

ВІЙСЬКОВА ТЕХНІКА І ТЕХНОЛОГІЇ ПОДВІЙНОГО ПРИЗНАЧЕННЯ

UDK 327

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DOI: <https://doi.org/10.17721/2519-481X/2023/79-01>

ABOUT ANALYSIS OF GLOBAL TRENDS OF MODERN ARMED STRUGGLE

The results of the analysis of the experience of military conflicts of recent decades show that modern wars are fundamentally different from the usual stereotypes of wars during the Second World War, the second half and the end of the 20th century – the beginning of the 21st century. They received not only a new essence and a new meaning, but also revealed new characteristic features of armed struggle, which include the focal and fast-moving nature of hostilities, the absence of protracted positional battles, the use of only long-range weapons, mainly air and space-based, an increase in the number of robotic military equipment and weapons, the growing role of navigation systems in solving the tasks of defeating and coordinating the actions of not only large operational groups of troops, but also small tactical formations. In the article, we examine how the change in the nature of armed struggle affects modern wars, in particular, in modern wars there is a certain evolution of its individual elements, the main of which is fire damage, which is due to the active development of means of reconnaissance, guidance and direct fire impact on objects in the enemy group. It deserves attention the origin of changes in priorities when choosing the objects of damage depending on the scale of the armed conflict, the chosen option for its solution and conduct, features of the composition and nature of the enemy's actions. The transition of military operations into air and space, a significant increase in the range of strike missile and aircraft, led to a significant spread of spatial indicators. Under modern conditions, the armed struggle acquires a multidimensional nature, in contrast to the wars of the past, in which the nature of the armed struggle was determined mainly by horizontal dimensions, and the vertical (aerial coordinate) was only auxiliary in nature.

At the same time, along with the spread of the spatial scale of military operations, a significant feature of modern wars and armed conflicts is considered to be changes in the temporal indicators of armed conflict, which is determined by its high dynamism and rapidity due to the use of the latest types of weapons and military equipment.

Key words: military conflict; modern wars; armed struggle; military equipment and weapons.

Introduction. Modern military conflicts are characterized by the active use of high-precision weapons, which, in terms of their destructive power, are equivalent to, and sometimes even exceed, the strength of nuclear weapons. The armed struggle in such wars has moved to the aerospace space, which has become the main theater of military operations, and high-precision robotic weapons are gradually turning into a decisive factor in the armed struggle, the massive use of which ensures the achievement of the goals of the war even without the use of ground troops, as it happened in its time in the Yugoslav company in 1999 by the combined forces of NATO or in Syria in 2017 by the coalition forces led by the United States and the Russian Federation.

Active combat operations in modern conditions are carried out by operational groups of troops (forces) simultaneously in the air, on land and at sea, practically without spatial limitations, with the active use of the space component. The first example of this was the operation of multinational forces "Desert Storm" against Iraq in 1991 [1].

Formulation of the problem. The spread of spatial indicators of the armed struggle and its acquisition of a high degree of controllability, the rapid growth of the role of the information factor and actions in space, as well as the widespread use of guided weapons have as a consequence the tendency to the globalization of the management of the armed struggle as a whole and the gradual transition to the scheme: from guided weapons to guided armed struggle.

The experience of modern operations shows the increasing attention of the world's leading countries to the integration of all types of intelligence. In the wars of the sixth generation, with the creation of the latest means of intelligence, which allow you to detect any target, at any distance, in

any conditions, intelligence becomes global. In modern wars, there is a steady tendency to transfer more and more intelligence efforts into near-Earth space. Military and dual-purpose space vehicles with high differential capability are not just assigned a large and important role as sources of information, they are considered as system-forming military-technical tools for conducting armed conflict [1-2].

Analysis of recent research and publications. The conducted analysis of the use of space systems in military conflicts allows us to state that the dynamics of building up the orbital grouping is constantly growing. In comparison, for example, with the operation "Desert Storm" (1999), the number of spacecraft used during hostilities in Iraq in 2003 increased almost three times. At the same time, a quarter of them were reconnaissance satellites, which were used to obtain up to 70 % of intelligence information about enemy ground objects [3]. One of the main trends in the armed struggle in modern conditions has become the mass use of small, inconspicuous and long-duration unmanned reconnaissance aircraft [4]. The high efficiency of the use of these intelligence tools, which is confirmed by the experience of military conflicts in recent years, has led to a significant increase in the amount of funding for the development and adoption of unmanned aerial vehicle programs in the leading countries of the world in recent years [5–9].

The most revealing is the experience of the USA, which has increased the amount of financing of this industry six times since 2001 [1-9]. The results of the use of heterogeneous forces and means of destruction in military operations in the Persian Gulf area, Yugoslavia and Syria indicate a steady trend of integration of intelligence, control and fire attack systems into a single intelligence-strike control system of intelligence, radio-electronic suppression and destruction of enemy objects. It is characteristic that one of the main reasons for such integration was a qualitatively new level of intelligence thanks to the latest technologies that provide the ability to track all possible targets in real time – not only stationary, but also mobile. It should be noted that intelligence has never been so important as at the current stage of the development of weapons and military equipment, associated with the use of high-precision weapons to achieve a goal in a local war or armed conflict. The large-scale use of high-precision weapons in the military conflicts of the last decade of the 20th century and two decades of the 21st century greatly contributed to the change in the nature of hostilities and the transition from the method of defeating the enemy in a certain area to the selective defeat of his objects. In military conflicts that took place between 1991 and 2022, the share of using high-precision weapons increased from 9 % to 70 % [1-10].

The purpose of the article is to analyze the military conflicts of the last decades and highlight common features inherent in their development.

Main part. Along with the widespread use of air and sea-based cruise missiles, the inclusion of various unmanned aerial vehicles in the aviation group, a characteristic feature of modern wars is the change in the role of strike aircraft, which are gradually turning into air platforms for delivering cruise missiles to the area of their launch. The war in Yugoslavia in 1999 was the first example of testing this approach to the use of strike aircraft. The use of high-precision weapons made drastic changes in the forms and methods of use of air attack groups. The transition from the massive use of aviation at a certain time to "adapted actions" by applying combined group air strikes using an integrated intelligence information field should be considered one of the main trends of modern armed struggle. Effective functioning of reconnaissance and fire systems in today's conditions is no longer possible without large-scale topographical and navigational support, especially with the use of space vehicles and digital electronic maps [1]. The most revolutionary change in the content of topographic support was the use of geoinformation systems. With their help, the collection, processing, modeling of available digital information about the terrain and the performance of analysis tasks in the interests of the armed struggle are ensured in real time and according to the principle "when necessary and where necessary".

The use of high-precision weapons also led to fundamental changes in the management of troops. The analysis of the operations "Desert Storm", "Desert Fox", "Allied Force", "Iraqi Freedom", the anti-terrorist operation of the US-led coalition forces "Unwavering Determination" and the operation of the Russian military contingent in Syria indicates an important trend of a conceptual

nature – a gradual the transition from the management of troops and the management of weapons as two relatively independent components to the management of armed struggle, which involves the mutual penetration of all components and the need for the simultaneous influence of management bodies on the process of armed struggle in real time. Ensuring quality management, according to US and NATO experts, is related to the creation of a global system of operational management, which will functionally connect with automated management systems of the armed forces and allow for both centralized and decentralized management of troops (forces) to a separate unit (ship) inclusive.

According to American military experts, the development of the global system of operational management in the next 10–15 years will be inextricably linked with the implementation of the concept of integrated management of troops and weapons systems, the purpose of which is to create a single information space for management bodies at all levels. That is, the process of automation of management should go beyond the operational-strategic level and cover the tactical link, thus closing the contour of the management of the armed forces from the highest military-political leadership to units and weapon systems, that is, to the soldier. In the armed forces of the leading countries of the world, the main trend of improving existing and developing promising communication systems for waging sixth-generation wars in the direction of creating a system of information transmission in the combat zone, which is a component of the global system of operational control, has been determined. There was a transition to the creation of modern global communication systems, which are used to form a continuous information space in the interests of command, intelligence and means of fire destruction.

The experience of local wars and modern armed conflicts shows that, starting with the 1991 war in the Persian Gulf, as well as in subsequent large-scale military conflicts, multinational forces were involved in conducting operations, joint operational groups (forces) were created with the appropriate command and on on this basis, tasks related to conducting operations were positively resolved.

At the beginning of the 21st century, all the leading countries of the North Atlantic Alliance actively implemented the so-called functional principle of formation and use of the armed forces, the essence of which is that for the purpose of the most effective preparation for use, as well as the most rational use of national resources, all the armed forces are divided into three main components: response forces – for use in crisis regions outside national territories; main defense forces – for use in a large-scale war; reinforcement forces (reserve) – for additional staffing and increasing the combat capabilities of the first two components [1]. This approach to the development of the armed forces is due to a trend related to the transformation of their purpose and tasks. The emergence of new challenges and threats to the national interests of the state, along with the traditional purpose of the armed forces – deterring and repelling aggression, put on the agenda the need to use groups of armed forces to solve the tasks of preventing the emergence of armed conflicts and their neutralization, fighting against illegal armed formations, conducting peacekeeping and other operations. The above causes a significant change in the tasks and structure of the armed forces themselves. In their composition, rapid response and special operations forces are gaining more and more importance. The armed forces have a double requirement – to be ready to conduct military operations in the conditions of sixth-generation wars and, at the same time, to be ready to conduct hostilities with illegal armed formations.

The readiness to conduct a simultaneous fight against an external enemy equipped with high-tech weapons systems and mobile internal unconstitutional formations, which are armed mainly with individual small arms and light weapons, becomes one of the main requirements for the training of modern armed forces [1]. One of the important trends in the development of modern armed struggle is the growth of the role of information struggle, which is carried out with the aim of disrupting the system of state and military administration, creating favorable conditions for the successful conduct of operations and hostilities, influencing the moral and psychological state of the military-political leadership, the population and personal composition of the opposing side's troops, as well as neutralization of similar influence from the enemy's side. The information struggle acquires an active strategic character, is conducted without limitations in space and time and is characterized by

economic expediency, non-lethal action and high efficiency in achieving a military and political goal. The trend of changing the forms and methods of information struggle is due to the development of information weapons. Internet technologies, digital speech synthesizers, and holographic generators are widely used for information and psychological influence.

Analyzing and predicting the future, there is no doubt that the means of remote software influence will become quite effective under the conditions of their creation and influence on the enemy during modern military conflicts with the help of software tools. According to Western experts, information weapons are currently one of the main threats to the national security of the state, and the total costs for development in this field in the world exceed 120 billion US dollars per year. The experience of modern military conflicts testifies to the growth of the specific weight of radio-electronic warfare (hereinafter – EW) in achieving the general goal of armed struggle, as well as a significant increase in the scale of mutual radio-electronic influence of the opposing parties. At the same time, a direct dependence of the effectiveness of fire strikes on the degree of radio-electronic suppression of radio-emitting objects can be seen.

It is also necessary to pay attention to the fact that there has been a transition from isolated radio-electronic influences to massive electronic attacks and the WB operation, which was first carried out in the war against Iraq in the Persian Gulf area in 1991 and as a result of which the command system of the Iraqi armed forces was completely disorganized and suppression of the air defense system. Radio-electronic warfare is gradually spreading to outer space and becoming global in nature. In the practice of warfare, radio-electronic fire strikes based on the complex use of EW and incendiary weapons and radio-electronic striking strikes, which are carried out using EW tools on new physical principles, including powerful electromagnetic pulses, laser beams, directed beams of high-energy particles, and lead to the disabling of the enemy's radio-electronic means. The relative number of EW forces in operations is increasing. At the same time, their number in the total number of armed forces of the leading countries of the world remains relatively stable. Thus, the WB is transformed into an independent form of operational-strategic actions with global consequences for the enemy. Analyzing the modern armed struggle, special attention should be paid to the fact that completely new weapons have been used during recent military conflicts. Thus, during the war against Iraq (2003), an electromagnetic bomb was used.

Such a weapon is capable of disabling various electronic devices under the influence of a powerful flow of radio frequency electromagnetic radiation. And this is only the beginning of the use of weapons of unconventional action, the possibilities of which have not yet been explored in depth enough.

Conclusions and prospects for further investigations. Summing up the analysis of the armed struggle based on the experience of military conflicts, it is possible to highlight general features inherent in its modern development. These are: a significant increase in the capabilities of weapons and military equipment; the spread of the spatial scale and dynamism of the armed struggle, a change in its logical and temporal structure; the transfer of the main efforts of military operations into air and space; integration of means of reconnaissance, control and destruction in reconnaissance and fire systems; growing importance of the information factor; globalization of management and intelligence systems; growing role of coalition and multinational forces and increasing the role of special operations forces; wide application of functional structures.

Further changes in the development of armed struggle indicate that humanity is gradually entering the era of wars of the seventh generation. The main features of the armed struggle in these wars are the transfer of the main efforts of the armed struggle to outer space, the widespread use of space reconnaissance, navigation and strike systems; the appearance of robotic combat equipment and weapons, increasing the role of intelligence in the creation of the latest means of armed struggle, the gradual displacement of humans from the battlefield; the growth of informational, informational-psychological, and EW not only in ground and air environments, but also in the virtual sphere (the Internet); the use of weapons based on new physical principles, the emergence of intellectual, information and other types of non-lethal weapons, which will be considered by us in the future.

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ДО АНАЛІЗУ СВІТОВИХ ТЕНДЕНЦІЙ СУЧАСНОЇ ЗБРОЙНОЇ БОРОТЬБИ

Результати аналізу досвіду воєнних конфліктів останніх десятиліть свідчать, що сучасні війни докорінно відрізняються від звичайних стереотипів війн періоду Другої світової війни, другої половини та кінця ХХ століття – початку ХХІ століття. Вони отримали не лише нову сутність та новий зміст, а також виявили нові характерні риси збройної боротьби, до яких слід віднести осередковий та швидкоплинний характер бойових дій, відсутність зтяжених позиційних боїв, застосування тільки далекобійної зброї, переважно повітряного і космічного базування, збільшення чисельності роботизованої військової техніки й озброєння, зростання ролі навігаційних систем у вирішенні завдань ураження і координації дій не тільки великих оперативних угруповань військ, але й дрібних тактичних формувань. У статті досліджено як впливає зміна характеру збройної боротьби на сучасні війни, зокрема у війнах сучасності

відбувається певна еволюція окремих її елементів, головним з яких є вогневе ураження, що обумовлено активним розвитком засобів розвідки, наведення та безпосереднього вогневого впливу на об'єкти в угрупованні противника. Заслугує на увагу походження змін пріоритетів при виборі об'єктів ураження залежно від масштабів збройного конфлікту, обраного варіанту його розв'язання та ведення, особливостей складу і характеру дій противника. Перехід воєнних дій у повітряно-космічний простір, значне збільшення дальності дій ударних ракетних і авіаційних засобів, обумовили істотне поширення просторових показників. За сучасних умов збройна боротьба набуває багатовимірного характеру, на відміну від війн минулого, у яких характер збройної боротьби визначався, в основному, горизонтальними вимірами, а вертикальна (повітряна координата) носила лише допоміжний характер. Разом з тим поряд з поширенням просторового розмаху воєнних дій суттєвою ознакою сучасних війн і збройних конфліктів вважаються зміни часових показників збройної боротьби, що обумовлюється її високим динамізмом і швидкоплинністю за рахунок застосування новітніх зразків озброєння і військової техніки.

Ключові слова: воєнний конфлікт, сучасні війни, збройна боротьба, військова техніка й озброєння.

