

COUNTERMOBILITY IN POPULATED AREA'S DEFENCE

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Received: 3rd September 2022

Accepted: 8th September 2022

Professional paper

Abstract: *For many years, little by little, the importance of a properly organized defense of a populated area in defensive operations was neglected. Large-scale military conflicts disappeared in the decades after World War II and gave way to localized conflicts of a small number of individuals, where the priority was given to technology and air superiority. In such an environment, the opinion was reached that, if defended, the populated areas would be bypassed and blocked, and the attack would continue. However, the events from the beginning of 2022 in Ukraine bring us back to reality, in which it is necessary to reconsider the ways and possibilities of defending populated areas, to recall the experiences from previous wars, but also to analyze them through the prism of the use of modern military equipment. In such conditions, prevention also has a significant impact.*

Key words: *countermobility, defence, populated area*

1. INTRODUCTION

Modern combat operations have a number of specificities that set them apart and by which they differ from combat operations that were conducted until the end of the 20th century. The specifics developed as a result of changes in the doctrines of the world's largest powers and affected the dynamics and manner of conducting combat operations, where often, when analyzing the operations, it is not possible to accurately determine the beginning of the operations, fire preparation, performance, combat in depth, or even major events, such as offense and defense. While an attack is being carried out on one part of the area, fire preparation is being carried out on another, and there is complete silence and preparation for actions on a third. Such dynamics of actions, with the use of modern means for reconnaissance and action from the air, called into question the possibility and need for the traditional organization of defense. Due to the exceptional capabilities for aerial reconnaissance, the question arises as to how to hide larger works that are required during countermobility, so it is also considered whether the traditional method of countermobility is an unmasking sign and an easily visible target for highly precise tools.

Due to the doctrinal requirements to maintain the pace of the attack, not to let the enemy out of touch and constant pressure, there were entrenched views that populated areas, which are in the direction of the attack, should be bypassed, and the enemy's forces should be kept in the vicinity until surrender or the arrival of larger forces for destruction. However, the events from the beginning of 2022 in Ukraine bring us back to reality, in which it is necessary to reconsider the ways and possibilities of defending populated areas, to recall the experiences from previous wars, but also to analyze them through the prism of the use of modern military equipment. In such conditions, prevention also has a significant impact.

In any army, countermobility is primarily handled by engineering units. Proper engagement of engineering units in all types of combat operations is an important prerequisite for achieving and ensuring success in operations. The use of engineering units especially comes to the fore in situations where, in addition to movement and fire, the emphasis is on the protection of people, techniques, and the engineering arrangement of areas and directions and on overcoming obstacles in order to accomplish some tasks. This tasks description is best reflected in the operational support of the defense operation.

2. DEFENCE

A defensive operation is a type of combat operation that is carried out in order to crush the offensive power of the enemy and create preconditions for the transition of one's own forces to attack (Serbian army's operations doctrine, 2012). The main goal of the defensive operation is to oppose the will and intentions of the enemy and to neutralize the forces on which his offensive power is based (Serbian army's operations doctrine, 2012). Like all operations, it is organized and carried out through a preparation phase, an execution phase and a stabilization and disengagement phase. In the defense operations of the Army, success is based on the organized deployment of units, the successful organization of fire and interdiction systems, the application of appropriate degrees of countermobility and the successful maneuvering of units (Land Army brigade handbook, 2014).

Countermobility has a significant impact on the movement and behavior of units, both your own and enemy units. Countermobility is the content of engineering actions that inflict losses on the enemy and prevent, slow down and channel his movement and maneuver forces (Land Army doctrine, 2012). A fact that is often forgotten is that countermobility also affects our own forces and, if not properly coordinated between units, can represent a complicating factor in the execution of operations.

Maneuver character, high intensity and dynamics of modern combat actions are more and more prominent in the foreground, as the necessity of carrying out tasks from the content of countermobility. In the absence of modern systems for remote (and fast) countermobility, it must be planned and organized in a timely manner, and professionally and timely implemented in order to achieve the right, required and expected effect.

According to the way of execution and use of space, the defense can be decisive and restraining (Land Army brigade handbook, 2014). It can be prepared in conditions when the basic forces are intended to perform the operation out of contact or in direct contact with the enemy, in conditions of timely preparations, or during the performance of other operations. The degree of tenacity in defense can be different - from elastic holding in depth to decisive holding of important positions, objects and areas. It is achieved by coordinated distribution of forces along the front and in depth; proper use of land and its engineering arrangements; countermobility and matching fire with obstacles; by quickly establishing a disrupted system of fire; dispersive and covert arrangement of forces for protection from nuclear weapons and aviation and others (Land Army brigade handbook, 2014).

Restraining defense is realized on consecutive zones, areas, positions and facilities by zone depth and active actions in the depth of the enemy's deployment and in one's own rear (Land Army brigade handbook, 2014). It is achieved by elastic resistance on successive belts, regions, positions and objects in the depth of the operation zone and active actions on all elements of the enemy's combat arrangement in his and his own rear. Decisive defense of individual directions, areas and facilities is achieved by firmly holding facilities in the operation zone with limited maneuvering of part of the forces in the depth of the zone and various intensive active actions of the forces on the front (in contact), in the enemy's rear and in their own rear.

In conditions where there is enough time and information about the enemy to prepare and organize a defense operation, when the units are more manned and rested, the planned grouping of forces, the organization of collaboration and cooperation, determination and prevention are approached. Depending on the characteristics of the terrain, the defensive operation can be prepared and carried out in different conditions, which affects the structure of the defensive operation zone, the grouping of forces and the overall content of combat operations.

The preparation of a defense operation is the same as in other operations, and the scope of certain activities, the method of their implementation and the method of engagement of forces is coordinated with the specific conditions in which the preparations are made. The preparation of the defense operation consists of the work of the command and the work of the units, and it depends on the conditions in which the operation is being carried out.

Organization of forces includes the assessment of the forces required for the operation and the establishment of the organization according to the plan of operation. The assessment of required forces is performed in the operational planning process and is based on mission and task analysis, enemy or non-military threat character, force availability and force operational capability. The establishment of the organization of forces is based on the commander's conceptual idea, unified command, centralized planning and direction, and decentralized execution. In most cases, the forces for the execution of operations are consisted of different units. For the needs of the operation, in addition to formations, dedicated and joint dedicated forces can be formed.

The main goal of the defensive operation is to inflict the greatest possible losses on the enemy, prevent them from occupying areas, break the offensive power and stop their attack, while protecting our own forces and assets from greater losses, taking the initiative and creating conditions for moving into offensive operations. The goal of the defense operation is determined on the basis of the received task, ideas for carrying out actions, strength, composition and methods of action of the enemy's and own forces, conditions in which actions are prepared and carried out.

3. COUNTERMOBILITY

When we talk about countermobility, the first thing that comes to mind is mines and explosive devices. However, countermobility is much more extensive and includes the creation of various fortification obstacles that slow down or stop movement, as well as the arrangement of space for these purposes.

Countermobility, as an activity, belongs to engineering actions, which inflict losses on the enemy and prevent, slow down and channel his movement and maneuver of forces. They are carried out by arranging objects, areas and directions. The bearer of engineering actions are engineering units, and they are also carried out by all other units of the Army at their positions, in areas and zones of combat operations. For tasks for which units of other branches are not

trained and equipped, engineering units are used, at the center of action, with the support and cooperation of the main bearers of operations - infantry and artillery units. The main objects of engineering operations are traffic roads and facilities on them, airborne facilities and tank-passable routes (Land Army doctrine, 2012).

In defensive operations, countermobility is undertaken in order to protect units in positions and increase the effectiveness of the forces' fire in defense, slow down the pace of attacks and channel the enemy's forces, create conditions for the successful operation of one's own units, hinder the use of landings, hinder movement, supply and evacuation and cause immediate losses to enemy forces by the effect of mine, explosive and flammable obstacles.

The organization and method of conducting countermobility in the defense depends on the conditions in which the defense is prepared, the objective of the defense, the planned maneuver, the characteristics of the ground, the amount, type and condition of natural and previously created artificial obstacles, the enemy's mode of action and his possibilities for overcoming obstacles, means and time for countermobility. Based on the assessment of these elements, the center of gravity of the obstacles, the type and amount of obstacles in certain directions and positions is determined.

Countermobility in the defense of a populated area can be organized as part of the external defense position, on the approaches to the populated area and inside the populated area, which depends on the size and role of the populated area in the defense system. Blocking performed in an outside defensive position is no different from countermobility performed in defense. On the approaches to a populated area, the largest volume of obstruction should be carried out in front of the front end of the defense, especially on the direct approaches to a populated area. The extent and method of countermobility within the settlement depends on its size and the way of defense organization. Obstacles are placed on streets, intersections, passages between buildings, in squares and within resistant nodes of unit defenses (Countermobility and overcoming obstacles, handbook, 1989).

For countermobility in large populated areas during the conduct of the defense, additional blocking groups can be formed (ABG) (Land Army brigade handbook, 2014), although according to the description of the tasks performed by those groups, they would be closer to the countermobility groups (CG). They, in addition to creating obstacles, can be tasked with demolishing buildings and other objects, and accordingly equip themselves with the necessary means of work.

Countermobility is conducted on the approaches and in the interior of the settlement. On approaches, the following obstacles are used: ravines, steep slopes, fences and rows of trees, reinforced with wire and mine obstacles. Streets, squares and intermediate spaces between units in the interior of the settlement are obstructed by the installation of wire barriers, minefields and demolition. In the obstacles of the ruins, loopholes, platforms for tools and passages for own units and means of transport are made. Passages in obstacles are secured against collapse, protected by heavy fire and arranged for quick closing. Demolition is carried out so that the enemy from the neighboring streets cannot go around the ruins. Surprise mines are widely used (Land Army brigade handbook, 2014).

4. COUNTERMOBILITY OF A POPULATED AREA

There is no handbook that defines how to properly block a populated area. Each settlement is separate, with its own specifics (although there are types of settlement), and each situation is different from another. Successful countermobility depends on the ideas of the commander, availability of manpower and material, time, situation...

Countermobility is of great importance in the defense of a populated area. When it is carried out as part of the external defense of a populated area, it does not differ from countermobility that is normally implemented in defense. The prevention that is carried out inside the populated area has its specificities, which are determined by the characteristics of the area itself. Passability within the settlement is limited to existing streets, passages and parks, so countermobility is carried out as part of resistant points and nodes of defense at intersections, passages between buildings, on squares, boulevards and in parks (Garasanin, 1979). As larger minefields cannot be used, groups of mines can be used to mine streets, passages, parks, ruins and congested streets, to strengthen anti-tank trenches, barricades... Mines are placed on a concrete (hard) surface and masked with various materials that has fallen from damaged or destroyed buildings in the vicinity. Fortification barriers on streets, intersections, parks and squares are very effective. The great possibility and choice of using a variety of hand-held materials enables the creation of various types of fortification obstacles such as barricades, concrete blocks, tetrahedrons, hedgehogs, pillars, dams, wire obstacles, etc (Garasanin, 1979).

In order to have some idea of what can be built and in what time, for the sake of timely planning of countermobility as part of the defense, it is necessary to have some framework norms for the construction of fortification and mine-explosive obstacles.

For most anti-tank mines the norm for placement and masking is 12-15 minutes, while for anti-personnel mines the norm is 5-15 minutes depending on the type of mine. In order to calculate the required time, it is necessary to multiply the norm by the planned number of mines and divide by the planned number of engaged personnel. To create a complete anti-tank minefield, which would be created in front of a populated area, a platoon (30 soldiers) needs to work for 10 hours for 1 km of minefield.

Making fortification obstacles generally does not take too much time, and the benefits are more than obvious. It takes 2 people and 30 minutes of work to make one hedgehog. It takes 2 people and 1 hour of work to make a double hedgehog. It takes 18 people and 4 hours of work to make a 100m-long reinforced wire fence, while a platoon makes 1 km in 20 hours of work. It takes 10 hours of work and 10 people to make a low wire net 100 meters long, while a line makes 300m in 10 hours of work. For more difficult and complex obstacles, it is necessary to hire engineering machines and their construction depends on the resources available (Engineering handbook, 1965).

5. CONCLUSION

By countermobility of a populated area in the zone of the defensive operation, favorable conditions are created to stop, with smaller forces, a numerically significantly superior enemy and thereby gain time to establish a battle order or bring in fresh forces from the depths. This kind of countermobility has its special significance in situations where the inhabited area cannot be passed due to the canalized area and traffic corridors that lead to the settlement and do not allow passing.

Considering the characteristics of modern warfare, which implies the massive use of aviation, remote-piloted aircraft and actions from a distance, it is extremely important to block in front of and in the populated area itself, so as to reduce the expected effects of the actions of these means, and at the same time to channel the movement of enemy assets in the directions leading to the zones of action of our own forces. For that, it is necessary to work out a detailed plan for countermobility in the settlement, which is different for each settlement and there is no universal solution.

One of the major limitations for countermobilizing a populated area in defense is finding and preparing enough construction material, especially timber, for the construction of planned

fortification obstacles, because these are not standard material and technical means that exist in units (unlike mine-explosive assets). The required quantities depend on the extent of obstruction and the size of the settlement itself. On the other hand, the characteristic of engineering units is improvisation, so fortification obstacles can always be adapted to the available material, so they can be made even from waste material.

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