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IMPROVING THE EFFICIENCY OF MİLİTARY LOGISTICS SYSTEM MANAGEMENT WITH THE INTRODUCTION OF INNOVATIVE TECHNOLOGIES

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Abstract: *The article provides information on the negative impact of problems in military logistics management on the performance of combat missions, as well as on the changing nature of modern wars and the incompatibility of the classical material-technical support system with new operational and combat techniques and rules. The possibility of using information and communication technologies (ICT) in military logistics is considered in order to improve the existing logistics system and adapt it to the requirements of modern warfare.*

Military logistics is a complex system that encompasses planning, organization, management, coordination and control of providing troops with the necessary material resources for the successful completion of combat missions.

Since military logistics covers supply, transportation, maintenance, repair and evacuation, the success of any combat operation depends on its clear organization. Therefore, problems in the management of military logistics can have a significant negative impact on the performance of combat missions, including delays in the timely delivery of important material and technical resources, which ultimately reduces the effectiveness of combat operations.

Unlike classical wars, the character of modern wars requires flexibility, precision and adaptability in planning and implementing logistics activities. Rapidly changing combat conditions, collection and processing of large volumes of information create a number of difficulties in managing the existing technical support system using traditional methods. These problems make it urgent to find solutions to improve the level of logistical support for combat operations. In this regard, the use of information and communication technologies (ICT) in the military logistics system opens up new opportunities for forecasting, automation

and optimization of supply-related processes. ICT allows for accurate decision-making based on the analysis of large volumes of data in real time, reduces the human factor and paper media, and increases system stability.

Information technology covers the collection, storage, processing and analysis of data, and communication technology covers the transfer of this data between participants in the supply chain. In the context of modern wars and conflicts, ICT allows us to solve the following:

– ensuring accurate supply planning;
– automation of supply processes;
– synchronization of activities of various departments (divisions);
– rapid response to changing situations related to operations;
– optimization of warehouses, transport, transportation routes, supply chain and personnel.

ICT makes military logistics more transparent, manageable and predictable, and allows the command to make accurate decisions based on reliable and up-to-date information.

Let's look at some of the applications. One of the main areas of ICT integration in military logistics is the “Automated Logistics Management System”. The system is a software and hardware complex covering the entire life cycle of logistics processes - from planning and accounting of material resources to the management system (planning, procurement, accounting, supply control, route calculation, maintenance, repair and disposal). For example, we can mention “LOGFAS” (Logistics Functional Area Services), used in NATO armies, or Russian automated “supply” management systems.

Another application is the Internet of Things (IoT). The modern application allows monitoring the location, condition and temperature of military equipment, cargo, containers and other vehicles by installing sensors on them. This, in turn, minimizes losses and damage, helps in maintenance planning and increases the speed of response to emergency situations.

The introduction of satellite and secure communications ensures real-time communication between military logistics hubs, command and military units (subdivisions). Thus, the innovative application allows for the coordination of the logistics system not only on the scale of the army (branch of troops), but also at the level of joint operations with combined arms forces. This also significantly facilitates the resolution of such issues as the management of troop movements, the exchange of information on reserves and needs, and the distribution of material resources during combat operation.

The use of ICT in the military logistics system has its advantages. Thus, ICT increases the frequency and accuracy of decision-making. Access to real-time

information allows command to act quickly. The transparency of the implementation of logistics activities becomes more accurate with the use of ICT. The command can see the location of material resources, the stage of their provision and technical condition. ICT reduces costs (consumption) by accurately calculating the need for material resources. Supply (stock) of material resources in excess of the norm is not allowed.

In addition, increasing the ability to interact more effectively through ICT. ICT makes it possible to integrate units of friendly and allied countries into joint operations with a support system, as well as to establish interaction based on a single information technology (IT) infrastructure.

Of course, when integrating ICT into the military logistics system, the issue of cyber threats and information protection is also relevant. Military logistics IT systems are a priority target for cyber attacks. This could lead to serious problems such as loss of control over the supply chain, leakage of information about troop movements, and even, so to speak, paralysis of the logistics infrastructure. This requires the use of secure (protected) communication channels, encryption, backup systems and special operating platforms.

Automation of the military logistics system also brings personnel training to the forefront. The integration of ICT into the military logistics system requires specialists with digital skills. This requires retraining of the command (leadership) staff in this area, as well as training of IT-qualified servicemen in military academies.

Conclusion

The integration of ICT into military logistics is considered one of the most important conditions for increasing the efficiency, sustainability and combat effectiveness of the armed forces. The introduction of ICT allows not only to optimize processes related to material and technical support, but also to radically change the approach to military logistics. Taking all this into account, it is concluded that the prospects for military logistics lie in the application of digital, networked and “smart” solutions.

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