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STRATEGIC SECURITY ENVIRONMENT AND THE ROLE OF MILITARY ENGINEERING SUPPORT IN OPERATIONS¹

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ABSTRACT

The inclusion of Bulgarian Army in operations and missions led by NATO and the European Union requires a new approach by Bulgarian Armed Forces. The development of national adaptive capabilities of engineer units will contribute to the strengthening of the national security and defense of the country and to neutralizing the risks and threats where they arise. To fully leverage the capabilities of the Bulgarian Army requires enhancing engineer capabilities as well. This paper examines the influence of the current security environment to the Bulgarian Armed Forces. It further discusses the importance of the role of military engineering support in the operations. The goal of the paper is to implement a new approach for the development of engineer capabilities.

KEY WORDS: Bulgarian Army, engineer capabilities, security environment, NATO

INTRODUCTION

The Armed Forces of Bulgaria are undoubtedly an important building block and an indispensable tool in the execution of the country's national security strategy. Together with diplomacy and economics, they are the basis of our national power. With the acceptance of the Republic of Bulgaria as a full member of NATO, our country joined a rapidly transforming union with new members, new abilities and new relations with partner countries. During this period, the Ministry of Defense and

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Armed Forces have played an essential role in establishing trust and cooperation with allies and partners, creating favorable conditions for achieving interoperability and providing the necessary political and military-technical prerequisites for full NATO membership.

STRATEGIC SECURITY ENVIRONMENT

Globalization remains a leading trend that will continue to influence the overall development of the external security environment. Besides, the primary drivers of the change will be the eventual shift of the economic growth center from West to East, the increasing impact of non-state structures, economic and religious, as well as processes in the fields of energy, migration, poverty, and development, and climate change.

Hybrid and asymmetric threats (particularly international terrorism and the proliferation of weapons of mass destruction (WMD), regional conflicts, cybercrime and cross-border organized crime have a significant impact on the security environment on a global and regional scale.

The Republic of Bulgaria examines the Black Sea region in a broad European and Euro-Atlantic context to develop cooperation between the countries in the sphere of economy, trade, and security (1). This region is particularly important in the context of the development of the core energy transmission network linking producer countries to the energy markets in Europe.

The importance of the region is growing, given the active role of the Republic of Bulgaria in maintaining international peace, as well as the commitments to the security of the external borders of NATO and the EU (2).

Conflicts in Ukraine, the Middle East, and problems with an Islamic state draw the uncertain future of the region and the beginning of a period of prolonged transformation (3).

Trends in today's security environment show that it will maintain its dynamic and controversial nature for a long time. There will continue to be challenging predictable changes that will be reflected in different regions of the world and will test the capabilities of states and international organizations to respond in a timely and adequate manner. It will require a more comprehensive security approach based not only on political and diplomatic efforts but also on coordinated military and civilian capabilities.

The membership of the Republic of Bulgaria in NATO and the EU is a determining factor for its external security, which will continue to be built and improved on this basis. In this sense, our country and our armed

forces, respectively, should be able to meet the current risks and threats by preserving and increasing their potential for securing the national security; contribution of the Alliance's collective defense and the process of building defense capabilities within the framework of The Common Security and Defense Policy of the EU.

The military will play an essential role in building the future security environment, and the role of the armed forces in the fight against terrorism will increase. The inclusion of Bulgarian units in operations and missions led by NATO and the European Union will contribute to the strengthening of the national security and defense of the country and to neutralizing the risks and threats where they arise.

NATO operations in recent years have reinforced the need to maintain modern, capable forces that are in line with this new environment, namely forces that are (4):

- fully independent in deployment;
- sustainable and interoperable;
- capable of being deployed for a short time, on any terrain and location;
- capable of performing operations in the full range of conflicts and crises over a prolonged period;
- capable of carrying out operations outside the boundaries of the Alliance's strategic distance.

In the context of the new risks and threats related to the crises in Ukraine and the Middle East, the main challenges to the preparation and certification of the armed forces, including the engineering formations in the coming years, will be related to the practical implementation of the Summit decisions of NATO in Wales'14. The commitments made by our country to NATO for participation in the collective defense of the Alliance.

Significant and dynamic changes in the strategic security environment require adaptation and transformation of security and defense systems into the real global and regional environment. Trends in the strategic security environment indicate that conflicts and crisis situations may also arise in the future, implying that the risks and threats to the national security and defense of the Republic of Bulgaria will be neutralized, including outside the territory of the country. It places requirements on the Armed Forces to prioritize the development of capabilities to participate in missions and operations of NATO, EU, UN, OSCE including engineering formations, and to align them with civil and public efforts and attitudes.

THE ROLE OF MILITARY ENGINEERING SUPPORT IN OPERATIONS

Since the end of the Cold War, there have been significant changes in the NATO Armed Forces missions. The operations were planned only within the NATO's responsibility zone for deployment from temporary military bases. Such operations were usually limited to previously planned defense operations conducted for a relatively short response time. As a result, engineering activity was based primarily on rapid engineer support of land operations, including in particular combat engineering tasks, with maximum use of pre-planned, prepared and redeployed engineering assets and weaponry. Infrastructure tasks are performed in the grid and communication areas.

With the entry into the 21st century and the new challenges that have arisen, the nature of NATO operations has expanded considerably. Operations without further focusing on a predetermined NATO perimeter have become more expeditious and joint.

The subject of the operations of the engineering units has also changed. Entirely developed in a pre-planned environment and Host Nation Support (HNS) (5) cannot be supposed, as the latter may not be able to deliver the necessary quality, quantity and timely maintenance. Therefore, the military engineers must be prepared to anticipate a broader range of combat tasks, and can no longer focus solely on combat operations. The engineering support of the infrastructure will no longer be limited to rear(support) zones, and military engineering should no longer focus exclusively on land forces, NATO forces must be prepared for far more significant efforts in this aspect of engineering support.

The nature and range of engineering operations vary depending on the level of operations, the nature of the conflict, the strategic and operational environment, the scale and the subject of military operations. In joint military operations and at the Operational level, military engineering is divided into two broad categories (6):

Combat support engineering. Combat Support Engineering includes those military engineering tasks that are related to the direct support of ongoing or forthcoming military operations. They are conducted by military engineers in each service or component for maintenance of land, air, maritime and information operations;

Force support engineering. Force Support Engineering includes intentional, longterm preparation for and indirect maintenance of ongoing

or future military operations, as well as those military engineering tasks that are related to the maintenance of the Joint Forces at all stages of a military operation. To the current situation Force Support Engineering will be the predominant engineering focus on future and subsequent conflicts, as well as during rear operations in a conflict. Force Support Engineering is an area that may involve a higher level of support between the joint forces, and the engineering task will usually be longer, relying more on design and build solutions.

According to AJP 3.12, NATO members have a collective responsibility for military engineering assurance to provide troops and forces in multinational and allied operations.

Military engineering is provided at the following levels:

Military engineering support at the strategic level. Mainly related to contributions to operational planning and implementation, force planning, policy and doctrine development, infrastructure and NATO-sponsored projects (NATO Security Investment Program (NSIP)). Efforts of the various groups working at the strategic level to develop doctrine, policies, standardization, and military assets related to military support need to be synchronized.

Defense planning, policy and doctrine development, experimentation, and transformation are crucial to achieving the necessary engineering capabilities of the forces. Engineering expertise at the strategic level is essential to determine the necessary engineering abilities to fulfill the forthcoming tasks.

In conducting an operation, actions at the strategic level are focused primarily on securing resources and capabilities to generate, enhance and maintain forces. Infrastructure maintenance is a critical element during deployment and requires an increased level of engineering capability. At the same time, this does not exclude the requirement for combat support engineering. At a strategic level, proper planning of joint engineering support will be particularly necessary to ensure that operational and tactical commanders are provided with engineering support that is in line with their needs.

NATO's Allied Command Transformation (ACT) is responsible for providing all engineering assessments needed in defense planning and power planning. In the longer term, it will support the development of policies, concepts and doctrines, standardization, training, armaments and testing (7).

The Joint Force Engineer to the Joint Force Command (JFC) is responsible for the synchronization of all aspects of military engineering during operations, including engineering intelligence, planning,

neutralization of unexploded ordnance, protection of the environment and infrastructure. The Joint Engineering Staff develops plans and coordinates all engineering support for the full range of military operations (6).

NATO Senior Joint Engineer Conference - NSJEC, through the ACT, will be the mechanism for collecting information and providing senior leadership in the development of concepts, doctrine, and standardization documents.

Military engineering at operational and tactical levels. Recent operational experience and the difficulties with the satisfaction of co-insurance requirements show that military-engineering capabilities are increasingly needed while resources are limited. Specialized engineering proposals are required from the headquarters and commanders of Joint Forces during all phases of the operation from the initial planning, through the development phase of the operation to the completion phase of the operation, to ensure the most efficient use of the dedicated military engineering resources (6). Effective planning at the operational level requires the Joint Force Engineer and the Joint Force Staff to assist the commander through suggestions on all engineering aspects of the operation. The Joint Force Engineer has delegated the coordinating and technical authority on behalf of the commander on the allocation of engineering resources to the individual components. In-ground engineering also includes maintenance of the Naval Component, the Air Component, and the Joint Logistics Group. The Joint Force Engineer and his staff in the joint forces and the headquarters of the component command, as well as the lower level, will plan the implementation of all aspects of engineering support.

The ability to ensure accurate and timely proposals for engineer support at all levels in NATO is a fundamental requirement. NATO and national authorities have a collective responsibility to ensure that engineering expertise is at a sufficient level and is available and visible at all levels in providing all NATO operations.

The expanding opportunities for Alliance operations and increasing their diversity place higher demands on their engineer provision, which can be achieved by improving the coordination between the engineer elements of the allies, the joint forces and the engineer units at the national level.

Engineer support plays a crucial role in conducting acceptance, focusing, scheduling and integration operations in combination with the capabilities of the Host Nation. The implementation of engineer tasks is focused on maintaining forces to provide them with the necessary infrastructure to

fulfill their mission. Engineer forces focus their efforts on providing a stable operating environment and freedom of movement.

The balance of effort between Force Support Engineering and Combat Support Engineering changes with the types and phases of operations as well as the different levels of operations - strategic, operational and tactical. Engineer forces invariably benefit from both functions. Coordination of assets available to support significant efforts is a vital role of the Joint Force Engineer (JFENGR) or its equivalent for different command levels.

The expanding opportunities for Alliance operations and increasing their diversity, place higher demands on their engineering support, which can be achieved by improving coordination between the engineering elements of allies, joint forces and engineering troops at the national level.

CONCLUSION

The expanding opportunities for NATO operations and increasing their diversity place higher demands on their engineer support, which can be achieved by improving coordination between the engineer units of allies, joint forces and engineer troops at the national level.

Engineering tasks can be assigned to Combat Support Engineering and Force Support Engineering, the balance (the weight at a given moment) between them will depend on the type and the phase of the operation and its level - strategic, operational or tactical.

These processes, as well as the experience of the NATO countries, applied in the preparation and conduct of operations in recent years, show a tendency to privatize the site of engineering - the engineering infrastructure. When assigning tasks in this area, the transformed military engineer headquarters in the proposed new format has an opportunity through the Acquisition System, in coordination with the relevant Command and Control and NATO Programs, to build infrastructure to provide operational capabilities.

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