

OFFENSIVE OPERATION FORCE MODELING – ANALYSIS OF AN EXAMPLE OF BATTALION TACTICAL GROUP OF RUSSIAN FEDERATION IN UKRAINE

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Abstract: *Ongoing armed conflict gives insight of classic, line war to the theoreticians. Analysis and predictions prior to conflict did not foresee future war with formed front lines and massive artillery usage. A piece that did not fail modern insights on combat is certainly force modularity. In Ukraine conflict, we are witnesses of wide spectra of variants of force modeling in purpose of task realization. Battalion combat groups, which are the main bearers of combat operations, appear as the most massive phenomenon. Having in mind that one of organization principles of Serbian Army is modularity, the analysis of temporary components engaged in Ukraine's conflict is useful lesson for us.*

First part of this paper clarifies term modeling in Serbian Army with accent on offensive operations. Second part is an analysis of Russian federation's battalion combat group attacking populated area. Its composition as well as the way of realizing the tasks in this operation were reviewed. The first step in that analysis was to determine how to model a battalion combat group, searching principles that determine the most suitable structures and combat organizations of forces. Then the use of the same in the implementation of an attack on a populated area was analyzed.

Key words: *force modelling, Russian federation's battalion combat group, combat in populated area, fight organization, Ukraine conflict*

1. INTRODUCTION

By defining Serbian Army's missions, the tasks that she realizes are carried out. In need of realization of given tasks, the army leadership determines the required level and amount of engaged forces and assets. Process of defining of needing assets for task realization is force modeling.

Army's organization principles represents adopt positions of its organization and development for conducting given missions and tasks. Those are effectiveness and efficiency, three-component composition and purpose, interoperability, modularity, elasticity and financial sustainability. SA's organization, among its own principles, recognizes modularity as one of the key ones. Modularity implies organization, equipping, training and forming components of Land Army in line with needs for conducting specific mission and tasks. Basic modular unit of the Army is battalion – division – squad (Serbian Army's doctrine, Media center "Odbrana", 2010).

By force modeling, temporary formations are to be formed and they can be of tactical or operation level. Temporary formations are combat group, tactical group and operation group.

For the full realization of engaging principals of the SA, forces that are planning, preparing and conducting combat operations are organized in command forces, combat forces, battle support forces and security forces. Strength, composition and role of the forces are in line with concrete missions and tasks.

Ongoing conflict in Ukraine, points out that in the center of conducting military operations stands task realization divided on to smaller tasks of tactical level that are assigned to temporary units, battalion combat groups. They are compiled of company-battery size units and they represent main task executors. We conclude that the basic modular unit of the Armed forces of Russian Federation (RF) is company-battery.

This statement opens an analytical space for looking at the basic level of modularity. The subject analysis should look at both models and recommend a better solution that would make the use of the Serbian Army more efficient.

2. FORCE MODELING IN OFFENSIVE OPERATIONS FOR SERBIAN ARMY

Force organization in combat operations as a system, can be defined as a whole compiled of parts, elements and relations between those parts. "A system is a set of elements or objects between which there are established relationships so that they represent a whole. The whole must have a clearly stated purpose of existence." (Zivkovic, 2012). Following this definition's logic, through purpose and established relations, it is clear that army forces for conducting operations can be observed as a system, or even more precise as an organization. Process of defining necessary resources for task realization is force modeling. Modeled forces for conducting operations have their consisting elements, clearly determined relations and purpose of existence, i.e. they are modeled with the aim of performing a specific task. Forces in operations have their sub-systems, military units of lower level of which they consist of. Those building elements represent the organizational structure that makes up the formal system for assigning tasks, which also includes the resources for their execution (Ondrej, 2013). In addition, they have arranged relations: vertically - subordinating and hierarchical, and on the horizontal side of collaboration and cooperation. Modeled forces in operation have, ultimately, unique or joint goal – mission.

Forces for conducting missions are consisted of command forces, combat forces, combat support forces and security forces.

Command forces plan and guide combat activities and enable continuous command.

The system of leadership and command in an offensive operation includes commands of all levels, connections of commands with other forces, their organizational-formation structure and technical-material means that support leadership and command in the operation. A very important determinant of the command and control system is the command information system, which through the collection, processing, distribution and use of data significantly

contributes to the quality of the system itself. The leadership and command system in an offensive operation, as a priority task, has high-quality preparation of the operation and purposeful use of forces in it.

Offensive operation of the Army is prepared, organized and conducted by operation level command or temporary command, if it is formed. The command that will plan and command the offensive operation, in principle, is formed from the formation commands, that is, from the command of the unit that, through reinforcements, is the bearer of the formation of the temporary composition. In case of a need, this command can engage headquarter specialists from other command of lower and even higher level.

Organizational structure of the command needs to match the level of a unit and assigned task in both quantity and quality. Modeling of forces for telecommunication and IT security, which represent an element of the command post, depends on the command level. They should provide means and systems that will enable a continuous and reliable exchange of information. When dimensioning forces for telecommunication and IT security, special attention should be paid to forces for anti-electronic protection.

Force modeling for the immediate security of the command post directly depends on the organization and numerous size of the command, the position of the command posts in the operational combat layout, the intensity of the threat and the availability of forces. These forces should be designed, if possible, from formational dedicated forces that are trained to perform specific security tasks.

Combat forces consist of units of branches whose task is to defeat enemy in direct combat using firepower and maneuver.

“The aim of combat operations in which the forces of the Army are used is the defense of the area in the assigned zone, the liberation of the occupied part of the territory and the control of the territory.” (Land Army’s doctrine, Media center “Odbrana”, Belgrade, 2012). As the offensive operation of the Army is a combat operation, and the Republic of Serbia is committed to conduct a defensive war in accordance with valid strategic and doctrinal documents, the conclusion is that the goal of the offensive operation of the Army is to liberate the occupied territory, control it and create conditions for the normalization of life. The objective of the offensive operation is to isolate, disrupt, harass and destroy the enemy, seize space and key facilities on the ground, seize resources from the enemy and deceive the enemy and create a secure environment. Achieving the goal is achieved through the realization of a series of tasks that should be doctrinally regulated.

Combat forces in operation must be modeled so that their commander can do quality planning and organization of all types of action and counteractions. The modeling of combat forces will be conditioned by the estimated need for their implementation in the operation.

One of the basic criteria that must be followed during force modeling is attack tempo. Combat forces must be with similar maneuver capabilities, for ability of keeping equal tempo of conducting combat activities.

The combat support forces consist of units of the SA whose task is to provide fire and operational support to the combat forces.

Fire support creates the conditions for free maneuvering of one's own forces, prevents the maneuver of the enemy and affects its morale. Fire support results in slowing down, neutralizing, and destroying enemy forces to conduct operations. The bearers of fire support in the operations of the Army are artillery units and artillery-missile units and units of the Air Force and against air defense.

Operational support includes fortification of facilities, areas and routes on land and inland waterways, overcoming artificial and natural obstacles, arranging roads, as well as defensive actions against enemy air and river forces. The bearers of operational support are engineering units, artillery-missile units for anti-aircraft operations (ARJ for PVD) and river units (Land Army's doctrine, Media center "Odbrana", Belgrade, 2012).

Combat support forces are intended to support maneuver forces in an operation with their actions and counteractions. They manage their tasks by following actions and counteractions:

- artillery-missile and counter artillery-missile,
- counter aircraft,
- vessel and counter vessel,
- engineer and counter engineer,
- electronic and counter electronic¹.

Through the above actions and counter actions, support forces provide fire and operational support to the Army forces conducting an offensive operation.

In purpose of relieved work of commands and training process it is necessary to define branches tasks by doctrine.

Security forces consist of SA units whose task is to create conditions for conducting combat operations and force command.

Security forces² are to be modeled during modeling of all other forces. Through the process of modeling the total forces and through the tasks assigned to those forces, the need for security in the operation is considered. By modeling forces, it is usually necessary to design forces for all security contents, and the degree of realization of those contents is directly related to the sustainability of the forces, as a condition for the realization of the mission. An important determinant of the implementation of security in an offensive operation is the coordination of activities and cooperation with the institutions of the state and local self-government in the area of the operation. The unity of activities and efforts with the mentioned structures is of great importance in the influence of the operational environment on the modeling of forces.

When the command looks at all the mentioned influencing factors, it makes a conclusion about the sufficiency of logistics units for the execution of the operation and based on that, it decides whether to request additional forces for logistical support. The specifics of modeling forces for logistical support in an offensive operation derive from the objectives of the operation, and the objectives create tasks that should be implemented by the modeled forces, in order to accomplish the mission.

3. BATTALION COMBAT GROUP OF RF – STRUCTURE AND ENGAGEMENT IN OFFENSIVE OPERATION

The armed forces of the Russian Federation, like our army, are organized structurally into types and branches and functionally into units and institutions. Although large army with great

¹ Electronic and counter electronic units are not in the Army for the moment and in the future work is needed on their enlargement and decentralization.

² Experience in engaging formal JNA in armed conflicts in area of former Yugoslavia point out a forces security issues. Especially when it comes to security provision of forces in operations. Similar case is with other organized armies in modern conflicts. Failures in the organization and implementation of the content of the security of the forces were paid for with great casualties.

number of units of different composition and usage, Russian army have shown, in Ukraine conflict, that modularity principle as in the top of the leader.

What is characteristic is that they showed in this conflict that their basic modular unit is the company-battery, and the basic unit, the base, for the formation of a temporary composition is a motorized rifle battalion.

The battalion combat groups structure is identical to ours. It also consists of command forces, combat forces, combat support forces and security forces. The basic organizational and formation structure of the BBG, which is studied in Russian military schools, was used for the analysis (https://www.youtube.com/watch?v=wSDP-CmwcNM&list=PL6Udnt8OH5-tuFBuYigic6mYE6_TfCqV7&index=1).

Command forces forms from the command of the parent battalion (motorized rifle or tank, in the given example it is motorized rifle). According to the reinforcements, specialists are gathered to the headquarters who will help the headquarters and the group commander to use the assigned composition and combat capabilities of their assets as efficiently as possible.

For command purposes, a command post, auxiliary command post and false command posts are formed. Commands have command information systems so that they are very mobile during operation and have detailed procedures for moving.

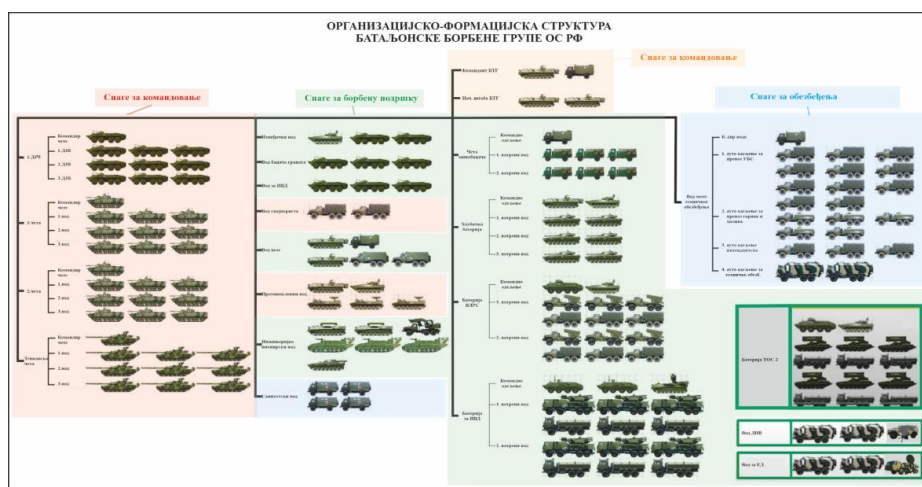


Figure 1. Organizational structure of BCG AF RF used in Ukraine conflict
Source: (Out of the schooling material of one of the authors in AGS RF 2019)

Combat forces are composed of units of combat branches. In this case, they consist of two motorized rifle companies on BMP-3 vehicles, one tank company on T-72 B3 tanks and one assault company on BTR-12 vehicles attached to the motorized rifle battalion that served as the basis for the modeling. In addition to these companies, the combat forces also include lower independent units of that battalion, namely the grenade launcher platoon, the sniper platoon and the anti-tank platoon.

The combat support forces are tasked with providing fire and operational support to the combat forces and are composed of independent units of the battalion: reconnaissance platoon, AAA platoon, mortar platoon, communications platoon and engineering platoon. In addition to them, emphasis was placed on fire support and the following were added to the composition of the BCG: a mortar company, a battery of self-propelled howitzers, a battery of SVLR and a battery for AAA. In addition to these standard reinforcements, which are studied as a school

model, the conflict in Ukraine has brought about the practice of reinforcing the BCG with a TOS-1 "Solncepek" reactive artillery battery and operational support elements up to platoon level with electronic warfare units and remotely piloted aircraft units.

Security forces are units whose task is to create conditions for the work of other elements. In the AF RF, it is called the background and it includes the formation units of the motorized rifle battalion: the technical security platoon, which consists of the ammunition supply department, for the supply of exploitation fluids, the quartermaster's platoon and the technical maintenance department, as well as the medical platoon.

The organizational formation structure of the BCG that appears in the combat operations in Ukraine, in relation to the school model, differs in the attached elements of fire and operational support of a higher level. In general, it is most often reinforced in fire support with the TOS-1 battery, and in operational support with a unit equivalent to a platoon for electronic operations and a platoon of remotely piloted aircraft. In addition to the mass use of commercial drones, the "Orlan 10 UAV" is most often part of this platoon.

This kind of organization of the combat group resulted in great firepower and independence of the unit in the direction of attack. In a possible attack operation on a populated area, the commander would send the reconnaissance unit to discover the elements of the enemy's battle arrangement before starting the attack. Intelligence-wise, the battle group exploits a wealth of data from a multi-unit that uses a wide range of intelligence-gathering methods, including satellite surveillance.

The assault begins with classic artillery preparation, which is realized by small-caliber tube and reactive artillery, as well as electronic "covering" of the zone of interest. With the start of the fire preparation, the commander from a distance includes the tank company, which aims to observe the enemy's firing points. Their movement is followed by an AAA unit that closes the sky above the entire combat layout.

When the enemy "opens" the entire fire system, the commander activates the TOS-1 battery, which fires extremely effective missiles from short distances that cause enormous damage to personnel, equipment and infrastructure. Only after that, motorized rifle and landing companies can join the operation and occupy the area. Their movement is accompanied by the massive use of RPAs for reconnaissance during depth combat. Other elements of the combat schedule will also move with their progress.

Having occupied the area, the unit organizes itself to protect it and organizes a normal life in it.

4. CONCLUSION

Experiences from modern armed conflicts unequivocally indicate that smaller tactical units of a combined composition, that is, those composed of units of different branches and services, are significantly more effective for the performance of assigned tasks. At the same time, the high degree of dynamism that characterizes modern combat operations, especially offensive ones, emphasizes mobility as one of the important principles of modularity of military units. Accordingly, in the modeling of the temporary composition, it is aimed that all organizational parts - the so-called modules should be highly mobile, i.e. have the ability to quickly move and group in a certain space when necessary, as well as flexibility in terms of reacting to new situations.

We can conclude that from the specific conditions of the combat environment and the specifics of a certain type of combat operation, the entire spectrum of abilities that the modeled temporary composition should possess in order to perform the task as efficiently as possible

emerges. This further influences the choice of level - rank and type of individual units that will be part of the modeled composition, as well as the regulation of their mutual connections. In the analyzed structure of BCG AF RF units of company-battery rank appear as basic modules-elements used in battle group modeling. On the other hand, in domestic doctrinal documents, the battalion is defined as a basic modular unit. However, such a formulation does not support the modeling of smaller temporary formations (combat and tactical groups), nor does it support the provision of different capabilities of one temporary formation, bearing in mind that an adequate ratio of combat forces, combat support forces and security forces can only be achieved with the participation of smaller units as basic modules. Force modeling aims to compensate for the shortcomings of the Army's formation maneuver units (infantry, mechanized, armored), which is most often achieved by strengthening them with combat support units and units intended for providing combat operations.

In the further reform of the Army, the formation of battalion-level organic units that would have mechanized companies (or infantry companies on armored personnel carriers) and tank companies should definitely be considered. Such organic units would represent the basis for further modeling, by strengthening them with specific "modules", such as units for AAA, units for electronic actions, units that would be equipped with remotely piloted aircraft of various purposes, etc. It is inevitable that the development of technology will have a strong impact on the conduct of armed conflicts in the future, therefore the development and equipping of units for electronic operations, as well as their decentralization in order to create conditions for their use as part of tactical groups in combat operations, should not be neglected.

Furthermore, in the doctrinal documents of the SA, the existing models of fire support should be revised, in terms of regulating the pre-subordination of certain parts of brigade artillery with greater range and greater firepower to tactical groups. Adequate firepower of fire support units is necessary in order to ensure independence in the execution of tasks and greater freedom of action of the commander of such a group within the mission assignment. The ability of temporary structures to act independently is important in the conditions in which they will be used most often, which are populated areas, dominated by a complex system of various infrastructure objects that makes cooperation with neighbors and within the unit significantly complex.

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