

# The Russian Army and Maneuver Defense

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In the practice and application of historical analysis, the Russian General Staff closely examines details of past conflicts — noting what they learned and even unlearned — to keep their military science and training forward-looking. Maneuver defense is one of those lessons.

## Russia's Strategic Defense

Russia and the Soviet Union fought successful major wars using strategic defense and withdrawal. Russia defeated Napoleon by initially conducting a strategic defense and multiple withdrawals, followed by decisive counterstrokes.<sup>1</sup> Up to his invasion of Russia, Napoleon's strategy proved superior to that of his enemies and his operations were primarily offensive. Napoleon was often successful in surrounding an enemy army or defeating it in one decisive battle and then occupying its capital city and taking charge of the country.<sup>2</sup>

Russia defeated Napoleon's invasion by losing battles, yet maintaining and rebuilding its army throughout successive retreats. As the army retreated, the Russians set fire to their own crops and villages, leaving scorched earth behind. Napoleon seized Moscow, yet Russia still refused to surrender and soon flames consumed Moscow. Napoleon had reached his culminating point, and his supply lines stretched to breaking. Russia was fighting a strategy of "war of attrition," whereas Napoleon was fighting a strategy of "destruction."

A Russian "inverted front" grew in Napoleon's rear area as guerrilla forces attacked Napoleon's already inadequate supply columns and eroded his fighting strength. There were two types of guerrilla groups. The first were volunteers who took up arms against the enemy and had no affiliation with or support from the Russian government. Theirs was a popular "people's war," even though some of these guerrillas were little better than opportunistic highwaymen and freebooters. There was little coordination between the Russian ground forces and the "people's war" guerrillas.

The second type were government-paid, -led, and -equipped cavalry and Cossack forces formed into "flying detachments" of up to 500 uniformed or non-uniformed combatants who worked in coordination with the army and attacked the enemy flanks and rear.<sup>3</sup> Both types of guerrillas were important in the war, but the need for central control was obvious.



A 1920 painting depicts Napoleon's retreat from Moscow.

The Russian army refused to provide Napoleon with the opportunity for a decisive battle that would fit his strategy of destruction. Napoleon began his withdrawal from the ashes of Moscow on 16 October, hoping to beat the Russian winter. He did not. Napoleon abandoned his army as it disintegrated and froze. Some 27,000 soldiers of the original 500,000-strong Grand Armée survived.

In October 1813, the coalition of Russia, Prussia, Austria, and Sweden defeated Napoleon's reconstituted army at Leipzig. Just before the Battle of Leipzig, Wellington's army defeated the French army in Spain and Portugal and then crossed into France. The Russian army constituted part of the occupation force in Paris.

Their attrition strategy of fighting battles and retreating while reconstituting their force and sapping the enemy strength, coupled with a strong series of counterstrokes, worked. Russia had traded space for time, drawing Napoleon deep into Russia, overextending his supply lines over Russia's muddy, often-impassable roads and launching counterstrokes at the opportune time.

The Soviet Union did not intend to defeat Nazi Germany in this fashion, but after bungling the initial period of war, they inadvertently emulated Tsar Alexander I by fighting a retreat all the way to Moscow while building the forces for a series of counterstrokes. This time, Moscow held while the German effort culminated and their supply lines stretched to breaking. The muddy roads and "inverted front" of Moscow-controlled guerrillas complicated an already difficult German supply effort.

After Kursk and Stalingrad, the Axis alliance was on the defensive and the operational counterstrokes of the Red Army drove the invaders out of the Soviet Union and Eastern Europe. The Red Army constituted both the initial and later part of the Allied occupation force in Berlin, deep within the Soviet Occupation Zone.<sup>4</sup>

### **Russian Maneuver Defense**

Maneuver defense [манёвренная оборона] is a tactical and operational form of defense whose goal is to inflict enemy casualties, gain time, and preserve friendly forces with the potential loss of territory. It is conducted, as a rule, when there are insufficient forces and means available to conduct a positional defense.<sup>5</sup>

This differs from the U.S. concept of the mobile defense, which "is a type of defensive operation that concentrates on the destruction or defeat of the enemy through a decisive attack by a striking force. It focuses on destroying the attacking force by permitting the enemy to advance into a position that exposes him to counterattack and envelopment. The commander holds most of his available combat power in a striking force for his decisive operation, a major counterattack. He commits the minimum possible combat power to his fixing force that conducts shaping operations to control the depth and breadth of the enemy's advance. The fixing force also retains the terrain required to conduct the striking force's decisive counterattack."<sup>6</sup>

This differs from the Russian concept in that the Russians do not intend to permit the enemy to advance to counterattack. They intend to contest the enemy and reduce his forces without becoming decisively engaged. Russian maneuver battalions and brigades conduct maneuver defense, whereas the United States considers mobile defense as a corps-level fight.<sup>7</sup> In future conventional maneuver war, continuous trench lines, engineer obstacles, and fixed defenses extending across continents, as occurred in Europe in World Wars I and II, will not occur. According to Russian military guidance, the maneuver defense, eventually leading to a positional defense, will be their primary defense and will be conducted by the maneuver brigades as their base formation.<sup>8</sup>

Maneuver defense occurred in medieval Russia but was realized as a new form of combat action near the closing of World War I.<sup>9</sup> The first extensive use of maneuver defense occurred during the Russian civil war and was due to a variety of equipment, political, and geographic factors.<sup>10</sup> The uneven distribution of weapons from World War I, the uncompromising goals of the Reds and the Whites, and the expanse of the territory on which the war was fought were far better adapted to this dynamic, mobile form of combat, unlike the continuous trench-line warfare of Western Europe during World War I.

During the Russian civil war, several echelons using unprepared lines and engineer obstacles initially conducted maneuver defense. In a short time, however, it sometimes evolved to include positional defenses, coupled with active counterattacking forces that conducted flanking attacks and encirclements. Daring cavalry raids into the rear of the enemy often distracted the enemy during necessary withdrawals to new lines or positions.<sup>11</sup>

During the mid-war period, Western theorists such as J.F.C. Fuller discussed future war in terms of combined

arms and new weapons such as the tank, airplane, and radio. The Russians had actual practical experience in this new theoretical maneuver war that their Western counterparts lacked. Granted, large horse-cavalry formations played a much larger role than the few existing tanks present in the Russian civil war, but the scale and scope of the fighting in Russia incorporated the vision of that future combat. Victory would belong to the state that could concentrate superior forces to overwhelm an enemy at a particular location and could rapidly maneuver against flanks, penetrate positions, and encircle forces to destroy a thinly spread enemy.<sup>12</sup>

The Red Army's 1929 field regulations used the term подвижная оборона [mobile defense] in Article 230: "Mobile defense takes place when the combatants do not defend to the end, rather slip away from the enemy and move to reinforce a new defensive line when the operational concept is that it must sacrifice a portion of territory to gain necessary time and protect the lives of the force."<sup>13</sup>

The follow-on 1936 and 1939 field regulations provided recommendations for the preparation and conduct of mobile defense. The 1936 field regulation envisioned two possible mobile defense maneuvers. With the first, two defensive lines would leapfrog through each other; in the second, a strong rear guard would cover a single retreating line. The 1939 field regulation slightly modified the 1936 guidance by discussing what conditions may precede initiating a mobile defense and what steps could be taken to strengthen the defense.

The 1941 field regulation changed the term to маневренная оборона [maneuver defense]: "The maneuver defense includes the conduct of a series of defensive battles leading to successive designated lines, synchronized with short surprise counterattacks. The maneuver defense forces are included in the coordinated maneuver of the force using fires and the broad employment of all types of obstacles."<sup>14</sup>

The Germans invaded the Soviet Union on 22 June 1941. The Soviets tried to organize counterstrokes while they were retreating or were being enveloped. They failed. Initial positional defenses crumbled, nor could the Soviets organize a maneuver defense before it was overrun. The Wehrmacht reached the Mozhaisk defenses outside Moscow by 13 October 1941. The Mozhaisk defenses were a hastily constructed series of four lines of undermanned defensive positions.

General of the Armies Georgy Zhukov issued a special directive: "In the event that it is impossible to check the enemy offensive, transition to a maneuver defense."<sup>15</sup> A list of necessary planning steps and considerations followed this directive. The Germans attacked through the end of October and ground to a halt. The Soviets conducted maneuver defense in some sectors, upgraded and reinforced their other defenses, and stopped the second German offensive conducted between 15 November and 5 December; the Red Army slowly began their own counteroffensive on 5 December. The operational-level maneuver defense had evolved. Divisions and regiments mainly conducted tactical-level maneuver defense.

### **'To the Death'**

Despite the Red Army's success using maneuver defense, it disappeared from the 1948 field regulations. The ongoing concept of the unified defense [единой оборона] precluded such a variant to positional defense. After Stalin's death in 1953, the debate over the conduct of land warfare on the atomic battlefield began. Soviet ground-force structure dramatically changed as battalions became smaller, completely motorized or mechanized, lost their organic direct-fire artillery and received T-55 tanks with lead liners to soak up the radiation. Unfortunately for the motorized rifle soldiers, their personnel carriers and trucks had no such lining, although initial planning involved driving over nuclear-irradiated zones in the attack.<sup>16</sup> Defense would be temporary and positional.

A lively debate began within the ground forces, positing that maneuver defense was optimum for the nuclear battlefield. Marshal of the Soviet Union R. Ia. Malinovskiy, commander of Soviet Ground Forces, ended the debate on maneuver defense, stating: "This point of view is wrong and is completely unsuitable for these times. We do not have the right to train our forces, commanders, and staffs where every commander, based on his own judgment, can abandon his [defensive] positions, regions, and belts to maneuver. ...There is one unshakeable truth with which we must conduct our lives — with unswerving stubbornness we will hold our designated lines and positions, hold them to the death."<sup>17</sup>

At the end of the 1980s, the USSR Minister of Defense, Marshal of the Soviet Union Dmitry Yazov, re-established maneuver defense in Soviet military theory as one of the accepted forms of defense. Technology and warfighting techniques were changing. Deep fires, distance mining, ambushes, fire sacs, air assaults, flanking, and raid detach-

ments were changing modern war and facilitating counterattacks. Maneuver defense fit within the changing dynamics.<sup>18</sup>

### **Maneuver Defense in Contemporary Combat**

Since the 1990-1991 Gulf War, ground forces have realized that unprotected maneuver in the open may lead to decimation. Less-modern ground forces have attempted to negate this by moving the fight to terrain that defeats or degrades high-precision systems — mountains, jungle, extensive forest, swamps, and cities — while conducting a long-term war of attrition to sap the enemy's political will.

Difficult terrain will also be a valuable ally in future conventional maneuver war, as will camouflage, electronic and aerial masking, effective air-defense systems, and secure messaging. Maneuver defense will clearly be a feature of future conventional maneuver war.

One thing that may change dramatically is the fundamental concept of the main, linear, positional defense to which maneuver defense leads. Perhaps the main linear defense will be anchored in difficult terrain. Perhaps the main defense will more closely resemble the security-zone maneuver defense. The main defense may become an expanded security zone containing counterstrike/counterattack forces and a concentration of high-precision weapons systems. Open flanks may be covered by maneuvering artillery fires, aviation, and positional forces not under duress.

The Russian concept of maneuver by fire may dominate the battlefield, as it alone may enable maneuver.<sup>19</sup> The linear battlefield may be replaced by the fragmented, or nonlinear [очаговый], battlefield, where brigades maneuver like naval flotillas, deploying maneuver and fire subunits over large areas, protected by air-defense systems, electronic warfare, and particulate smoke. Strongpoints will be established and abandoned, artillery fires will maneuver, and difficult terrain will become the future fortresses and redoubts.

### **Fragmented Battlefield**

World War I in the West was a positional fight where artillery, field fortifications, and interlocking machine-gun fire prevented maneuver. World War I in the East, however, was not always positional but was sometimes fluid. The antithesis to the stalemate in the West was the tank. Yet the tank did not spell the end of linear defense. During World War II, the tank enabled maneuver in some places, but in other places, difficult terrain and integrated defenses prevented maneuver and fires prevailed. For example, the Korean War began with a great deal of maneuver but stalemated into positional mountain combat enabled by fires. Vietnam was about the maneuver of the helicopter, but difficult terrain dominated the battlefield.

The antitank guided missile and precision-guided munitions currently threaten maneuver. Still, advances in fires, electronic countermeasures, robotics, and air defense may enable maneuver.

As another example of an army using difficult terrain, the Serbian army proved quite adept at hiding and surviving in it during the 78-day Kosovo air war. What they lacked was an opposing ground force to combat at the termination of the bombing.<sup>20</sup>

The fragmented battlefield has become common following the Gulf War. The Soviet-Afghan war, the Angolan civil war, the Chad-Libya conflicts, the Battle of Mogadishu, Operation Enduring Freedom, most of Operation Iraqi Freedom, the Libyan civil war, the Sudan conflicts, the Saudi Arabian-Yemen conflict — all have involved fragmented battlefields.<sup>21</sup>

How do peer forces fight conventional maneuver war on a fragmented battlefield? Permanent combined arms battalions appear to be an important component.

For decades, the Soviets and Russians have struggled with fielding, training, supporting, and fighting a combined arms battalion with its own tanks, motorized rifle, artillery, antitank, and support subunits capable of fighting and sustaining independently over a large area. Russian maneuver brigades now constitute one or two battalion tactical groups and are working to eventually achieve four.<sup>22</sup>

The Russians have a long history of conducting a fragmented defense on a fragmented battlefield. The Russian civil war is replete with such examples.<sup>23</sup> During World War II, in addition to its large conventional force, the

Soviets fielded the largest partisan army in history. It conducted a fragmented offense and defense against a linear German force.<sup>23</sup> Afghanistan, Chechnya, and now Syria also featured fragmented offense and defense.

### Analysis of Russian Defense

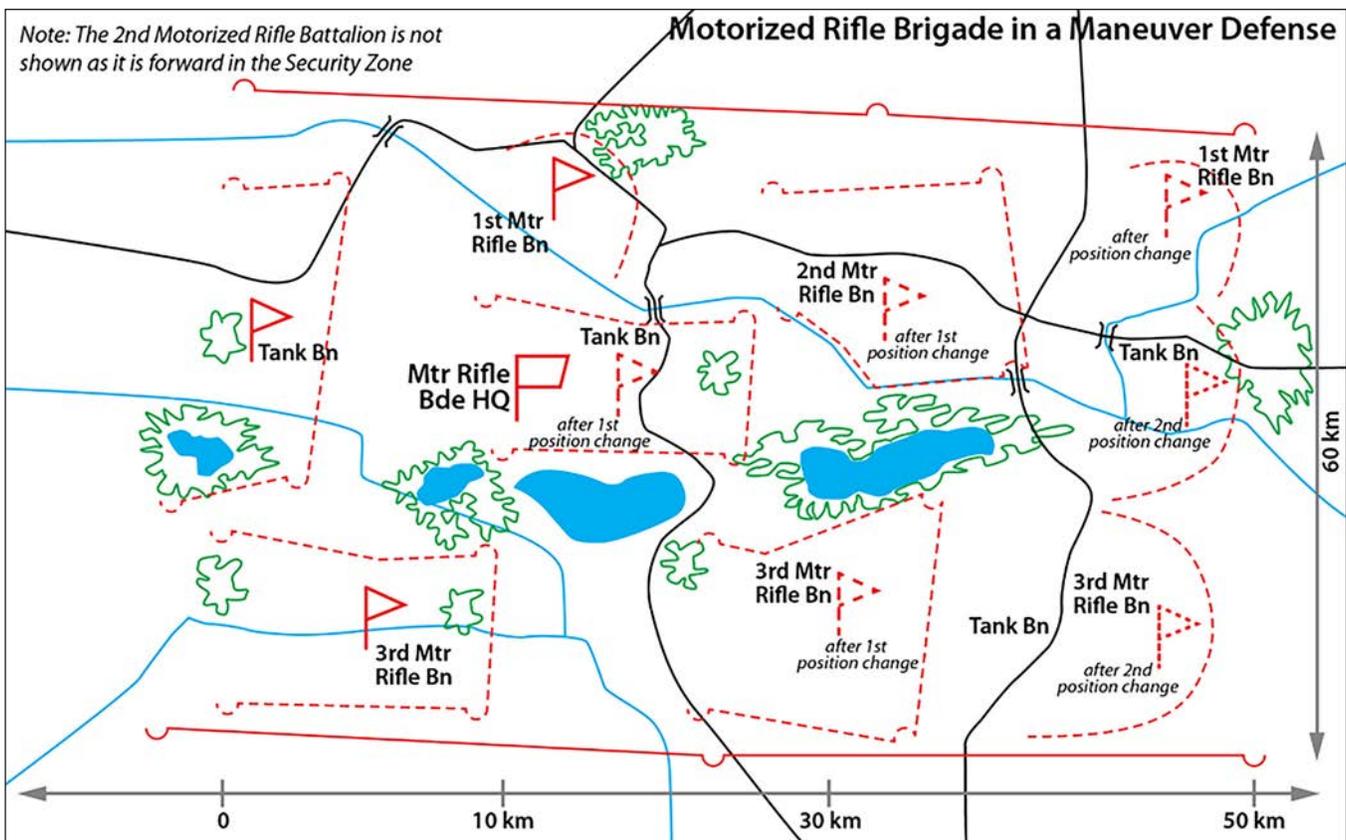
If the Russians fight a near-peer competitor, the maneuver defense may become the “normal” defense, with the positional defense as an anomaly. In a maneuver defense, within the brigade the battalion is normally assigned an area of responsibility of 10x10 kilometers (frontage and depth respectively), and a company position is up to two kilometers in frontage and up to one kilometer in depth. There is a distance of up to 1½ kilometers in depth between positions, which ensures mutual support of defending subunits and allows maneuver to the subsequent position.<sup>25</sup>

Figure 1 shows a Russian motorized rifle brigade in a maneuver defense.<sup>26</sup> Battalion positions are shown, and company fighting positions are depicted within the battalion positions, showing that the companies will fight from more than one position within each battalion position. The brigade defends against an attack from the west with its tank battalion to the north and 3rd Motorized Rifle Battalion to the south. The 2nd Motorized Rifle Battalion is deployed further to the west in forward positions and is not initially shown on this diagram.

The tank and 3rd Motorized Rifle Battalion cover three enemy high-speed avenues of approach. The northern approaches are considered the most dangerous. The enemy initially engages 2nd Motorized Rifle Battalion, which forces the enemy to deploy and slows his advance while Russian artillery or aviation fire damages the enemy advance. The 2nd Motorized Rifle Battalion does not become decisively engaged. Rather, it withdraws to the north and through the tank battalion, moves past 1st Motorized Rifle Battalion and occupies a defensive position in the north.<sup>29</sup>

The enemy then engages the tank battalion and 3rd Motorized Rifle Battalion, which again forces the enemy to deploy while Russian aviation or artillery fire again damages the enemy advance. Neither battalion becomes decisively engaged but withdraws. The tank battalion withdraws under the covering fire of 1st Motorized Rifle Battalion, moves through 2nd Motorized Rifle Battalion and assumes a central defensive position to the east.

Figure 1 — Russian Motorized Rifle Brigade in a Maneuver Defense<sup>27</sup>



The 3rd Motorized Rifle Battalion moves directly back and goes on-line with 2nd Motorized Rifle Battalion to its north. The enemy continues to advance and is engaged by 1st Motorized Rifle Battalion and the tank battalion, which again forces the enemy to deploy while being engaged by Russian artillery or aviation. The 1st Motorized Rifle Battalion and tank battalion do not become decisively engaged but move to a new position north of the tank battalion.

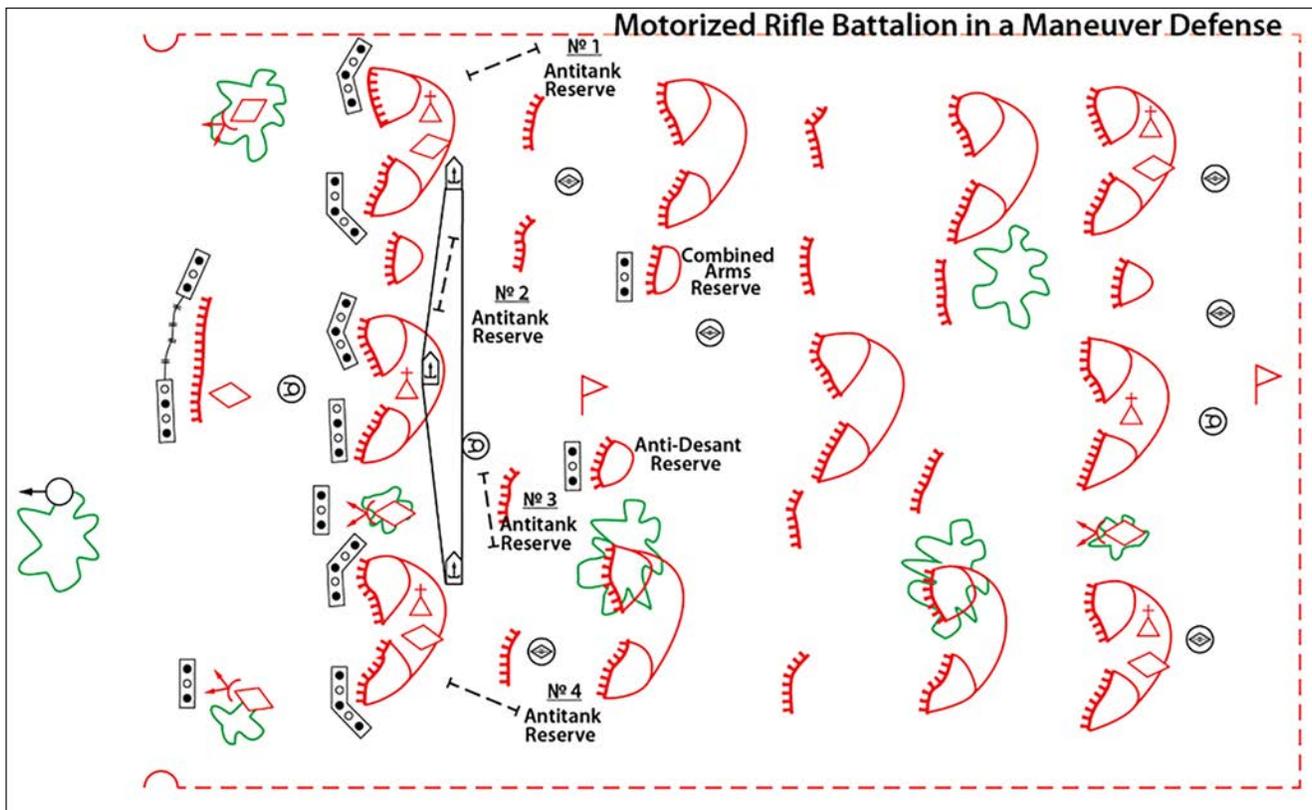
The enemy continues to advance and is engaged by Russian artillery or aviation fires while deploying against 2nd and 3rd Motorized Rifle Battalions. The 2nd and 3rd Motorized Rifle Battalions do not become decisively engaged. The 2nd Motorized Rifle Battalion again moves directly back and goes on-line with the tank battalion to its north. The 2nd Motorized Rifle Battalion moves through 1st Motorized Rifle Battalion and tank battalion to take up a reserve position or to deploy as a forward detachment to start the sequence again.

Figure 2 shows a Russian motorized rifle battalion in a maneuver defense within its initial battalion box. (In this case, it is the initial position of 3rd Motorized Rifle Battalion in the brigade-defense figure.) The battalion is facing an enemy attack from the west and has a reconnaissance patrol forward. The battalion has a shallow security zone consisting of a motorized rifle squad in ambush to the north, a motorized rifle platoon reinforced with a tank, obstacles and two mixed minefields in the center, and a tank in ambush protected by a mixed minefield.

The battalion mortar battery is in the security zone in support of these elements. As the security-zone elements withdraw and reposition, the enemy is met by three motorized rifle companies (of two platoons each) on-line. The companies are reinforced by a tank platoon and protected by seven mixed minefields. Man-portable air-defense systems are moved up to the rear of the company positions. The mortar battery has repositioned behind the center company. There are four firing lines for the antitank reserve protecting the flanks and junctures of the companies. The third platoons of the forward companies occupy fighting positions in an intermediate line from which they can cover the withdrawal of their companies. Three self-propelled artillery batteries are located each in support of a forward company but able to mass fires. The battalion command post is centrally located.

The companies do not become decisively engaged but withdraw under the covering fire of their rear platoon to take up new positions. The north and south companies move directly back to new positions in an alternate

Figure 2 — Motorized Rifle Battalion in a Maneuver Defense<sup>28</sup>



line, while the combined-arms reserve and anti-landing reserve cover the center. The central company moves further back on-line with the forward-company reserves and the on-order positions of the combined-arms reserve and anti-landing reserve in an intermediate line. The battalion command post, mortar battery, and three artillery batteries move behind the final position shown on Figure 2.

The enemy advance encounters a line of six platoons that cause the enemy to deploy and slow down while being hit with artillery or aviation strikes. This line does not become decisively engaged but withdraws behind the two companies now on an alternate line with on-order positions for the combined-arms reserve and anti-landing reserve. Again, the enemy attack is slowed and punished, and then the line withdraws to its eastern position with the battalion on this alternate line. After slowing and punishing the advancing enemy, the battalion withdraws to its next battalion box, handing the battle off to a supporting battalion.

The battalion defends a 10-kilometer-by-10-kilometer box. Russians consider that normally there will be a two- to 2½-kilometer distance between intermediate and alternate lines. The rate of advance of the enemy fighting through the defensive positions is problematic; however, the Russians calculate that, should the Russian defensive positions prove stable, standard values in average conditions find that the enemy may be capable of covering the distance between defensive lines in one to 1½ hours. Depending on the location of supporting helipads, aviation support must function quickly and effectively to mitigate this advance, particularly should the enemy attempt to flank or encircle the defenders using ground and air-assault forces.<sup>30</sup>

Thus, in a maneuver defense, defending troops displace from line to line both deliberately and when forced. The enemy organizes pursuit with the interdiction of routes of withdrawal and attacks from the flanks and rear. These actions require separate fire support in which army aviation units are assigned to support covering-force subunits and rear guards, to engage flanking detachments and to slow the rate of pursuit. In certain sectors, maneuver will be combined with blocking and employment of flanking and raiding detachments.<sup>31</sup>

## **Conclusion**

In conventional maneuver war under nuclear-threatened conditions, maneuver defense leading to a positional defense seems most likely to Russian theorists and planners. The preceding example is conducted on fairly open terrain, and the distances and dispositions will change with the terrain.

Skilled maneuver defense is designed to destroy enemy systems at long range and then withdrawing without becoming decisively engaged. Aviation and artillery are key to this long-range destruction but do not work the same target simultaneously. Artillery usually fights the enemy in front of the ground formation, while aviation fights any enemy trying to flank or encircle the defenders.

A key target for both aviation and artillery is mobile enemy air defense. The Soviets and now the Russians have long worked on developing a system that could detect, target and destroy high-priority targets in near-real time. The Russian reconnaissance fire complex now links reconnaissance assets with a command and fire direction center with dedicated artillery, missiles, and aviation for destruction of priority enemy targets in near-real time. This system is tied in with the aviation and maneuver headquarters and will be involved in the maneuver defense when appropriate.

Maneuver defense requires close coordination between fires and maneuver. Maneuver-force tactical training to support it will probably include mutual covering, withdrawal and counterattack drills. Engineers should train in rapid obstacle placement and movement support to support this defense. Artillery battalions should more often fire in support of individual maneuver battalions than as a group. Artillery batteries should often be attached to maneuver companies.

Widespread camouflage discipline and use of corner reflectors are probable. Push-supply-forward should be expected, and evacuation collection point establishment should be part of maintenance and medical training. Battle-damaged systems need to be immediately repaired or evacuated in situations where terrain is being traded for time and advantage.

Maneuver defense is appropriate to combat conducted in Russia or on its southern and western boundaries. It is again part of Russian military theory and practice.

**Editor's Note:** This article first appeared in the Spring 2021 issue of *Armor*.

## Notes

<sup>1</sup> P.A. Zhilin, *Отечественная Война 1812 года [The Fatherland War of 1812]*, Moscow: Nauka, 1988.

<sup>2</sup> Ibid. Austria 1805 and Prussia 1806.

<sup>3</sup> Lester W. Grau and Michael Gress, *The Red Army Do-It-Yourself Nazi-Bashing Guerrilla Warfare Manual (The Partisan's Companion)* (Havertown, PA: Casemate, 2010). Translation and commentary of the 1943 Soviet edition, *Спутник Партизана*, used to train partisans to fight the Nazis.

<sup>4</sup> David M. Glantz and Jonathan House, *When Titans Clashed: How the Red Army Stopped Hitler* (Lawrence, KS: University Press of Kansas, 1995). This book remains the premier short history of the Soviet Union's defense and series of operational counterstrokes that defeated Germany in World War II.

<sup>5</sup> Ministry of Defense of the Russian Federation, *Манёвренная оборона, Военный энциклопедический словарь в двух томах [Military Encyclopedic Dictionary in Two Volumes]*, Volume II, Moscow: Ripol Klassik, 2001.

<sup>6</sup> Field Manual 3-90, *Tactics*, July 2001, Chapter 10.

<sup>7</sup> Ibid. "Units smaller than a corps do not normally conduct a mobile defense because of their inability to fight multiple engagements throughout the width, depth and height of the [area of operations] while simultaneously resourcing striking, fixing and reserve forces." This is not to say that Russian army groups would not conduct maneuver defense, nor that their concepts will differ radically from those of a U.S. corps. Rather, the training and planning for such is at lower level in the Russian force.

<sup>8</sup> Ministry of Defense of the Russian Federation, *Боевой Устав Сукопитных Вонск, Часть 2 (Батальон Рота) [Ground Troops Field Manual, Part 2 (battalion, company)]*, Moscow: Voenizdat, 2013. This is a major change since Stalin's infamous Order 227 issued July 28, 1942: "Не шагу назад" ["not one step backward"] — which condemned thousands of Soviet soldiers to die needlessly in positional defense. In 2009, V.I. Popov in his book *Боевой Устав Сукопитных Вонск, Часть 2 (Батальон Рота)* stated that positional defense was the primary defense used, but the 2011 field regulations reversed this. Since then, it is consistent that maneuver defense is the major type used; the 2013 and 2014 field regulations both state that maneuver defense is the basic form of defense.

<sup>9</sup> The armies of medieval Russia were primarily cavalry forces maintained by boyars (nobility) augmented by peasants, who fought on foot.

<sup>10</sup> Editor's note: The Russian civil war (7 November 1917 to 16 June 1923) occurred in the former Russian Empire (the last tsar, Tsar Nicholas II, abdicated 15 March 1917) immediately after the two Russian revolutions of 1917. The two largest combatant groups were the Red Army, fighting for the Bolshevik form of socialism led by Vladimir Lenin, and the loosely allied forces known as the White Army, which included diverse interests favoring political monarchism, capitalism and social democracy. Also, rival militant socialists, as well as non-ideological Green armies, fought against both the Reds and the Whites. Thirteen foreign nations intervened against the Red Army, notably the former Allied military forces from World War I with the goal of re-establishing the Eastern Front. Three foreign nations of the Central Powers also intervened, rivaling the Allied intervention with the main goal of retaining the territory they had received in the Treaty of Brest-Litovsk.

<sup>11</sup> A. Shelomskiy and D. Maksimov, *Маневренная оборона: История и современность [Maneuver Defense: History and Contemporaneity]*, *Армейский сборник [Army Digest]*, May 2020.

<sup>12</sup> Glantz and House.

<sup>13</sup> Ibid.

<sup>14</sup> Ibid.

<sup>15</sup> Ibid.

<sup>16</sup> Lester W. Grau, "Reorganizing for Battalion-level Combat," *Military Review*, December 1989, <https://apps.dtic.mil/sti/pdfs/ADA216368.pdf>.

<sup>17</sup> A. Shelomskiy and D. Maksimov.

<sup>18</sup> Ibid.

<sup>19</sup> Lester W. Grau and Charles K. Bartles, *The Russian Way of War: Force Structure, Tactics and Modernization of the Russian Ground Forces*, Foreign Military Studies Office, 2016.

<sup>20</sup> Ibid.

<sup>21</sup> D. Kalachev, "Оборона-тоже маневр: Мотострелковый батальон и маневренная оборона" ["Defense is Also

Maneuver – the Motorized Rifle Battalion and Maneuver Defense”], Армейский сборник [Army Digest], October 2016.

<sup>22</sup> Lester W. Grau, “Restructuring the Tactical Russian Army for Unconventional War,” *Red Diamond*, February 2014.

<sup>23</sup> Ministry of Defense of the Russian Federation, “Очаговая Оборона” [“Fragmented Defense”], Military Encyclopedia [Военная Энциклопедия], Vol. 6, Moscow: Voenizdat, 2002.

<sup>24</sup> Grau and Gress.

<sup>25</sup> A. Artemyev, “Поддержка с воздуха: Армейская авиация в маневренной обороне сухопутных войск” [“Air Support: Army Aviation in Ground-Troops Mobile Defense”], Армейский сборник [Army Digest], August 2017.

<sup>26</sup> Ibid.

<sup>27</sup> Ibid.

<sup>28</sup> The figures and their supporting text were originally published in Lester W. Grau and Charles K. Bartles, “Russian Aviation in Support of the Maneuver Defense,” *Aviation Digest*, October-December 2018, [https://www.rucker.army.mil/aviationdigest/assets/archive/AVN\\_DIG\\_2018\\_10-12.pdf](https://www.rucker.army.mil/aviationdigest/assets/archive/AVN_DIG_2018_10-12.pdf).

<sup>29</sup> Artemyev.

<sup>30</sup> Ibid.

<sup>31</sup> Ibid.

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