

Improving the Leadership, Command and Control System of the Country's Defense

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Abstract. The article analyses the current state of the country's defence leadership, command, and control system. Based on this research, three possible directions for its optimization have been formulated. The author argues the thesis that increasing the effectiveness of the system for leadership, command, and control of the country's defence is possible through improvement of the legal framework, organizational improvement of the system and technological modernization.

Keywords: *leadership, command, and control system; defence of the country.*

I. INTRODUCTION

Following the accession of the Republic of Bulgaria in NATO and the EU, “the country's defence is planned, prepared and implemented within the framework of NATO's collective defence and the Common security and defence policy of the EU with effective use of national armed forces.” [1] Having this in mind and trying to respond to the challenges of a rapidly changing and unpredictable security environment in the best way possible, Bulgaria changed its approach for development of defence capabilities from a threat-based to a capabilities-based approach.

The Armed Forces of the Republic of Bulgaria as a significant part of defence capabilities are in a process of dynamic transformation. “The development of troops and forces must ensure the maintenance of effective, combat-ready, multifunctional, modular and mobile military units with capabilities for joint action, for deployment in the country or abroad, relatively independent and adequately supplied.” [2] They must be able to respond to current security environment challenges in a timely manner and be interoperable with Allied forces. In order to meet these requirements and effectively and efficiently implement the tasks set by the state leadership, it is necessary a clearly understandable and fully operational leadership,

command, and control system of the country's defence to be established and kept in required readiness state.

The analysis of the available doctrinal documents and the existing theoretical and scientific works on these issues shows that some of the statements in them no longer fully reflect the challenges of the security environment and do not sufficiently represent the modern views on the defence of the country in the system of collective security.

Therefore, the aim of this paper is to reveal some existing problems in the leadership, command and control system of the country's defence in peacetime, crisis and wartime, through a study of its theory and practice, and on this basis to propose guidelines for its improvement.

II. MATERIALS AND METHODS

The system analysis method was used to assess the current state of the leadership, command, and control system, while the organizational interrelationships between the individual elements of the system and their functions and tasks were evaluated.

III. RESULTS AND DISCUSSION

The research done below shows that the improvement of the country's defence leadership, command and control system can be done in three directions – regulatory framework, organizational and technological.

A. Improvement of the regulatory framework

The development of an adequate regulatory framework is possible through a thorough analysis of the current state of the leadership, command, and control system, as well as the factors influencing its functioning. This will allow clarification of the rights and responsibilities of the management bodies and the functional relationships between them and identify measures to improve the organizational structure, develop

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adequate work procedures and determine the requirements for personnel training.

The changes in the security environment that occurred after the end of the cold war, the emerging new risks, and threats, as well as the existing imbalance between the planned defense capabilities and the resources available for their development necessitated several strategic defense reviews to be conducted from the beginning of the new century until now. The last one was held in 2019-2020.

Based on the reviews, a number of amendments and additions were made to the Law on Defense and the Armed Forces of the Republic of Bulgaria. National Security Strategy, National Defense Strategy and Armed Forces Doctrine were developed and subsequently updated. The specified documents create the necessary legal framework, regulating the structure and functioning of the system for leadership, command, and control of the country's defense at the strategic, operational, and tactical level in a way that ensures management efficiency and achievement of the set goals.

However, despite the above, the analysis of the regulatory framework necessitates the conclusion that, along with the achieved results, there are also some shortcomings. First, the existing regulations define in the necessary details the system of command and control in the armed forces. However, this is not the case for the political leadership of the defense. For example, the functions, responsibilities, procedures, and mechanisms for functioning of the Supreme Command are not regulated in sufficient detail. Next, the responsibilities and the interaction of the state institutions to ensure the interaction of the military and non-military components of the country's defense system are not fully clarified. Also, the existence of a special leading or coordinating body to deal with the problems of the country's defense in peacetime is not regulated. The question regarding the interaction of the system for leadership, command, and control of the country's defense with the NATO Command Structure has not been clarified in detail, as well.

These shortcomings allow us to conclude that to achieve higher efficiency and effectiveness in the functioning of the leadership, command, and control system of the country's defence it is necessary:

a) The National Defence Strategy should define the leadership, command, and control system of the country's defence, distinguishing the political, strategic, operational, and tactical levels and defining the bodies for leadership, command and control, in peacetime, in crises and in war.

b) The Law on Defence and the Armed Forces of the Republic of Bulgaria should be repealed, and the Law on the Armed Forces of the Republic of Bulgaria and the Law on Defence of the Country should be adopted. The Law on the Defence of the Country should regulate the responsibilities, powers and obligations of the leadership, command, and control system of the country's defence, and must:

- regulate in more detail the functions, procedures, and mechanisms for the functioning of the Supreme Command.

- formulates the responsibilities and interaction of state institutions for the management of the military and non-military components of the country's defense system in a way that ensures the interaction between them.
- clarify the responsibilities, procedures, and mechanisms for the operation of the country's defense leadership, command and control system in a way that allows effective interaction with the NATO command structure, when accepting alliance assistance to guarantee the country's independence, sovereignty, and territorial integrity.

c) To be adopted a new Crisis Management Act, which:

- defines the functions of the central and regional bodies of the executive power and clearly allocates responsibilities among state institutions in crisis management.
- clarifies the place and responsibilities of the country's defense leadership, command and control system within the national crisis management system.

d) The formation of a specific permanent national body for peacetime management of the country's defence to be regulated, which will ensure the implementation of the tasks of preparing the country for smooth transition from peacetime to crisis and to state of war and normal functioning of the leadership, command, and control system of the country's defence in such cases.

e) An update of Doctrine of the Armed Forces of the Republic of Bulgaria is required, which:

- regulates the responsibilities, procedures, and mechanisms for functioning of the Armed forces Command and Control System and the procedure for its interaction with the governing bodies of the non-military components of the country's defence system.
- clarifies the responsibilities, procedures, and mechanisms for the functioning of the Armed forces Command and Control system and its interaction with the NATO Command Structure when accepting allied assistance to ensure the independence, sovereignty, and territorial integrity of the country.

B. Organizational structure improvement

The systematic approach allows the leadership, command, and control system of the country's defence to be considered as a complex hierarchical system consisting of subsystems, components, and elements, structurally united by interconnections between them, with certain potential to achieve a common goal and desired end state in defined conditions.

Applying a systemic approach to the analysis of the country's defense leadership, command and control system shows that it has a hierarchical structure, as its constituent parts are built on three levels - strategic, operational, and tactical. At each of these levels, functional subsystems are built with a unified structure

within certain limits, but with a different composition, state, and mode of operation. The analysis shows that, in general, the system is suitable to respond to current challenges, but there are also some shortcomings. For example, there are some difficulties if individual elements of the system need to operate decentralized and autonomously. It can also be said that there are certain difficulties when the system or its individual elements are faced with hybrid threats and constant attempts for deception and disinformation.

The main directions for achieving greater flexibility, mobility and sustainability of the command, command and control system, and for increasing its capabilities for decentralized functioning and implementation of the processes of information collection, processing and exchange can be systematized as follows:

- To build and maintain capabilities for rapid short-term formation of mission or target-oriented commands. This stems from the need for individual elements of the armed forces to be used to solve a wide range of tasks in peacetime, crises, and war. Furthermore, given our membership in NATO, the existence of such governing bodies will allow for more effective integration of formations from national armed forces into Alliance forces, as well as a higher degree of interaction with headquarters within the NATO command structure. The development of such capabilities requires the creation and preparation of HQ modules at the operational and tactical level in advance. This will allow, if necessary, to form autonomous headquarters to conduct a separate operation or headquarters modules to be integrated into the NATO headquarters.
- To rethink views about the purpose and structure of the country's defense leadership, command, and control system and, in particular, the system of command and control of the armed forces and building new capabilities. Current trends in military operations require that this system be developed as a command, control, communications, computer, intelligence, surveillance, and reconnaissance (C4ISR) system. It must be able to protect itself from unauthorized access to information, as well as to affect the opponents' commands. This will enable the achievement of information superiority and ensure the deployment of the full operational capabilities of the armed forces. Such capabilities will provide commands at all levels with the ability to acquire, process and analyze intelligence information from all available sources. It will also ensure timely decision-making and the spread of directives and orders throughout the chain of command.

C. Technological upgrade

The technological direction for the improvement of the country's defense leadership, command and control system implies the improvement of the technical architecture, as well as the increase of the efficiency, security and capabilities of the communication and information systems, for the collection, analysis, processing and delivering of information through modern technologies.

The construction of such a complex system includes the construction of surveillance and intelligence systems, reconnaissance systems, information processing systems that ensure the reception, processing and transmission of timely and adequate information between management bodies and their subordinate structures in real time, ensuring reliable operational picture and its transmission to the respective users.

The analysis of the technological provision of the system for management, command and control of the country's defence shows that the main directions for the development of communication and information systems could be:

- provision of strategic, operational, and tactical communications throughout the country. The deployed communication and information network for stationary military support was implemented as part of the country's peacetime preparation. Due to a number of reasons, it does not provide full coverage of the entire country. This requires additional mobile CIS resources to be provided, as well as to use the services provided by the country's unified electronic communication network.
- creation of conditions for technical and functional integration of the telecommunication and information systems of the armed forces and non-military components into a unified C4ISR system. The communication and information system is built on the basis of the networks of the telecommunications operators and the separate information networks of the Government, the Ministry of Defense, other central and regional bodies of the executive power. The experience of the interaction of the formations of the armed forces with elements of the non-military component has shown that the flow of the necessary information is not always guaranteed. On the one hand, the procedures for the exchange of information are not fully detailed, and on the other hand, the technical means available to the formations of the armed forces and the structures of the non-military component are not fully compatible and make it difficult, and sometimes impossible, to exchange information. This leads to difficulties in clarifying the situation, creating common operational picture and making adequate decisions. Therefore, the construction of an integrated unified C4ISR system will ensure

an adequate distribution of responsibilities for receiving and providing information. Also, the presence of such a system will ensure technical compatibility between the individual elements of the defense system, thus improving the exchange of information between military and non-military components.

- achieving interoperability with the NATO command structure. Interoperability of the armed forces' C4ISR systems is of particular importance. In general, interoperability contains three elements: technical compatibility - insists different technical systems to be able to exchange data between each other based on common technical standards for collection, processing and exchange of information; semantic compatibility – requires same semantic content of the exchanged data to be used; and organizational compatibility – which means common procedures for data exchange and processing to be introduced.

CONCLUSION

In conclusion, it should be said that the establishment and development of the leadership, command, and control

system of the country's defence in peacetime, in crisis and in wartime is essential for the effective and efficient functioning of the national security and defence system.

The optimization of this system is an objective process, which is dictated by the process of transformation of the armed forces and the extremely rapid development and introduction of new technologies in the military sphere. Gaining success in improvement of the leadership, command, and control system of the country's defence is closely dependent on the economic resources of the country and defence capability development plans adequacy. It largely depends on the skills of the state and military governing bodies, both to organize and to persistently pursue the achievement of the set goals.

The problems of building and transforming the system for leadership, command, and control of the country's defence, considered, and analysed in this study, do not fully exhaust the content of the topic. Nevertheless, the proposed material provides a basis for discussions and debates to help improve it.

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