

## **A DUEL BETWEEN THE TACTICS OF THE "SECOND" ARMY OF THE WORLD AND THE UKRAINIAN DEFENCE FORCES IN THE RUSSIAN-UKRAINIAN WAR IN THE PERIOD FROM FEBRUARY 2022 TO NOVEMBER 2023**

*The article outlines the chronology of the invasion of Ukraine by Russian troops from February 2022 to November 2023. Using the analytical and predictive methodology, the author identifies the strategy of the Russian occupation forces (ROF), the reasons for the use of certain tactics of warfare by both sides, analyses the general capabilities of the Russian Federation in further aggression, and draws conclusions from the experience of combat operations gained in the context of the Russian-Ukrainian war that are relevant and in demand for the development of modern military art.*

*In addition, the paper uses a comparative and analytical analysis and empirical research method to explore the forms and methods of combat operations of the Russian Federation and the Ukrainian Defense Forces during the period under consideration. For convenience, clarity and systematization of research, the Russian-Ukrainian war is divided into conditional time periods.*

*Drawing on a range of sources, including official documents, historical records, and media reports, the authors of the paper offer insights into combat episodes where novel tactics were employed or those that bear resemblance to past wars, highlighting their potential implications. The authors have analysed the atypical tactics used by the Ukrainian Defense Forces (UDF) and the ROF, exploring the reasons behind their utilisation and the consequences they have entailed.*

*The paper identifies the relationship between the emergence and trends in the development of new types and models of weapons and military equipment, and their impact on the methods and forms of combat operations during the Russian-Ukrainian war. The author examines the compatibility of combat use and interaction of obsolete types of weapons and military equipment with modern models, and provides a general description of the Russian-Ukrainian war.*

*Keywords: the Russian-Ukrainian war, tactics, strategy, combat operations, armament and military equipment.*

**Formation of the problem.** Ukraine's aspiration to develop relations with the European Union was first proclaimed in the Resolution of the Verkhovna Rada of Ukraine of 2 July 1993 “On the Principles of Foreign Policy of Ukraine”. Since then, economic, political, and social problems in relations between Ukraine and the Russian Federation have been developing, which have included a ban on imports of various goods, unjustified accusations of Ukraine of transiting gas and oil, undermining the country's political and economic reputation, etc. The reasons that prompted the Russian authorities to take such actions are quite complex: from the imperial mentality of the Russians, aimed not at building their own state but at enslaving neighbouring nations, to the desire to retain control over the production facilities of the former USSR and guaranteed commercial markets. After the collapse of the USSR, Russia traditionally viewed relations with Ukraine in the context of its own global geopolitical interests. Therefore, on the night of 24.02.2022, Putin announced the beginning of the so-called “special military operation” (SMO) against Ukraine, with the aim of demilitarising and denazifying it.

The aggravation of these relations resulted in Russia's armed aggression against Ukraine, the active phase of which began with the open invasion of Ukraine by the Russian Armed Forces. The offensive was carried out simultaneously on a wide front of about 1200-1500 km from three main directions, such as:

- Northern—from the territory of Belarus through the cities of Prip'yat and Chernobyl to Kyiv, from the territory of Belarus and Bryansk region of the Russian Federation through Chernihiv region and from the territory of Kursk region of the Russian Federation through Sumy region, with further

development of success in Kyiv and from the territory of Belgorod region of the Russian Federation to Kharkiv;

- North-eastern - from the occupied territory of Luhansk and Donetsk regions towards the cities of Kharkiv, Zaporizhzhia and Mariupol;

- southern - from the occupied Crimea to the cities of Melitopol and Kherson, followed by the capture of the cities of Mykolaiv and Odesa, with the aim of cutting off Ukraine from the Azov and Black Seas and reuniting with the territory of the unrecognised Transnistrian Moldovan Republic.

To accomplish this mission, the Russian Armed Forces Command developed a so-called “*blitzkrieg*” plan, which envisaged the capture of Kyiv in three days and eastern and southern Ukraine in two to three weeks, followed by the deprivation of Ukraine’s statehood.

In the aftermath of the Second World War, the study of this event remains pertinent not only for Ukraine as a sovereign state, but also for the broader global community. The war had a direct or indirect impact on international political relations, the economy, and the security situation in numerous countries. The military events that spanned over 1,000 kilometres of frontline necessitated the utilisation of substantial quantities of ammunition, weapons, and military equipment, which have become increasingly scarce over time. Western partners have been providing the Ukrainian Armed Forces with NATO-standard ammunition and relatively new weapons and equipment with tactical and technical characteristics suitable for effective combat operations. In contrast, the *ROF* has faced significant challenges, including substantial losses and the inability of the domestic industry to produce the necessary amount of modern weapons and equipment. As a result, the *ROF* began receiving samples of weapons and equipment produced in the 1950s and 1960s in the second half of 2023. At the same time, due to the lack of ammunition and weapons and military equipment, their substitutes are emerging – high-tech weapons and military equipment that operate on the latest physical principles of use and control. Problems arise in the *UDF* or *ROF* when choosing tactics, therefore the study of the reasons for decisions on the choice of tactics in specific combat situations is relevant.

**Analysis of previous studies.** It is worth noting that there is a paucity of scientific works on a thorough study and analysis of the Russian-Ukrainian war. Among the existing ones, we can distinguish such works as [1-3], which only reveal the chronology of the Russian-Ukrainian war and provide a general description that it is similar to past wars, without providing substantiated arguments or evidence. As Y. Saveliev noted in his work [4], science should explain phenomena, not just measure them. It is possible to use specialised literature to study the events of the war [5]. However, these works cover only the documented chronology and statistics of combat episodes (situations). They do not contain a generalised scientific comparison and analysis of the impact on the course of events of the latest and outdated models of weapons and military equipment, their compatibility and interaction, no analytical forecasting and no definition of the general nature of the Russian-Ukrainian war.

Therefore, it may be advisable to investigate the reasons for the use of tactics, what it depended on and what results it led to during the period of the Russian-Ukrainian war defined in this paper, using comparative and analytical analysis and the empirical method.

**Results.** According to the plan of aggression, the Russian leadership chose the concept of a rapid war with a simultaneous invasion of a large mass of troops, which was developed in the mid-nineteenth century by Prussian Field Marshal H. Moltke and improved by Prussian Field Marshal A. Schlieffen. The strategy of lightning war was chosen because Russian President V. Putin has become a hostage to his propaganda, which for two decades has praised the Russian army, armed with weapons that are unparalleled in the world. He still believes that his army is second only to the US armed forces in terms of power (and then only in terms of conventional weapons).

*Military campaign: February-May 2022.* On the morning of 24 February 2022, several dozen Russian helicopters, having illegally crossed the state border, flew to the city of Hostomel to seize the Antonov airfield and then receive transport aircraft with troops, the purpose of which was to seize Kyiv. However, units of National Guard of Ukraine (NGU) fought back, shooting down

several helicopters and two IL-76s with troops. After fierce fighting, the airfield was captured, but the NGU units managed to destroy the runway. At the same time, the *ROF* launched air and missile strikes on Ukraine's border and major cities and military facilities (command posts, military units, airfields, etc.) to exert military and psychological pressure on the population of the country, with the aim of breaking the will of the people to resist [6].

After the unsuccessful airborne operation, the Russian leadership launched the following tactic of a “*massive offensive with mixed convoys*” (tanks, APCs (IFVs), armoured vehicles, trucks, petrol refuellers, etc.), where army groups conduct offensive actions at a high pace in the first two to three days. The purpose of this strategy was to push through the defensive positions of the Ukrainian Defence Forces (UDF) with a mass of troops and defeat their main forces in a short period of time.

The convoys stretched up to 40-60 km in some directions. Although the tactic of attacking in massed convoys significantly limited the manoeuvrability of troops, caused interruptions in the supply of fuel for armoured vehicles and traffic congestions, the occupier generally managed to maintain a slow advance of troops towards Kyiv, Chernihiv and Sumy. Along the routes of the convoys, the Russians set up roadblocks and seized individual settlements with their subsequent looting. If they encountered resistance on the approach to district centres, the occupiers blocked them, bypassed them and continued to advance their convoys. If they encountered Ukrainian platoon or company strongholds prepared for defence or battalion or unit defence areas, the main *ROF* deployed in combat formation and launched an attack on the move according to the following algorithm [6]:

- from the very beginning, there was a reconnaissance by fire: groups of combat vehicles (2-3 IFVs with a tank) were advanced, supported by a group of infantry. From a distance of 1 km or more, the tanks would hit the frontline defence positions, and the IFVs under their cover would continue to close in;

- upon discovering the firing positions of the artillery of the *UDF*, the Russian units that were conducting reconnaissance by fire stopped and retreated to a safe distance from the shell explosions of their own artillery (aviation), which was trying to suppress the Ukrainian artillery with its fire. After the artillery (aviation) strike was completed, the attack on the front line by the units of the first echelon of Russian troops began;

- if the attacking units were successful and in order to continue the success, the reserve of BTGr was introduced into the battle and attempts were made to cover the defending *UDF* in order to complete their defeat or force them to withdraw from the defensive positions;

- In the absence of success in the offensive and with significant losses in personnel and equipment, part of the *ROF* retreated and used tanks, IFVs (APCs), grenade launchers and mortars to pin down the defending forces. At the same time, aviation, missile troops and artillery (MT&A) suppressed the identified *UDF* targets. Another part of the *ROF* tried to block the roads (evacuation and supply routes) around the battle area.

It seems that the northern direction was unexpected for the military leadership of Ukraine, as the *UDF* were very dispersed. There was also the effect of surprise, as a result of which some military units did not have time to deploy and take up defensive positions. Therefore, those brigades that managed to reach these positions began to conduct manoeuvre defence on a wide front. For example, in the Kharkiv sector, the 92nd Separate Mechanized Brigade's defence line, which included the 3rd Mechanised Battalion (MB), an Infantry Battalion (IB) and a Tank Battalion (TB), was about 124 km wide and about 52 km deep..

Thus, at the beginning of the full-scale war, the *ROF* used an “*atypical*” method of offensive actions – moving in convoys, focusing on night rest in or near settlements, conducting offensive actions in marching and pre-combat orders, i.e. “hasty”.

The JFO command managed to create mobile tactical groups (MTGs), mobile anti-tank fire teams (MATFTs) and manoeuvre fire teams (MFTs) for attacking (assault) operations. The manoeuvre defence was conducted with the extensive use of fire ambushes by the MATFTs operating in front of the battalions' defence front. The advancing columns of the occupiers were

stopped by ambushes and the MATFTs and destroyed by fire from brigade artillery groups (BrAGs) and mortar batteries of the battalions [7].

Thus, during one day of fighting, the MFT of one of the mechanised brigades of the *UDF* destroyed 18 tanks on the route of advance.

Ukrainian BrAG units, mortar batteries and anti-tank platoons of mechanised battalions took an active part in engaging the enemy. The amount of fire missions performed was about 25–30 per day on average. Whenever possible, one or two UAV (or drone) crews per firing platoon (battery) were formed. Radar stations were also used to support firing.

As a rule, *MTGr* were attached to separate mechanised brigades (SMBr), the size and composition of which depended on the peculiarities and specifics of their use, assigned tasks, theatre of operations, etc. However, the basis of each mechanised brigade was to be assets of mechanised, tank, artillery and anti-aircraft units. The *MTGr* included anti-tank units, mortars and grenade launchers, as well as units of other arms of the armed forces (reconnaissance, engineering, CBRN, communications, etc.), logistics and medical support. In addition, the *MTGr* were equipped with modern armaments and military equipment of domestic and foreign production, in particular, man-portable anti-tank guided missiles (ATGM) such as FGM-148 “Javelin”, lightweight ATGM “NLAW”, grenade launchers “Karl Gustav”, “Panzer Faust”, M72 LAW, M141 (SMAW-D), AT4CS, etc [8].

The *MTGr* was able to perform tasks that arose suddenly during the battle, namely to manoeuvre, deploy to a designated line and cover tank-threatening axes and sectors; to reinforce (if necessary) mechanised units in a potentially dangerous direction; to destroy enemy tactical landing parties and tactical groups that were encircling (bypassing) the combat formations of separate mechanised brigades; to ensure that the group of troops conducts a counterattack (for example, to cover the marching, pre-combat, and combat order of a tank battalion during its advance, deployment, and reaching the counterattack frontier). The *MTGr* was directly subordinate to the commander of the operational (“operational-tactical”) grouping of troops.

The use of the *MATFTs*, which were equipped with Javelin, NLAW, Stugna-P, Corsair, Barrier and other ATGMs, showed that this was a rather effective way to combat enemy tanks and armoured vehicles. The *MATFTs* operated as part of the anti-tank reserve, occupying areas of deployment (“AOD”). Then, when called upon, they quickly moved to the areas of deployment (AOD) to perform the task of destroying enemy armoured targets with 4-7 launches and then leaving the AOD. The targeting of the AOD was based on reconnaissance data from UAVs (drones) that were part of the *MATFTs*.

So, the *MATFTs* began to shoot Russian vehicles in convoys step by step, thus creating traffic congestion. As the Russians advanced, bridges were blown up, further delaying the aggressor.

The MFTs were created to support the actions of territorial defence (TD) units to destroy the enemy, consisting of a squad leader, a machine gunner, a grenade launcher and a grenade launcher assistant. As a rule, the MFT is provided with specially equipped wheeled vehicles such as Toyota Tundra pickups or HMMWVs armed with 12.7 mm heavy machine guns or ATVs with hand-held anti-tank grenade launchers (RPGs) and Javelins.

Thus, the composition of the *MFTs* depended on the TOE of the unit and the tasks it performs. Practice has shown that proper training and all-out support of the *MFTs* guarantees the successful fulfilment of tasks in defence, as part of combat guard, ambushes, watch posts, during blocking, search, patrolling, and assault operations in a settlement.

Due to significant losses in personnel, armament and military equipment, the remnants of the *ROF* fled to their own territory and the territory of Belarus. Kyiv, Zhytomyr, Chernihiv and Sumy regions were completely liberated. The leadership of the Russian Federation regrouped these troops, replenished them with personnel and weapons and deployed them to the east to the Donetsk and Luhansk regions as well as Crimea [9].

As a result of the Russian offensive, the city of Kherson was fully occupied and Kharkiv, Donetsk, Luhansk, Zaporizhzhia, Mykolaiv and Kherson regions were partially occupied [10].

In June-August 2022, during the capture of the cities of Mariupol, Melitopol, Enerhodar with the Zaporizhzhia nuclear power plant, Sievierodonetsk and Lysychansk, the occupiers, using a significant advantage in artillery (70-80 shots per shot of the *UDF* artillery), used the tactic of “*firewall*”, destroying everything in front of them, gradually moving forward. Then, the land component of the *ROF* attacked, clearing the scorched area.

Due to the slow supply of weapons by Western partners, the *UDF* did not have time to accumulate enough forces for offensive actions, so they switched to *positional* and *manoeuvre defence* along the entire front.

With the arrival of the M142 HIMARS in service at the end of June 2022, the war picture changed dramatically, as the *UDF* used the “*kill net*” tactic, which involves a massive, consistent and coordinated fire attack of missile, artillery and air strikes on a defined territory against the logistics infrastructure and the concentration of enemy personnel as well as armament and military equipment, which is still being prepared for deployment in combat formations for combat missions [11].

Faced with fierce resistance from the Ukrainian armed forces, competent and effective use of modern western high-precision weapons and lacking the necessary logistical support, the Russian armed forces stopped and switched to defence along almost the entire frontline. During this period, the mobile units of the Special Operations Forces (SOF) of the *UDF* and guerrilla groups proved to be effective, conducting sabotage operations in the rear of the enemy's troops and on the territory of the Russian Federation, destroying critical infrastructure [12].

Due to the significant losses in the *ROF*, such words as demilitarisation and denazification and the seizure of the whole of Ukraine are disappearing from the speeches of Vladimir Putin and other Russian leaders and the Russian media. The aim of the SMO becomes only the seizure of the entire territory of Luhansk, Donetsk, Zaporizhzhia, Kharkiv and Kherson regions.

*Military campaign: September 2022-May 2023.* From the end of August to the beginning of November 2022, the *ROF* and the *UDF* were in positional defence, except for Bakhmut, where the enemy was trying to take offensive actions.

Unexpectedly for the enemy, on 5 September 2022, the *Kharkiv counter-offensive* began with the liberation of Balakleya, which resulted in the liberation of the strategically important cities of Izyum and Kupyansk and the blocking of the logistics route (railway) between Russian territory and the southern group of the *ROF* [13]. At the end of September, the *Kharkiv counter-offensive* grew into the *Lyman counter-offensive*, with the aim of taking a favourable strategic position for the further liberation of Lysychansk and Sievierodonetsk and the entire Luhansk region [14].

In the areas where the enemy concentrated its main efforts, the *UDF* units increasingly faced active opposition from the PMC Wagner units. By its actions, the enemy tried to exert constant pressure in the selected areas, so the attacks actually had the character of constant *reconnaissance by fire* by small groups of light infantry. The first attack was to reveal the enemy's aerial reconnaissance assets, the firepower of the *UDF* units, and then the reconnaissance was carried out. Therefore, after the attack was repelled, the shelling of the positions of the *UDF* was carried out more massively. Then a new attack was prepared. This allowed the Russians to concentrate their forces where the *UDF* had weaker intelligence, fewer armaments and less persistence. The enemy continued to use new methods of warfare, testing them with the help of more trained units of the Private Military Company (PMC) Wagner, and then spreading the experience to other infantry units.

To conduct counter-offensive (assault) actions on the Lyman direction, the enemy focused on the use of *assault forces (AF)*, *assault companies (AC)* and *assault platoons (AP)* as the main means of carrying out tasks on the battlefield. In other words, instead of the classic BTGRs for the *ROF*, they began to use *assault forces*, which are distinguished by a smaller number of armoured vehicles (instead of a tank company in a BTGR, a tank platoon in the *assault forces*). It was the *assault platoon*, consisting of 12-15 men divided into assault groups of three, that became the main element of the combat formation of the *assault forces*, whose main task for the day was to capture the

Platoon strong point or a certain line of contact.

When fighting in the forest, the enemy used a “diamond” formation, with an *assault group of three* in each of the vertices [15].

During the hostilities, closed and open communication channels were used. Each troop had to have a walkie-talkie to communicate with the commander of the *AP*. Each armoured vehicle in the armoured group also had an open communication channel. As a military trick, the enemy used its own variant of the street names and numbering of houses in the settlement under attack. This was done to confuse the Ukrainian defenders.

The enemy paid great attention to the synchronisation of artillery, automatic grenade launchers (AGS) and infantry. It was recommended to fire the AGS-17 only exclusively for indirect fire at a distance of 600 to 1700 metres. Each weapon was assigned a set of targets in advance, no more than five per *AP*. The target could be changed only by order of the commander. The assault infantry had to act immediately (no later than 1 minute) after the end of the artillery shelling of the *UDF* positions.

After capturing the defensive positions of the *UDF*, the enemy used artillery for about 60-90 minutes against previously assigned targets to prevent a counterattack by the *UDF* and give its infantry time to gain a foothold.

If the assault failed, retreat was allowed only at night. The *APs* were allowed to move only through the forest belt or, if in a settlement, only through gaps in fences and walls of houses, which was provided by combat engineers.

After the assault units captured certain areas (objects), they were replaced by "retention" units consisting of reinforced motorised rifle companies (platoons) from the combined arms or *BARS* units or territorial defense forces.

After completing the task, the *AFs* were withdrawn for 1-2 days to recover and rest. After recovery, assault units were again involved in combat operations.

The tactical methods of the *UDF* in defence were as follows:

- active use of UAVs, hidden video cameras, abandoned smartphones with GPS trackers, photo traps and other means of remote surveillance of russian units;
- building a defence in 2-3 lines (positions);
- equipping each defensive position with at least two firing points for machine guns;
- reinforcement of defensive positions with pillboxes made of tree trunks or concrete;
- placing artillery at a distance of 8-10 km from the contact line
- artillery fire from one location for no longer than 15 minutes;
- bringing up reserves 30-40 minutes after the start of hostilities.

During the Kharkiv-Lyman counter-offensive, the russian side lost a significant number of killed, wounded and captured russian military personnel. Fleeing from the *UDF*, the russians left behind everything they had, so the Ukrainian side obtained a huge amount of trophy military equipment and armament. Therefore, on 21.09.2022, Putin announced a partial mobilisation with an attempt to recruit about 300 thousand people.

The southern direction differed from the northern and eastern ones in that the Kherson region is a whole steppe, i.e. a plain where it is impossible to hide or carry out any covert actions. Therefore, the *UDF*, while preserving their men, gradually and slowly pushed the russians out of their positions with aviation, rocket and artillery precision fire from a distance.

In early October, Kherson was surrounded by the *UAF* on three sides. The Antonov bridge and the Nova Kakhovka dam were disabled, making it impossible to provide logistical support to the *ROF*. Therefore, the *UDF* conducted *the Kherson offensive* to liberate the regional centre of Kherson region and the territories on the right bank of the Dnipro [16].

The slow offensive of the *UDF* in the Kherson sector had elements of asymmetry. In the domestic and foreign media, this method of warfare was called the “*pushing out*” or “*logistical and fire noose*” tactic, which involves the gradual and systematic distant destruction of enemy logistics [17].

The *UDF* units advanced to a depth of 20 km because they did not assault the three lines of the defence of *ROF*, but attacked from the flank, which disoriented the russians. Over the 24-hour period, the *UDF* units advanced to a depth of 10 to 20 km, while they were penetrating the strongholds of the *ROF*, taking advantage of the bad weather, which did not allow the russians to use artillery effectively. During the offensive, the Ukrainian side completely jammed the russians' communications, thus depriving them of command and control and interoperability between units. In addition, the Ukrainian military showed ingenuity and cleverness and painted the Nazi russian symbols "V" and "Z" on the sides of their vehicles, which led to confusion among the russians in the early days of the hostilities. It indicates that the Ukrainians used the American "*network-centric system*" of battle control, where everyone involved in the battle is marked on a tablet, which helped them to identify where the enemy was and where the friendly units were, including tanks (BMPs, APCs, guns, strongholds, etc.). The enemy, on the other hand, was deprived of this. This tactic also included *active information warfare* to mislead the enemy about the real courses of actions of the *UDF* as well as *distant killing* of the enemy on the front line with long-range GPS-guided howitzers and MLRS using surprise attacks by *MFTs* in direct contact with the enemy [18].

On the morning of 11 November 2022, the *UDF* entered the city of Kherson and liberated the right-bank Kherson region from the russian occupiers.

With the onset of the rainy season, the UAF could not organise a counter-offensive without the support of armoured vehicles that could barely move in the slush. Therefore, all focus was on defensive actions and building up reserves.

The leadership of the *ROF*, taking advantage of the moment of prolonged impassability of roads, ordered the preparation of major defensive positions along the entire front. On the Melitopol, Berdiansk and Tavriya areas, the defences were built in 6 lines, with minefields ranging from 15 to 25 km wide. In other words, for 8 months, the enemy had been intensively preparing to counter the upcoming Ukrainian offensive.

During this period, Putin's ambitious plans gradually faded and the goal of the SMO becomes to hold the seized territories of Donetsk, Luhansk, Zaporizhzhia and Kherson regions and bring the Ukrainian side to the negotiating table on the condition that these territories remain part of Russia.

From November 2022 to May 2023, the main focus of the *UDF* action will be as follows [19]:

- in the north, the Svatovo town, an important point for the logistics of the *ROF*;
- in the centre, the Melitopol city, where the so-called administration of Zaporizhzhia region is located and a large group of occupation troops is concentrated;
- in the south-western part, the Kinburn Spit, from which the whole of Crimea can be controlled and the cruise missiles and UAVs launched on the territory of Ukraine from the Black Sea, Sea of Azov and Caspian Sea can be intercepted..

During the defensive actions (from late May to July 2022) in the cities of Sievierodonetsk and Lysychansk, the enemy again used the tactic of the "firewall", and the *UDF*, during positional defence, the tactics of *urban warfare*, *ambush attacks* and *counterattacks*.

*Military campaign: February 2023 - June 2023.* In February 2023, during the fierce hostilities near Bakhmut, russian units used a new tactic, which consisted of a *simultaneous offensive on a 7 km front with a distance of 20-30 m between the occupiers* with active artillery support. The active phase of the offensive lasted about 1 hour, and their troops were coming up to reinforce them for another 3 hours. The clashes that took place in the Bakhmut direction, in particular in Bakhmut and Soledar, demonstrated the testing of a new russian tactic - *infantry and artillery attacks*, during which the same positions were assaulted with a frequency of 7 to 10 attacks per day: after constant shelling from MLRS, tanks, cannon artillery, mortars, grenade launchers, etc., frontal attacks began [20].

The main force of the enemy during the capture of Soledar and Bakhmut was the PMC Wagner units, which began to massively use small *assault groups*, using the following tactics:

*Tactic No. 1:* Initially, the first group of up to 8 people, loaded with ammunition and Shmel flamethrowers, moved to the frontline. The task of the group was to reach the frontline (object, etc.)

and gain a foothold, while getting as close as possible to the advanced Ukrainian positions and digging in as quickly as possible, leaving a white rag or other sign on a tree so that the next group could be guided in case of the death of their predecessors and find where the shelters with weapons and ammunition had already been dug. During the engagement, the members of Wagner's group detected Ukrainian firing positions and passed their coordinates to their artillery. At this time, an Orlan UAV or a long-range drone was constantly flying over Ukrainian positions, and a "carousel" of MAVIC 3 drones was also used. As a rule, 120-mm and 82-mm mortars were launched based on the drone operator's data. Up to 10 mortars simultaneously began to suppress the detected Ukrainian position. Artillery preparation could last for several hours in a row.

During this time, the second group was concentrating 500 metres from the first group. It was lighter equipped and under the artillery's cover, it began to advance and assault the Ukrainian position. If the second group failed to take the position, the third and even the fourth would follow. That is, four waves of eight men per Ukrainian position. The "consolidated wave of many assault groups" included a command section of UAV operators that coordinated artillery fire directly from the battlefield. If the artillery succeeded in overwhelming the Ukrainian position, the assault groups cleared the Ukrainian positions using drones, hand grenades and small arms.

*Tactic No. 2:* Initially, tanks, artillery and mortars were used for several hours. During this time, the assault groups tried to covertly approach the *UDF* positions at a distance of 100 to 250 metres, sometimes up to 50 metres. At the final stage, the members of Wagner's group used grenade launchers. During the last shot from a grenade launcher or mortar, the members of Wagner's group would rush into the trenches in just a few seconds. And melee combat would begin.

Members of the Wagner's group often disguised themselves in the *UDF* uniforms, or in "pixel" or "multicam", which made them difficult to identify, especially in conditions of poor visibility or night time combat.

In the course of the defence of Bakhmut, the Ukrainian defenders used a new tactic under pressure from the superior enemy. Slowly retreating, they *mined the remaining buildings*, and when the Russian occupiers entered them, in order to hide from Ukrainian artillery fire, they blew them up. Thus, a huge number of invaders, numbering thousands of people, died under the rubble.

In April, the Ukrainian side began to actively conduct "information warfare" tactics related to the upcoming offensive of the *UDF*.

From 05 June 2023 the Joint Forces launched offensive operations in certain areas of the front and conducted a forming operation for a *decisive offensive*, destroying airfields, ammunition and fuel depots, troops and equipment concentrations, critical infrastructure elements and enemy logistics not only in the tactical but also, thanks to ATACMS and Storm Shadow / SCALP EG missiles, in the operational and strategic depth of the enemy's battle formation.

However, due to the dense mining of defensive positions, where there were up to 5 anti-personnel and anti-tank mines per 1 m<sup>2</sup> and the superiority of Russian aviation in the air, the *UDF* suffered up to 20% of the losses of weapons and equipment. Therefore, the leadership of the *UDF* used the offensive tactics of the "*pendulum*" or "*Zaluzhny's swing*", which involves the use of artillery, MLRS and aviation fire on several directions, intensifying the strikes first on one, then on the second, and after a while on the third direction, etc. In other words, the *UDF* tested the enemy's defences for strength here and there, shaking them. At the same time, the *UDF* began offensive actions in a completely different direction. Such actions were carried out along the entire front, misleading the enemy.

In order to overcome the mined areas, the Ukrainian command used the tactic of "*pushing out*" or "*gnawing through*", which involves artillery and missile pressure on the enemy's logistics infrastructure and advanced positions and the gradual advance of small assault groups to maximise the lives of personnel.

By early November, the *UDF* were actively defending the approaches to Avdiivka, while the *UDF* were gradually advancing in the Melitopol sector and on the left bank of the Dnipro River, where they captured a bridgehead near the Krynky village. On the rest of the frontline, parity has

been established and both sides have taken up positional defence.

At the end of November, due to the enemy's strong defence, the *UDF* found itself in a position where it was necessary to cease offensive operations and move to positional defence along the entire front.

**Conclusions.** Summing up the results of this analysis, the following conclusions can be made:

- in the face of a multiple advantage, the russians use simple tactics of a massive offensive in convoys or an artillery firewall, without regard to losses and without saving resources on the principle that victory will write off everything;

- in the face of parity, the *ROF* immediately switches to defence;

- russian armament and military equipment produced in the 80s and 90s of the last century and the outdated views of the leadership of the *ROF* on the conduct of modern technological warfare led to unjustified human losses in the russian-Ukrainian war in terms of dead and wounded as well as significant losses of armament and military equipment. This forced the leadership of the russian Federation to declare mobilisation and to de-mothball military equipment of the 70s and 60s and even 50s and 40s;

- the use of modern methods of warfare is due to the availability of modern weapons that exceed the capabilities of the enemy's armament and military equipment in their tactical and technical characteristics, or the use of advanced and leading technologies and deceptive, covert tricks in actions against him. Having mostly outdated equipment and an outdated school of military theory and practice, the *ROF* has not yet demonstrated these qualities during the war;

- Putin's ambitious totalitarian regime, which does not count losses, still has sufficient human and technical resources at its disposal and will not give up its plan to destroy the Ukrainian nation. Therefore, Ukraine can win this war if Western partners rapidly increase the supply of not only modern armament and military equipment, but also the latest models of weapons based on new physical principles of use.

It is therefore suggested that further research on the dependence and development of military tactics on weapons and military equipment in the russian-Ukrainian war might help to predict the further development of military art in general and the nature of wars and armed conflicts in the future.

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## ПОЄДИНОК МІЖ ТАКТИКОЮ “ДРУГОЇ” АРМІЇ СВІТУ ТА СИЛ ОБОРОНИ УКРАЇНИ В РОСІЙСЬКО-УКРАЇНСЬКІЙ ВІЙНІ ЗА ПЕРІОД З ЛЮТОГО 2022 ДО ЛИСТОПАДА 2023

*У роботі прослідковано хронологію вторгнення російських військ в Україну з лютого 2022 до листопаду 2023 року. За допомогою аналітичної та прогностичної методології, визначено стратегію дій російські окупаційні війська (РОВ), причини застосування тієї чи іншої тактики ведення бойових дій обома сторонами, проаналізовано загальні можливості РФ у подальшій агресії, зроблено висновки з досвіду бойових дій, отриманих у контексті російсько-української війни, що є актуальними і затребуваними для розвитку сучасного воєнного мистецтва.*

*Крім того, використовуючи порівняльно-аналітичний аналіз та емпіричний метод дослідження, у роботі проведений аналіз форм та способів бойових дій сил вторгнення російської федерації та Сил оборони України за період часу, який розглядається. Для зручності, наочності та систематизації досліджень російсько-українська війна поділена на умовні часові періоди.*

*На основі службових, документальних, історичних та відкритих джерел засобів масової інформації (ЗМІ) авторами роботи описано та проведено дослідження бойових епізодів війни, в яких розроблялися нові тактики або ті, що за своєю суттю нагадували тактики минулих війн з позитивним чи негативним результатами.*

*Автори проаналізували не типові тактики, використані Силами оборони України (СоУ) та РОВ визначили причини їх застосування, та до яких наслідків вони призвели.*

*У роботі визначено причинно-наслідковий зв'язок появи та тенденції розвитку нових видів і зразків озброєння та військової техніки, вплив їх на способи і форми бойових дій під час російсько-української війни. Проаналізовано сумісність бойового застосування і взаємодію застарілих видів озброєння і військової техніки з сучасними зразками та надана загальна характеристика російсько-українській війні.*