

Battle of Debal'tseve: the Conventional Line of Effort in Russia's Hybrid War in Ukraine

by MAJ Amos C. Fox

While some in the military say that Russia provides no direct threat to the United States, our political and military alliances necessitate an understanding and appreciation for the manner in which Russia is applying force in its vicinity. U.S. Army Europe's Strong Europe campaign, the Atlantic Resolve mission and partnered training exercises like Anakonda 16 – which featured collaboration between the U.S. Army and Eastern European nations – clearly indicate the necessity for clear understanding and visualization of how Russia conducts contemporary operations. Lastly, the study of emerging threats is fundamental to any professional army or learning organization, and therefore a study of contemporary Russian military actions is warranted.

Russian military operations in Eastern Europe since 2008 illuminate an innovative approach to war that incorporates Information-Age technology in exploiting vulnerabilities in modern war. Whether one calls this approach to war hybrid warfare, new-generation warfare, ambiguous war or any of the other number of terms being thrown around, Russia has shifted the paradigm in contemporary war, creating new dilemmas and problems for the U.S. Army to solve.

The Russo-Ukrainian War's battlefields are not just home to the latest in cyber and electronic warfare, nor are they exclusively the realm of trailblazing information operations geared to manipulate the media and society. Just below the surface of the dazzling veneer of sophisticated cyber, electronic and information operations resides a conventional campaign that is no less unique than the overriding Russia hybrid approach. Far from the eye of the casual observer or mainstream-media outlets are battlefields more reminiscent to those of World War I than what one would expect to find in the 21st Century.¹

Russo-Ukrainian battlefields are littered with trenches, razed cities, the corpses of destroyed armored vehicles and the graves of thousands of Ukrainian soldiers and citizens. Russo-Ukrainian battlefields are characterized by the indiscriminate employment of rockets and artillery, in which civilian casualties are simply a byproduct of war. Russo-Ukrainian battlefields are characterized by armored warfare in open and urban terrain. Lastly, Russo-Ukrainian battlefields are home to modern-day siege warfare.

Many of the battles that embody these characteristics are unheard of in the U.S. Army. Battles such as Ilovaisk, Donetsk Airport, Luhansk Airport, Mariupol, Sloviansk, Debal'tseve and others absorbed conventional combat unseen in quite some time. This article examines the Battle of Debal'tseve to glean an understanding of the Russian way of war lurking just beneath the surface of hybrid warfare. Furthermore, this article seeks to identify patterns or emergent trends in Russian operations and to examine those patterns or trends in more detail.

The Battle of Debal'tseve was selected for study because:

- It is the most recent major battle of the Russo-Ukrainian War, where the significance is that the battle reflects the collective conventional lessons-learned by the Russian army throughout the conflict.
- Similarly, the battle reflects the reciprocal nature of Russian reaction to Ukrainian action through the 18-months-plus months of combat operations in Ukraine.
- The Battle of Debal'tseve's salient features are the tight coupling of Russian reconnaissance with assigned indirect-fire capabilities, creating a near-instantaneous sensor-to-shooter system.
- Also, the battle demonstrates a lack of jointness in relation to Russian operations, which serves to further expedite their sensor-to-shooter system by removing the middle layer of clearance and approval for fires.
- The battle also demonstrates that adjustments in force structure allow formations to operate at the tactical and operational levels of war.
- Lastly, the Battle of Debal'tseve illustrates a re-emergence of siege warfare.

Analysis of the Battle of Debal'tseve may suggest that "old" forms and methods of warfare are being employed by Russia and, because of this, there is little to learn from the battle (or a study of any of the conventional battles of the Russo-Ukrainian War). However, this position – suggesting an irrelevance or unimportance to Russia's

conventional way of war because aspects might be received as “old” – is superfluous and counterproductive to learning organizations such as the U.S. Army. The contemporary, conventional Russian approach to warfare is important to understand because so few within the U.S. Army, especially at the brigade-combat-team level and below, are familiar with such forms and methods of combat.

Russo-Ukrainian War: strategic and operational context

Historian Lawrence Freedman, in analyzing German Field Marshal Helmuth von Moltke’s position that political leaders must stay out of military action, states, “The idea of a military strategy separate from a political strategy was not only misleading but also dangerous.”² Lawrence’s position, correctly rebutting that of Moltke’s, is no less applicable today than it was during the wars of German unification. Therefore, it is instructive to briefly examine Russian policy, strategy and operational context to help frame the battle in relation to the Russo-Ukrainian War.

Historian Sarah Paine, writing about Russian policy, states, “Russian strategy had long been to surround itself with weak neighbors and to destabilize those who threatened to become strong. This was a logical strategy for a large continental empire.”³ Russian policy in regard to the Russo-Ukrainian War is debatable, but it appears that Russian policy borrows heavily from Paine’s position, seeking to weaken Ukraine while building a buffer between Russia and Western Europe. Russian action indicates this buffer is territorial and weapons-capability based.⁴ Moreover, Russian policy supports separatist action in the Donbass to create breakaway governments, embodied in the Donetsk People’s Republic (DPR) and the Luhansk People’s Republic (LPR).⁵

Russian strategy in the Russo-Ukrainian War focuses on retaining the DPR and LPR and defeating Ukrainian forces that threaten the territorial integrity and/or continued existence of either the DPR or LPR. Russia accomplishes these aims through the application of a limited hybrid war conducted by a combination of Russian armed forces and proxies.⁶ Russia is reported to have committed upward of 9,000 conventional and unconventional troops toward the accomplishment of its strategic objectives.⁷ This number does not include the cooperation of separatists, partisans and other proxy forces.

Russia’s primary operational objective is the territorial integrity of the people’s republics in Donetsk and Luhansk. The retention of critical transportation nodes and lines of communication – including highways and railroad lines that link DPR, LPR and Russia – are subordinate operational objectives. More operational objectives include areas within the Donbass that possess infrastructure (power generation, hydro-electric, water treatment) that enables the people’s republics to operate entirely independent from Ukraine.⁸ These operational objectives have resulted in major combat operations at locations throughout the Donbass.

Russia’s operational approach vacillates between a strategy of attrition and exhaustion. Russian battles focus on trapping Ukrainian ground forces and slowly bludgeoning them through the repetitious employment of indirect fire and armored thrusts. The goal of protracting the destruction of Ukrainian forces – instead of quickly annihilating them – is that it 1) forces a desperate Ukrainian government to come to the bargaining table to broker a deal to end the slaughter while 2) it exhausts Ukrainian resources as they continue to commit forces to protracted battles.

The battles of Ilovaisk (Aug. 7-Sept. 2, 2014) and Debal’tseve demonstrate the effectiveness of this approach as they resulted in the Minsk Protocol and the Minsk II agreement, respectively.⁹ Operational reach and culmination are moot points due to the proximity of Russian forces to their logistics base in Russia and because of the retention of lines of communication to the Southern Military District (SMD), which conducts resupply missions to forward Russian units as required.¹⁰

Russia’s hybrid warfare is deftly articulated in what is known as the Gerasimov Doctrine. Pundits argue whether Gerasimov’s ideas encompass a new mental model of warfare or a new approach to warfare, but Russian action indicates the efficacy of the Gerasimov Doctrine in driving Russian operational art, planning and tactical action.

One of the salient points of the Gerasimov Doctrine is that levels of war have been compressed by contemporary and emerging technology. Therefore, there is little distance (physical or temporal) between the strategic, operational and tactical levels of war (Figure 1).¹¹ As such, overlap exists between the levels of war and their associated actions on the battlefield. The overlap can be observed in Russia’s actions in the Russo-Ukrainian War as operational art and tactical actions are so intertwined that it is often difficult to find the seams or distinctions between the two.

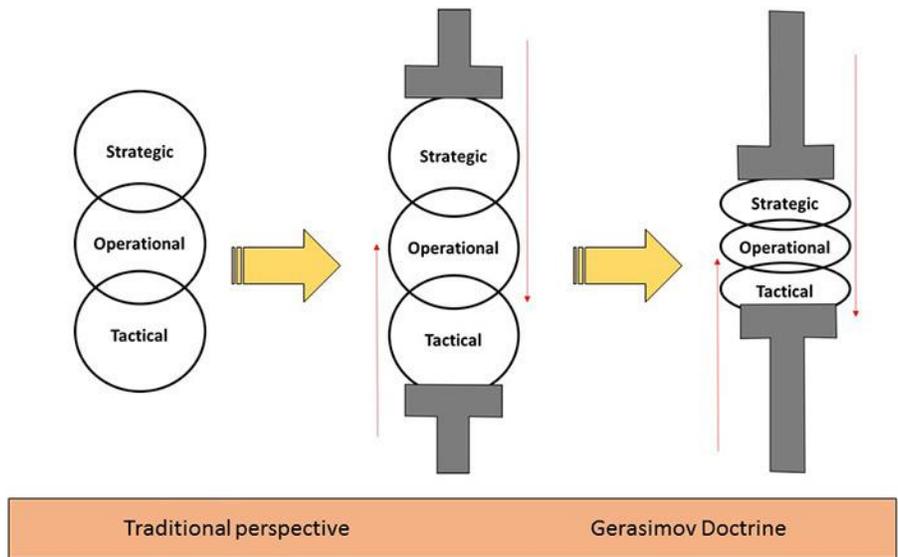


Figure 1. Gerasimov’s evolution of the levels of war.

The Russian army, like many armies in recent years, eliminated divisions and aligned its expeditionary capability in its brigades and regiments.¹² SMD serves as the field-army headquarters in Russia’s current force structure, of which Russian brigades are directly aligned. The field-army headquarters in Russia’s SMD is the primary practitioner of operational art in this model. Yet the field army is not alone in the exercise of operational art.

Russia altered its force structure to operate within this paradigm, and the battalion tactical group (BTG) is the physical embodiment of this adjustment (Figure 2). The BTG is a tactical formation that possesses operational indirect fires and air-defense capability, allowing it to have one foot in the tactical level of war, while the other foot is able to operate in and influence the operational level of war.¹³ The operational indirect fires most often found in the Russian BTG are the BM-21 Grad and the 9A52-4 Tornado, both of which are multiple-launch rocket systems (MLRSs) that fire 122mm rockets with ranges of more than 20,000 meters and 90,000 meters, respectively.¹⁴

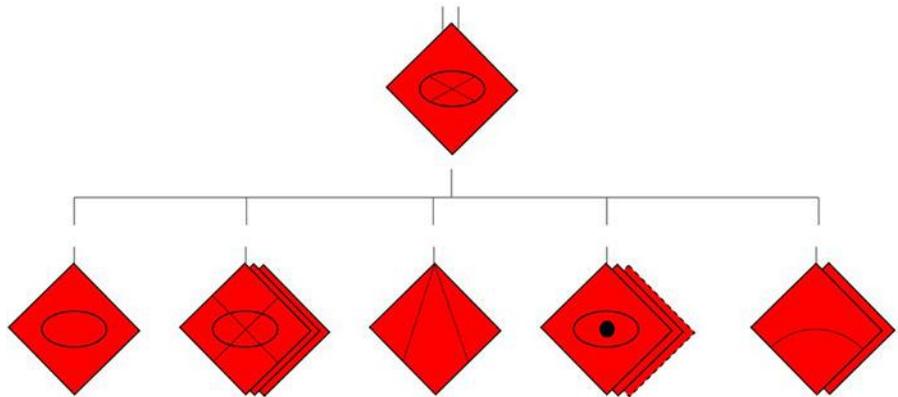


Figure 2. BTG organization.

The BTG commander, as a result, is not only a tactician but also a practitioner of operational art. While this idea is at odds with U.S. Army doctrine, which states, “A corps headquarters is the Army’s primary operational-level headquarters,” the BTG’s ability to achieve operational effects and accomplish operational objectives pull it into the operational level of war.¹⁵

The significance of the BTG cannot be overlooked. The BTG has demonstrated its versatility, durability and overall utility in the Russo-Ukrainian War and, as a result, it has become the exclusive warfighting formation employed by Russia in Ukraine. In light of the BTG’s effectiveness in the Russo-Ukrainian War, Russia is doubling down on its

investment in the formation, looking to grow the number of BTGs in the Russian army from 66 to 125 by 2018 and exclusively equip BTGs with professional soldiers.¹⁶

The BTG, a phenomenon of the Russo-Ukrainian War, clearly shows its utility at Debal'tseve.¹⁷

Battle of Debal'tseve

The Battle of Debal'tseve began in the blowing snow of a frigid Ukrainian winter Jan. 14, 2015. Ukrainian forces, both professional soldiers and volunteer battalions, set out to retake control of Debal'tseve. The city, home to 25,000 inhabitants, sits on the nexus of multiple highway and railroad lines that are critically important to both sides of the conflict (Figure 3). Debal'tseve's importance lies in it being the nail that holds both halves of the Donbass together while linking DPR and LPR with Russia (Figure 4).

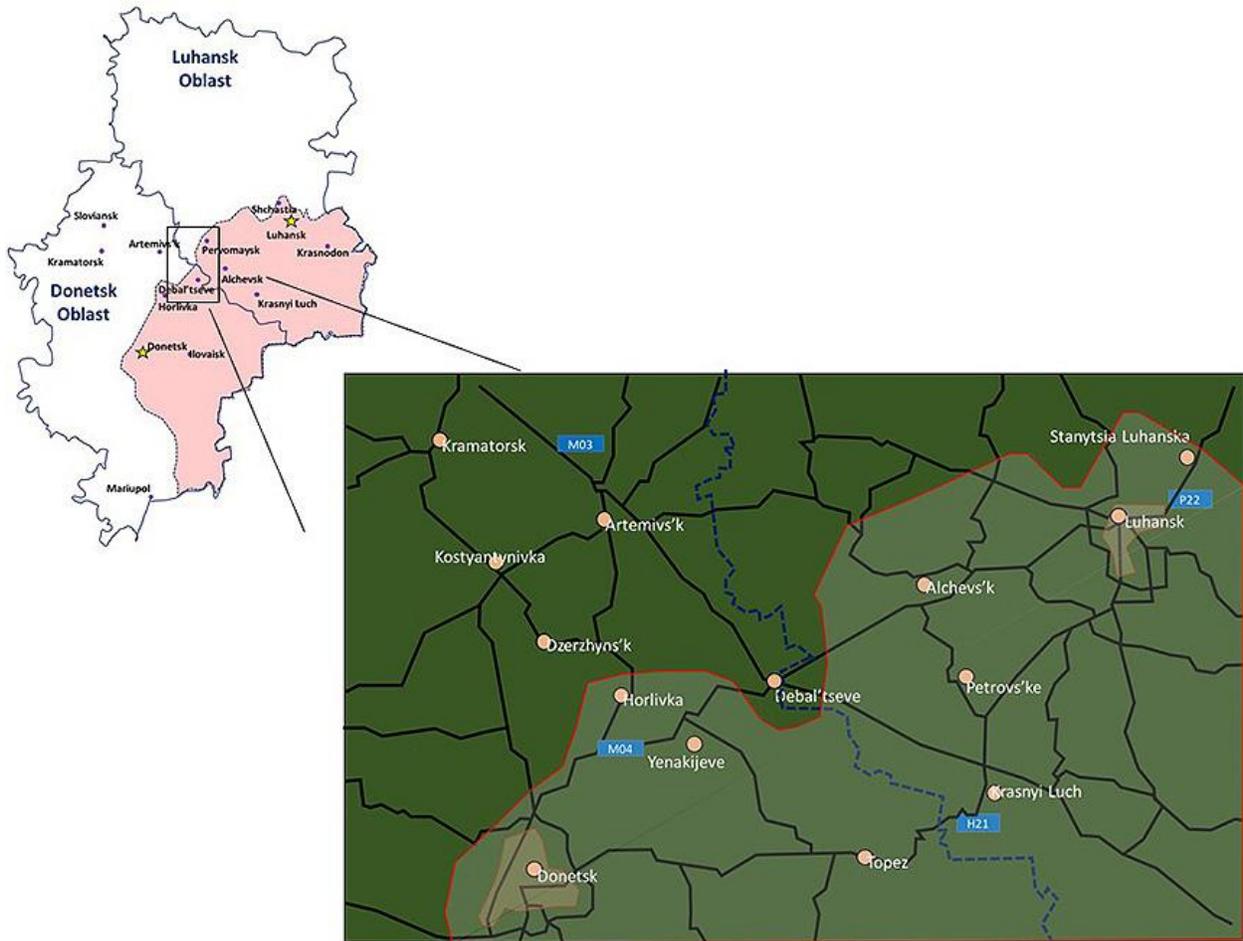


Figure 3. Debal'tseve, shown in context to the Donbass region.

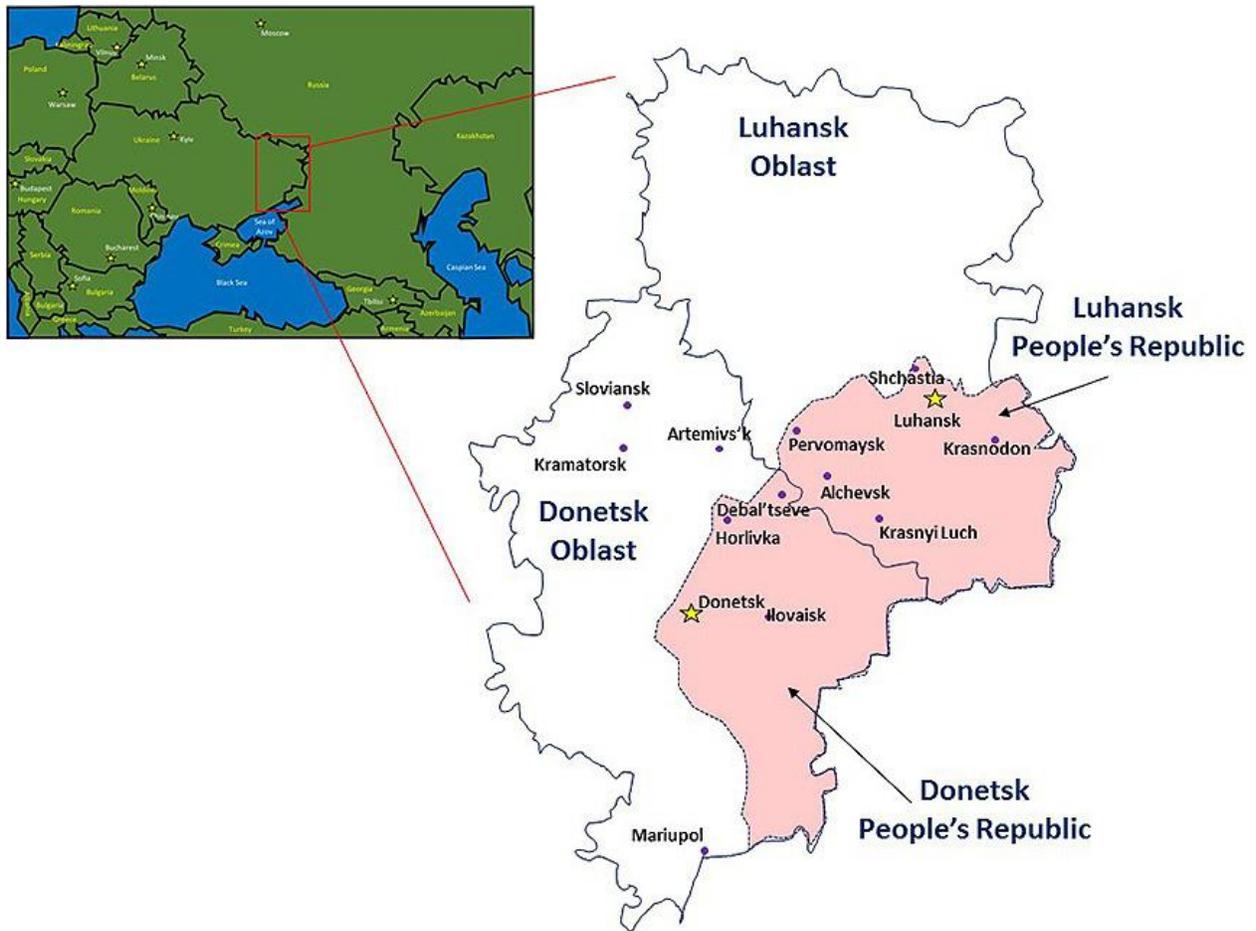


Figure 4. The Donbass.

Reciprocally, the city is vitally important to Ukraine because its possession denies Russia and their allies in the Donbass a key line of communication. Also, possession of the city allows the Ukrainian forces freedom of movement into the separatist-held Donbass. Lastly, Debalt'seve is a critical line of communication between soldiers on the front lines of the conflict with the Ukrainian forces' forward tactical headquarters in Artemiv'sk.¹⁸

Russian forces and pro-Russian separatists took control of the city during the initial phase of Russia's hybrid campaign in April 2014, but their hold on the city was tenuous. Ukrainian forces retook the city in July 2014 and maintained control of the city until January 2015, when Russia launched a concerted effort to retake the city, destroy the Ukrainian army therein and send a message to the locals that the Ukrainian government was unable to protect them.

Debalt'seve presented a salient into separatist-controlled territory while under Ukrainian control (Figure 5). Russian BTGs, equipped with the latest T-80 and T-90 tanks, BMP-2s and BM-21 Grads, set out with separatist mechanized brigades on the morning of Jan. 14, 2015. They attacked to pinch off the salient and destroy Ukrainian forces defending Debalt'seve.¹⁹ The attack quickly took the form of a siege as Russian and separatist forces sought to inflict a high cost on the Ukrainian army and the civilian population of Debalt'seve in pursuit of the city.

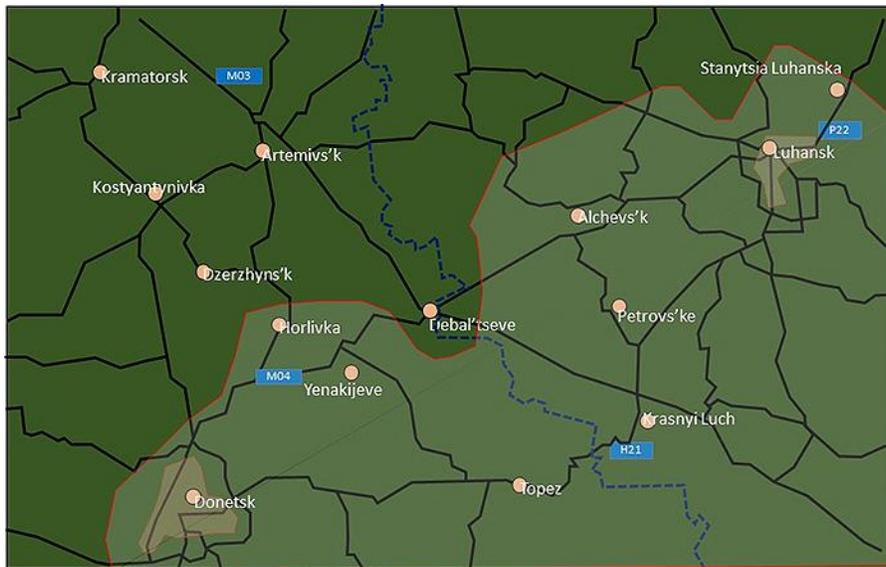


Figure 5. Debaltseve salient.

Ukrainian forces, numbering about 8,000, drawn largely from 128th Mechanized Brigade and the volunteer Donbass Battalion, were located in trenches and battle positions around the city while controlling critical infrastructure within Debaltseve.²⁰ In the early hours of Jan. 14, Ukrainian soldiers heard the ominous buzzing of Russian reconnaissance drones overhead just before artillery and rocket fire impacted their positions. Russian armored attacks followed on the heels of the artillery and rocket strikes. Ukrainian forces sought refuge in their trenches while seeking to make sense of the situation.

The Russian and separatist attacks persisted in a similar fashion for a week – the siege was characterized by indiscriminate shelling of the city by BM-21 and 9A52-4 rocket fires, mixed with artillery fire and armored attacks on Ukrainian positions. Russian drones patrolled overhead, looking for targets, while Spetsnaz, *Glavnoye Razvedyvatel'noye Upravleniye* (GRU) operators and plain-clothed troops assisted in target acquisition and local reconnaissance.

Keenly aware of the Ukrainian predicament outside the city, and the impact on civilians within the city, Russian forces began relentlessly shelling Debaltseve while further constricting their grip on the city. Looking to further exacerbate the situation, Russian and separatist forces cut access to electricity, heat and water in and around Debaltseve Jan. 22, resulting in a rapid decline in living conditions for the city's civilian population.²¹ Within a few days, 8,000 civilians fled the city, and another 6,000 civilians were killed during the fighting for Debaltseve.²²

Russian and separatist forces controlled both shoulders of the Debaltseve salient and were on the verge of pinching off the bulge by Feb. 1, 2015. The 128th Mechanized Brigade, the Donbass Battalion and other Ukrainian forces still had access to their higher headquarters and logistics base in Artemiv's'k, northwest of Debaltseve along Highway M03. Low-level fighting persisted from the start of the month until Feb. 9, when the opposition seized Lohvyne, the last remaining supply route for Ukrainian forces in Debaltseve.²³

The battle for Debaltseve intensified between Feb. 10 and the end of the battle Feb. 20. On Feb. 10, Russian forces launched two concentrated attacks around the city, seeking to close the circle around the Ukrainian forces, which resulted in 19 Ukrainian troops killed in action and 78 wounded in action. Ukrainian forces were isolated at Debaltseve.²⁴

Russian forces then denied access to Highway M03, the artery from Debaltseve to government-controlled territory and the operational headquarters in Artemiv's'k. Russians launched rocket attacks from Debaltseve on government and army headquarters buildings in Kramatorsk Feb. 11. Russian forces dedicated multiple-launch rockets and artillery to deny Ukrainian forces movement into or out of the city. At this point in the battle, Ukrainian forces found themselves truly isolated and physically unable to escape their encirclement.

Russia, seeking to exploit the success of their recent offensive actions, deployed two more BTGs from SMD consisting of more than 100 tanks, *Boyeva Mashina Pekhoty* (BMPs) and MLRS on the same day. The Minsk II Agreement, which was supposed to curtail combat operations in Debal'tseve, was reached Feb. 12. Nonetheless, Russia ignored the agreement, and its forces continued to ruthlessly attack Ukrainian forces holding their defensive positions around Debal'tseve.²⁵

On Feb. 13, Russian forces launched rocket attacks from Debal'tseve on Ukrainian positions in Artemiv'sk. While conducting indirect-fire attacks outside the city, Russian BTGs and separatist mechanized brigades and battalions continued to pound away on Ukrainian defensive positions. Furthermore, Russian BTGs launched salvo after salvo of rocket fire into Debal'tseve, wrecking the city. Between Feb. 13-17, Ukrainian forces attempted small-scale breakouts from their encirclement but were unable to muster a strong-enough thrust to punch through Russian positions. What is more, Russian control of Highway M03, which linked the Ukrainian forward tactical headquarters in Artemiv'sk to Debal'tseve, denied the Ukrainian government's ability to relieve its encircled forces at Debal'tseve.



Figure 6. The Organization for Security and Cooperation in Europe's Special Monitoring Mission to Ukraine monitors the movement of Ukrainian armor in eastern Ukraine in March 2015.

Russia, sensing the futility of the Ukrainian situation, initiated their *coup de grâce*. Russian forces and their separatist allies launched a full-scale assault into the city Feb. 17, 2015. Ukrainian forces, weakened by a month of perpetual attack in harsh winter conditions, had reached culmination and were no longer able to maintain their hold on the city. With the approval of the Ukrainian government, Ukrainian forces began a fighting withdrawal from the city. By the night of Feb. 18, about 2,500 Ukrainian troops had withdrawn from Debal'tseve, leaving about 4,500 soldiers still in and around the city. By the night of Feb. 19, 90 percent of Ukrainian forces had withdrawn, and by mid-day Feb. 20, 2015, Debal'tseve officially fell to Russia and DPR/LPR.²⁶

The fighting withdrawal from Debal'tseve was not supposed to be a fighting withdrawal but rather a peaceful withdrawal along a prearranged corridor. In similar fashion to Russian action at the Battle of Ilovaisk, Russian forces failed to honor the agreement for peaceful withdrawal. They instead attacked Ukrainian forces along the corridor. Ukrainian forces were forced to flee from the roads, abandon their vehicles and make for safety on foot. In the process, Russian forces destroyed innumerable Ukrainian combat vehicles and captured close to 100 Ukrainian soldiers.

The battle for control of Debal'tseve destroyed 128th Mechanized Brigade and the Donbass Battalion as fighting formations. Ukrainian losses totaled 300 dead and 700 wounded in combat. The Russian and separatist losses are far more difficult to define as Russia continues to deny any involvement in the battle.²⁷

Ruminations on battle

The Russian victory at Debal'tseve is important because of what it does for Russia. Military analyst Hugo Spaulding writes, "The collapse of the Ukrainian defense at Debal'tseve will leave Russia in a stronger position to coordinate future offensive operations, the basis of its military strategy in Ukraine."²⁸ Also, the victory solidifies the link between the DPR and LPR, ensuring further cooperation between the two polities within the Donbass.

Russian reconnaissance

Russian operations at the Battle of Debal'tseve, and throughout the entirety of the war, illustrate the Russian predilection for employing drones, Spetsnaz, GRU and partisan forces in conjunction with one another for reconnaissance to support the BTG and army headquarters at SMD.²⁹ In speaking on the efficacy of Russian reconnaissance, military analyst Phillip Karber states, "The Russians have broken the code on reconnaissance-strike complex, at least at the tactical and operational level."³⁰

Once a target has been identified, that information is transmitted to the firing unit. The unit then delivers the requested ordnance. This sensor-to-shooter cycle, unencumbered by joint air-power considerations, is highly responsive and extremely effective. The Battle of Debal'tseve clearly demonstrates the Russians' proclivity for the use of rocket and artillery fire; the best example is the July 11, 2014, rocket strike at Zelenopillya. The strike featured Russian forces' blending of reconnaissance drones and cyber capabilities to identify Ukrainian formations, disrupt their ability to communicate and then attack with BM-21 Grad and 9A52-4 Tornado fire launched from SMD.³¹ The strike, perhaps the apogee of Russian rocket and artillery doctrine, resulted in 30 Ukrainian soldiers killed, more than 100 injured and two battalions' worth of combat power destroyed.³²

The Russian model of reconnaissance is foreign to that of the U.S. Army. The Russian army does not possess reconnaissance formations similar to U.S. cavalry formations, which conduct reconnaissance for its ground forces. The Russian model amalgamates drones, special forces and partisan forces to conduct deep, operational reconnaissance. BTGs employ their organic assets for local, tactical reconnaissance. The purpose of this organizational structure is to expedite the flow of information to the formation to which it reports.³³

Also, it is critical to understand that Russian special forces, primarily Spetsnaz and GRU, do not operate, nor are organized, in the same manner as that of U.S. special-operations forces. Russia's special forces are aligned within conventional Russian army formations and answer directly to the commander of that organization. They do not operate in a parallel command structure to conventional forces like that of the U.S. Army Special Operations Command. Thus, the conventional-force commander directs the action of Spetsnaz and GRU, achieving a high level of synergy within the Russian ground forces.³⁴

Russian indirect fires

The use of rockets and artillery dominates Russia's approach to ground warfare. The offensive use of artillery and rockets is not new to the Russian military mind; it's deeply rooted in the Russian way of war. The doctrine of the Soviet Army in World War II was built around the idea of the "artillery offensive," in which ground combat formations such as tank and infantry units supported the artillery and rocket offensive by exploiting the success achieved through massive salvos. As historian John McGrath writes, "The artillery fires were designed to destroy or suppress enemy defenses, with the maneuver forces maneuvering in the wake of the fires to occupy the ground or otherwise take advantages of the effects of the fires."³⁵

What is new about the Russian approach to rocket and artillery fire is the way they identify targets and how they flatten the cycle between sensor and shooter. The Russian forces' capability to find and fix an opponent beyond the range of their adversaries' ability to do the same cannot be brushed aside, especially when considering the associated ability to deliver massive quantities of rocket and artillery fire almost instantaneously.

Absence of joint warfare

A critical point to remember about Russian operations in Ukraine is that they are not joint – there is no Russian air force or army aircraft in the air, negating a clearance of airspace. This means fire-support requests are more timely than they would otherwise be. While the U.S. military prides itself on its jointness, this is of little concern to the Russians, at least in relation to combat operations in Ukraine.

In the Russo-Ukrainian War, the lack of joint operations is a benefit to Russian ground forces, as their sensor-to-shooter system is almost instantaneous due to the absence of aircraft in the sky to interfere with indirect fires. Also, most firing units are organic to the BTG.³⁶ This situation is compounded by the fact that Russian forces are not concerned with precision application of strike capability, nor are they concerned with collateral damage.

Siege warfare revisited

Russian forces appear to practice positional warfare, using tactical action to trigger desired responses based on anticipated Ukrainian reactions to stimulus. Many instances during the Russo-Ukrainian War illustrate this idea; one was the Battle of Debal'tseve, but it also includes the Battle of Luhansk Airport, plus the first and second battles of Donetsk Airport and the Battle of Ilovaisk. Siege warfare plays into Russia's proclivity for offensive indirect fires to slowly erode Ukrainian combat power and political will, allowing Russia to obtain its associated operational objectives.

The Russian siege also plays into the Ukrainian tendency to "seize the initiative" by rapidly committing forces to Russian provocation before adequately assessing the situation to determine the best course of action. Ukraine's rapid commitment of forces in response to Russian offensive action at the Luhansk and Donetsk airports, and at Ilovaisk, are examples where Russia lured the Ukrainians into inadvertently isolating themselves, which Russia then exploited through the siege. While the conditions that led to the Battle of Debal'tseve are somewhat different to those at Luhansk, Donetsk or Ilovaisk, each battle essentially unfolded in a similar manner.

The bottom line is that hastily committing forces in the name of seizing the initiative can quickly backfire against an adroit enemy looking to capitalize on opportunity, which often presents itself through an opponent's missteps or through their patterns of action.

Likewise, Russian siege warfare appears to be tied to its blended operational approach, focused on attrition and exhaustion. In each of the major battles in Ukraine, Russian forces possessed the capability to annihilate Ukrainian forces, yet they chose not to. Russian forces are not seeking quick, decisive victory in Ukraine. Instead, they are looking to bleed the Ukrainian army white, both in terms of personnel and in combat vehicles like tanks, infantry fighting vehicles and artillery. The purpose of the siege, coupled with the ubiquitous use of indirect fire, is to slowly destroy Ukrainian equipment and personnel. To take it a step further, the slow attrition of soldiers likely has a psychological impact on the Ukrainian people, making them less likely to willingly participate or support the Ukrainian armed forces or volunteer battalions, which have shouldered a large amount of the combat in Ukraine.

The Russian siege erodes the public's faith in the government and military's ability to coherently direct a war. Both these conditions, when coupled with one another, can create national apathy within the Ukrainian populace. This strategically weakens the Ukrainian government's ability to influence a positive outcome.

Conclusion

The Russian army of today is not the same caliber of the Cold War Soviet army. However, it is vital to remember the Russian army is also not the force the U.S. Army met in the deserts of Kuwait, Saudi Arabia and Iraq in 1991, or in Iraq in 2003. The Russian army is a formidable land army that has proven its mettle in modern conventional warfare. That in itself warrants respect and analysis. The Russo-Ukrainian War provides insight into current Russian army doctrine. The hybrid war in Ukraine, with its cyber, electronic and information-operations-laden overtones, overshadows a very conventional campaign being fought just below the surface.

The Battle of Debal'tseve represents the cumulative experience of the Russian army through the Russo-Ukrainian War. The battle's salient features, as they relate to the Russian army, include the tight coupling of Russian reconnaissance with indirect-fire capabilities, creating a highly responsive sensor-to-shooter system. Also, the battle demonstrates a lack of jointness in relation to Russian operations in the Russo-Ukrainian War, which paradoxically makes the Russian army more lethal than they might otherwise be.

The battle is another instance of the Russian siege, which is used not only to erode forces at the tactical and operational level, but to strategically exhaust the Ukrainian military and government while scoring major information-operations victories in respect to the Ukrainian government's relationship with its people. Lastly, the battle demonstrates the BTG's utility, which is the byproduct of thoughtful innovation to find the best mix of capabilities at each echelon of command to match the type of war being fought.

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Notes

¹ Thomas Gibbons-Neff, interviewed by Ryan Evans, *War on the Rocks*, Aug. 26, 2015; accessed Sept. 29, 2015, <http://warontherocks.com/2015/08/podcast-infantry-combat-from-modern-ukraine-back-to-world-war-i/>.

² Lawrence Freedman, *Strategy: A History*, New York: Oxford University Press, 2013.

³ S.C.M. Paine, *The Sino-Japanese War of 1894-1895: Perceptions, Power and Primacy*, New York: Cambridge University Press, 2003.

⁴ Russian anti-air/area-denial (A2/AD) existed in Kaliningrad before the Russo-Ukrainian War began in 2014. Russia has extended this umbrella with its incremental territorial acquisitions in Eurasia. Routine reports from the Institute for the Study of War provide the most up-to-date unclassified status of Russian A2/AD positioning in the region.

⁵ Timothy Thomas, *Russia: Military Strategy, Impacting 21st Century Reform and Geopolitics*, Fort Leavenworth, KS: Foreign Military Studies Office Press, 2016.

⁶ Russian proxies in Ukraine cover a wide variety of forces used to augment the Russian army. Proxy forces include, but are not limited to, ethnic Russian sympathizers in the Donbass, "volunteers" from Russia, "volunteer" battalions from Chechnya (i.e., the "Vostok Battalion") and Cossack formations loyal to Russia.

⁷ Thomas, *Russia: Military Strategy, Impacting 21st Century Reform and Geopolitics*.

⁸ Ibid.

⁹ The Minsk Protocol was approved Sept. 5, 2014. The Minsk II Agreement was approved Sept. 15, 2015.

¹⁰ Phillip Karber, "The Russian Military Forum, Russia's Hybrid Warfare Campaign: Implications for Ukraine and Beyond," lecture, Center for Strategic and International Studies, Washington, DC, March 10, 2015.

¹¹ Valery Gerasimov, "The Value of Science Is in the Foresight: New Challenges Demand Rethinking the Forms and Methods of Carrying out Combat Operations," translation by Robert Coalson, *Military Review*, Vol. 96, No. 1 (January-February 2016).

¹² Karber lecture.

¹³ Ibid.

¹⁴ *World Wide Equipment Guide, Volume 1: Ground Systems*, Washington, DC: Government Printing Office, 2014.

¹⁵ Field Manual 3-94, *Theater Army, Corps and Division Operations*, Washington, DC: Government Printing Office, 2014.

¹⁶ "The Number of Battalion Groups Consisting of Contractors in the Russian Army to Reach 125 in Two Years," *Military News-Russia*, last modified Sept. 14, 2016; accessed Sept. 20, 2016, <http://militarynews.ru/story.asp?rid=1&nid=425709>.

¹⁷ For more information on the BTG's composition and capabilities, see the author's article in *ARMOR*'s July-September 2016 issue titled, "Russian Hybrid Warfare and the Re-emergence of Conventional Armored Warfare: Implications for U.S. Army's Armored Force."

¹⁸ Hugo Spaulding, *Ukrainian Situation Report: Feb. 13, 2015*, Washington, DC: Institute for the Study of War, 2015.

¹⁹ Hugo Spaulding, *Putin's Next Objective in the Ukraine Crisis*, Washington, DC: Institute for the Study of War, 2015.

²⁰ Ibid.

²¹ Ibid.

²² United Nations Office for the Coordination of Humanitarian Affairs, *Ukraine: Situation Report No. 29*, Feb. 27, 2015; accessed Sept. 29, 2016, <http://www.unocha.org/2015annualreport/2015annualreport.pdf>.

²³ Spaulding, *Ukrainian Situation Report*.

²⁴ Ibid.

²⁵ Ibid.

²⁶ Hugo Spaulding, *Russia-Backed Separatists Launch Offensive in Ukraine*, Washington, DC: Institute for the Study of War, 2015.

²⁷ Alec Luhn, "Ukrainian Soldiers Share Horrors of Debal'tseve Battle after Stinging Defeat," *The Guardian*, Feb. 18, 2015; accessed Sept. 17, 2016, <http://theguardian.com/world/2015/feb/18/ukrainian-soldiers-share-horrors-of-debaltseve-battle-after-stinging-defeat>.

²⁸ Spaulding, *Putin's Next Objective in the Ukraine Crisis*.

²⁹ Patrick Tucker, "U.S. Army Racing to Catch Up to Russia on Battle Drones," *Defense One*, Sept. 28, 2016; accessed Sept. 29, 2016, <http://www.defenseone.com/technology/2016/09/us-army-racing-catch-russia-battle-drones/131936/?oref=d-topstory>.

³⁰ Karber lecture.

³¹ Natalia Zinets and Maria Tsvetkova, "Ukraine Says Rebels Will Pay As Missiles Kill 23 Soldiers," *Reuters*, July 11, 2014; accessed Oct. 1, 2016, <http://www.reuters.com/article/us-ukraine-crisis-idUSKBN0FG1A920140711>.

³² Ibid.

³³ Timothy L. Thomas, *Recasting the Red Star: Russia Forges Tradition and Technology Through Toughness*, Fort Leavenworth: Foreign Military Studies Office Press, 2011.

³⁴ Charles K. Bartles, "Russia's Indirect and Asymmetric Methods as a Response to the New Western Way of War," *Special Operations Journal*, Vol. 2, No. 1, 2016.

³⁵ John J. McGrath, *Crossing the Line of Departure: Battle Command on the Move, A Historical Perspective*, Fort Leavenworth: Combat Studies Institute Press, 2006.

³⁶ This includes self-propelled artillery, BM-21 Grads and 9A52-4 Tornados.

Acronym Quick-Scan

A2/AD – anti-air/area-denial

ACR – armored cavalry regiment

BMP – *Boyeva Mashina Pekhoty* (Russian armored fighting vehicle)

BTG – battalion tactical group

DPR – Donetsk People's Republic

GRU – *Glavnoye Razvedyvatel'noye Upravleniye* (main Russian military foreign-intelligence service)

LPR – Luhansk People's Republic

MLRS – multiple-launch rocket system

SMD – Southern Military District