities are discussed in the works of both Ukrainian and international researchers [2–6]. These studies primarily focus on organizing logistics processes, adapting supply systems to the conditions of contemporary conflicts, and improving inter-agency coordination within the security and defense sector.

Specifically, the authors of the article [2] have examined key factors influencing the effectiveness of transportation systems in military operations. Nevertheless, their primary emphasis is on refining the classification of tactical groups, with the question of improving logistical efficiency addressed only indirectly.

In publication [3], the authors present an analysis of leading global technological trends in the army domain. This includes the deployment of artificial intelligence and autonomous systems. Simultaneously, the monograph highlights innovation monitoring and emerging technologies relevant to enhancing logistics processes.

Researcher Ya. Kubetskyi [4] proposes a model for the rapid delivery of MTR to rapid-response border units operating autonomously. However, the study remains generalized, lacking a clear emphasis on transport connections.

The scholars Pribytkova N., Kharin A., and Shevchenko T. in publication [5] pay special attention to generalizing the fundamental principles of building a system of logistical support. Nevertheless, their research specifically pertains to police regiments, which exhibit key differences compared to military forces. Thus, this source provides valuable insights only in certain general theoretical aspects relevant to this article.

The authors of the study [6] also outline the main concepts and definitions concerning the principles, conditions, and organization of resource deliveries. However, their research primarily covers the delivery of supplies according to the operational principles of defensive and offensive engagement, without considering the unique aspects of tasks executed by the National Guard of Ukraine to ensure national security.

Therefore, this analysis of scholarly literature and publications reveals that the specifics of supplying MTR to the NGU units in their operational areas remain insufficiently studied. This gap underscores the necessity for a comprehensive analysis of existing academic sources and practical developments.

The purpose of the article is to investigate these problematic issues and summarize practical experience regarding the provision of material and technical resources to the National Guard of Ukraine units in their operational task areas. Additionally, it seeks to determine directions for improving logistical support effectiveness under combat conditions.

Summary of the main material. One of the primary tasks within the sphere of substantial supply is the delivery of material and technical resources. This responsibility is organized and executed under any operational conditions. The primary objective is to create stocks of MTR, replenish their usage and losses within units and subunits, and maintain replenishments within these military formations at the designated levels [6].

According to Order No. 522 of the Ministry of Defense of Ukraine, dated 11 October 2016, "On Approval of the Basic Provisions of Logistics Support of the Armed Forces of Ukraine," logistics is defined as a discipline that involves planning and executing the movement and provision of troops (forces). It applies to various aspects of military actions, specifically in activities such as design and development (including modernization and modification), procurement, storage, transportation, distribution, maintenance and repair, evacuation, and disposal of MTR. Additionally, logistics encompasses the movement of personnel, acquisition or construction, maintenance, operation, and disposal of service installations; acquisition or provision of services related to catering, laundry, and bath services, among others; as well as medical support [10].

The Logistics Forces Command was established at the end of 2018 as an inter-service control body, integrating the Rear Services and Armaments of the Armed Forces of Ukraine into a single structure. From 1 January 2022, the Logistics Forces acquired the status of a separate branch of forces. Logistical support of the National Guard of Ukraine, as a key component of the security and defense sector, represents a broad spectrum of interrelated measures. These measures include planning, controlling, and managing supplies, transportation, storage, and other tangible and intangible operations, notably involving the transfer, storage, and processing of relevant information. Such activities occur in support of the

service and combat activities of the National Guard of Ukraine, both in peacetime and wartime [9].

An analysis of existing regulatory acts concerning the subject under investigation reveals the presence of a broad spectrum of legal documents covering this issue [10–14]. Despite the comprehensive legislative framework, the practical aspects concerning the delivery of MTR to the units of the NGU require further development due to a number of unresolved practical challenges.

Delivery, as the most critical and complex aspect of the military material support system, involves supplying MTR to troops. This includes several key stages: preparation of logistical and transport resources; organizing forces and equipment required for loading and unloading operations; the actual loading of equipment onto carrier vehicles; shipment from locations of production, storage, procurement, and repair to designated destinations; and finally, the unloading of resources or their transfer onto the recipient's transport vehicles [6].

Considering the specific nature of the National Guard of Ukraine, particularly in tasks related to ensuring state security, the article defines the term "delivery of material and technical resources to supply the National Guard of Ukraine in areas of assigned task execution" as follows. It is a comprehensive set of measures involving the organization, preparation, and implementation of MTR resource transportation to NGU units performing specific functional tasks. The main goal is to provide timely, uninterrupted, and complete supplies necessary to maintain the units' operational capacity, mobility, and effectiveness in executing assigned tasks within designated areas.

Successful execution of logistical resource deliveries relies fundamentally on adherence to certain principles that summarize accumulated combat experience. Specifically, the paper [6] lists the following principles:

– alignment of the MTR organization with the nature of battle operations performed by the troops;

– responsibility of higher command structures for timely and uninterrupted logistical MTR delivery to subordinate units;

– comprehensive utilization of all transport types and associated logistical transport units to supply MTR;

– constant maintenance and proper utilization of reserve forces and delivery resources.

The principle of aligning logistical resource delivery organization with the nature of combat operations performed by troops embodies one of the core doctrines of military art. This doctrine demands concentrating primary efforts along main strategic axes. The principle dictates a general procedure and sequence for transport deliveries according to the significance of battle tasks assigned to troops, thereby establishing a precedence (priority) order for supply deliveries. Primarily, logistical resources are directed towards units operating along main effort axes (directions of primary attacks), within the primary combat zone (frontline positions), and advanced formations such as raiding and flanking detachments, and vanguard units.

When organizing the delivery of MTR to military units, various factors defining delivery conditions and characteristics must be taken into account. Key considerations include: the type of army operations and the nature of tasks performed by military units; their role and placement within the tactical structure of the command formation; the degree of enemy influence and the scale of their use of various types of weaponry; the logistics deployment and movement procedures adopted; the resource delivery procedures established by superior commanders; the geographical and physical conditions in the combat zone; and the completeness of motor transport units, the technical state of vehicles, and mechanization equipment for loading and unloading operations, among other factors.

Based on exercise experience, typically one or two railway routes are designated in the strategic command's primary area of action, along with the deployment of mainline pipelines. Additionally, the majority of available motor and air transport resources are utilized here. On secondary routes, when operational command shipping resources prove insufficient, supply stocks are moved closer to the troops. Subsequently, the transport units of the troops themselves manage the final deliveries. The highly maneuverable nature of modern combat efforts often leads to changes in the missions assigned to certain groups of troops. This may necessitate troop regroupings, deployments of second echelons, and air or naval landings behind enemy lines. Changes in combat missions during operations require redistribution of MTR according to troop action directions, subsequently shifting the focus of delivery forces and resources to different sectors.

The rapid pace of offensive affairs frequently leads to relocations of logistics areas. Such

relocations may require organizing the transfer of logistical resources to branches (units) either at established transfer points or during short halts. Under these conditions, resource delivery can occur simultaneously with the movement of delivery units, typically once per day or as circumstances demand. Factors affecting delivery frequency include roads occupied by advancing reserves and areas affected by contamination, destruction, fires, or flooding along transport routes. If military units become isolated from main forces or supply routes are compromised, deliveries can be executed by airlifting as arranged by higher command plans and resources. In certain scenarios, particularly involving artillery fire positions, the required volume of ammunition deliveries may substantially increase [6].

In contemporary operations, creating reserves becomes even more critical. This is due to potential decreases in troops' provision levels and possible limitations of the delivery system during combat actions. Interruptions in individual transport types are also possible. These factors may seriously jeopardize the execution of battle operations by the troops. Consequently, maintaining reserve forces and resources at all times is essential to address unexpected delivery tasks. Particularly important are reserves of mobile transport types, especially motor transport. Vehicular carriers are capable of transferring MTR between different shipping methods, bypassing areas of destruction, flooding, fires, or contamination zones. Air transport reserves are equally important as they provide the fastest means of delivery. The size of these reserves depends on logistical conditions and the supply level of the troops, typically amounting to 15–20 % of the available delivery forces and means.

Scientific research into the integrated use of various carriage methods plays a significant role in resolving the complex and multifaceted issues associated with the delivery of logistical resources. Additionally, employing comprehensive (modular) troop support systems and the widespread introduction of containers, packaging, and mechanized loading and unloading equipment can notably enhance the efficiency of material support to troops.

Deliveries must occur promptly, continuously, and in full. During combat operations, their planning and execution must ensure timely replenishment of daily consumption and losses of logistical resources among troops. Additionally, maintaining established reserves within military units, subunits, and transportation support units is crucial. To achieve this, the delivery system must operate uninterrupted [6].

In the current context of armed aggression against Ukraine, developing methods of delivering material and technical resources to the units of the NGU gains particular importance. These methods must adapt to the dynamic combat environment, enable rapid resource maneuvering, and ensure close interaction with other components of Ukraine's defense forces.

Based on the analysis of scientific sources and regulatory documents [2–6], modern logistics systems must ensure:

a) uninterrupted and timely supply of material and technical resources;

b) availability of alternative provision routes;

c) adaptability to changes in the combat situation;

d) digitization of tracking and monitoring processes.

It should also be noted that, in recent years, the methods of supplying material and technical resources to troops have significantly evolved. Among the critical positive developments in this area, the following should be highlighted:

1. The use of drones for delivering MTR. Small drones carry water, food, cigarettes, power banks, and batteries for infantry units. Larger drones, such as the "Vampire," transport FPV drones, Mavic drones, fuel, ammunition, and other essential items. Consequently, the issue of supplying MTR to National Guard units operating in assigned areas is partially addressed through the deployment of cargo unmanned aerial vehicles (UAVs). For instance, the cargo UAV "ULTRA," which is sufficiently powerful, has a maximum take-off weight of 450 kg and an internal cargo compartment with a capacity of 100 kg.

2. Vehicle camouflage and utilization of specialized equipment. This includes nighttime deliveries employing special fabric covers placed over vehicle engines to conceal heat signatures from the infrared cameras of Mavic UAVs.

3. Camouflaging logistic routes with netting to protect against drone attacks. However, this method is not always completely effective, as some drones still successfully target vehicles.

4. Construction of protective tunnels. These tunnels are made of plastic and fabric nets stretched over wooden poles along dirt roads. They provide protection from drone detection, ensuring safer transit for vehicles delivering MTR [7].

5. Advances in developing an information model for an information-analytical decision-support system. This system specifically supports the delivery of MTR to the National Guard units in task execution areas. It will comprise a subsystem model for structuring text and an integrated information-presentation subsystem within the POLYEDR platform. Unlike existing solutions, this system will consider the specific logistics processes of the NGU [8].

Additionally, it is important to highlight the introduction of Radio Frequency Identification (RFID) systems aimed at improving the supply of material and technical resources to units. It enables recognition and recording of objects using radio-frequency signals. The RFID tag is a compact data-storage device consisting of a microchip that retains information and an antenna responsible for transmitting and receiving data. Tags may be active, powered by an energy source, but most commonly they operate passively. When entering the scanning zone, a reader captures and extracts the stored information.

Understanding the advantages of RFID technology, organizations from various sectors have increasingly adopted it. This technology has widespread application in tracking the movement of objects and is integrated into intelligent automated solutions. Such systems operate accurately, rapidly, and reliably. Therefore, their employment in supplying MTR to National Guard units in operational areas is highly justified.

Among the primary challenges of offering logistical support are insufficient specialized transport, restricted access to combat zones, and coordination delays between supply structures and battle units. Other significant issues include the protection of convoys during transit, enemy reconnaissance activities, and the targeting of logistic assets.

Additional complications arise from continuous shelling and remote locations of storage facilities, which extend transportation distances and thus delivery times.

Whenever enemy forces receive an order to capture a specific locality, Ukrainian logistics immediately face intense attacks. Consequently, entry and exit without impediment become virtually impossible, and every vehicle faces the threat of FPV strikes. Armored vehicles in the ranks partially mitigate this threat, generally enabling personnel to remain unharmed.

Moreover, along most front-line sectors, enemy forces actively utilize fiber-optic drones (among other types) to disrupt logistical routes supporting Ukrainian units. This significantly hampers mobility, rendering movement within 15 km of the front line nearly impossible. Whereas in the previous year FPV drones primarily repelled assault operations, the current oversaturation of these attack systems allows both sides to disrupt supply lines effectively. This situation presents a considerable obstacle.

In the course of the research, it has been established that effective delivery of material and technical resources requires a comprehensive approach, including:

– improving the organizational structure of logistical units within the military formations of the National Guard of Ukraine (introducing additional staffing positions specifically responsible for delivering resources to NGU units in their operational areas);

– implementing advanced logistics management automation tools (particularly software systems such as LOGFAS and others);

– establishing efficient collaboration between combat and logistical support units (creating direct communication channels and coordinating activities);

– exploring new methods of employing unmanned aerial vehicles (UAVs) for supplying MTR to National Guard units operating in assigned areas;

– continuing efforts to equip logistical units with modern transportation means, storage facilities, and systems for maintaining and repairing weapons and military equipment, in accordance with approved doctrines [11, 13, 14];

– conducting specific types of repairs directly at the basing (deployment) locations of the National Guard contingents (forces);

– developing an automated logistics management system.

Therefore, improvements in the system of supplying material and technical resources will be achievable through comprehensive modernization of the transportation framework, enhanced responsiveness in decision-making processes, and adoption of best practices in military logistics.

Conclusions

The supply of material and technical resources to the units of the National Guard of Ukraine in assigned areas acquires strategic importance under the conditions of ongoing armed aggression. This significance arises directly from its influence on the readiness, endurance, and mobility of personnel. The conducted analysis has revealed significant shortcomings in the logistical support system of the National Guard of Ukraine. Among these, particular attention should be paid to slow logistical decision-making, shortages of modern transportation vehicles, limited shipment infrastructure, and insufficient digitalization of management processes.

Practical aspects of logistics services confirm that effective logistical support of complex operational zones is achievable only through the implementation of a flexible transportation system. Such a system must be capable of swiftly adapting to changes in the tactical situation, combat dynamics, and available resources. The introduction of advanced information technologies for monitoring, accounting, and managing deliveries plays a pivotal role in enhancing logistics efficiency. Equally important is the training of highly qualified specialists capable of operating effectively in rapidly changing conditions, especially when fulfilling tasks related to national security in the post-war period.

A critical ongoing task involves revising normative and organizational provisions governing logistical interaction between the National Guard of Ukraine and other components of the security and defense sector. This revision aims to establish a unified and coordinated assets delivery support system for joint task execution.

Directions for further research include analyzing factors influencing the process of supplying material and technical resources during wartime conditions. Such research should rank these factors and identify the most impactful ones. Additionally, developing an updated logistics model for the National Guard of Ukraine is required, encompassing prospective route planning for provision operations, the establishment of mobile supply points, and the utilization of unmanned and automated systems for transportation to hard-to-reach areas.

References

1. *Zakon Ukrainy "Pro Natsionalnu hvardiiu Ukrainy" № 876-VII* [Law of Ukraine about the National Guard of Ukraine activity no. 876-VII]. (2014, March 13). *Vidomosti Verkhovnoi Rady Ukrainy*. Retrieved from: https://zakon.rada.gov.ua/laws/show/876-18#Text (accessed 9 May 2025) [in Ukrainian].

2. Yarosh S. P., Huzchenko S. V. (2016). Klasyfikatsiia taktychnykh hrup [Classification of tactical groups]. *Zbirnyk naukovykh prats Kharkivskoho universytetu Povitrianykh Syl*, no. 3, pp. 21–25 [in Ukrainian].

3. Pysarenko T. V., Kvasha T. K., Havrys T. V. et al. (2021). *Analiz svitovykh tekhnolohichnykh trendiv u viiskovii sferi* [Analysis of global technological trends in the military sphere]. Kyiv : UkrINTEI. Retrieved from: https://surl.li/tpgcpb (accessed 9 May 2025) [in Ukrainian].

4. Kubetskyi Ya. (2019). *Model protsesu operatyvnoho pidvezennia MTZ prykordonnym pidrozdilam shvydkoho reahuvannia v umovakh yikh avtonomnosti* [Model of the process of operational delivery of MTS to border rapid response units under autonomous conditions]. *Zbirnyk naukovykh prats Natsionalnoi akademii Derzhavnoi prykordonnoi sluzhby Ukrainy. Seriia: viiskovi ta tekhnichni nauky*, no. 3, pp. 96–108. Retrieved from: https://surli.cc/ibdsfp (accessed 9 May 2025) [in Ukrainian].

5. Pribytkova N. O., Kharin A. S., Shevchenko T. V. (2023). *Orhanizatsiino-pravove ta materialno-tekhnichne zabezpechennia polku politsii osoblyvoho pryznachennia* [Organizational-legal and logistical support of the special purpose police regiment]. Kharkiv : KhNUVS. Retrieved from: https://surli.cc/ovutkp (accessed 10 April 2025) [in Ukrainian].

6. Saievych Y. Y., Zaderiienko S. I., Neurov I. V., Sakovych L. M., Babii Ya. V. et al. (2015). *Viiskovyi tyl. Osnovy tylovoho zabezpechennia viiskovykh chastyn (pidrozdiliv), taktychnykh hrup* [Military rear. Fundamentals of logistical support of military units (subunits), tactical groups]. Kyiv : Tyl Zbroinykh Syl Ukrainy. Retrieved from: https://surl.li/knfovt (accessed 13 May 2025) [in Ukrainian].

7. Shumlianskyi D. (2025). *Rosiiany masshtabuiut dosvid zastosuvannia sitok proty droniv* [Russians scale up the experience of using nets against drones]. *Militarnyi*. Retrieved from:

https://surl.li/bxqxif (accessed 14 April 2024) [in Ukrainian].

8. Kaplun Ye. O. (2024). *Rozvytok systemy lohistychnoho zabezpechennia shliakhom zastosuvannia informatsiino-analitychnykh system* [Development of the logistical support system through the use of information-analytical systems]. Proceedings of the All-Ukrainian scientific and practical conference *"Aktualni problemy lohistychnoho zabezpechennia skladovykh sektoru bezpeky i oborony Ukrainy ta shliakhy vyrishennia"* (Ukraine, Kharkiv, April 25, 2024). Retrieved from: https://surl.lu/urmwzi (accessed 14 April 2024) [in Ukrainian].

9. Hradetskyi A. V., Manzhos O. O., Andrusenko S. I. (2022). *Efektyvne funktsionuvannia viiskovoi lohistyky yak neobkhidna umova pidvyshchennia boiezdatnosti Natsionalnoi hvardii Ukrainy* [Effective functioning of military logistics as a necessary condition for increasing the combat capability of the National Guard of Ukraine]. *Naukovyi visnyk Kyivskoho instytutu Natsionalnoi hvardii Ukrainy*, no. 1, pp. 48–54. DOI: https://doi.org/10.59226/2786-6920.1.2022.48-54 [in Ukrainian].

10. *Nakaz Ministerstva oborony Ukrainy "Pro zatverdzhennia Osnovnykh polozhen lohistychnoho zabezpechennia Zbroinykh Syl Ukrainy" № 522* [Order of the Ministry of Defense of Ukraine "On approval of the Basic Provisions of Logistics Support of the Armed Forces of Ukraine" activity no. 522]. (2016, October 11). Retrieved from: https://znp-cvsd.nuou.org.ua/article/view/290316 (accessed 5 May 2025) [in Ukrainian].

11. *Doktryna Komanduvannia Syl lohistyky Zbroinykh Syl Ukrainy "Zabezpechennia materialno-tekhnichnymy zasobamy, robotamy ta posluhamy" № VKP 4-160 (03).01* [Doctrine of the Command of Logistics Forces of the Armed Forces of Ukraine "Provision of material and technical means, works and services" activity no. VKP 4-160(03).01]. (2021, January 21). Retrieved from: https://surl.li/qivewb (accessed 5 May 2025) [in Ukrainian].

12. *Doktryna Komanduvannia Syl lohistyky Zbroinykh Syl Ukrainy "Zastosuvannia Syl lohistyky" № VKP 4-32 (03).01* [Doctrine of the Command of Logistics Forces of the Armed Forces of Ukraine "Application of logistics forces" activity no. VKP 4-32 (03).01]. (2021, February 4). Retrieved from: https://surl.li/rckvrd (accessed 5 May 2025) [in Ukrainian].

13. *Postanova Kabinetu Ministriv Ukrainy "Pro zatverdzhennia Poriadku lohistychnoho zabezpechennia syl oborony pid chas vykonannia zavdan z oborony derzhavy, zakhystu yii suverenitetu, terytorialnoi tsilisnosti ta nedotorkannosti" № 1208* [Resolution of the Cabinet of Ministers of Ukraine "On approval of the Procedure for logistical support of the defense forces during the implementation of tasks for the defense of the state, protection of its sovereignty, territorial integrity and inviolability" activity no. 1208]. (2018, December 27). Retrieved from: https://zakononline.com.ua/documents/show/369128___773806 (accessed 14 April 2025) [in Ukrainian].

14. *Doktryna Komanduvannia Syl lohistyky Zbroinykh Syl Ukrainy "Z orhanizatsii peremishchen ta perevezen u Zbroinykh Sylakh Ukrainy № VKP 4-00(03).01* [Doctrine of the Command of Logistics Forces of the Armed Forces of Ukraine "On the organization of movements and transportation in the Armed Forces of Ukraine" activity no. VKP 4-00(03).01]. (2020, August 19). Retrieved from: https://surl.li/yfsufu (accessed 9 May 2025) [in Ukrainian].

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АКТУАЛЬНІ ПИТАННЯ ПОСТАЧАННЯ МАТЕРІАЛЬНО-ТЕХНІЧНИХ РЕСУРСІВ ПІДРОЗДІЛАМ НАЦІОНАЛЬНОЇ ГВАРДІЇ УКРАЇНИ В РАЙОНАХ ВИКОНАННЯ ЗАВДАНЬ

На основі аналізу досвіду логістичних операцій під час повномасштабного вторгнення та збройних конфліктів сучасності узагальнено та систематизовано інформацію про приклади матеріально-технічного забезпечення підрозділів Національної гвардії України. Уточнено перелік основних завдань

для логістичних груп у сучасних умовах. Розглянуто переваги та недоліки дій підрозділів, відповідальних за логістичне забезпечення, під час участі в операціях (бойових діях).

В умовах збройної агресії проти України ефективність логістичної підтримки підрозділів Національної гвардії України набуває особливого значення, зокрема у питанні доставки транспортних засобів до районів виконання завдань. Система забезпечення має адаптуватися до динамічної бойової ситуації, потреби у швидкому маневруванні ресурсами та високого рівня взаємодії з іншими компонентами сил оборони України.

Розроблення інформаційної моделі інформаційно-аналітичної системи підтримки та ухвалення рішень щодо постачання матеріально-технічних ресурсів для підрозділів Національної гвардії України в райони виконання завдань передбачає її поділ на модель підсистеми структурування тексту та модель підсистеми подання інформації, інтегрованої в POLYEDR. На відміну від наявних рішень, вона враховуватиме специфіку логістичних процесів Національної гвардії України.

У статті досліджено перспективні напрями вдосконалення логістичного забезпечення Національної гвардії України. Зокрема, акцент зроблено на інтеграцію сучасних програмних засобів автоматизації (наприклад, LOGFAS) у процеси управління, розвиток безпосередньої координації між бойовими та підрозділами логістики шляхом створення прямих каналів зв'язку, а також на впровадження інноваційних рішень з використанням безпілотних літальних апаратів для оперативного підвезення матеріально-технічних засобів у райони виконання завдань.

Ключові слова: *логістика, матеріально-технічне забезпечення, бойові операції, Національна гвардія України.*

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