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ANALYSIS OF FACTORS INFLUENCING THE CHOICE OF THE MODEL FOR THE APPLICATION OF FORCES AND MEANS OF A BORDER GUARD DETACHMENT AS PART OF THE DEFENSE FORCES IN REPELLING AN ARMED INVASION

The set of factors influencing the choice of the model for the application of forces and means of a border guard detachment as part of the defense forces in repelling an armed invasion has been determined. Their analysis, systematization, and ranking have been carried out. From the entire variety of factors, 8 major groups have been identified through generalization and systematization: military-political, socio-economic, material-technical, organizational-management, moral-psychological, physical-geographical, ecological and sanitary-epidemiological, and normative-legal.

Keywords: *state border, repelling armed invasion, defense forces, border guard detachment, forces and means, application model, analysis of factors, ranking.*

Statement of the problem. The analysis of the experience in repelling the armed aggression of the Russian Federation against Ukraine allows asserting the growing role and significance of the State Border Guard Service of Ukraine (SBGS), particularly the forces and means of border guard detachments, in the country's defense system. The effectiveness of applying the forces and means of border guard detachments as part of the defense forces will depend on the correct choice of the model of their participation in tasks related to the defense of the state.

The development of a scientific-methodical apparatus for justifying the choice of the model (variant) for the application of forces and means of border guard detachments also requires an analysis of a relevant list of factors that shape the conditions for their participation in tasks as part of the defense forces and will have different manifestations and impacts on this process. Therefore, determining their totality and assessing their impact is one of the main tasks that needs to be addressed in the process of developing methodological approaches to justify the model of the application of forces and means of border guard detachments as part of the defense forces.

Analysis of recent studies and publications. The legal basis for the application of forces and means by the State Border Guard Service of Ukraine (SBGS) as part of the defense forces is comprised of relevant legislative and regulatory acts that regulate the general issues of their participation in the defense of the state [1–5].

The issue of analyzing the factors that influence the procedure for the application of SBGS bodies (units) in various forms of operational activities and conditions has been considered in the works of scholars of the border agency. They have conducted a series of studies on analyzing factors affecting the complexity of the socio-political situation in the region, shaping the situation on the state border, and identifying criteria for its complexity, etc. [6, 7, 8].

Work [9] identifies a set of factors that determine the procedure for the functioning of the SBGS during a special period. An analysis, systematization, and ranking of these factors have been conducted. Factors influencing the complexity level of the situation on the state border of the regional management (RM) during the escalation of the military-political situation have been studied. This allowed for the improvement of a set of indicators for scientific and methodological support in determining the response options of the RM bodies to changes in the situation on the state border based on the anticipated level of complexity [10]. In publication [11], factors influencing the effectiveness of deploying rapid response units during their participation in stabilization actions of the military forces have been analyzed.

Article [12] analyzes the factors and conditions that affect the security of the Ukrainian-Moldovan

section of the state border under the responsibility of the Southern Regional Management. Based on this analysis, the allocation of forces and means of the RM was carried out using a multi-criteria optimization method under fuzzy conditions.

In general, the results of the analysis of the mentioned works allow us to assert that there has not been sufficient attention given to the study of the impact of factors on the application of forces and means of border guard detachments in conditions of a martial law, particularly during their participation as part of the defense forces in repelling an armed invasion. Therefore, several relevant and practically significant issues require further analysis, highlighting the relevance of this article.

The purpose of the article is to formulate the set of factors influencing the choice of the model for the application of forces and means of a border guard detachment as part of the defense forces in repelling an armed invasion, as well as their systematization, analysis, and ranking.

Summary of the main material. The model (forms and methods) for the application of forces and means of a border guard detachment as part of the defense forces in repelling an armed invasion is determined depending on specific situational conditions, which shape objective and subjective factors. In the course of research, factors influencing the functioning of any complex system are typically identified using logical methods of analysis.

The analysis of combat experience [13, 14, 15] indicates that the following factors significantly influence the choice of the model for the application of forces and means of a border guard detachment as part of the defense forces: the state of manning and appropriate provision with modern weapons and military equipment; methods of conducting combat operations; peculiarities of the physical and geographical conditions in the area of combat operations; timeframes for carrying out combat and special tasks; etc.

At the same time, the results of the analysis allow us to assert that the choice of the model for the application of forces and means of a border guard detachment as part of the defense forces in repelling an armed invasion is influenced not only by purely military factors but also by other significant factors. These factors include the state of the military-political situation around the country, political sentiments and traditions of the local population, their religious composition, attitude towards the defense forces, the state of the country's economy, the activities of mass media, etc. Therefore, there is a need to identify and assess the entire set of factors that will influence the choice of the model for the application of forces and means of a border guard detachment as part of the defense forces in repelling an armed invasion and executing other combat and special tasks. In accordance with the research task, the authors have undertaken their systematization and analysis.

An important factor with a dominant impact on the choice of the model for the application of forces and means of a border guard detachment as part of the defense forces is the composition of the enemy's troops, the combat potential of the parties characterized by the quantitative and qualitative composition of weapons and military equipment. Modern weapons and military equipment enhance the striking and firepower capabilities of troops (forces) of the parties, maneuvering capabilities, etc. Therefore, equipping the border guard detachment with modern models of weapons and military equipment will enable its forces and means to effectively counter the enemy and achieve defined objectives.

Another factor influencing the choice of the model for the application of forces and means of a border guard detachment as part of the defense forces is the level of material and technical support, significantly impacting their ability to carry out combat and special tasks. The influence of each type of support varies and depends on the specific situation. Complications in the situation may hinder support and consequently lead to a decrease in the effectiveness of the forces and means of a border guard detachment activities.

When assessing the level of material and technical support, it is crucial to consider the state and development of the country's economy and the economic situation in the region of combat operations regarding the possibility of utilization of local resources for troop support, engaging transportation, repair, medical, and other facilities.

Among the factors influencing the choice of the model for the application of forces and means of a border guard detachment as part of the defense forces in repelling an armed invasion, the human factor plays a crucial role. This includes elements such as patriotism, motivation level, moral resilience of personnel in the units, professional knowledge and skills of personnel, as well as their training and compliance with the requirements of modern warfare.

The knowledge, experience, and organizational skills of commanding (management) personnel also hold significant importance. The level of operational training of the command and control bodies of the border guard detachment directly affects the accuracy of choosing the model for the

application of forces and means. Apart from fulfilling tasks related to planning and developing a plan for future actions, managing forces and means during combat operations, command and control bodies must be able to determine the necessary composition of forces and means for task execution, provide their comprehensive support, applying necessary mathematical tools.

Physical and geographical conditions constitute one of the essential factors influencing the choice of the model for the application of forces and means of a border guard detachment, as well as the forms and methods of performing combat and special tasks. The impact of terrain characteristics, climatic conditions, and time of day should be taken into account. Considering the terrain conditions of the designated combat areas and the seasons, allows to prepare bodies and units for actions in specific circumstances, ensuring a balanced troop composition.

In Ukraine's combat operations, the time factor is also of paramount importance. The history of warfare provides examples where, to implement a plan, it was necessary to delay the main enemy forces for a certain period of time at any cost in order to gain time for regrouping and launch a counterattack. However, prolonged active combat operations can negatively impact their effectiveness, requiring more material and technical, financial expenditures, and most importantly, leading to personnel and civilian casualties.

The overall ecological and sanitary-epidemiological situation in the country has significant peculiarities. Considering the tactics of the Russian military command during planning and conducting combat operations, the factor of the ecological and sanitary-epidemiological conditions will undoubtedly influence the choice of the model for the application of forces and means of a border guard detachment as part of the defense forces. Due to the aggressive actions of Russian forces, there is a constant threat of radiation hazards to Ukraine. All Ukrainian nuclear power plants are in the risk zone since artillery shelling or missile attacks on one or several nuclear reactor sites could result in a large-scale nuclear disaster. The seizure of nuclear power plants by Russian military forces poses the threat of a radiation catastrophe, both as a result of accidents at industrial facilities and through the deliberate ignition of forests and fallow land containing a significant amount of radionuclides.

In addition, the movement of heavy equipment, the construction of fortifications, and military operations cause damage to the soil cover. This leads to the degradation of vegetation and increases wind and water erosion.

The choice of the model for the application of forces and means of a border guard detachment as part of the defense forces also depends on the state of infrastructure. Since the onset of hostilities, the Russian army has been systematically destroying civilian, transportation, maritime infrastructure, and vital facilities for the Ukrainian population. Among the destroyed objects are also the facilities (buildings) of the SBGS. In temporarily occupied territories, invaders mine stationary gas regulation points, electrical substations, and critical infrastructure objects.

Infrastructure factors that affect the application of forces and means of a border guard detachment as part of the defense forces and the formation of the internal security environment of the state involve the persistent trend of increasing risks of significant mine contamination on the state's territory. The intensified threats to critical infrastructure are associated with the deterioration of its technical condition, especially due to aggressor strikes, as well as the lack of systematic investments in its renewal and development, and the vulnerability of information infrastructure to unauthorized interference in its functioning.

The overall deterioration of living conditions for the population due to extensive infrastructure destruction, periodic power outages, disruptions in water and heating supply, reduced lighting of streets, buildings, and other public places – all of these are serious negative factors affecting the state of the security environment.

The choice of the model for the application of forces and means of a border guard detachment as part of the defense forces is significantly influenced by the level of processing the legislative base, which defines the basic concepts of ensuring the national security of the state in the military sphere, including the strategy of repulsing armed aggression. This strategy envisions the use of all necessary forms and methods of armed struggle to stop aggression, defeat the aggressor and compel them to cease hostilities. The level of processing the legislative base regarding the interaction of military formations of defense forces depends on the comprehensive use of the combat potential of different formations, the integration of their combat capabilities, etc.

Therefore, after analyzing the entire array of factors, summarizing, and systematizing the obtained information, we get 8 major groups of factors (Table 1): military-political; socio-economic; material-technical; organizational-management; moral-psychological; physical-geographical; ecological and sanitary-epidemiological; and normative-legal.

Table 1 – The set of factors influencing the choice of the model for the application of forces and means of a border guard detachment as part of the defense forces

Number and Name of Groups of Conditions	Number and Name of Factor in the Group
1. Military-political	1.1 – scale of invasion (size and scope of armed invasion); 1.2 – purpose of invasion (occupation, change of borders, regime, or resource acquisition); 1.3 – composition of the enemy grouping (types of troops (forces) engaged in the operation); 1.4 – enemy combat potential, its capabilities; 1.5 – nature of the enemy's conduct of military operations (strategy, tactics, tasks, forms, and methods of actions); 1.6 – international reaction (attitude of other countries, international organizations, and the community to the invasion); 1.7 – nature of the conduct of military operations by defense forces (strategy, tactics, tasks, forms, and methods of actions)
2. Socio-economic	2.1 – state of science and technology development (scientific potential of the state); 2.2 – state of the country's economy (economic potential of the state); 2.3 – material and technical assistance from partner countries; 2.4 – level of economic and social destruction (destruction of economic infrastructure, communications, energy system, social structure, poverty and unemployment due to economic and resource destruction); 2.5 – level of migration (mass migration of the population, refugees) that may cause humanitarian crises and pressure on receiving regions; 2.6 – level of investment loss and financial instability; 2.7 – correspondence of state budget expenditures to the needs of the State Border Guard Service of Ukraine (SBGS) and the possibility of adjusting them for SBGS needs
3. Material and technical	3.1 – state of the defense-industrial complex of the state regarding the development and production of modern types of weapons and equipment; 3.2 – state of providing border guard detachment with modern weapons and equipment to perform tasks as part of the defense forces; 3.3 – compliance of weapons and military equipment with the current level of development of armed struggle; 3.4 – technical condition of weapons and military equipment and their readiness for use; 3.5 – state of provision of bases and infrastructure to provide effective logistical and technical support to troops (forces) during repelling the invasion; 3.6 – state of stocks and reserves (fuel, ammunition, medical supplies, etc.) for long-term operations; 3.7 – mobility and speed of response (ability to quickly move troops (forces) and respond to various military threats)
4. Organizational-management	4.1 – ability of the border guard detachment management system to function under martial law; 4.2 – level of compliance of the organizational structure of forces and means of border guard detachment with the tasks performed by them as part of the defense forces; 4.3 – state of supplementing border guard detachment with personnel; 4.4 – level of preparedness of personnel to perform tasks related to the defense of the state; 4.5 – state of staffing of the management bodies of the border guard detachment; 4.6 – level of preparedness of the management bodies of border guard detachment to perform tasks related to the defense of the state; 4.7 – mobilization capabilities for supplementing border guard detachment with personnel

End of Table 1

Number and Name of Groups of Conditions	Number and Name of Factor in the Group
5. Moral-psychological	5.1 – psychological resilience of personnel (ability to function effectively in stressful situations and during combat); 5.2 – level of patriotism and national unity; 5.3 – level of personnel motivation; 5.4 – support level of defense forces by the local population in the area of combat operations; 5.5 – level of discipline and internal organization; 5.6 – state of countering the enemy's information-psychological operations; 5.7 – level of development of leadership qualities of the management staff
6. Physical-geographical	6.1 – geographic location and borders (level of threat from other countries, alliances and support for invasion, accessibility for military operations); 6.2 – geographic features of the area (vegetation, terrain, hydrography); 6.3 – climatic conditions, season, time of day in the area of combat operations; 6.4 – state of resources and energy independence of the region of combat operations (availability of vital resources such as water, energy, food, etc.); 6.5 – state of infrastructure in the region (roads, railways, ports, airports, population and settlements); 6.6 – state of engineering and fortification arrangements in the area of combat operations; 6.7 – level of mine contamination in the area of combat operations
7. Ecological and sanitary-epidemiological	7.1 – level of occurrence of environmental crises in the area of operations; 7.2 – level of occurrence of man-made and natural disasters in the area of operations; 7.3 – level of sanitation and hygiene support for personnel; 7.4 – level of epidemiological readiness; 7.5 – state of humanitarian aid and medical resources; 7.6 – status of vaccination and medical prophylaxis of personnel; 7.7 – level of biological, radiation, and chemical safety of personnel
8. Normative-legal	8.1 – state of the legislative and normative base for ensuring the defense of the state; 8.2 – existence and status of collective security agreements; 8.3 – state of compliance with international humanitarian law during combat operations; 8.4 – state of the legislative and normative base regulating the performance of tasks by the forces and means of border guard detachment as part of the defense forces; 8.5 – state of the legislative and normative base regulating the procedure for the interaction of military formations and law enforcement agencies of the security and defense sector in the performance of tasks related to the defense of the state; 8.6 – state of compliance with norms regarding the use of force (determination of rules of engagement, use of weapons, control over the civilian population, etc.); 8.7 – state of compliance with agreements on the prohibition of the use of chemical and biological weapons

To determine the set of factors, assess the impact of groups of factors, and factors within these groups on the choice of the model for the application of forces and means of a border guard detachment as part of the defense forces in repelling an armed invasion, the method of expert evaluation (nominal group method) was used. To perform this task, a survey was conducted among officers of the SBGS Administration, regional administrations, and the SBGS authorities, who, according to their functional duties, are involved in planning the application of forces and means of the SBGS in operational and service activities. The survey also involved the academic staff of the departments of border security, national security and management, military art of the National Academy of the SBGS. The sample size was 15 individuals, which is sufficient to determine the weight of the factors.

The ranking of factors (determining the significance of their impact) was carried out in two stages. In the first stage, the ranking of conditions (groups of factors) was conducted, and in the second stage, the ranking was performed within each group of factors. The results of the expert evaluation are presented in Figure 1 and Table 2.

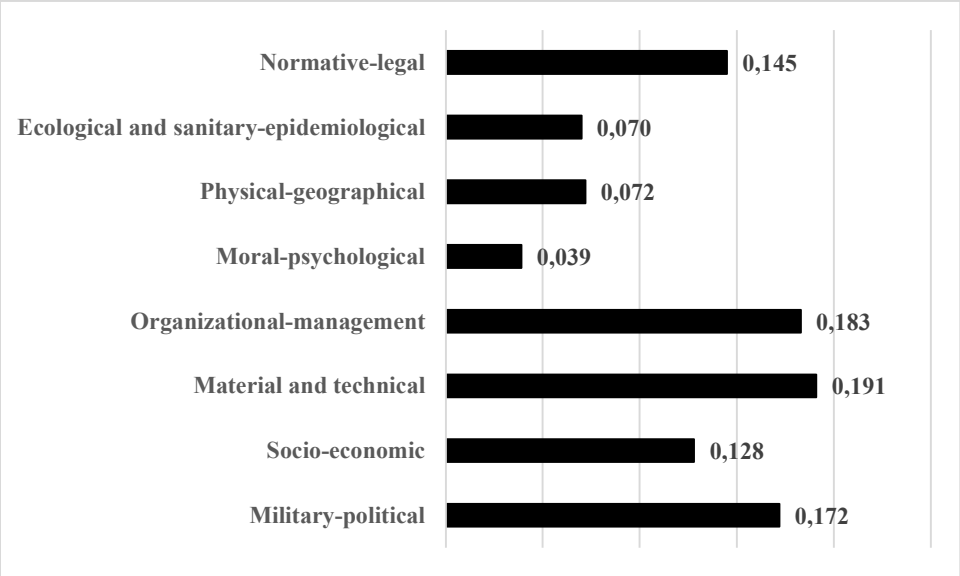

Figure 1 – Results of expert evaluation of coefficients of significance of impact of conditions (groups of factors) on the choice of the model for the application of forces and means of a border guard detachment as part of the defense forces in repelling an armed invasion

Table 2 – Results of ranking factors within groups that influence the choice of the model for the application of forces and means of a border guard detachment as part of the defense forces

Number and Name of Conditions (of Group of Factors) and Factors in the Group	Factor rank
1. Military-political	
1.1 – scale of invasion (size and scope of armed invasion)	0,017
1.2 – purpose of invasion (occupation, change of borders, regime, or resource acquisition)	0,012
1.3 – composition of the enemy grouping (types of troops (forces) engaged in the operation)	0,038
1.4 – enemy combat potential, its capabilities	0,033
1.5 – nature of the enemy's conduct of military operations (strategy, tactics, tasks, forms, and methods of actions)	0,023
1.6 – international reaction (attitude of other countries, international organizations, and the community to the invasion)	0,015
1.7 – nature of the conduct of military operations by defense forces (strategy, tactics, tasks, forms, and methods of actions)	0,034
Sum of weight coefficients for group	$\sum_1$=0,172
2. Socio-economic	
2.1 – state of science and technology development (scientific potential of the state)	0,011
2.2 – state of the country's economy (economic potential of the state)	0,027
2.3 – material and technical assistance from partner countries	0,027
2.4 – level of economic and social destruction (destruction of economic infrastructure, communications, energy system, social structure, poverty and unemployment due to economic and resource destruction)	0,016
2.5 – level of migration (mass migration of the population, refugees) that may cause humanitarian crises and pressure on receiving regions	0,012
2.6 – level of investment loss and financial instability	0,007
2.7 – correspondence of state budget expenditures to the needs of the State Border Guard Service of Ukraine (SBGS) and the possibility of adjusting them for SBGS needs	0,028
Sum of weight coefficients for group	$\sum_2$=0,128

Continuation of Table 2

Number and Name of Conditions (of Group of Factors) and Factors in the Group	Factor rank
3. Material and technical	
3.1 – state of the defense-industrial complex of the state regarding the development and production of modern types of weapons and equipment	0,011
3.2 – state of providing border guard detachment with modern weapons and equipment to perform tasks as part of the defense forces	0,043
3.3 – compliance of weapons and military equipment with the current level of development of armed struggle	0,042
3.4 – technical condition of weapons and military equipment and their readiness for use	0,033
3.5 – state of provision of bases and infrastructure to provide effective logistical and technical support to troops (forces) during repelling the invasion	0,024
3.6 – state of stocks and reserves (fuel, ammunition, medical supplies, etc.) for long-term operations	0,025
3.7 – mobility and speed of response (ability to quickly move troops (forces) and respond to various military threats)	0,013
Sum of weight coefficients for group	$\sum_3$=0,191
4. Organizational-management	
4.1 – ability of the border guard detachment management system to function under martial law	0,021
4.2 – level of compliance of the organizational structure of forces and means of border guard detachment with the tasks performed by them as part of the defense forces	0,042
4.3 – state of supplementing border guard detachment with personnel	0,036
4.4 – level of preparedness of personnel to perform tasks related to the defense of the state	0,015
4.5 – state of staffing of the management bodies of the border guard detachment	0,034
4.6 – level of preparedness of the management bodies of border guard detachment to perform tasks related to the defense of the state	0,026
4.7 – mobilization capabilities for supplementing border guard detachment with personnel	0,009
Sum of weight coefficients for group	$\sum_4$=0,183
5. Moral-psychological	
5.1 – psychological resilience of personnel (ability to function effectively in stressful situations and during combat)	0,009
5.2 – level of patriotism and national unity	0,007
5.3 – level of personnel motivation	0,006
5.4 – support level of defense forces by the local population in the area of combat operations	0,003
5.5 – level of discipline and internal organization	0,003
5.6 – state of countering the enemy's information-psychological operations	0,003
5.7 – level of development of leadership qualities of the management staff	0,008
Sum of weight coefficients for group	$\sum_5$=0,039
6. Physical-geographical	
6.1 – geographic location and borders (level of threat from other countries, alliances and support for invasion, accessibility for military operations)	0,007
6.2 – geographic features of the area (vegetation, terrain, hydrography)	0,013
6.3 – climatic conditions, season, time of day in the area of combat operations	0,004
6.4 – state of resources and energy independence of the region of combat operations (availability of vital resources such as water, energy, food, etc.)	0,007
6.5 – state of infrastructure in the region (roads, railways, ports, airports, population and settlements)	0,015
6.6 – state of engineering and fortification arrangements in the area of combat operations	0,015
6.7 – level of mine contamination in the area of combat operations	0,011
Sum of weight coefficients for group	$\sum_6$=0,072

End of Table 2

7. Ecological and sanitary-epidemiological	
7.1 – level of occurrence of environmental crises in the area of operations	0,006
7.2 – level of occurrence of man-made and natural disasters in the area of operations	0,004
7.3 – level of sanitation and hygiene support for personnel	0,013
7.4 – level of epidemiological readiness	0,011
7.5 – state of humanitarian aid and medical resources	0,007
7.6 – status of vaccination and medical prophylaxis of personnel	0,013
7.7 – level of biological, radiation, and chemical safety of personnel	0,016
Sum of weight coefficients for group	$\sum_7$=0,070
8. Normative-legal	
8.1 – state of the legislative and normative base for ensuring the defense of the state	0,034
8.2 – existence and status of collective security agreements	0,009
8.3 – state of compliance with international humanitarian law during combat operations	0,019
8.4 – state of the legislative and normative base regulating the performance of tasks by the forces and means of border guard detachment as part of the defense forces	0,027
8.5 – state of the legislative and normative base regulating the procedure for the interaction of military formations and law enforcement agencies of the security and defense sector in the performance of tasks related to the defense of the state	0,027
8.6 – state of compliance with norms regarding the use of force (determination of rules of engagement, use of weapons, control over the civilian population, etc.)	0,021
8.7 – state of compliance with agreements on the prohibition of the use of chemical and biological weapons	0,008
Sum of weight coefficients for group	$\sum_8$=0,145

According to the research results, the concordance coefficient ranged from 0,724 to 0,785, confirming the reliability of expert evaluation.

Conclusions

Thus, the conducted analysis allowed forming a set of factors influencing choice of the model for the application of forces and means of a border guard detachment as part of the defense forces in repelling an armed invasion. According to the results of the analysis of identified factors, it can be asserted that the influence of groups of factors and factors within their groups will be ambiguous. The results of the expert evaluation showed that the most significant impact on the choice of the model for the application of forces and means of a border guard detachment is exerted by groups of factors: material and technical (0,191); organizational-management (0,183); military-political (0,172); socio-economic (0,128); normative-legal (0,145).

However, when making decisions regarding the choice of the model for the application of forces and means of a border guard detachment as part of the defense forces, it is essential not to limit the analysis to only the factors that exert the primary (constant) influence. It is necessary to consider secondary factors, as their significance may change at a certain stage of the application of forces and means of a border guard detachment as part of the defense forces, depending on the conditions under which they operate and perform combat and special tasks.

Overall, the obtained results provide the opportunity to form a general information block for further research on the formation and choice of the model for the application of forces and means of a border guard detachment as part of the defense forces in repelling an armed invasion.

The prospects for further research include the development of models for the application of forces and means of a border guard detachment as part of the defense forces and corresponding recommendations for the execution of tasks related to the defense of the state.

References

1. *Konstytutsiia Ukrainy* [The Constitution of Ukraine] (1996, June 28). Retrieved from: http://surl.li/qnpea (accessed 10 March 2023) [in Ukrainian].

2. *Ukaz Prezydenta Ukrainy "Pro Stratehiiu natsionalnoi bezpeky Ukrainy" № 392/2020* [Decree of the President of Ukraine "On the National Security Strategy of Ukraine" activity no. 392/2020]. (2020, September 14). *Vidomosti Verkhovnoi Rady Ukrainy*. Retrieved from: http://surl.li/qnpdd (accessed 10 September 2023) [in Ukrainian].

3. *Zakon Ukrainy "Pro osnovy natsionalnoi bezpeky Ukrainy" № 2469-VIII* [Law of Ukraine about the foundations of national security of Ukraine activity no. 2469-VIII] (2018, June 21). *Vidomosti Verkhovnoi Rady Ukrainy*, no. 31 [in Ukrainian].

4. *Zakon Ukrainy "Pro Derzhavnu prykordonnu sluzhbu Ukrainy" № 964-IV* [Law of Ukraine about the State Border Service of Ukraine activity no. 964-IV] (2003, June 19). *Vidomosti Verkhovnoi Rady Ukrainy*. Retrieved from: http://surl.li/qnpel (accessed 10 September 2023) [in Ukrainian].

5. *Zakon Ukrainy "Pro derzhavnyi kordon Ukrainy" № 1777 XII* [Law of Ukraine about the state border of Ukraine activity no. 1777-XII]. (1991, November 4). Retrieved from: http://surl.li/bivmo (accessed 03 April 2023) [in Ukrainian].

6. Batsamut V. M., Drobakha H. A. (2016). *Faktory dlia otsiniuvannia skladnosti operatyvnoi obstanovky u razi vynyknennia nadzvychainykh sytuatsii sotsialnoho kharakteru, zumovlenykh masovoiu aktyvnistiu hromadian* [Factors for assessing the complexity of the operational situation in the event of emergency situations of a social nature caused by the mass activity of citizens]. *Chest i zakon*, no. 1, pp. 31–37 [in Ukrainian].

7. Drobakha H. A., Moldavchuk V. S., Lipatov I. I., Batsamut V. M. (2013). *Sposib otsiniuvannia ta prohnozuvannia rivnia skladnosti suspilno-politychnoi obstanovky* [A method of assessing and forecasting the level of complexity of the socio-political situation]. *Chest i zakon*, no. 4, pp. 76–83 [in Ukrainian].

8. Kyrylenko V. A., Horodnov V. P., Karataiev R. H., Binkovskyi O. A. (2008). *Metodyka vyznachennia pokaznyka stupenia zahostrennia obstanovky v prykordonnii sferi pry otsintsi dynamiky formuvannia zahrozy terytorialnoi tsilisnosti derzhavy* [Methodology for determining the degree of aggravation of the situation in the border area when assessing the dynamics of the threat to the territorial integrity of the state]. *Zbirnyk naukovykh prats Natsionalnoi akademii Derzhavnoi prykordonnoi sluzhby Ukrainy. Seriia: viiskovi ta tekhnichni nauky.* Khmelnytskyi : NA DPSU, vol. 46, pp. 23–29 [in Ukrainian].

9. Ivashkov Yu. B., Zalozh V. V. (2017). *Analiz faktoriv, yaki vyznachaiut poriadok funktsionuvannia Derzhavnoi prykordonnoi sluzhby Ukrainy v umovakh osoblyvoho periodu* [Analysis of factors that determine the functioning of the State Border Guard Service of Ukraine in the conditions of a special period]. *Zbirnyk naukovykh prats Kharkivskoho natsionalnoho universytetu Povitrianykh Syl.* Kharkiv : KhNUPS, vol. 1 (50), pp. 42–47 [in Ukrainian].

10. Kurnikov V. V. (2019). *Obgruntuvannia kompleksu pokaznykiv otsinky skladnosti obstanovky na diliantsi derzhavnoho kordonu Pivnichnoho rehionalnoho upravlinnia v umovakh zahostrennia voienno-politychnoi obstanovky* [Justification of the set of indicators for assessing the complexity of the situation on the state border of the Northern Regional Administration in the context of the worsening military and political situation]. *Suchasni informatsiini tekhnolohii u sferi bezpeky ta oborony*, no. 2 (35), pp. 81–86 [in Ukrainian].

11. Zalozh V. V., Hluzdan, O. P. (2017). *Vybir i analiz chynnykiv, yaki vplyvaiut na efektyvnist zastosuvannia pidrozdiliv shvydkoho reahuvannia pid chas uchasti u stabilizatsiinykh diiakh viisk (syl)* [Selection and analysis of factors that affect the effectiveness of the use of rapid response units during participation in the stabilization actions of troops (forces)]. *Zbirnyk naukovykh prats Natsionalnoi akademii Derzhavnoi prykordonnoi sluzhby Ukrainy. Seriia: viiskovi ta tekhnichni nauky.* Khmelnytskyi : NA DPSU, vol. 4 (74), pp. 104–115 [in Ukrainian].

12. Kosik S. M. (2017). *Analiz chynnykiv ta umov, yaki vplyvaiut na bezpeku derzhavnoho kordonu ukrainsko-moldovskoi dilianky vidpovidalnosti Pivdennoho rehionalnoho upravlinnia* [Analysis of factors and conditions affecting the security of the state border of the Ukrainian-Moldovan area of responsibility of the Southern Regional Administration]. *Trudy universytetu.* Kyiv : NUOU, vol. 1 (134), pp. 224–229 [in Ukrainian].

13. Ivashkov Y., Zalozh V. (2016). *Analiz dosvidu orhaniv ta pidrozdiliv Derzhavnoi prykordonnoi sluzhby Ukrainy pid chas provedennia antyterorystychnoi operatsii* [Analysis of the experience of bodies and units of the State Border Service of Ukraine during the anti-terrorist operation]. *Zbirnyk naukovykh prats Natsionalnoi akademii Derzhavnoi prykordonnoi sluzhby*

Ukrainy. Khmelnytskyi : NA DPSU, vol. 4 (70), pp. 41–49 [in Ukrainian].

14. Zalozh V., Simchuk P. (2023). *Analiz problemnykh pytan, shcho znyzhuiut efektyvnist vzaiemodii pidrozdiliv Derzhavnoi prykordonnoi sluzhby z viiskovymy formuvanniamy ta pravookhoronnymy orhanamy syl oborony pid chas vykonannia zavdan z oborony derzhavy, ta mozhlyvi shliakhy yikh vyrishennia* [Analysis of problematic issues that reduce the effectiveness of the interaction of units of the State Border Service with military formations and law enforcement agencies of the defense forces during the performance of state defense tasks, and possible ways to solve them]. *Zbirnyk naukovykh prats Natsionalnoi akademii Derzhavnoi prykordonnoi sluzhby Ukrainy. Seriia: viiskovi ta tekhnichni nauky.* Khmelnytskyi : NA DPSU, vol. 1 (90), pp. 43–52 [in Ukrainian].

15. Maltsev A., Simchuk P., Zalozh V. (2023). *Analiz boiovoho dosvidu zastosuvannia syl i zasobiv orhaniv okhorony derzhavnoho kordonu u skladi syl oborony pid chas vidbyttia zbroinoi ahresii: problemni pytannia ta mozhlyvi shliakhy yikh vyrishennia* [Analysis of the combat experience of the use of forces and means of state border protection bodies as part of the defense forces during the repulsion of armed aggression: problematic issues and possible ways to solve them]. *Zbirnyk naukovykh prats Natsionalnoi akademii Derzhavnoi prykordonnoi sluzhby Ukrainy. Seriia: viiskovi ta tekhnichni nauky.* Khmelnytskyi : NA DPSU, vol. 1 (90), pp. 62–71 [in Ukrainian].

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АНАЛІЗ ЧИННИКІВ, ЯКІ ВПЛИВАЮТЬ НА ВИБІР МОДЕЛІ ЗАСТОСУВАННЯ СИЛ І ЗАСОБІВ ПРИКОРДОННОГО ЗАГОНУ У СКЛАДІ СИЛ ОБОРОНИ ПІД ЧАС ВІДБИТТЯ ЗБРОЙНОГО ВТОРГНЕННЯ

Узагальнено досвід ведення бойових дій, пов'язаних із відбиттям повномасштабного збройного вторгнення російської федерації на територію України, і з'ясовано, що порядок застосування сил і засобів зумовлюється багатьма чинниками. У статті визначено сукупність чинників, які впливають на вибір моделі застосування сил і засобів прикордонного загону у складі сил оборони під час відбиття збройного вторгнення, здійснено їх аналіз, систематизацію та ранжування. Проведений аналіз дав змогу за результатами узагальнення та систематизації об'єднати всю різноманітність чинників у 8 великих груп: військово-політичні, соціально-економічні, матеріально-технічні, організаційно-управлінські, морально-психологічні, фізико-географічні, екологічні та санітарно-епідеміологічні і нормативно-правові. Результати експертної оцінки показали, що найбільший вплив такої групи чинників: матеріально-технічні, організаційно-управлінські, військово-політичні, соціально-економічні, нормативно-правові. Зроблено висновок, що, приймаючи рішення про порядок застосування сил і засобів прикордонного загону у складі сил оборони під час відбиття збройного вторгнення, не слід обмежуватися лише аналізом чинників, що здійснюють основний (сталий) вплив. Необхідно враховувати і другорядні чинники, оскільки на певному етапі функціонування прикордонного загону у складі сил оборони їх значення може змінюватися залежно від умов, у яких сили й засоби перебувають і виконують бойові та спеціальні завдання. Отриманий результат є інформаційним підґрунтям для побудови моделей застосування сил і засобів прикордонного загону у складі сил оборони, прийняття відповідних рішень щодо порядку їх застосування для забезпечення оборони держави.

Ключові слова: *державний кордон, відбиття збройного вторгнення, сили оборони, прикордонний загін, сили й засоби, модель застосування, аналіз чинників, ранжування.*

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