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Testing Maneuver's Primacy on the Battlefields of Ukraine

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Research Question

Does maneuver theory still deserve its place of primacy in military doctrine considering its practice in current peer-peer conflict between advanced developed militaries?

Introduction

In military theory, there is a general sense that the school of maneuver is the ideal approach to warfare. It has been described as the most elegant, efficient, effective, and skillful practice and universally appropriate method.¹ While true to a degree, this belies the difficulty and barrier of execution it exacts to those who practice it, especially against the friction of unfavorable technology and strategic contexts. Over time and technological developments, the context of what school of warfare is best fluctuates. In WW1, maneuver broke on trenches of positionality. WW2 brought maneuver warfare with the use of combined arms had staggering successes that returned maneuver theory to primacy that continues to shape modern doctrine of today.

Currently, the school of maneuver theory is favored among most militaries. But does the course of actions unfolding in Ukraine justify the primacy that the maneuver school holds in Western doctrine for current peer-peer conflict between advanced developed militaries? Analyzing the war currently unfolding in Eastern Europe through the lens of these military theories is essential for the formation of doctrine and strategy for those states who see such conflict in their future. The current uncertainty around future conflict between equal adversaries leveraging the complete host of modern military hardware makes such analysis essential. By determining the role of maneuver theory in the current modern context can help evolve practice and prevent following the path of doctrinal tradition.

Literature Review

This thesis relies heavily on the military theory model created by Lt. Colonel Robert R. Leonhard in *Fighting by Minutes*. He divides military theory into three schools based on the emphasis they place upon two of the three fundamentals of fighting: striking, moving, and protecting. These make up the foundational actions undertaken by an army during a conflict. The actions outlined in the theory are discussed frequently in the past in such works as in the *Foundations of the Science of War* which described striking as “striking power”, protecting as “resisting power”, and movement as “mobility”.² The same principles are reflected in modern

¹ Robert Fry. "The Meaning of Manoeuvre." *The RUSI Journal*, vol. 143, no. 6, 1998, p. 41.; Amos Fox. "A Solution Looking for a Problem: Illuminating Misconceptions in Maneuver-Warfare Doctrine." *Armor: Mounted Maneuver Journal*, vol. 129, no. 4, 2017, p. 1-6.; Richard D. Hooker. "The Mythology Surrounding Maneuver Warfare." *The US Army War College Quarterly Parameters*, vol. 23, no. 1, July 1993.

² John Frederick Charles Fuller. *The Foundations of the Science of War*. Hutchinson and Company, 1926.

doctrine as well in the United States *Field Manual 100-5* as “firepower”, “maneuver”, and “protection”, respectively.³ Leonhard’s model emphasizes the fact that an army can only effectively do two of these actions at once, leaving the other neglected. But in doing so that neglected action is accomplished implicitly by the effect of the two active actions. For instance, in ‘Maneuver’, the first school of military theory Lt. Col. Leonard describes, priority is given to the actions of moving and striking whereas the protection of the army is implicit within those actions. To put it simply, the best defense is a good offense for the maneuver school. Likewise, the ‘Positional’ school prioritizes maneuver and protection, leaving striking implicit. He also includes ‘Attrition’ as part of the positional school, while some theorists treat it as a separate school. Finally, the ‘Interchangeability’ school focuses on striking and protecting at the expense of maneuver. Destruction is not specified in this paradigm because the destruction or defeat of the enemy is implicitly the purpose of these theories. The stress placed upon the specific actions he defines are simply how each theory fundamentally achieves that end. Leonhard stresses the fact that though theory may take different shapes and sub-schools exist, all military theory broadly falls within one of these three fundamental schools.⁴

Warfare Theories

Maneuver

The maneuver school is far and away the most favored of the schools in modern Western military doctrine. By adeptly moving and striking to ‘turn the enemy’s flank’, the army sacrifices protection yet accomplishes it implicitly via exploiting an enemy who will lack the cohesion to mount and effective resistance.⁵ One of the founders of the maneuver school, Basil Liddell Hart, in *Strategy: Indirect Approach* stated the goal was to paralyze rather than destroy the enemy thereby attaining decisive conclusion without significant fighting, à la “the indirect approach”.⁶ Hart underlines that the key to this “indirect approach” is surprise. Which is echoed by Amos Fox in *A Solution Looking for a Problem: Illuminating Misconceptions in Maneuver-Warfare Doctrine* as the fundamental subordinate goals of maneuver warfare, achieving “psychological

³ *FM 100-5 Operations*. Department of the Army, 1993.

⁴ Robert R. Leonhard, *Fighting by Minutes: Time and the Art of War*. 2nd ed., CreateSpace Independent Publishing Platform, 2017. 17-40.

⁵ Leonhard.

⁶ William F. Owen. “The Manoeuvre Warfare Fraud.” *The RUSI Journal*, vol. 153, no. 4, Aug. 2008, pp. 62–67.

impact on the enemy, paralysis or morale collapse.”⁷ By achieving ‘surprise’ or ‘turning the flank’ of the enemy, maneuver warfare inflicts confusion (cognitive effect) and disorganization (physical effect) upon the adversary.⁸ In doing so, maneuver creates the implicit protection for the maneuverer by cultivating a strategic environment that precludes offensive operation for an enemy reeling from their shattered defensive posture. Maneuver warfare endeavors to circumvent an enemy’s strengths through avoidance or rendering them irrelevant.⁹ In essence, the maneuver school advocates for an idealized style of warfare that could be characterized as clean and efficient, exacting victory for the smallest price in blood and resources for both oneself and the enemy. This makes maneuver warfare a seductive school for military theorists and practitioners that shape the doctrine of modern militaries.

The obsession with maneuver warfare began following WW1 with numerous theorists and generals wrestling with the issue of the breakout from a war of trenches into one of maneuver. For many of these theorists, such as Hart and Fuller, this meant leveraging new air and tank technology for combined operations that would restore mobility and thereby ‘maneuver’ to the battlefield.¹⁰ Even other contemporary theorists with more mediated positions on maneuver theory, such as Soviet Alexander Svechin, have argued that the other schools of theory and operations ultimately sought to return the battlefield to a state of maneuver though only to one’s own advantage.¹¹ The trauma of WW1G created a military and moral imperative for military thinkers and civil policymakers alike to find or create a war of maneuver that would intrinsically color the strategic culture of future military doctrine.

In recent years, scholars such as Fox, Owen, and Fry have been fighting back against this sense of universality of maneuver theory in military theory and doctrine. This, the diminishing of other schools of military theory such as positional and attritional, and the common-sense nature of it have been the major sources of criticism for the maneuver school’s dominance. Fry points out that the “manoeuvre nostrums” represent self-evident examples of good tactical sense such as avoiding enemy strengths, attacking their weaknesses, exploiting gaps, and erring from

⁷ Fox, 3.

⁸ Ibid.

⁹ Leonhard, 37.

¹⁰ Fox.

¹¹ Pieter Garicano et al. *Positional Warfare in Alexander Svechin’s Strategy*. Institute for the Study of War, 2024.

assaulting their prepared defensive positions.¹² While common sense is not necessarily a negative, maneuver theory tends to present it as more revolutionary and generally applicable than it actually is.¹³ Meanwhile, Fox states that the overuse of maneuver in the place of movement action within doctrine causes misconceptions and biases towards the maneuver school.¹⁴ This leads commanders to select maneuver-centric approaches where they are inappropriate and to misunderstand enemy actions.

Part of the popularity of the maneuver school can be attributed to its connection to exploitation and opportunity within military affairs. Drawing upon Richard Simpkin's basis of maneuver theory as preemption and surprise, Owen argues "manoeuvre theory drew its success from the seizure of opportunity."¹⁵ This echoes the emphasis Leonhard placed upon exploitation as the embodiment of maneuver theory in modern doctrine. In *Fighting by Minutes*, Leonhard also outlines that the centrality of time in modern warfare can be used to create preemption and surprise against an enemy and thereby opportunity. The creation and exploitation of opportunity is a central feature of Leonhard's conceptualization of maneuver warfare and prevalent within modern doctrine.¹⁶ This essential element of the maneuver school reveals its problematic nature when applied as a universality. For there to be exploitation, there must be opportunity. But by its very nature, opportunity cannot be a constant, rather it must be created and/or seized, fundamentally undermining the universality of the maneuver school.

Being the dominant school of military theory, it is no wonder that scholars have already investigated how maneuver has manifested in the Ukraine War to some degree. A trend throughout the work is that attempts at maneuver warfare have largely been frustrated throughout the conflict though there is a difference of opinion as to why that is. A recurring suggestion is the technological innovations introduced in the conflict. Major General Christopher R. Smith, Major Ben Flores, and Michael Kofman argue that conflicts naturally trend towards positional fighting as the war drags on but that these innovations in technology have exacerbated this natural

¹² Robert Fry. "Myths of Manoeuvre." *The RUSI Journal*, vol. 142, no. 6, Dec. 1997, pp. 5–8.

¹³ Garicano et al.; Fry.; Owen.

¹⁴ Fox, 10-11.

¹⁵ Owen, 66.

¹⁶ Leonhard, *Fighting by Minutes.*; *FM 100-5 Operations*.

process and stifled maneuver.¹⁷ Seth G. Jones, Alexander Palmer, and Joseph S. Bermudez Jr., argues rather that these innovations have played a role in both bolstering offensive maneuver and more defensive positional strategies.¹⁸ They argue that to find success in their counteroffensives, Ukraine must effectively integrate this technology into a strategy grounded in maneuverist precepts.¹⁹ Falling somewhere in the middle, Lieutenant Colonel Scott Dawe and Major Anthony Mollica take a more conditions-driven approach in which the specific conditions of the war have created a “reconnaissance strike complex duel”.²⁰ Restoring maneuver demands victory or overcoming that duel, working through the conditions and seizing opportunities. Implicit in their argument is that technology has created this duel but is not inherently biased, rather the specific contextual conditions and the commander’s approach are decisive in stifling or restoring maneuver.²¹

Positional and Attritional

Positional and attritional theories are the other common schools discussed regarding modern warfare, though not to nearly the academic rigor as maneuver. British theorists such as Fry and Owen focus on attrition theory, especially with regards to its relationship with maneuver theory.²² Americans, such as Fox and Garicano et al. describe positional theory as a distinct form.²³ Others, such as Leonhard, describe attrition as a component of positional theory.²⁴ A common thread through these theorists is that they hold that neither positional nor attritional are wholly distinct from maneuver warfare, criticizing the latter’s stranglehold on modern doctrine, and that the utility of these theories are not universal but rather circumstantial.

Both Fox and Garicano et al. make a distinction between positional and attritional warfare. Fox describes positional warfare as:

¹⁷ Michael Kofman. “Ch. 6: The Russia-Ukraine War Military Operations and Battlefield Dynamics.” *War in Ukraine: Conflict, Strategy, and the Return of a Fractured World*, edited by Hal Brands, John Hopkins UP, 2024, pp. 99–120.; Christopher R. Smith and Ben Flores. *Stalemate: Are Changes in Warfare Leading to a New Age of Indecisive War?* LPE-23-2, Association of the United States Army, Apr. 2023.

¹⁸ Seth G. Jones et al. “Ukraine’s Offensive Operations: Shifting the Offense-Defense Balance.” *CSIS Briefs*, June 2023.

¹⁹ Ibid

²⁰ Scott Dawe and Anthony Mollica. “Restoring Offensive Maneuver During a Reconnaissance Strike Complex Duel.” *Infantry*, vol. Spring, 2023, pp. 35.

²¹ Ibid, 35-36.

²² Owen, 62-67.; Fry.

²³ Garicano et al.

²⁴ Leonhard, *Fighting by Minutes*, 30-31.

“Use of force -- through tactics, firepower, or movement -- to move an opponent from one position to another for further exploitation or to deny them access to an area for further exploitation, while attrition warfare can be defined as the methodical use of battle or shaping operations to erode or destroy a belligerent's equipment, personnel and resources at a pace greater than they can replenish their losses.”²⁵

Garicano et al. in referring to the Ukraine War as attritional remarks that “An attritional war is one in which attrition itself is the victory mechanism”.²⁶ However, these authors do not conceptualize the Ukraine War as attritional but rather as one that is fundamentally positional in nature.²⁷ This is because they build off of Svechin’s conceptualization of positional warfare and the place of attrition within.²⁸ Such a conflict is:

“characterized by relatively static frontlines and regular combat that produces little movement, but the aim of such combat is generally either to create forward progress through steady if small advances or to create conditions to restore maneuver to the battlefield.”²⁹

Within these conditions, offensives that fail to break the status quo directly invariably become what Svechin calls “material battles” in which encapsulates Fox’s definition of attritional warfare.³⁰ In this way attritional warfare is a byproduct of, in service to, or working through positional warfare. As such, attritional warfare can be considered something of a component or subschool of positional warfare.

The crux of the linkage between these schools is the means by which they seek victory. Leonhard argues that the positional school leverages the Clausewitzian principal that defense is stronger than offense, forcing the enemy to sacrifice their own protection to go on the attack or withdraw.³¹ Centrally implicit within this is attrition, as the intrinsic strength of defense inherently causes the disproportionate destruction of the attacker so long as that position is not compromised.³² In the offensive, they exploit an adversaries commitment to a position despite

²⁵ Fox, 3.

²⁶ Garicano et al.

²⁷ Ibid

²⁸ Ibid

²⁹ Ibid

³⁰ Ibid

³¹ Leonhard, *Fighting by Minutes*, 31.

³² Stephen D. Chiabotti. “Clausewitz as Counterpuncher: The Logic of Conventional Deterrence.” *Strategic Studies Quarterly*, vol. 12, no. 4, 2017, pp. 9–14.

disadvantages creating an unfavorable asymmetry in losses to destroy them.³³ In both instances, it is the exploitation of the position through which these schools endeavor to achieve victory.

Doctrine and common military theory tend to see attrition as diametrically opposed to or separate from the maneuver school. Some theorists such as Fry, Owen, and Fox have pushed back against this, emphasizing the place that attrition has held in Western strategic culture and its utility to commanders.³⁴ They back up this position by conceptualizing warfare as a set of sequences in which each school has its place and utility as the preferential school to leverage as a commander. Fry explicitly stresses attrition-maneuver as a false dichotomy, rather that they are “indivisibly linked”.³⁵ He goes further stating, “even the most ardent manoeuvrist would accept that an element of attrition is a necessary precondition to successful manoeuvre.” This speaks to the sequential contextual nature of warfare both Leonhard and Fox emphasize.³⁶ These theorists describe maneuver as the sequential moment of exploitation beyond attritional and thereby positional fighting.

The literature of military theory and the Ukraine War as it pertains to the positional school invariably deals with the transition of the conflict to positional fighting and how that transition may be reversed. Then Commander-in-Chief of the Armed Forces of Ukraine, Valerii Zaluzhnyi, specifies five sources of this transition being: absence of air superiority, ‘mine barriers’, counter-battery fire, preparation of necessary reserves, and electronic warfare capabilities.³⁷ Notable in this in relation to maneuverist arguments is the relative absence to the stress placed on technology as a source of this transition. Zaluzhnyi instead emphasizes capabilities and resources as the central cause of the transition. Pieter Garicano, Grace Mappes, and Frederick W. Kagan of the Institute for the Study of War (ISW) built off Zaluzhnyi’s characterization of the conflict as positional by applying the lens and lessons of Soviet military theorist Alexander Svechin. In short, the positionality of the conflict lay in the inadequacy in capabilities necessary for breaking positional fronts and the prioritization of goals favoring survival and denial by the actors.³⁸ In

³³ Garicano et al.

³⁴ Owen 62-67.; Fry 6-8.; Fox, 17.

³⁵ Fry 1998, 41-45.

³⁶ Fox.; Leonhard, *Fighting by Minutes*.

³⁷ Valerii Zaluzhnyi. “Modern Positional Warfare and How to Win in It.” *The Economist*, UDC 355, 1 Nov. 2023.

³⁸ Garicano et al.

total, positional literature is invested chiefly in the causes of positional warfare and how to break beyond it.

The literature of specifically attrition as it relates to the War in Ukraine has been dominated in publications by Franz-Stefan Gady and Kofman.³⁹ Central to their position is that maneuver remains viable and relevant but only when attrition sets conditions from which it can succeed.⁴⁰ They argue that attrition has been both sides' primary approach at the tactical level of war; manoeuvre warfare yielded operational results because extensive attrition made it possible.⁴¹ They demonstrate this through the cases of the Ukrainian Kherson and Kharkiv counteroffensives whereupon the attritional pressure, especially those created by the High Mobility Artillery Rocket (HIMAR) system, created conditions for maneuver to succeed in Kharkiv and compel a Russian withdrawal in Kherson.⁴² They also emphasize how the losses of attritional fighting created a shrinkage of the primary organizational unit of battle down from the battalion to that of a company. This lead to a force generation and organizational difficulty in mustering an effective mass capable of executing maneuver in this environment.⁴³ They follow-up their analysis in 2024, building on the analysis of the relative failures in Ukraine's counteroffensive in Zaporizhia in the summer of 2023 to further stress the primacy of attritional techniques in the conflict.⁴⁴ They remark that the failures lay in an overoptimistic application of maneuver departing from the typical tactics of Ukrainian practice at points where and when attrition had not set the conditions for maneuver to succeed.⁴⁵ This portion of the literature says much about the relationship between attrition and maneuver along the positional fronts of the war after positionality had generally settled in by the summer of 2022. It says relatively little however, about the stage of mobility and maneuver that characterized much of the Russian offensives prior or the strategy of the Russians in general. This stage of the war principally favored maneuverist approaches while contending with war less dense and attritional conditions

³⁹ Franz-Stefan Gady and Michael Kofman. "Making Attrition Work: A Viable Theory of Victory for Ukraine." *Survival*, vol. 66, no. 1, Jan. 2024, pp. 7–24.; Franz-Stefan Gady and Michael Kofman. "Ukraine's Strategy of Attrition." *Survival*, vol. 65, no. 2, Mar. 2023, pp. 7–22.

⁴⁰ Ibid

⁴¹ Gady et al. 2023, 8.

⁴² Ibid, 9-13.

⁴³ Ibid, 15-18.

⁴⁴ Gady et al. 2024.

⁴⁵ Ibid 7-17.

which leaves this portion of the literature inconclusive as too the complete scope of the conflict and its actors.

Other Theories

Two other theories, interchangeability and hybrid, are worth mentioning here but will not be discussed in detail in the case analyses. Interchangeability theory is not as popular to doctrine formation as maneuver theory nor as studied as positional or attrition theory, but it is relevant to the popular understanding of weapon systems and military practice. It is a relatively new school coined by Leonhard with little explicitly dedicated literature. It holds to the “notion that firepower can be substituted for maneuver in war”, thereby circumventing the inherent risks demanded by conducting maneuver.⁴⁶ This school highly stresses the range and lethality of weapon systems which may have a decisive effect on the battlefield, allowing the army to achieve its objectives at a static direct posture.⁴⁷ It especially emphasizes indirect fire weapons systems like artillery, ballistic missiles, and the vaunted HIMARs, holding that as the range and effectiveness of these increase, the concentration of force on the battlefield becomes increasingly infeasible.⁴⁸ Likewise, its central intent to accomplish its mission leveraging firepower and lethality from a position of invulnerability ameliorates the Western casualty sensitivity that Fry argues paints the strategic, cultural, and political culture of the West.⁴⁹ As it stands, this school is in need of further study and development exploring it specifically to create the maxims and character that manifest in doctrine and practice. Therefore, it must be laid at the wayside within this thesis for it lacks the groundwork in both general theory and scholarly coverage of the Ukraine War for a solid comparative study.

For hybrid warfare, the term is nigh inescapable in reading literature surrounding Russian doctrine prior to February 23rd, 2022. This hybrid warfare, or perhaps more accurately to Russian terms, next generation warfare, heralded the rise of a new dimension to this triad of striking, moving, and protecting to the degree that it earned serious treatment by security academics and practitioners.⁵⁰ However, it will not be examined in detail in this thesis for it emphasizes actions

⁴⁶ Leonhard, *Fighting by Minutes*, 33.

⁴⁷ Ibid

⁴⁸ Ibid

⁴⁹ Fry 43

⁵⁰ Frank G. Hoffman. “Hybrid Warfare and Challenges.” *Small Wars Journal*, vol. 52, Jan. 2009, pp. 339–48.

not undertaken by or against the armies themselves and has had little effect on the battlefields of Ukraine.⁵¹

Literature Review Synthesis

Today we find ourselves in a period of profound uncertainty as to the shape of modern conflict where theorists must fill that void with theory in the absence of experience. Yet, with the scourge of major war returning to Europe in Ukraine, this is the one of the best examples of what a war between equally developed and modern militaries leveraging the wide host of the most modern military hardware in their efforts. With it comes the evidence and experience to test the predominant theories upon which modern military doctrine and security planning is based. As of now, the dominant theory is the maneuver school which is often characterized as the most ideal, clean, and efficient manner of waging war for many practitioners and theorists alike. So far, the Ukraine War has brought new attention to alternate theories built around the positional and attritional schools. Former Ukrainian Commander-in-Chief Valerii Zaluzhnyi himself has referred to the conflict as taking a positional nature.⁵² Other scholars, such as Gady and Kofman, argue that Ukraine's strategy and path to victory lies with the attritional school.⁵³ The conflict also offers an essential opportunity for understanding the new school of interchangeability theory. The utility of this school and its role in future doctrine will largely be determined by what is learned from this conflict. There is dissonance in the literature regarding the universality or contextual utility of these theories with maneuver often taking on the sense of universality in doctrine and theory. Critics and other scholars argue that the primacy of these schools depends on geographical or technological circumstances. Still others argue that these schools are essentially indivisible, facilitating one another or existing within sequences flowing between each other depending on context and developments. Review of the developments of the Ukraine War can provide answers for these questions of universality of the maneuver school and the standing of the other theories in modern conflict.

⁵¹ Robert Dalsjö et al. "A Brutal Examination: Russian Military Capability in Light of the Ukraine War." *Survival*, vol. 64, no. 3, May 2022, pp. 15-16.

⁵² Zaluzhnyi, 1.

⁵³ Gady et al., 2023.; Gady et al., 2024.

Methodology

Maneuver theory has held a dominant place over modern Western military doctrine and thinking yet has experienced mixed success within the most representative example of modern peer-peer conflict, the Ukraine War. To understand the place for maneuver theory in modern conflict, three cases where maneuver warfare was attempted in offensive operations are examined. Both maneuver theory and positional theory of warfare are discussed and then outlined with examples in the case studies. These cases are selected to provide the most insight on the use of maneuver in this war. Finally, the analysis demonstrates the evolving place maneuver warfare has in the context of modern peer-peer warfare.

Theories in Principle and Practice

Maneuver Warfare

As discussed in the literature review, maneuver warfare is about the actions of moving and striking to the detriment of protection. It is about dislocating the enemies' strengths, striking their weaknesses, and exploiting the adversary through relentless pursuit and momentum. In many ways, this quote by the renowned Confederate General 'Stonewall' Jackson encapsulates the meaning of maneuver warfare:

“Always mystify, mislead, and surprise the enemy, if possible; and when you strike and overcome him, never let up in the pursuit so long as your men have strength to follow; for an army routed, if hotly pursued, becomes panic-stricken, and can then be destroyed by half their number. The other rule is, never fight against heavy odds, if by any possible maneuvering you can hurl your own force on only a part, and that the weakest part, of your enemy and crush it. Such tactics will win every time, and a small army may thus destroy a large one in detail, and repeated victory will make it invincible.”⁵⁴

In maneuver warfare, relentless aggression, creativity, rapidity of movement, and circumvention of enemy strengths to not merely defeat but to ultimately destroy the enemy are the objectives. Notably absent is the action of protection, since leveraging protection means

⁵⁴ James I. Robertson. *Stonewall Jackson: The Man, the Soldier, the Legend*. 1st ed., Macmillan Publishing, 1997. 418

allowing or being compelled to suffer the enemies to bring their strengths to bear and strike against you.

The essential principles of maneuver theory beyond moving and striking are those of preemption, dislocation, and center of gravity. Preemption means attacking an adversary before they are capable of effectively resisting your assault.⁵⁵ This might mean attacking them faster than they can respond, or in short, surprise them.⁵⁶ Dislocation means attacking where the adversary has not concentrated sufficient force to stop your assault. Notably, both these factors are temporally limited, necessitating your attack be sufficiently quick and decisive.⁵⁷ Finally, center of gravity is the primary source of moral and physical power which becomes a decisive objective when employing maneuver warfare.⁵⁸

In practice, maneuver prioritizes high tempo, as in time between tactical actions, and velocity which is considered the speed and mass of forces in movement.⁵⁹ Since the Second World War, this has entailed the use of armored and mechanized forces that can shift a high degree of mass and firepower relatively quickly. The concentration of armored vehicles, primarily tanks, are often synonymous with maneuver formations and principal actors perpetrating these actions. These are either used to create breakthroughs of enemy lines or held in reserve to exploit such breakthroughs. Rapid advances, encirclements, breakthroughs, columns, and combined arms are common terms denoting the employment of maneuver warfare. We can use these in analyzing reports to recognize where and how maneuver warfare is being employed.

Positional-Attritional Warfare

At its basest level, positional theory of warfare arises when movement and protection are prioritized, or through the effort of compelling the withdrawal of an adversary through position advantage. In practice, this sort of warfare is characterized by prioritization of negative goals, relatively static frontlines, small advances, material battles, turning maneuvers, and low velocity.⁶⁰ In the context of the Ukraine war, this appears as grinding battles where the few

⁵⁵ Robert Leonhard. *The Art of Maneuver: Maneuver Warfare Theory and Airland Battle*. Presidio Press, 2009. Maneuver 62-66

⁵⁶ Leonhard, *Fighting by Minutes*, 180-183.

⁵⁷ Leonhard, *Art of Maneuver* 66-73.

⁵⁸ *Ibid* 73-76.

⁵⁹ Leonhard, *Fighting by Minutes* 37-38.

⁶⁰ *Ibid.*; Garicano et al.

significant assaults and advances that take place are limited to eking out tactical edges incrementally.

When looking for the presence of positional warfare, it is important to recognize the factors that lead to it. Svechin identifies the primary factors leading to positional warfare to be the combatants' objectives and capabilities.⁶¹ He argues positional warfare becomes likely when one side pursues negative objectives to stave off enemy goals or conserve their own resources and becomes all but certain should both sides pursue negative goals.⁶² This predisposition of negative goals to positional warfare is a consequence of the emphasis that school puts on the action of protection. The action of protection itself is ostensibly a strictly negative goal in nature. Leonhard addresses this saying "the prevention of effective enemy attack. Protection does not win wars; it merely strives to survive. In itself, it accomplishes nothing; it is an enabling idea."⁶³ That is not to say however, that positional warfare strictly deals in negative goals. Svechin argues that in "Two possible positive objectives: 'applying pressure on the enemy while maintaining the positional front or conducting operations intended to restore maneuver to the battlefield.'"⁶⁴ Taken together, this means that in a conflict in which positional warfare dominates, the sustainment of one's negative objectives through positionality and the overcoming those of the adversary should be the chief concerns of the commanders.

Positional warfare is also recognizable via identifying the presence of material battles. This is the component that most embodies attrition within the positional school. Pulling from Svechin and Garicano et al.'s definition:

"Material battle seeks to force the enemy to expend reserves and resources in an unfavorable exchange by tying the enemy down to an operational or strategic asset, such as a logistics hub, industrial center, port city, or other object with informational or cultural value.²⁵ A combatant conducting material battle destroys enemy forces through favorable relative attrition rather than through maneuver warfare."⁶⁵

⁶¹ Ibid

⁶² Ibid

⁶³ Leonhard, 37.

⁶⁴ Garicciano et al.

⁶⁵ Garicano et al.

Material battles emerge either unintentionally when trying to introduce maneuver to a positional front, or intentionally to accrue advances against that front. In analyzing these cases, this may manifest as actors experiencing major setbacks in their offensive attempts at maneuver and then transitioning to slower and more methodical tactics to clear or attrit the enemy out of their positions.⁶⁶

Case Selection

Case 1: Initial Russian Invasion of Ukraine

The first case is the initial Russian invasion of Ukraine starting from February 24, 2022 to their withdrawal from Kyiv on April 1st. This case is essential for review as it reflects the expectations of experts of a quick Russian victory through maneuver warfare grounded on the drastic asymmetry in heavy equipment and aviation that should have given them the capability of effective combined arms.⁶⁷ This offensive bore many of the hallmarks of maneuver warfare yet fell short of its primary objective in capturing Kyiv begging the question as to why this exercise in maneuver warfare ultimately failed.

Case 2: Ukraine's Kharkiv Counteroffensive

The second case is Ukraine's Kharkiv counteroffensive from September 5, 2022 to the fall of Lyman on October 1st. This case represents the most successful example of maneuver warfare, featuring a rapid breakthrough, advance, encirclement, panicked rout, and aggressive exploitation that maneuver hopes to achieve.⁶⁸ This offensive, which occurred before the war settled into positional fronts, illustrates where maneuver warfare found operational success. It is essential to investigate the factors behind the dramatic success of this offensive that sets it far apart from the other cases. These factors demonstrate the conditions under which maneuver warfare can succeed and how the absence of these conditions inhibited maneuver in the other cases.

Case 3: Ukraine's Zaporizhia Counteroffensive

The final case is the Ukrainian counteroffensive in Zaporizhia of summer 2023. By this point in the conflict, the frontlines had settled into a positional state, and positional warfare and

⁶⁶ Ibid

⁶⁷ Dalsjö et al., 7

⁶⁸ Kofman, 112-115.

attrition had become the modus operandi of both sides. This counteroffensive was expected to leverage new modern Western heavy equipment like Leopard 2s to breakthrough the positional front using maneuver warfare replicating the success in Kharkiv. It also came at a time when Ukraine was under pressure to make quick gains to sustain support for material aid by their Western allies making successful maneuver even more imperative.⁶⁹ The failure of this attempt at maneuver warfare against a positional front in this case can inform on how attempts to reintroduce maneuver against a positional paradigm proceed in a modern context.

Analysis

The analysis outlines how the events of the actions unfolded and evaluates the successes and failures in exercising maneuver warfare in these cases. Drawing upon this evaluation, critical factors are identified that dictated the outcomes of attempting maneuver warfare and how they inform the primacy of maneuver warfare in modern conflict. Special attention is given to how technological and doctrinal developments have affected maneuvers place in modern warfare. An examination of the trends in results, conditions, and behavior of maneuver warfare in a modern peer-peer conflict is made. These elements of maneuver warfare are reviewed relative to both a fluid and positional warfare context. Mitigating factors to the exercise of maneuver warfare and the conditions under which it has found success are discussed. The results of this analysis suggest the current role of maneuver warfare in current modern symmetric conflicts between advanced peer conventional militaries.

The Data

The basis for the data to theory test these competing military theories are reports of security and defense think tanks such as the ISW's daily *Ukraine Conflict Updates* and defense think tanks such as the Royal United Services Institute (RUSI) on the war in Ukraine. These are the foremost sources on the situation in the ongoing war in Ukraine. They are written by expert analysts speaking in the language of military theory essential for use in testing the validity of these theories. The ISW reports are an excellent source to draw upon as they provide the most consistent, comprehensive, and expansive analysis of the conflict. They synthesize and vet publications and open-source intelligence from Western, Ukrainian, and Russian sources combined with geospatial data to create the best possible picture of events without the use of

⁶⁹ Jones et al.; Kofman.

classified material. The reports provide extensive information on developments across every front, the command structure, recruitment efforts, etc. that provide the signifiers necessary to judge how maneuver theory is shaping military thinking and practice in the war. RUSI publications are a significant source as they provide larger scope analysis of the developments and trends in the war. They are frequently cited in the research of other scholars in this subject, notably Gady and Kofman. Drawing upon RUSI provides the wider lens necessary to balance out the specificity of the ISW *Ukraine Conflict Updates*.

Limitations

While researching and making judgements on theory based off the events of an ongoing conflict is inherently fraught with academic danger, it is imperative based on the subject matter of military theory and practice. The development and shifts of military theory and practice have been a feature of conflict since time immemorial. Understanding and preempting these shifts is often literally a matter of life or death, a fundamental concern to the national security and survival of most all nations. The use of military observers to foreign conflicts and the analysis of their ongoing developments for the purpose of this understanding has long been a practice of states to sharpen their own militaries. The importance of such research and analysis only grows as the temporal gap between previous experience and the modern technological context widens. The last protracted peer-to-peer conflict between developed and modern militaries in Europe was in WW2 while the bedrock of Western theory and doctrine is founded on late Cold War thought and counter-insurgency experience of the 21st century.

Case Studies

Case 1: Russia's Initial Invasion

Russia's initial campaign and objectives for their special military operation clearly ascribe to the maneuverist school as demonstrated by their positive objectives. These included their attempt to preempt and dislocate the Ukrainian military and their strike at what they perceived as the Ukrainian center of gravity in Kyiv. The Russians began their operation with aviation and missile operations targeted at crippling Ukrainian air defense and air force to achieve air superiority while rapid armored and mechanized assaults from multiple axes moved to secure population

centers around and behind the positional front in the Donbas.⁷⁰ However, the Russian ground offensive on Kyiv from Belarus and Belgorod Oblast was clearly their primary effort as indicated in ISW's summation as well as by the resources the Russian's dedicated in men and material to the effort.⁷¹ The scale and purposefulness of this offensive correlates well with the principle of center of gravity in maneuver theory. Kyiv is not the most important or strategic in terms of Ukraine's ability to fight the war, but it did represent the 'center' of Ukraine 'gravity' in that it was the political focal point and central to Ukrainian morale. By taking Kyiv, they believed that they could effectively neutralize Western assistance and the Ukrainian military in a single blow.⁷²

Coinciding with the ground invasion, a VDV airborne assault on Hostomel Airport tried to preempt and sow confusion within the Ukrainians while securing a Russian airlift base for their assault on Kyiv.⁷³ Far from being preempted, the Ukrainians launched immediate counterattacks on the airport with MANPADs causing major casualties in Russia's supporting aviation.⁷⁴ The Ukrainians recaptured the airfield and rendered it inoperable before the Russians reoccupied the position on February 25th.⁷⁵

The Russian ground offensive came from the north through Kyiv, Sumy, and Chernihiv Oblasts towards the capitol of Kyiv. The primary force Russia used was their Battalion Tactical Groups (BTGs), a formation whose current composition was devised for the fighting in the Donbas in 2014. These formations were built around their heavy equipment in tanks, IFVs, and APCs, but significantly lacked the infantry they had available in Donbas in 2014 where they could depend on their proxies to supply their infantry. Russia's logistical complement and sustainability in the field was also lacking, with the estimated time of effective operation before resupply limited to 1-3 days.⁷⁶ As these formations advanced, the Ukrainians made a fighting

⁷⁰ Dalsjö et al., 8-12.

⁷¹ Jack Watling and Nick Reynolds. *Operation Z: The Death Throes of an Imperial Delusion*. Royal United Services Institute for Defence and Security Studies, 22 Apr. 2022. 1-7.

⁷² Dalsjö et al., 13-16.

⁷³ Mason Clark, George Barros, and Kateryna Stepanenko. "Russia-Ukraine Warning Update: Initial Russian Offensive Campaign Assessment." *Ukraine Conflict Updates*, ISW Press, 24 Feb. 2022.

⁷⁴ Justin Bronk et al. *The Russian Air War and Ukrainian Requirements for Air Defence*. Royal United Services Institute for Defence and Security Studies, 7 Nov. 2022, pp. 95-96.

⁷⁵ Mason Clark, George Barros, and Kateryna Stepanenko. "Russian Offensive Campaign Assessment, February 25, 2022." *Ukraine Conflict Updates*, ISW Press, 25 Feb. 2022.

⁷⁶ Lester W. Grau and Charles K Bartles. "Getting to Know the Russian Battalion Tactical Group." *RUSI: Commentary*, RUSI, 14 Apr. 2022.

retreat towards major cities such as Chernihiv and Sumy to slow the Russian ground advance.⁷⁷ After initial assaults attempting to take these towns failed, these BTGs bypassed them moving on major highways, leaving much of the territory behind and around these columns uncontrolled.⁷⁸ While Russian ground forces eventually reached the suburbs of Kyiv, they were held short of the city proper and prevented from encircling the city. The bypasses left many of Russia's columns vulnerable to numerous ambushes by Ukrainian ATGM teams, artillery, and drones as the Russians outpaced their infantry and air defense. Their lack of infantry also left them vulnerable to ambushes by light Ukrainian infantry making up for Ukraine's lack of heavy equipment with a dearth of ATGM and MANPADS.⁷⁹ All this resulted in severe and disproportionate casualties on Russian troops and material, blunting what was meant to be the tip of Russia's spear.⁸⁰

The Russians clearly did not expect or prepare for a prolonged battle for Kyiv and the tempo of their offensive stalled. Russia had to take numerous operational pauses ranging from 24 to 72 hours outside of Kyiv further delaying their efforts.⁸¹ As the offensive dragged on, the logistical conditions grew worse as the rapid advance left much of Russia's rear areas and ground lines of communication (GLOC) supporting the assault on Kyiv vulnerable to the bypassed Ukrainian elements.⁸² This led to Russia's logistical capabilities deteriorating while Western support and mobilized personnel bolstered Ukraine's ability to resist. Inevitably, Russia had to initiate a withdrawal from Kyiv and were shortly driven out of their positions around Sumy and Chernihiv.⁸³

Along the Donbas axes, the Ukrainians held off Russian assaults, limiting them to small advances with heavy losses.⁸⁴ In Luhansk, the Ukrainians fought a fighting retreat to their major regional centers such as Severodonetsk-Lysychansk. In Kharkiv Oblast, the Russians reached the outskirts of Kharkiv city but the Ukrainians rebuffed their assaults on the city and attempts to

⁷⁷ Dalsjö et al., 8-13.

⁷⁸ Clark et al. Feb. 25, 2022,

⁷⁹ Watling et al., *Operation Z*, 1-7.

⁸⁰ Dalsjö et al., 8-13.

⁸¹ Fredrick W. Kagan et al. "Russian Offensive Campaign Assessment, March 5." *Ukraine Conflict Updates*, ISW Press, 5 Mar. 2022.

⁸² Watling et al., *Operation Z*, 3-4

⁸³ Mason Clark, George Barros, and Karolina Hird. "Russian Offensive Campaign Assessment, April 1." *Ukraine Conflict Updates*, ISW Press, 1 Apr. 2022.

⁸⁴ Mason Clark, George Barros, and Kateryna Stepanenko. "Russian Offensive Campaign Assessment, February 28, 2022." *Ukraine Conflict Updates*, ISW Press, 28 Feb. 2022.

encircle it. On this axis the Russians also moved south reaching Izium, 110 km southeast of Kharkiv to threaten Sloviansk and by extension Ukrainian cities in the Donbas with encirclement. However, the Russians did not advance past this point in this phase of the operation and concentrated most of their force and attention on the offensive in Kyiv.⁸⁵

Russian efforts in the Donbas represented a holding action to occupy significant portions of the Ukrainian military.⁸⁶ They endeavored to dislocate the Ukrainians from the other axes of Russia's advance. From the south and north, Russia's use of highly mobile BTGs served to preempt Ukraine's military by overwhelming positions and population centers before organizing an effective resistance against these heavily armored formations.⁸⁷ These drives had the added benefit of potentially further dislocating the Ukrainian military from blocking Russia's advance on Kyiv. It further pulled away already stretched Ukrainian forces to protect vital cities such as Odessa and prevent the encirclement of Ukrainian positions in the Donbas.⁸⁸ This also neatly explains the seeming lack of decisiveness and focus the Russians exhibited when exploiting their easy and rapid advance from Crimea towards Kherson and Melitopol. These were not their primary objectives, but rather subordinate efforts meant to simply capture Ukrainian population centers and divert the Ukrainian military.⁸⁹ While not the ultimate strategic goal, this aspect of the campaign is a classic example of maneuver warfare. Their holding action in the Donbas serves to mislead Ukrainian efforts, circumvent Ukrainian fortifications along the Donbas, and leave them exploitable on other axes.

Russia had by far the most success with maneuver on the Southern axis. Here the terrain was highly conducive to rapid mechanized/armored maneuvers allowing Russia's BTG's to advance effectively outside the confines of major roads.⁹⁰ They were able to evade many of the artillery and light infantry ATGM ambushes that had dogged other axes of Russian advance and prevent the Ukrainians from effectively stalling their advance. In the first two days, the Russians advanced over 150 km deep into Kherson and Zaporizhia Oblasts, easily occupying the

⁸⁵ Fredrick W. Kagan et al. "Russian Offensive Campaign Assessment, March 9." *Ukraine Conflict Updates*, ISW Press, 9 Mar. 2022.

⁸⁶ Watling et al., *Operation Z*, 4.; Clark et al. Feb. 28, 2022.

⁸⁷ Dalsjö et al., 13-16

⁸⁸ Kagan et al., Mar 9, 2022.; Clark et al. Feb. 28, 2022.

⁸⁹ Watling et al., *Operation Z*. 2-6

⁹⁰ Kagan et al., Mar 9, 2022

important cities of Kherson and Melitopol. From this point, the Russian advance in the South was strategically unfocused and indecisive, failing to effectively exploit these gains further to decisive effect. They split up their avenues of advance in several directions, not concentrating nor coordinating the force necessary to go further, effectively capping their advances.⁹¹ This allowed the Ukrainians to concentrate the forces necessary to stymie Russia's offensive.⁹² So while maneuver saw tactical success, in the overall strategic picture it failed to achieve its critical objective of facilitating Kyiv's capture.

In the air, the Russians possessed one of their greatest material advantages over the Ukrainians in both quantity and quality of weapon systems and they expected to sweep aside the Ukrainians in quick order. Despite these advantages, Russian aviation efforts were decidedly a failure, contributing little to the offensive. Russian electronic warfare and air defense interfered with the operations of Russian aviation and vice versa leaving Russia's attempt at combined arms more akin to two disjointed arms.⁹³ The failure to establish strategic air superiority severely limited Russian aviation's ability to effect the strategic level of the conflict.⁹⁴ Expert opinion remarked "the timid air offensive has seemed haphazard and often unrelated to ground operations" with the lack of mutual support of air defense and air support weakening both at the operational and tactical level.⁹⁵ The performance of Russian aviation illustrates the difficulties of executing combined arms operations against modern peer adversaries capable of sophisticated air defense.

Russia's initial offensive campaign into Ukraine had all the hallmarks of a campaign based on maneuver warfare theory yet failed to satisfy its necessary conditions for strategic success. Russia attempted to preempt the mobilization of effective Ukrainian resistance through creating air superiority and rapid maneuvers from multiple axes and the neutralization of Ukrainian leadership.⁹⁶ However, the Ukrainian's were not preempted on the Kyiv axis, and instead put up a firm resistance rather than being paralyzed by panic and confusion.⁹⁷ The effect was the

⁹¹ Clark et al. Feb. 28, 2022.

⁹² Dalsjö et al.; Watling et al., *Operation Z*, 1-7.

⁹³ Sean M. Wiswesser. "Potemkin on the Dnieper: The Failure of Russian Airpower in the Ukraine War." *Small Wars & Insurgencies*, vol. 34, no. 7, Mar. 2023, pp. 1205-34.

⁹⁴ Bronk et al.

⁹⁵ Dalsjö et al., 10.

⁹⁶ Dalsjö et al., 13-16

⁹⁷ Clark et al. Feb. 28, 2022,

Russian advance was stalled, heavily attrited, and subjected to constant harassment by the Ukrainian units they had bypassed on their run to Kyiv.⁹⁸ Having bypassed Chernihiv and Sumy, they had lost access to the most important rail links leading from Russia and Belarus to Kyiv putting their offensive on a ticking clock.⁹⁹ This took all the momentum essential to maneuver warfare out of the Russian advance, forcing their offensive to culminate short of their objective but far beyond consolidation. By failing to take out Ukraine's center of gravity, their attempt at maneuver warfare left them overextended, exhausted, highly attrited, and demoralized forcing the withdrawal back to Belarus.

This case offers insights into how technological developments affect the primacy of maneuver in modern warfare. Conceptually, maneuver warfare is built off the back of mobility and firepower, which in modern warfare means armored vehicles and aviation. The outset of this war shows the effect the high availability of ATGMs and MANPADs can have on these vital facilitators of maneuver. This availability of ATGMs meant that though Ukraine was at a severe disadvantage in terms of tanks and armored vehicles, their infantry could cause severe damage to Russian columns through ambushes or from good positions. Defending against these sorts of ambushes generally necessitates screens of infantry but this concession to protection would greatly sacrifice the velocity necessary for maneuver operations. The high number of MANPAD-related high casualties among Russia's initial air assaults resulted in Russia pulling back their rotor assets and reducing them to relatively ineffective pitch-up attacks. This demonstrates that to be successful in the modern era against determined and well-equipped opposition, maneuver warfare must overcome the mass proliferation of these infantry portable weapons.

Evidently the Russians did not expect much of a fight, so the fierce opposition stifled their momentum significantly while the availability of infantry portable anti-tank and air weapons compensated for the Ukrainian disadvantage in heavy equipment in the defensive. This meant that for the Russians to create decisive results they would have to be capable and willing to sustain and replace heavy losses in heavy equipment destroyed by relatively little Ukrainian investment. The initial offensive revealed inadequacies in Russia's maneuver warfare doctrine and force composition.

⁹⁸ Kagan et al., Mar 5, 2022

⁹⁹ Dalsjö et al., 9.; Clark et al. Apr. 1, 2022,

Case 2: Ukraine’s Kharkiv Counteroffensive

Ukraine’s Kharkiv counteroffensive of September 2022 represents perhaps the best practice of the school of maneuver thus far in the Ukraine conflict. Ukraine’s operations clearly demonstrate the principles of the maneuver school with which they paralyzed Russia’s attempt at effective resistance. These include examples of striking and moving, preemption, dislocation, neutralization of the center of gravity, and the operational surprise with its accompanying momentum to great effect.

Contemporary to Ukraine’s operation in Kherson, the Kharkiv counteroffensive had many features that put it in stark contrast to the tactics employed in the southwest. For one, the operation was prepared under seemingly complete operational security and silence that put it in sharp contrast to the extensive posturing and telegraphing that preceded the Kherson counteroffensive. Meanwhile, facing a concerted and highly televised effort by the Ukrainians to liberate Kherson and simultaneously making offensives against Donetsk from the Iziium and occupied Donbas directions, the Russians redeployed many of their regular forces from less active fronts such as in Kharkiv Oblast. Notably, Russia’s elite 1st Guards Tank Army, the primary formation in Kharkiv with about 20,000 troops concentrated in Iziium for the push against Sloviansk, split off elements from itself to assist against the Kherson counteroffensive. This Russian concentration was fed primarily by the rail GLOC routed through the city of Kupiansk north.¹⁰⁰ To defend the flank and rear of this formation, Russia left primarily conscripts of their proxies and Rosgvardia troops all of which were ill equipped and ill-prepared to bear the brunt of defensive action, especially against armor.¹⁰¹

The main source of preemption and dislocation of Russian forces that formed the bedrock for the Ukrainian offensive’s success was where Russia’s forces gathered, and their attention was concentrated. Russia’s focus at the strategic level on Kherson and locally in conducting offensive operations to the south against Sloviansk left them unprepared materially and psychologically to respond to a Ukrainian offensive in Kharkiv.¹⁰² Compounding their difficulties was the lack of

¹⁰⁰ Karolina Hird, George Barros, et al. “Russian Offensive Campaign Assessment, September 6.” *Ukraine Conflict Updates*, ISW Press, 6 Sept. 2022.

¹⁰¹ Kateryna Stepanenko, Karolina Hird, George Barros, et al. “Russian Offensive Campaign Assessment, September 8.” *Ukraine Conflict Updates*, ISW Press, 8 Sept. 2022.

¹⁰² Ibid

solidification into a positional front. Without positional measures, such as fortifications and minefields, Russia had little to stem the advance within the temporal window of dislocation on which Ukraine seized. As the Russians were effectively preempted, Russian forces were unable to effectively coordinate the same measures against maneuvering columns as Ukraine had in the prior case. This shows that these conditions of the operation may be vital components in performing modern maneuver warfare.

On September 5th, 3-5 Ukrainian mechanized brigades launched an attack on the village of Balakliya, quickly brushing aside the resistance of the surprised and underequipped Russian garrison.¹⁰³ Recognizing the sorry state of Russian formations and their own local superiority and tactical surprise, the Ukrainians surrounded and bypassed the remaining.¹⁰⁴ On September 6-7th, they had advanced 20km southeast along the E40 and N26 highways towards Iziium and Kupiansk and liberated 400 sqkm placing the vital rail link between Iziium and Kupiansk in peril and threatening encirclement of the Russian 1st Guards Tank army. The Russians began rushing reinforcements to staunch the breakthrough but these largely proved ineffective and unable to respond to the tempo of the Ukrainian assault, which advanced another 30km on the 8th. By the end of the day, Ukrainian forces were within 15km of the vital logistical center Kupiansk, bypassing, clearing, and running over local Russian forces and reinforcements before they could organize an effective or cohesive response.¹⁰⁵ From the 8th forward, the word ‘panic’ starts to paint the Russian response to the counteroffensive and Russia’s official media response jumped between denial, downplaying, ignoring, accidental admission, and statements of intentional withdrawal.¹⁰⁶ In the following days, the sentiment among the Russian forces was more preoccupied with safety and withdrawal from the Ukrainian advance rather than coordinating an effective resistance against it.¹⁰⁷

¹⁰³ Hird et al., Sep. 6, 2022. Karolina Hird, Grace Mappes, George Barros, et al. “Russian Offensive Campaign Assessment, September 7.” *Ukraine Conflict Updates*, ISW Press, 7 Sept. 2022.

¹⁰⁴ Ibid

¹⁰⁵ Stepanenko et al., Sep. 8, 2022

¹⁰⁶ Kateryna Stepanenko, Karolina Hird, George Barros, et al. “Russian Offensive Campaign Assessment, September 9.” *Ukraine Conflict Updates*, ISW Press, 9 Sept. 2022.

¹⁰⁷ Karolina Hird, Grace Mappes, Katherine Lawlor, et al. “Russian Offensive Campaign Assessment, September 12.” *Ukraine Conflict Updates*, ISW Press, 12 Sept. 2022.

By the 16th of September, Ukraine had captured all Kupiansk and used their momentum to advance beyond the Oskil river before the Russians could organize a new effective frontline.¹⁰⁸ Ukraine now began employing numerous captured Russian tanks indicating that Russia's retreat in the wake of the counteroffensive was more akin to a rout than an orderly withdrawal with the abandonment of valuable heavy equipment that Ukraine could immediately press into service.¹⁰⁹ The counteroffensive slowed in the latter half of September with Ukraine securing bridgeheads over the Oskil and moving to envelope Lyman, the other concentration of Russian forces along this axis of the front.¹¹⁰ As the pace slowed, the continued momentum of their advance carried them forward, running over Russian attempts to impede their envelopment of Lyman.¹¹¹ By October 1st, Ukraine had captured Lyman delivering Russia another heavy defeat that essentially relieved all Russian pressure on Sloviansk and thereby the Ukrainian rear along the Donbas.¹¹²

The inducement to rout from Kharkiv Oblast spurred by the rapid advance of the Ukrainians was an essential component of this second phase of the offensive focused on Lyman. This rout instigated disorganization and the loss of valuable heavy equipment that exacerbated Russia's difficulties in opposing the Ukrainian's continued momentum.¹¹³ In a stark example highlighted by the ISW:

“the 4th Tank Division [of the Russian 1st Guards Tank Army] lost nearly an entire regiment worth of advanced T-80 tanks during earlier stages of the Ukrainian counteroffensive in Kharkiv Oblast, which suggests that whatever remnants of the 4th Tank Division that are currently operating around near Kupyansk are severely understrength.”¹¹⁴

The effect of this panic expanded to Russian aviation as it is notable in its absence in the response to their counteroffensive in ISW reporting. This suggests that the rapid changing environment and confusion lead them to withhold their aviation for fear of ambush by Ukrainian

¹⁰⁸ Katherine Lawlor et al. “Russian Offensive Campaign Assessment, September 16.” *Ukraine Conflict Updates*, ISW Press, 16 Sept. 2022.

¹⁰⁹ Karolina Hird, Katherine Lawlor, et al. “Russian Offensive Campaign Assessment, September 19.” *Ukraine Conflict Updates*, ISW Press, 19 Sept. 2022.

¹¹⁰ Hird et al., Sep. 7, 2022.

¹¹¹ Kateryna Stepanenko, Karolina Hird, et al. “Russian Offensive Campaign Assessment, September 29.” *Ukraine Conflict Updates*, ISW Press, 29 Sept. 2022.

¹¹² Kateryna Stepanenko, Karolina Hird, Grace Mappes, et al. “Russian Offensive Campaign Assessment, October 1.” *Ukraine Conflict Updates*, ISW Press, 1 Oct. 2022.

¹¹³ Ibid

¹¹⁴ Stepanenko et al., Sep. 29, 2022

MANPADs. These examples show that the panic was an intrinsic component in the success of the counteroffensive that allowed Ukraine to evade similar components of modern warfare that had blunted Russia's attempt at maneuver warfare earlier in the conflict.

This case shows that maneuver warfare is not only relevant but can be extremely successful in 21st peer-to-peer conflict albeit with a couple of caveats. Here the war and especially this theater had not fully undergone a transition to positional warfare and entrenchment. This means that the barriers to a breakthrough were insignificant and the depth of defenses and preparations to stall or halt it nonexistent. This case also suggests that maneuver warfare may be best suited when an adversary is locally preoccupied with acting on its positive objectives on a non-positional front. In this case, Russia the defender was suffering from shortages fixated on their offensive operations locally and reinforcing negative objectives far away. This left them dislocated and fundamentally unprepared to quickly respond with no positional fortifications or preparations to fall back on. Admittedly these make for the ideal conditions for the application of maneuver warfare, striking the adversary where they are weak and unprepared to effectively stop their exploitation. The Russians were locally weak and dislocated while also distracted by the strategic landscape elsewhere, responding to the offensive with panic rather than resolve. This illustrate that maneuver warfare is most relevant where a series of conditions come together to create an opportunity that requires speed and aggression in exploitation in a manner that precludes an effective response by the adversary through panic or paralysis.

Case 3: Ukraine's Zaporizhia Counteroffensive

The Ukraine Zaporizhia counteroffensive of 2023 represented Ukraine's attempt to return to the initiative and replicate the success it achieved in the Kherson and Kharkiv counteroffensives in 2022 but now bolstered by new Western equipment and trained units. In Western media, there was a sense of optimism that this equipment and training would allow Ukrainian forces to affect a breakthrough and campaign of maneuver akin to Kharkiv.¹¹⁵ This optimism did not translate into reality. Russia adapted measures to limit Ukrainian operational and tactical tempo which constrained the mobility of Ukrainian units and exacted punishing attrition to equipment needed to effect maneuver warfare. These measures were astute, as Ukraine, suffering from

¹¹⁵ Ian Lovett et al. "Ukraine's Offensive Begins With Ground Gained, Tanks Lost." *The Wall Street Journal*, 11 June 2023.

unsustainable attrition to equipment, had to abandon attempts at creating rapid breakthroughs for the meticulous grind, yet more sustainable, tactics of positional warfare.¹¹⁶

By this phase of the war, every front had solidified into a positional state with deep entrenchment across the frontlines, exhibiting the stagnation and small advances that made Ukraine seem more akin to WW1 warfare than any 21st century conflict. Sergey Surovikin invested his time as overall Russian military commander in Ukraine into constructing networks of fortifications and entrenchment dubbed the Surovikin line.¹¹⁷ Unlike in the previous two cases, attempting maneuver warfare here meant creating a breakthrough against positional measures, revealing how maneuver warfare interacts with positionality in the context of modern warfare.

Initial Ukrainian assaults utilized heavily armored and mechanized formations often with Western-supplied Bradley fighting vehicles and, in some cases, Western tanks such as the Leopard 2.¹¹⁸ The composition of these forces indicated the intent to effect a breakthrough of the initial Russian lines and exploit that success to preempt preparations to effectively defend the more formidable Surovikin line that was the principle obstacle to Ukraine's strategic objectives for the offensive. While some of these assaults achieved tactical success, they came at a high cost as the density of minefields effectively stifled the mobility of Ukrainian armor, leaving them vulnerable to artillery and aviation. This combined with the forward defense tactics of Russian anti-tank teams and tanks caused unsustainable casualties in Ukrainian armor necessitating a change to smaller scale, infantry-led assaults based more upon positional principles.¹¹⁹

This offensive saw a rejuvenated relevance in Russia's KA-52 attack helicopters using surface to ground missiles.¹²⁰ Russia employed them at a hover multiple kilometers behind the lines, engaging Ukrainian armor who were bogged down and distracted while traversing dense minefields. Without enough long-range air defense systems, the Ukrainians struggled to effectively counter helicopters ambushing their assaults beyond or straddling MANPAD range. Prior to this counteroffensive, the role of Russian aviation, especially with regards to their

¹¹⁶ Watling et al., *Stormbreak*, 15-19.

¹¹⁷ Jones et al.

¹¹⁸ Lovett et al.

¹¹⁹ Watling et al., *Stormbreak*.

¹²⁰ Nicole Wolkov, Riley Bailey, et al. "Russian Offensive Campaign Assessment, September 4, 2023." *Ukraine Conflict Updates*, ISW Press, 4 Sept. 2023.

helicopters had been largely muted making the degree and significance of their employment here significant as noted by the ISW.¹²¹ Likewise, lacking air superiority, the Ukrainians were forced to utilize their HIMARs, Storm-Shadow missiles, and drones to fill the role typically held by offensive operations, but these systems simply were not up to the task of facilitating the counteroffensive. This case illustrates that modern positional warfare in the defensive is more conducive for the use of aviation.

One of the biggest Russian adaptations that entrenched positional warfare against maneuver was the extensiveness of their minefields screening their positions. Mines do a great deal in effecting positionality in warfare by constraining mobility of an attacking adversary. 120 meters was the Russian doctrinal standard for the depth of their minefields, based upon the estimated time it gives Russian soldiers to respond to an assault. Looking at the initial trends of the Ukraine counteroffensive, Russian leadership deemed this to be inadequate in preventing rapid breaches of Russian positions. The Russians adjusted this depth from 120 meters to 500 meters albeit with a decreased density and improvised mines. This had the effect of making a rapid breach intensely difficult and hazardous, if not impossible and greatly complicated the mining reconnaissance which by necessity must precede these maneuvers. Another adaptation taken by both sides was the increasing use of artillery dispersed mines on the battlefield, often in response to assaults or assisting in them. This measure further complicated mining reconnaissance, reseeding previously cleared and thought safe areas with minefields. They were also used to lay mines behind the vanguard of an assault, complicating their reinforcement and cutting off avenues of retreat. These measures were very successful in limiting the mobility of assaulting Ukrainian units and preventing them from effecting rapid breaches of Russian positions while also limiting their capability of exploiting any breaches effectively via reinforcement. The compromised mobility and protection from attempting maneuver warfare made Ukrainian armored equipment vulnerable to Russian ATGMs, artillery, and aviation, making rates of attrition in their equipment unsustainable.¹²²

When a breach was affected by the Ukrainians, Russia used forward defense tactics which slowed the tempo of Ukrainian assaults. “One of the foremost methods adopted by the AFRF is

¹²¹ Nicole Wolkov, Angelica Evans, et al. “Russian Offensive Campaign Assessment, September 28, 2023.” *Ukraine Conflict Updates*, ISW Press, 28 Sept. 2023.

¹²² Watling et al., *Stormbreak*, 12-16

the emplacement of ATGW teams to the flanks of their positions, prioritizing better trained and motivated troops to conduct anti-tank ambushes.”¹²³ These teams often allowed Ukrainian armor to bypass them before launching attacks on their vulnerable flanks.¹²⁴ This slowed the tempo of Ukrainian assaults as their infantry had to clear these positions before committing their armor. Russia also used their tanks in a similar function, albeit in aggressive flanking counterattacks on Ukrainians forces bogged down in minefields using a mixture of positional advantage and compromising mobility of minefields to exact unsustainable attrition on Ukrainian equipment.¹²⁵

Another Russian adaptation was the increased use of reserve demolition of compromised Russian positions. Previously, Russia had relied on their own artillery to saturate their breached positions, but this tactic became increasingly ineffective due to Ukrainian counter-battery fire and the Ukrainian tactic of not staying to defend once they had captured a Russian position. Russia changed their methods by essentially rigging their positions with improvised explosives and detonating them once Ukrainian soldiers had breached and begun clearing these lines. This tactic effectively slowed the tempo of Ukrainian assaults by deterring the rapid breaching and clearing of Russian positions.¹²⁶

The case of Ukraine’s Zaporizhian counteroffensive illustrates the obstacles faced by commanders trying to break out of a status quo where positional warfare has become deeply entrenched. In their initial assaults on Russian lines, Ukraine used forces composed of significant numbers of tanks and armored vehicles in an attempt a rapid breakthrough of Russia’s initial lines while holding other armored formations in reserve intent on exploiting the breakthrough.¹²⁷ This hope of a return to maneuver was stymied by a mixture of minefields, fortifications, and modern technology.¹²⁸ The proliferation and high density of minefields across the front greatly restricted the mobility of armored units rendering them vulnerable to long range air mounted missiles, entrenched or forward ATGMs, and drone-assisted artillery. When enemy minefields and lines were breached by armor, Ukraine was unable to rapidly exploit their gains safely as infantry had to clear out surrounding positions of ATGM teams striking bypassing armor on their

¹²³ Ibid

¹²⁴ Ibid

¹²⁵ Watling et al., *Stormbreak*, 13-20; Wolkov et al., Sep. 28, 2023.; Wolkov et al., Sep. 4, 2023.

¹²⁶ Watling et al., *Stormbreak*, 16.

¹²⁷ Ibid.; Lovett et al.

¹²⁸ Ibid

vulnerable flanks. What sustainable success Ukraine achieved came from small scale company-sized assaults of primarily infantry with occasionally the support of a couple of armored vehicles using positional warfare to slowly, but steadily, advance through Russian positions.¹²⁹

Russia's adaptations to positional warfare in the modern times came together to exact unsustainable casualties on Ukrainian attempts to directly reintroduce maneuver through rapid breakthroughs. The loss aversion to these valuable weapon systems such as Western tanks lead to a drastically slower tempo in offensive operations.¹³⁰ Without air superiority and with a shortage of air defense, a defender's aviation can easily and relatively safely respond to assaults on a positional front which further hamper the ability to affect a breakthrough and return maneuver to the battlefield. The capital intensity of sustaining such losses and effectively contesting the airspace in an offensive operation of maneuver against a positional front fall well beyond Ukraine's current capabilities.¹³¹ This demonstrates that returning maneuver warfare in the 21st century likely requires extremely high capabilities when faced with well-prepared, motivated, and dug in opposition along the width of the front. Absent the capability to 'brute-force' maneuver, or the specific circumstances to affect maneuver through relatively little friction as in the previous cases, a commander needs to utilize positional warfare to overcome the positional front of their adversary.

Findings

These cases show that the employment of maneuver in the Ukraine War has had mixed results. The influence of modern technological innovations, the necessity of rapid success and opportunity, combined with the high demands in capability demonstrate that maneuver is riskier, more difficult, and less generally applicable than its privileged position in theory and doctrine suggests. Technological innovations have favored the defensive, increasing the capacity to strike, impede, and destroy the vital modes of mobility in maneuver operations. This is particularly evident in the cases that show the influences of MANPADS and ATGMS on the course of events. Maneuver also appears to have a greater risk with protracted use when it has not achieved its essential objective, forcing either a withdrawal from overextension or reversion to positional

¹²⁹ Watling et al., *Stormbreak.*; Wolkov et al., Sep. 4, 2023

¹³⁰ Ibid

¹³¹ Wolkov et al., Sep. 4, 2023.

warfare. The rise of positional fronts and measures has only exacerbated this and made overcoming it more challenging. The cases also demonstrate that capability and opportunity are central to overcoming these challenges or to circumventing them to employ maneuver successfully. The prime example and most glaring persistent shortfall in capability among these cases was in air superiority illustrating that in its and opportunity's absence, maneuver fell flat.

Modern Technological Innovations

These cases have shown that the new technology bloodied in Ukraine has primarily served in blunting maneuver warfare or entrenching maneuver warfare. Modern ATGMs becoming a common feature of the battlefield have increased the dangers posed to tanks and other armored vehicles. In effect, infantry is more capable of inflicting heavy casualties on bypassing columns and armor attempting to exploit breeches.¹³² MANPADs have a similar effect on aircraft, restricting their mobility by shrinking the area of safe operation low and outside their effective range.¹³³ This has made close air support riskier and more difficult, raising the burden of execution for combined arms operations in support of maneuver.¹³⁴ Drones work as ideal tools in positional warfare while adding significantly less to maneuver insofar as experience has shown here.¹³⁵ They provide relatively safe reconnaissance of enemy positions, serve the same role as snipers in positional warfare causing attrition and exhaustion, assist artillery in ambushing armored columns and assaults, and assist infantry trying to breach enemy positions.¹³⁶ In this way, modern technology makes it both easier and less risky for militaries to operate by positional means, especially when faced with offensives against positional fronts while impeding maneuver warfare.

Example: High Availability of ATGMs

We see in the cases of Russia's initial invasion and Ukraine's Zaporizhia counteroffensive that modern anti-tank weapons such as NLAWs and Javelins can pose a great threat to armored vehicles moving in columns or conducting armored assaults. With these weapons, a small team of infantry can cause significant damage to armor before that armor knows they are there and can

¹³² Dalsjö et al., 12-13.

¹³³ Ibid, 9-10.; Wiswesser.

¹³⁴ Wiswesser, 1212-1222.

¹³⁵ Dawe et al.; Wolkov et al., Sep. 4, 2023.

¹³⁶ Garicano et al.

respond. In Russia's offensive on Kyiv, these Ukrainian ambushes were an important feature in slowing and attriting Russia's armored columns, causing significant damage to men and material with relatively little Ukrainian material investment. The traditional method of protection for armor against infantry anti-tank weapons comes from screens of infantry but these measures drastically sacrifice the speed and thereby the tempo necessary for maneuver warfare.¹³⁷ Russia's BTG formations, meant to be the tip of their spear in executing this maneuver warfare, lacked the infantry manpower to provide the screens that would allow Russia to breakthrough urban and fortified positions.¹³⁸ In Zaporizhia, the presence of this anti-tank weaponry meant that when breaches were achieved, the Ukrainians had to clear out surrounding positions of these anti-tank teams before committing these valuable armored assets.¹³⁹ This is a large concession to protection that drastically slowed the possible tempo of advances and incentivized patterns of positional warfare, all but precluding the possibility of rapid breakthroughs necessary to return to maneuver warfare on a positional front. Unlike the Kyiv and Zaporizhia cases, the Kharkiv counteroffensive did not suffer these same setbacks. The preemption, dislocation, and panic suffered by the Russians at Kharkiv likely prevented them from effectively leveraging these weapon systems unlike the other cases where these conditions were not achieved by the offensive. In maneuver warfare, protection is sacrificed for velocity which means any attempt at it will be vulnerable to these weapon systems by necessity to maintain the speed of their advance. The enhanced lethality, availability, and range of modern systems presents a new significant danger to maneuver warfare when executed without the bonus of operational surprise.

Example: MANPADs

Widespread use of modern MANPADs has a similar effect on aircraft as the proliferation of ATGMs has on tanks. MANPADs have greatly increased the capacity of infantry to contest the airspace within their proximity.¹⁴⁰ Maneuver warfare in modern doctrine often entails extensive close air support and the effective coordination of combined arms is meant to be the lever by which maneuver can break through positional fronts.¹⁴¹ Extensive use of modern MANPADs in peer-to-peer conflict is a new feature in this modern conflict. Military inexperience with this new

¹³⁷ Kofman.; Watling et al., *Operation Z*, 2-7.

¹³⁸ Ibid.; Grau et al., 14.

¹³⁹ Watling et al., *Stormbreak*. 15-16.

¹⁴⁰ Wiswesser.

¹⁴¹ Kofman, 99-120.

generation of weapons is demonstrated in the great losses by Russia's helicopters in the Kyiv case. The effectiveness of MANPADs saw Russia's helicopters reduced to a primarily ineffective but far safer role of pitch-up attacks with unguided rocketry from low altitude and high ranges. Performing close air support in offensive operations is now riskier than ever while the capital intensity of airframes has never been higher.¹⁴² This risk is lessened in positional warfare where a pilot possesses reasonable expectations of where the adversary is and thereby the extent of the airspace their MANPADs contest. By contrast, in maneuver warfare, the fluidity of lines and movement presents more opportunities for infantry to ambush aircraft overhead. When breakthroughs are achieved, such as in Kharkiv, this may benefit maneuvers as reflected in the losses in Russian aircraft meant to respond to the Ukrainian advance. However, when trying to breakthrough a positional front as in Zaporizhia, MANPAD-equipped infantry was already detected and engaged by ground forces, shifting the non-detection ambush advantage back to aircraft yet still serving to entrench positionality. This has made conducting combined arms and by extension maneuver warfare riskier and more complex, making it more difficult to breakthrough positional fronts or exploit breakthroughs as they occur. The prevalence of MANPADs presents new challenges to close air support that has disincentivized its use in maneuver warfare and incentivized it in positional warfare.

Imperative of Attaining the Objective Quickly in Maneuver

Within these cases, the most successful instance of maneuver warfare was the Ukrainian Kharkiv counteroffensive which achieved a breakthrough and accomplished its objective quickly. However, in that instance the Russians were caught by surprise with their forces dislocated offering little resistance on the way to Ukraine's objective of Kupiansk.¹⁴³ By reaching the center of gravity quickly, Ukraine rendered any continued resistance west of the Oskil river futile and exacerbated Russia's panic. Had this not been accomplished quickly, Russia may have been able to fix their dislocated forces and stem this operation from decisive effect, but this somewhat resulted due to Russia's failure at the local and command level to respond effectively.¹⁴⁴

Russia's offensive on Kyiv did advance quickly bypassing Ukrainian positions offering significant resistance but failed to preempt and dislocate Ukrainian forces. This resulted in the

¹⁴² Wiswesser.; Bronk et al., 14-18.

¹⁴³ Stepaneko et al., Oct. 1, 2022.

¹⁴⁴ Ibid.; Watling et al. *Stormbreak*, 15-19.

Russian forces being significantly slowed, harassed and attrited by ambushes and fighting outside of Kyiv.¹⁴⁵ Russian lack of preparation forced them to take pauses in their operation, forgoing what advantage they had accrued in their maneuver.¹⁴⁶ Having bypassed important cities and logistical hubs for the sake of the tempo that maneuver warfare requires, these maneuver warfare tactics left them overextended in an unsustainable position and deteriorating conditions.

The conditions of modern positional fronts such as in the Zaporizhia are orchestrated to slow the tempo and speed of assaults. This results in attempts at reintroducing maneuver against these fronts to be dead on arrival. Maneuver forces must breach deep minefields leaving them easy prey to modern weapon systems. They also have to await infantry to clear out enemy positions to avoid infantry anti-tank ambushes slowing their maneuvers to a crawl.¹⁴⁷ The initial failures of maneuver and slow progress in this case allowed the positional actor in Russia to adapt and escalate the measures that had dulled Ukraine's maneuver, further blunting the use of maneuver.

Example: Minefields

The extensive use of minefields in both high density and depth had a severely detrimental effect on the viability of maneuver warfare once positional conditions had settled. The use of mines critically constrains the mobility and tempo of assaults on enemy lines. In maneuver warfare, protection is sacrificed for speed which is meant to provide implicit protection. Minefields inhibit that speed and constrain essential mobility, often funneling assaults into corridors cleared of mines, leaving formations attempting maneuver implicitly vulnerable. In modern warfare, defenders on positional fronts can more effectively take advantage of this vulnerability with flanking forward defending ATGMs infantry teams, precision artillery, drones, and aviation ambushes. When breaches are achieved, these minefields still impede the reinforcement of these opportunities, slowing the tempo to a degree that defenders can effectively respond to stifle attempts at maneuver. New types of artillery shell deployed mines exacerbate this issue as they allow defenders to easily reseed previously mine-free corridors closing off avenues of withdrawal for the vanguard and significantly impeding and attriting

¹⁴⁵ Dalsjö et al.

¹⁴⁶ Ibid

¹⁴⁷ Garicano et al.; Watling et Al., *Stormbreak.*; Wolkov et al., Sep. 4, 2023.

reinforcement.¹⁴⁸ The result is that armored assaults can suffer severe and unsustainable attrition in armor while gaining little benefit from the advantages in mobility and firepower they provide and incentivizing reversion to slower but more sustainable positional warfare.

Example: Fortifications

The increasing ubiquity and extent of entrenchment and fortification of the frontlines in Ukraine has obstructed the exercise of maneuver warfare by escalating the challenges to create breakthroughs. Fortifications provide defenders strong positions by which to deny or obstruct the mobility and mitigate the striking capabilities of their adversaries. In this way they, hinder the two pillars of maneuver warfare: moving and striking. It is the gospel of maneuver theory that these bastions of enemy strength simply be bypassed or circumvented or struck where they are weakest.¹⁴⁹ We see this in the course of Russia's initial offensive into Ukraine on February 24, 2022 where they circumvented the heavily fortified 2014 line of contact in the Donbas and bypassed the heavy opposition of cities of Sumy and Chernihiv in their advance on Kyiv. We also see in the Kharkiv case where Ukraine recognized and exploited a location of weakness along the Kharkiv front at Balikliya. These offensives came early in the war where positional conditions had not settled into entrenchment. However, once positional warfare and frontlines became the ubiquitous status quo as seen with the Zaporizhian counteroffensive of 2023, this maxim becomes essentially meaningless. Once fortification becomes an ever-present feature of the front, any attempt at maneuver must first breach then breakthrough these fortifications. As the war drags on, fortifications become more extensive meaning the challenges to maneuver become harder and more numerous while defenders have more positions to which they can withdraw and return the battle to a state of positionality. Additionally, advances in infantry anti-armor capabilities, drones, mines, and precision artillery make fortifications more capable of repelling or slowing rapid assaults by armor¹⁵⁰. This leads to slower positional patterns of assault that take advantage of advances in drones and precision artillery to facilitate infantry led breeches and trench clearing.¹⁵¹ These cases suggest that maneuver warfare is far more relevant

¹⁴⁸ Ibid

¹⁴⁹ Leonhard, *Art of Maneuver*.

¹⁵⁰ Watling et al. *Stormbreak.*; Wolkov et al., Sep. 4, 2023.; Wolkov et al., Sep. 28, 2023.

¹⁵¹ Ibid

and employable in the early stages of a modern conflict before frontlines have had to the time to solidify and entrench into a positional state.

Importance of Capability and Opportunity

What these cases show above all is that performing maneuver warfare in the modern peer-peer context requires a high degree of capabilities seizing on ideal opportunities. Despite the initial success of maneuver warfare seen in Russia's offensive through the southern axis to Kherson and Melitopol and in the case of Ukraine's Kharkiv counteroffensive, the war has distinctly trended towards positionality and stifled maneuver. Both cases were perpetrated on fronts that had not solidified into a positional state against adversaries unprepared to meet them. Excepting the southern axis, the first case illustrates that maneuver is specifically relevant within the temporal window of opportunity that your capabilities allow. Once that window closes, a reversion to positionality is inevitable for continued maneuver is fundamentally unsustainable and detrimental. In the Kharkiv case, that window was far wider contingent on the conditions of operational surprise through preemption and dislocation. In this case, the operational surprise was the foremost decisive factor because it dislocated not only the opposition's forces geographically, but also limited their ability to utilize modern measures that stymied maneuver in the other cases.¹⁵² In the nearly two years since those offensives, the war in Ukraine has not seen a similar return to effective maneuver warfare. The underlying factor to this is the positionality of the frontlines reinforced by modern innovations in technology. The third case demonstrated that breaking through a positional front requires an extreme degree of capability in the modern context.¹⁵³ The intrinsic solidity of positional warfare accentuates the potency and safety of modern equipment while aggravating the vulnerability of maneuver forces to these systems. Together these show that requisite capability for affecting maneuver warfare in the modern context has grown significantly from pre-war evaluations when opposed by a peer-peer adversary instigating a trend towards positionality. It demonstrates that maneuver warfare is not the school of ideal or universal application and that its employment can lead to volatility and unsustainability. Rather, these cases reveal maneuver warfare is most appropriate when applied to exploitation of moments of opportunity.

¹⁵² Stepaneko et al., Sep. 29, 2022.; Kofman.

¹⁵³ Watling et al. *Stormbreak*.; Wolkov et al., Sep. 4, 2023.; Wolkov et al., Sep. 28, 2023.

Example: Lack of Air Superiority

Modern doctrine and maneuver warfare presupposes air superiority or at the very least, a significant degree of close air support especially when contending with entrenchment and strong enemy positions.¹⁵⁴ A constant thread through these cases of attempted maneuver warfare is that they unfold under contested airspace absent of air superiority leaving maneuver without one of its pillars. This provides an excellent insight into how contested air space affects operations on the ground and especially maneuver operations. In Russia's offensive on Kyiv, the absence of air superiority and ineffective air support impaired their ability to subdue the cities in their path to Kyiv and solidify a near airbase to shorten resupply logistical operations.¹⁵⁵

It also illustrated the necessity of air defense keeping pace with armored columns to defend against ambushes by drones and helicopters.¹⁵⁶ This lesson was mirrored in the Zaporizhian case as the absence of long-range air defense left Ukraine armored assaults vulnerable.¹⁵⁷ In this case, the lack of air superiority or air defense diminished the local fire superiority Ukraine had achieved by creating an axis of attack and attrition from which Ukraine could not effectively respond.

Without air superiority or long-range air defense, aviation favors defensive action because it can more safely operate within the bubble of its air defense behind the frontline. This preference for defensive action restricts the mobility and striking capabilities of airpower, limiting its applicability to maneuver warfare. This in turn suggests that in modern peer-peer conflict, contested airspace leads aviation to serve positional ends rather than maneuverist ambitions.

Conclusion

From these cases we can see why maneuver theory has begun to fall out of favor in practice on the battlefields of Ukraine despite its primacy in modern military theory and what role it may still have to play in modern conflicts. In all but one of these cases, the application of maneuver warfare fundamentally failed to achieve its objectives at great costs. Attempts at maneuver largely found themselves frustrated by the ability of modern technology and positional

¹⁵⁴ *FM 100-5 Operations*.

¹⁵⁵ Dalsjö et al., 7.; Wiswesser.

¹⁵⁶ Wiswesser.; Bronk et al., 14-18.

¹⁵⁷ Wolkov et al., Sep. 4, 2023.

measures to parry them. The one exception in the Kharkiv case illustrates the importance of opportunity in maneuver's success. The Ukrainians demonstrated operational surprise and exploitation of their assault through to the attainment of their objective allowing them to overcome the hurdles of modern technology and limited capability. These cases have supported Gady and Kofman's arguments that technology has been one of the most influential forces in frustrating maneuver in this conflict. They stress the centrality of capabilities in effecting maneuver. Shortfalls in capability forced an early culmination of Russia's offensive in Kyiv and precluded Ukraine's ability to break the positional front in Zaporizhia. It demonstrates how the absence of air superiority affects the application of these military theories, showing that it pushes the conflict towards positional warfare. This suggests air superiority may be an essential component to successful maneuver in the modern era when operational surprise is not achieved as in Kharkiv. These factors together strengthen positional measures, entrenching positional warfare and stifle maneuver in the modern era.

The Ukraine War has demonstrated that maneuver warfare is more situational, and opportunity driven rather than universally applicable or desirable. Maneuver warfare is not something one can just default to or brute force, but rather a school of warfare specifically and intensely relevant to a temporal window of opportunity ideally paired with a breadth of capability. In essence, maneuver warfare is a surgeon's scalpel, an essential tool when utilized appropriately, properly, and precisely. However, when used clumsily, it can lead to severe attrition and overextension that compromises the actor's position as in the Kyiv case or force a transition to positional warfare as in Zaporizhia.

Contrasting with the sense of primacy with maneuver, positional warfare or its conditions is likened to a reversion from the more ideal school of maneuver warfare. This implicitly belies the sense that positional warfare is the mean, the natural state of affairs within conflict. In other words, positional warfare is the 'ordinary' and thereby, maneuver is the 'extraordinary'. In Sun Tzu's notion of force dichotomy, it is the work of the ordinary force in fixing the enemy in place that makes possible the efforts of the extraordinary force in maneuver.¹⁵⁸ The events and course of the war so far has demonstrated that in conflict in the modern era, dependence on the 'extraordinary' alone is insufficient. Maneuver still has a significant role to play but the Ukraine

¹⁵⁸ Leonhard, *Art of Maneuver*.

war has demonstrated that positional warfare is equally relevant in light of the current technology and resources brought to bear. More study on positional warfare's role in modern peer-peer conflict is warranted.

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