

THE EFFICACY OF TARGETED VS NONTARGETED TACTICS IN WAR TERMINATION

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B.A., Wheaton College, 2012

A THESIS

submitted in partial fulfillment of the requirements for the degree

MASTER OF ARTS

Department of Security Studies
College of Arts and Sciences

KANSAS STATE UNIVERSITY
Manhattan, Kansas

2016

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Abstract

BACKGROUND AND PURPOSE: Recent studies regarding war termination and the bargaining theory of war focus on how belligerents use coercion to reach a war settlement, but neglect the importance of tactical decisions. Although strategies are the principal tool used to conduct war, only significant tactical achievements lead to significant strategic achievements.

METHOD: In this paper I analyze the tactics employed in two case studies, the Second Boer War between Great Britain and the South African Boers and the Winter War between the Soviet Union and Finland. Using the bargaining model of war, I discuss two categories of tactics.

Targeted tactics focus on destroying the enemy's critical vulnerabilities and dislocating their strengths while minimizing one's own vulnerabilities. *Nontargeted tactics* focus on centers of gravity, employing military strength in an effort to overwhelm enemy forces with superior resources and technology.

RESULTS: I demonstrate that tactics have a marked impact on the duration and outcome of warfare and targeted tactics minimize the cost of fighting in order to achieve strategic objectives and increase the bargaining advantage. **CONCLUSION:** Targeted tactics are a significant tool in warfare that affect war termination and hold the potential to increase the bargaining advantage at a lesser cost.

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Dedication

I dedicate this thesis to my rock, my sanity, and my best friend. You read histories to help me remember and understand, offered nuance and the right words, and were ever supportive of my strategic objective. You are the most incredible man I know and I am infinitely blessed to call you my husband.

Chapter 1 - Introduction

Military resources are essential to achieve military success and a state with greater military power than its opponent has greater opportunity to achieve its military objectives. However, history demonstrates that superior military strength does not guarantee victory. Numerous weaker states have beaten larger opponents in warfare; the Revolutionary War, the Six-Day War, and the Russo-Japanese War are all examples that show military means are not always as important as military methods. Although war outcomes depend on a multitude of factors, efficient strategies and tactics have the potential to mitigate the disadvantages posed by fewer technological and numerical resources. This renders the possession of resources less important than the use of those resources. The bargaining model of war demonstrates that warfare is both rational and costly, but depending on war strategies and tactics, conflict does not necessarily require massive destruction to create an advantageous outcome. Though effective warfare can employ resources to achieve a political goal, efficient warfare can achieve that political goal with less material and political capital.

Although most political theory notes the significance of military strategies, very little scholarly literature has been devoted to the impact of tactical decisions. One of the most prominent military theorists, Carl von Clausewitz, said, “We maintain therefore that only great tactical successes can lead to great strategic ones; or as we have already said more specifically, tactical successes are of paramount importance in war.”¹ Although tactics are customarily viewed as a tool to implement strategy, tactics themselves hold variable opportunity to affect efficient warfare. Studies of efficient warfare are incomplete without studies of the impact of

¹ Carl Von Clausewitz, *On War*, trans. Michael Howard and Peter Paret (Princeton: Princeton University Press, 1976), 228.

tactical decisions. Furthermore, tactics achieve battlefield objectives with varying resource requirements and personnel costs. In this thesis I classify tactics as falling into one of two categories: *targeted tactics* which concentrate resources on destroying the enemy's critical vulnerabilities and minimizing their own vulnerabilities, and *nontargeted tactics* which employ military might to overwhelm the enemy and destroy the entire enemy force. In this thesis I will demonstrate how tactical decisions affect war outcomes and that targeted tactics specifically decrease the cost of increasing the bargaining advantage in war.

This research is intended to fill a gap in war termination literature that tries to explain war outcomes without studying the effects of tactics. Not only do tactical decisions have a distinct impact on warfare, but certain tactical decisions also support certain types of war outcomes. While tactics have been employed successfully and unsuccessfully in warfare for millennia, the scholarly literature on war termination has thus far not recognized the power of tactics in the bargaining model of war. Theoretical interpretations of warfare are incomplete without discussions of tactics and military planners seeking efficiency would do well to understand the theoretical principles that lead to attaining objectives with fewer resources. This analysis of targeted and nontargeted tactics presents the role of tactics in resource employment and demonstrates that targeted tactics follow principles that use resources effectively and economically to attain military objectives.

After addressing definitions of some military terminology, I present a literature review of the foundational theories necessary to understanding the role of tactics in warfare. This centers on the bargaining model and how the commitment and information problem lead to conflict initiation and are solved through warfare. I then apply this framework to a discussion of my two categories of tactics and what makes them significant to war outcomes. Following this theory

discussion, I will present two case studies that demonstrate the concepts in this section. The Second Boer War demonstrates how the British, with superior resources and strategy, were nearly routed by the Boers predominantly because of their targeted tactics. The Winter War similarly illustrates how the small Finnish Army used targeted tactics to destroy massive amounts of Soviet resources to save the integrity of Finnish sovereignty.

Tactics, operations, and strategies are distinct levels of military activity that can blur together but are important to distinguish in this discussion of targeted tactics. Clausewitz defined the three in relation to one another, using the term “engagement” instead of “operation.” Tactics are “the use of armed forces in an engagement,” an engagement is “a distinct activity of combat in war” and strategy is “the use of engagements for the object of war.”² In addition, the United States Department of Defense Dictionary of Military and Associated Terms defines the tactical level of war as “the level of war at which battles and engagements are planned and executed to achieve military objectives assigned to tactical units or task forces.” The operational level of war is “the level of war at which campaigns and major operations are planned, conducted, and sustained to achieve strategic objectives within theaters or other operational areas.” Lastly, the strategic level of war is “the level of war at which a nation, often as a member of a group of nations, determines national or multinational (alliance or coalition) strategic security objectives and guidance, then develops and uses national resources to achieve those objectives.”³

² Clausewitz, *On War*, 90, 95, 128.

³ United States, Joint Chiefs of Staff, *Department of Defense Dictionary of Military and Associated Terms*, 2016, 176, 227, 234, http://www.dtic.mil/doctrine/new_pubs/jp1_02.pdf.

Chapter 2 - Literature Review

Tactics are one piece of a complex system of warfare. In a bargaining framework, war is understood as a means of communication, a negotiating process that describes how war starts and how actions on the battlefield lead to war outcomes. This literature review covers the bargaining model of war and how it applies to war termination and key military strategies. These theories create a framework to understand how tactical decisions practically affect theoretical explanations of war outcomes.

Bargaining Model of War

War is always inefficient after the fact. The cost of a war outcome is less costly than that war outcome in addition to the cost of war. Belligerents would benefit from reaching a settlement without the destruction of warfare, but belligerents still initiate conflict in order to produce a political settlement.⁴ The bargaining model of war explains how rational actors initiate and conduct warfare in order to reach an acceptable war outcome. Warfare is a system of bargaining that is an extension of diplomatic negotiations onto the battlefield. Warfare plays an important role in negotiating after a breakdown in communications, often caused by either the information problem or the commitment problem. These two issues are central to why states rationally initiate costly wars.

The information problem occurs when states hide and misrepresent information on their capabilities and intentions in order to promote and protect their interests. Kenneth Waltz, James Fearon, Geoffrey Blainey, and Robert Powell explained how this causes other states to form rational, but ignorant, conclusions with the available information. If this miscalculation involves

⁴ James Fearon, "Rationalist Explanations for War," *International Organization* 39 (1995): 379-414.

states' relative power and willingness to fight, rational actions and rational responses can provoke war where neither state originally intended to initiate war.⁵ For example, before the Six-Day War Gamal Abdel Nasser expected his buildup of military forces on Egypt's border with Israel to deter Israeli aggression and enhance his support among Arab nations. Instead, his actions led to a preemptive air strike that preceded Israel's swift victory and accumulation of previously Egyptian, Jordanian, and Syrian territory. In addition, Alistair Smith and Allan Stam say states interpret, value, and utilize information distinctly, creating further room for rational, yet incorrect, conclusions about other states.⁶ The information problem due to lack of information, misinformation, and misinterpretations, can create false conclusions that unintentionally lead to war.

Commitment problems occur because actors cannot know with certainty what another actor will or will not do in the future. Even with full information, a state cannot guarantee another state's actions and credibly commit to an agreement. Both Fearon and Powell explored how self-interest and lack of trust exacerbate this uncertainty. The prisoner's dilemma illustrates this inefficiency. If states collaborate, they may all gain an advantage. However, if a state agrees to collaborate and then acts outside the agreement, that state may gain an advantage over the others and leave them worse off. In order to insulate themselves from this possibility, states instead choose to act alone because they cannot trust other states to cooperate even if all would benefit from mutual collaboration. In John Herz's "security dilemma," states all increase their military capabilities to counter their growing insecurity due to others' increased military

⁵ Geoffrey Blainey, *The Causes of War* (New York: Free Press, 1973), 143-45; Fearon, "Rationalist Explanations for War," 381; Robert Powell, *In the Shadow of Power* (Princeton: Princeton University Press, 1999), 116; Kenneth Waltz, *Theory of International Politics* (New York: McGraw-Hill, 1979), 165.

⁶ Blainey, *The Causes of War*, 143-45; Alistair Smith and Allan C. Stam, "Bargaining and the Nature of War," *Journal of Conflict Resolution* 48 no. 6, (2004), 810-11.

capabilities.⁷ Commitment problems also exist in international agreements. Competing agreements provide incentives to agree to or renege on individually advantageous situations that altogether destabilize international relations. This also occurs as relative power shifts and states alter agreements for their own interest but to the detriment of international security.⁸ For example, states held multiple international agreements preceding World War I and shifted their alliances to either bandwagon or balance against other powers. Although perhaps individually advantageous, these alliances created an unstable international system. Barring international commitments, the death of Archduke Franz Ferdinand would not have spurred such a significant conflict. Instead, these commitments compelled states to fight one another.

Even when a state desires to convey accurate information, commitment issues mar otherwise trustworthy communication. Thomas Schelling and Branislav Slantchev discussed how this is particularly true when states seek to issue warnings; a threat is only as powerful as it is believable. In order to convince others that a threat is credible, the state offers a costly signal. This costly signal is a gesture to demonstrate the state's commitment to its statement; the costlier the signal, the stronger the validation of commitment. This means states may take action in a minor situation in order to establish effective deterrence against a more significant situation. Although normally the state may not engage in violence, that action is useful as a costly signal to forestall greater future violence.⁹

⁷ Waltz, *Theory of International Politics*, 186.

⁸ Fearon, "Rationalist Explanations for War," 401-06; Powell, *In the Shadow of Power*, 1, 7, 9.

⁹ Thomas C. Schelling, *Arms and Influence* (New Haven: Yale University Press, 1966), 36; Branislav Slantchev, *Military Threats: The Costs of Coercion and the Price of Peace* (Cambridge: Cambridge University Press, 2011), 29, 61, 93.

Coercive Negotiations

The bargaining model shows that states cannot always reliably communicate diplomatically due to information and commitment problems, so in order to reach a settlement, states use a more credible method of communicating: warfare. Military outcomes are far more difficult to manipulate than information about resources or intentions. Dan Reiter, Stam and Smith, and Fearon discussed how combat successes and defeats are a series of coercive negotiations used to reach a settlement. Military victories provide bargaining power over the loser until the victor has enough power to force a settlement.¹⁰ Slantchev called this process the Principle of Convergence; warfare coordinates belligerents' expectations until they agree upon an outcome. War loses its utility when communication about belligerents' intentions and capabilities is no longer uncertain and combat ceases to provide new information.¹¹

Slantchev asserts that effective bargaining does not necessarily require the power to win military victories but the ability to tolerate damage to their self and impose costs on their enemy. A belligerent will continue fighting as long as they believe they can earn a better bargaining position by inflicting further damage on the opponent and also withstand more damage themselves. In asymmetric warfare, though a weak state may not gain military victories, it can still impose costs on a strong state and gain a better bargaining position and more advantageous

¹⁰ Fearon, "Rationalist Explanations for War," 400; Smith and Stam, "Bargaining and the Nature of War;" Dan Reiter, *How Wars End* (Princeton: Princeton University Press, 2009); Branislav Slantchev, The Principle of Convergence in Wartime Negotiations, *American Political Science Review* 47 no. 4, (2003), 622; R. Harrison Wagner, "Bargaining and War," *American Journal of Political Science* 44 no.3, (2004): 469.

¹¹ Branislav Slantchev, "The Power to Hurt: Costly Conflict with Completely Informed States," *The American Political Science Review* 97 no. 1, (2003), 130-31; Slantchev, "The Principle of Convergence in Wartime Negotiations," 622.

outcome than it would without fighting.¹² In addition, the bargaining model shows that a state's ability to impose and bear costs is not necessarily correlated to its physical capabilities. Patricia Sullivan characterizes war as a function of cost versus the worth of the objective; a belligerent's strength of will and the value of its war aims determine its ability to tolerate the cost of war.

Once the cost rises above its tolerance, the state values an end to hostilities over the objective.¹³

Norway provides example of a state's tolerance of costs exceeding its will to fight. Norway was one of 22 countries contributing to a coalition of forces in Operation Iraqi Freedom. However, by 2005 Norway had suffered 10 casualties and domestic political pressure grew to withdraw.

Although Norway's military capabilities were not threatened by the loss of 10 soldiers, the cost was greater than the worth of continued operations. Once a belligerent can no longer stand the costs or realizes it can no longer damage the enemy enough to improve its negotiating advantage, ending hostilities is in its best interest before the enemy imposes additional loss, gains a bargaining advantage, and dictates the terms of peace.¹⁴ In other words, once a belligerent loses its ability to hurt the enemy or sustain further costs, it loses its ability to improve its bargaining position, and combat loses its profitability.

Carl von Clausewitz pinpoints the importance of perception in wartime bargaining; if a belligerent believes they will fail in future combat and fear their destruction more than the possibility of success, they will negotiate end terms. Schelling builds on the importance of perception, explaining that the results in warfare are achieved not through the violence already

¹² Slantchev, "The Principle of Convergence in Wartime Negotiations," 621, 627.

¹³ Patricia Sullivan, "War Aims and War Outcomes: Why Powerful States Lose Limited Wars," *Journal of Conflict Resolution* 51 no. 3, (2007), 496, 501; Patricia Sullivan, *Who Wins? Predicting Strategic Success and Failure in Armed Conflict* (New York: Oxford University Press, 2012), 13.

¹⁴ H.A. Callahan, *What Makes a War End?* (New York: Vanguard Press, 1944), 251.

inflicted, but the violence a belligerent fears in the future.¹⁵ Similar to costly signals before hostilities, during war belligerents communicate their future intentions and ability to continue hurting an opponent through existing violence in order to deter continued hostilities.

Theories on War Termination

The bargaining model of war is a process of information sharing until belligerents reach an agreement on the expected outcome. Three possibilities lead to the end of a conflict: the attacker achieves their goal, the defender ceases defending, or the attacker ceases to seek their goal. Gay Hammerman and Reiter both note that this rarely is achieved through total victory; an armed force is rarely destroyed to the point that it cannot physically engage in continued combat. Instead, belligerents cease fighting because the cost exceeds the value of the goal or the victor has enough bargaining power to force an advantageous settlement.¹⁶ A decisive military victory allows the victor to determine most terms; although treaties don't always last, H. A. Callahan notes they create a means to halt hostilities and provide the victor their spoils and Reiter and Clausewitz recognize that most states assume treaties will be eventually broken.¹⁷

However, the most important part of warfare and the key to a proper settlement is meeting the political goals of the conflict. As Clausewitz so famously dictated, war is politics by other means. Michael Handel, Liddell Hart, and Roy Pinette strongly agree: the purpose of any

¹⁵ Clausewitz, *On War*, 91, 92; Schelling, *Arms and Influence*, 136.

¹⁶ Clausewitz, *On War*, 92; Gay M. Hammerman, *Conventional Attrition and Battle Termination Criteria: A Study of War Termination: Technical Report* (Dunn Loring, Va: Historical Evaluation and Research Organization, 1982), 3-4; Reiter, *How Wars End*, 25-34; Slantchev, "The Principle of Convergence in Wartime Negotiations," 629; Sullivan, "War Aims and War Outcomes: Why Powerful States Lose Limited Wars," 501.

¹⁷ Callahan, *What Makes a War End?*, 219-220; Clausewitz, *On War*, 80; Reiter, *How Wars End*, 24; Smith and Stam, "Bargaining and the Nature of War," 787.

war is to attain the political object. The bargaining model demonstrates how political negotiations continue onto the battlefield to reach a political settlement. Tactical military successes do not necessarily indicate political successes if the following settlement does not properly address the policy. True war termination does not automatically follow a decisive military victory unless the ensuing negotiations meet the political objectives.¹⁸

The Effects of Strategy on War Outcomes

Military strategies usually focus on one of two types of military targets, either a center of gravity or a critical vulnerability. Centers of gravity are points of a military's strength and critical vulnerabilities are points of a military's weakness. These two types of target affect wartime bargaining differently; Clausewitz and John Warden both identify the center of gravity as the most important type of target since it is the source of an enemy's strength and will have a large impact. If destroyed, the bargaining advantage shifts considerably. However, Stephen Biddle, Robert Leonard, and Hart point to critical vulnerabilities as the most effective target. Though not a source of strength, if these points are disrupted, such as communication links or logistical support systems, they render an enemy's strength irrelevant. Exploiting these vulnerabilities can assist a fast and relatively cheap victory due to critical vulnerabilities' compounding effects on military capabilities, which Warden stresses as key. The goal is to weaken the enemy until they surrender without the necessity of destroying their entire force. As Carla Martinez Machain

¹⁸ Clausewitz, *On War*, 87, 177; Michael I. Handel, *Masters of War: Classical Strategic Thought* (London: Frank Cass & Co, 1996), xiv, xv; Liddell BH. Hart, *Strategy: The Indirect Approach* (New York: Praeger, 1962), 351; Linda Legier-Topp, "War Termination: Setting Conditions for Peace," (MA thesis, US Army War College, 2009); Roy R. Pinette, *Operational Considerations for War Termination* (Newport: Naval War College, 1994), 20; Dan Reiter, "Exploring the Bargaining Model of War," *Perspectives on Politics* 1, no. 1 (2003), 27.

points out, concentration of a belligerent's strength against their enemy's weakness has an added benefit of disorganizing enemy forces.¹⁹

Military strategies tend to fall in one of three commonly used categories and hold distinct characteristics that determine their efficacy and efficiency. Choosing an appropriate strategy is integral to successful wartime bargaining and reaching an advantageous settlement. The categories, as delineated by Reiter and Curtis Meek, are attrition, punishment, and maneuver, which offer distinct methods of achieving political goals and war termination. No strategy is always best to achieve this result; each conflict offers distinct constraints and opportunities, centers of gravity and critical vulnerabilities, as well as varying materiel costs, humanitarian losses, length, and emotional impact.²⁰

Wars of attrition are characterized by wearing down an enemy force over time, a contest of physical and mental endurance, not necessarily strength. Attrition tends to manifest in continuous losses of resources and soldiers, often through large confrontations as a belligerent increases the cost to the enemy. This tends to be more destructive than acquisitive, such as the Allies destroying Germany's military in World War I without desiring German territory.

¹⁹ Stephen Biddle, *Military Power: Explaining Victory and Defeat in Modern Battle* (Princeton: Princeton University Press, 2004), 2-3; Clausewitz, *On War*, 485; Hart, *Strategy: The Indirect Approach*, 34, 371; Robert R. Leonhard, *The Art of Maneuver: Maneuver-Warfare Theory and AirLand Battle* (Novato, CA: Presidio Press, 1991), 20-21, 24, 73-74; Carla Martinez Machain, "Air Campaign Duration and the Interaction of Air and Ground Forces," *International Interactions* 41, no. 3 (2015), 544; Joe Strange and Marine Corps University, *Centers of Gravity & Critical Vulnerabilities: Building on the Clausewitzian Foundation so That We Can All Speak the Same Language*, 2nd ed. (Quantico, VA: Marine Corps University, 1996); John A. Warden, *The Air Campaign: Planning for Combat* (Washington, DC: National Defense University Press, 1990), 9-11.

²⁰ Dan Reiter and Curtis Meek, "Determinants of Military Strategy 1903-1994: A Quantitative Empirical Test," *International Studies Quarterly* 43 no. 2, (1999): 364; Scott D. Bennet and Allan C. Stam, "The Duration of Interstate Wars, 1816-1985," *American Political Science Review* 90, no. 2 (1996): 239-257; David R. Stone, "Misreading Svechin: Attrition, Annihilation, and Historicism," *Military History* 76 (2012): 673-93.

Attrition usually takes time to exhaust the enemy, which Clausewitz identifies as an advantage for weak states to build their forces, but Callahan notes can also be a disadvantage if the belligerent has too little time to keep up with its losses or its enemy has enough time to continually build its own forces.²¹

Punishment strategies also seek to increase the cost on the enemy, but by wearing down the resolve of a population, not their military capability. Similar to attrition, these strategies tend to take time, but target civilians and their way of life in the hope that a belligerent's government will suffer political defeat or significant public pressure and end the war. Engaging the enemy force is not a necessity. Punishment strategies work best when the enemy stakes or resolve to attain the political aim are low. However, punishment strategies can also backfire when the population is highly loyal to the state, as in many democracies, and humanitarian losses instead increase resolve, such as British determination in the face of the German Blitz of night bombings on English cities during World War II.²²

Maneuver strategies use the movement of a belligerent's forces to destroy the enemy's ability to fight effectively; the goal is not to destroy but to neutralize strength. Effective maneuver strategies require a belligerent to identify an enemy's strength as well as identifying

²¹ Scott D. Bennett and Allan C. Stam, "The Declining Advantages of Democracy A Combined Model of War Outcomes and Duration," *Journal of Conflict Resolution* 42, no. 3, (1998): 354; Bennet and Stam, "The Duration of Interstate Wars, 1816-1985," 240-41; Callahan, *What Makes a War End?*, 231; Clausewitz, *On War*, 33-34, 93; Hans Delbruck, *History of the Art of War Within the Framework of Political History*, trans. Walter J. Renfro Jr (Westport: Greenwood Press, 1985); Leonhard, *The Art of Maneuver: Maneuver-Warfare Theory and AirLand Battle*, 19; John Mearsheimer, *Conventional Deterrence* (Ithaca: Cornell University Press, 1983), 30; Schelling, *Arms and Influence*, 15.

²² Bennett and Stam, "The Declining Advantages of Democracy A Combined Model of War Outcomes and Duration," 354-55; Bennet and Stam, "The Duration of Interstate Wars, 1816-1985," 240-41; Robert A. Pape, *Bombing to Win: Air Power and Coercion in War* (New York: Cornell University Press, 1996), 7, 13-14, 21-22, 38.

their critical vulnerabilities. Leonard and Hart explain how dislocation and disruption of the enemy's center of gravity can render it irrelevant by moving the decisive point of a battle, such as attacking the enemy at the rear of their forces, or drawing the enemy away through a feint. Technology can also functionally dislocate enemy strengths; most military technology is continually evolving to functionally dislocate hostile technologies, such as IEDs spurring the development of armored vehicles that could withstand their blast.²³ The India-Pakistan War of 1971 displays the Indian use of maneuver strategies to flank Pakistani outposts on the Bangladeshi border, avoiding their centers of gravity. Indian forces attacked their critical vulnerabilities, cutting communications and supply lines, as well as pitting Indian forces against the weak rear of Pakistani strongholds.²⁴

Conclusion

The literature relevant to discussing tactical efficiency begins with an understanding of the bargaining model and how the information and commitment problem allow for rational war initiation. Combat victories and defeats allow belligerents to communicate their intent until their expectations converge, leading to a negotiated settlement and the end of hostilities. The strategy belligerents choose for coercive negotiations is an important factor in their success communicating their intent and strength of will to the opponent. An appropriate strategy helps lead to profitable war termination. However, even if the perfect strategy is selected to achieve

²³ Bennett and Stam, "The Declining Advantages of Democracy A Combined Model of War Outcomes and Duration," 354; Bennet and Stam, "The Duration of Interstate Wars, 1816-1985," 240-41; Clausewitz, *On War*, 93, 485; Hart, *Strategy: The Indirect Approach*, 339-41; Leonhard, *The Art of Maneuver: Maneuver-Warfare Theory and AirLand Battle*, 19-21, 63, 66-67.

²⁴ Robert M. Citno, "Operational Success and Failure: The Indo-Pakistani War of 1971 and the Iran-Iraq War," In *Blitzkrieg to Desert Storm*, 187-212 (Lawrence: University Press of Kansas, 2004).

political objectives, adequate tactics are necessary to conduct successful warfare. The roles of tactical decisions and efficacy in the bargaining model will be discussed in the following section.

Chapter 3 - Targeted and Nontargeted Tactics

Although the international political structure is a complicated system, I hold to several assumptions largely agreed upon by the scholarly community. States are the primary actor in international affairs, the international order is anarchic, states cannot make binding commitments to one another since their intentions are always uncertain and their relative power subject to change, and lastly, states are unitary, rational actors.²⁵ States are not always aware of their own capacity and strength of will, however, nor always able to accurately calculate the cost of their actions. In addition, states contain complicated internal affairs that affect what political goals are most important and how they are pursued. This does not affect how states act, but indicates complexities in rational decision-making.²⁶

Theories on Tactics

Although Kenneth Waltz asserted that military resources determine the power balance between states as well as the outcomes of conflicts,²⁷ resource employment also has a significant effect on war outcomes. Just as different strategies work more efficiently in different contexts and lead to faster war termination, tactics can similarly make or break strategic decisions. Clausewitz identifies tactics as the foundation of strategy; successful tactics best support successful strategies and lead to successful military engagements. The two influence each other and merge together in ways that sometimes make them hard to distinguish. However, Clausewitz

²⁵ Fearon, "Rationalist Explanations for War," 379-414; Hammerman, *Conventional Attrition and Battle Termination Criteria: A Study of War Termination: Technical Report*, 12; Reiter, *How Wars End*; Slantchev, "The Principle of Convergence in Wartime Negotiations," 621-632.

²⁶ Michael Handel, "War Termination," *Journal of Strategic Studies* 1(1978): 72.

²⁷ Waltz, *Theory of International Politics*, 102?.

was also careful to point out that strategy is more important to successful war termination than tactics. The Second Boer War demonstrates how a superior British strategy, in addition to abundant British resources, overwhelmed the Boer's clever maneuver and marksmanship.²⁸

Nevertheless, tactics are vital determinants in the efficacy of strategy. For example,; punishment strategies rely in large part on humanitarian losses leading to a political surrender, which requires tactics that kill, especially those that kill a large number of civilians quickly and cheaply. Conversely, any defensive strategy benefits from tactics that prevent heavy casualties, such as using hills to hide from an enemy. In maneuver strategies, belligerents seek methods to disrupt an enemy force instead of just kill its soldiers; tactics that confuse and scatter organization would effectively bolster a strategy to cause a surrender with less combat; in this case, a stun grenade could be more effective than an explosion.²⁹ Furthermore, planned strategies are not always performed as intended. Actual tactics on the battlefield must meet unforeseen challenges and adapt to new situations. For example the Soviets in the Winter War planned a blitzkrieg strategy of maneuver but were forced into a war of attrition due to Finnish geography, strategy, and tactics.³⁰ Even if a strategy is perfectly crafted to meet the expected conflict, competent tactics are essential for effective adaptation.

²⁸ Clausewitz, *On War*, 386; Hart, *Strategy: The Indirect Approach*, 335.

²⁹ Callahan, *What Makes a War End?*, 229; Clausewitz, *On War*, 94; Hart, *Strategy: The Indirect Approach*, 338; Frank L. Klingberg, "Predicting the Termination of War: Battle Casualties and Population Losses," *Journal of Conflict Resolution*, 10 (1966): 129; Sullivan, "War Aims and War Outcomes: Why Powerful States Lose Limited Wars," 500.

³⁰ Gordon F. Sander, *The Hundred Day Winter War: Finland's Gallant Stand against the Soviet Army* (Lawrence: University Press of Kansas, 2013), 78; William Trotter, *A Frozen Hell: The Russo-Finnish War of 1939-1940* (Chapel Hill: Algonquin Books of Chapel Hill. 1991), 40, 43.

Two Typologies: Targeted and Nontargeted

Critical vulnerabilities create opportunities for military actions that have compounding effects beyond the value of the target. While effective tactics solve problems with whatever resources are necessary, efficient tactics solve problems with as few resources as necessary. Critical vulnerabilities offer prospects for adept resource allocation and engagement, efficiently increasing the bargaining advantage at a lesser cost. Taking advantage of those opportunities requires appropriate tactical decisions. If a soldier faces several tanks on the other side of a bridged river, that soldier could target the individual tanks, or the soldier could target the bridge. Both tactics are effective at stopping the tanks, but targeting the bridge has a multiplicative effect at a lesser cost. The objective is not to completely destroy an opponent's strength, but render it irrelevant.³¹ This efficiency is based on a desire to incur as little cost as necessary to inflict compounding costs on the enemy and gain a superior bargaining position.

In tactical decisions, a few principles consistently lead to less costly tactics that contribute to military successes, and create the basis for the two typologies of tactics that I present in this project: *targeted* and *nontargeted*. Targeted tactics focus on destroying the enemy's critical vulnerabilities and dislocating their strengths while minimizing one's own vulnerabilities. They disrupt enemy power to increase the bargaining advantage. Nontargeted tactics, however, focus on centers of gravity, employing military strength in an effort to overwhelm enemy forces with superior resources and technology.

³¹ Martinez Machain, "Air Campaign Duration and the Interaction of Air and Ground Forces," 544-45.

These two categories are derived from Martinez Machain's categorization of aerial strategies as targeted and nontargeted³², which in turn is derived from Stephen Biddle's *modern* and *nonmodern* tactics. Biddle asserts that military technology has become increasingly lethal which provokes tactics that reduce vulnerabilities to those lethal weapons. These modern tactics undermine the effects of advanced technology. Modern tactics are not matched to a certain time period but are characterized by "cover, concealment, dispersion, suppression, small-unit independent maneuver, and combined arms."³³ Militaries that cannot tactically overcome technological change then employ nonmodern tactics, exposing their forces to the full advantage of the enemy's technological development.³⁴ As Martinez Machain also notes, this typology holds important principles beyond just the role of technology. If critical vulnerabilities are potentially more effective targets than centers of gravity, then not only should technology be employed to exploit those weaknesses, but also every other military asset. Biddle largely ignores other types of military power outside of technology and concentrates on the strategic level of employing tactics instead of the principles of tactics themselves.³⁵ This is why targeted and nontargeted tactics are distinct and important; targeted tactics not only seek to negate the effects of technology, but also destroy their critical vulnerabilities and disrupt the enemy's strengths. This is a more comprehensive set of objectives that goes beyond the role of technology to guide tactical decision-making compared to Biddle's modern and nonmodern typologies.

³² Martinez, Carla. "Aerial Strategies and their Effect on Conflict Characteristics." (2012) Doctoral, Rice University. <http://hdl.handle.net/1911/64692>.

³³ Biddle, *Military Power: Explaining Victory and Defeat in Modern Battle*, 3.

³⁴ Biddle, *Military Power: Explaining Victory and Defeat in Modern Battle*, 3.

³⁵ Biddle, *Military Power: Explaining Victory and Defeat in Modern Battle*; Hart, *Strategy: The Indirect Approach*, 34, 371; Leonhard, *The Art of Maneuver: Maneuver-Warfare Theory and AirLand Battle*, 20-21, 24, 73-74; Carla Martinez Machain, "Aerial Strategies and their Effect on Conflict Characteristics," (PhD Diss, Rice University, 2012); Martinez Machain, "Air Campaign Duration and the Interaction of Air and Ground Forces," 543.

However, targeted and nontargeted tactics are built on the foundation that Biddle created for a reason; technology plays a colossal role in tactical advantages. While the principles behind targeted tactics are useful no matter the technological age, advances in accuracy, firepower, and range augment the potential of targeted tactics. Technology creates opportunity to both protect vulnerabilities that were impossible to protect before as well as assault critical vulnerabilities that were impossible to attack earlier. An officer sitting on a horse in the back of a formation of troops may have been safe from an arrow, but a sniper-rifle renders the officer's position suicidal. Precision-guided munitions can destroy strategic targets that were previously unreachable as well as cause destruction over wider areas of space more quickly, cheaply, and completely. As Biddle mentioned about his modern tactics, technology also creates the opportunity for increased use of combined arms. This tactical choice combines the strengths and weaknesses of weapons to reduce vulnerabilities and increase flexibility.³⁶ Technology has also created new critical vulnerabilities; electromagnetic pulses are dangerous to military operations because of modern reliance on electricity, but an electric surge, without any accompanying destructive components, would have been useless in the Napoleonic era.

Although targeted tactics are directly related to strategy, they remain on distinct operational levels. Strategies focus on winning the war and political objective; tactics instead focus on how armed forces are employed in order to win an operation. Tactics are also not contingent on a specific strategy; though targeted tactics employ many of the principles that guide maneuver strategy, targeted tactics can be used in any strategy. Conversely, a targeted tactic in one context may not be targeted in another. A targeted tactic supporting a punishment strategy, such as a precision bomb on a civilian center, may not support the strategic goals of a

³⁶ Biddle, *Military Power: Explaining Victory and Defeat in Modern Battle*, 3.

maneuver strategy when that precision bomb would be far more effective on a communications hub.

This chart provides examples of targeted and nontargeted tactics in all three types of military strategy:

Table 1 Examples of Targeted and Nontargeted Tactics

	Targeted	Nontargeted
Attrition	Fire weapons specifically at officers	Fire weapons in order to kill as many enemy soldiers as possible
Maneuver	Attack multiple flanking positions in a formation of troops	Attack the most concentrated point of a formation of troops
Punishment	Target transportation and economic centers to destroy a way of life	Deploy large numbers of bombs to create widespread destruction and instill fear

As this chart demonstrates, targeted tactics rely on specific employment of resources more than possession of greater resources. If force employment can render new technologies or amount of resources insignificant, materiel need not guarantee military success. A weaker force

can still effectively engage a stronger enemy with targeted tactics that mitigate their disadvantages.³⁷

Nontargeted tactics are more effective with superior resources and better technology. Sometimes strategic goals require overwhelming military force, which may benefit from nontargeted tactics. Nontargeted tactics have the advantage of focusing the brunt of military power on a center of gravity in order to produce a significant result. For example, storming the beaches of Normandy in World War II was a highly nontargeted Allied attack. This operation was also an extremely important strategic engagement and although thousands died, the attack was effective and key to an Allied victory in the war. Targeted tactics focus on increasing the bargaining advantage at a lesser cost, but that is not always the most important objective in warfare. Nontargeted tactics may deliver a thorough victory that leads to a bargaining advantage that is worth a higher cost. Targeted tactics are not the only or best means to an advantageous war outcome. Warfare is a complex series of events and tactical decisions do not always determine the result of an engagement or even an entire war. However, if military planners have the option to use resources to destroy enemy critical vulnerabilities while protecting their own forces, targeted tactical decisions can produce a far less costly result.

However, military planners are often constrained by their available resources, which may seem to dictate the type of tactics used. Commanders may not have the option to use numerical and technological resources to launch an effective nontargeted attack. Instead, they may feel forced to launch smaller ambushes on an enemy force to disrupt them because destroying the enemy is not feasible. Although tactical decisions may be a consequence of the resources at the commander's disposal, those tactics are still a choice to use resources in the most effective way

³⁷ Biddle, *Military Power: Explaining Victory and Defeat in Modern Battle*, 5, 190.

in that situation. Targeted tactics are effective not because of the resources available but because of how those resources are used. Possessing fewer resources may make targeted tactics the most feasible use of resources, but possessing substantial resources may still leave targeted tactics as an effective option. For example, in the India-Pakistan War of 1971, India had the option to bring their massive resources in a nontargeted assault against Pakistani strongholds in Bangladesh. Instead, they chose to use targeted tactics to disrupt communications and supply lines and fragment Pakistan's military.

This theoretical analysis of the role of tactics demonstrates that tactical decisions affect war outcomes and that targeted tactics lessen the cost of increasing the bargaining advantage. The Second Boer War and the Winter War are excellent case studies to display targeted tactics in history. The Second Boer War is an impressive example of how a few targeted tactics can produce repeated advantages over a numerically and materially superior belligerent. The Boers' targeted tactics became a significant advantage with the new technologies, such as smokeless powder, machine guns, and automatic light artillery.³⁸ In the Winter War, the most significant technological asset was the Soviet tank, but the Finns demonstrated how targeted tactics, as well as an economical use of Molotov Cocktails, could significantly decrease the enemy's advantage. These cases both demonstrate how technology can augment the effect of targeted tactics, but that advanced technology does not create targeted tactics. The Boers and the Finns both capitalize on methods to destroy their enemy's ability to fight by taking advantage of the enemy's weaknesses. They both employ small, mobile forces to assault large enemy forces, targeting their officers, and wear down the enemy's strength in numbers. These cases clearly illustrate the potential of

³⁸ Dylan Craig, "The Weapons and Battles of the Second Anglo-Boer War (1899-1902)," Last modified May 4, 2009, Heliograph, Inc, <http://www.heliograph.com/trmgs/trmgs4/boer.shtml>.

targeted tactics in situations where superior resources did not create a swift and easy victory against a weaker force.

Although many scholars have neglected the significance of tactical decisions, they are significant to war outcomes. Tactics are an important factor in the success of strategic goals. Furthermore, targeted tactics create the opportunity to destroy the enemy's critical vulnerabilities and dislocate enemy strengths while minimizing one's own vulnerabilities. They disrupt enemy power in order for belligerents to increase their bargaining advantage at a lesser cost. Targeted tactics are a valuable tool that provides belligerents the opportunity to attain their military objectives more efficiently.

Chapter 4 - The Second Boer War: 1899-1902

Figure 1 Map of the Second Boer War



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³⁹ "War and Colonial Nationalism," Columbia College, accessed March 15, 2016, <http://www.ccis.edu/courses/HIST359mtmcinneshin1/week10/SAFR1899-1910.gif>.

If overwhelming military power guaranteed short and successful warfare, the Boer War would have ended within months and the Boers would have quickly accepted their imminent defeat, just as the British initially expected. Few in the British government believed that the Boers and the tactics they employed would be as dangerous as they proved,⁴⁰ especially relative to the impressive power of the British military. Although British military might gained a victory in the end, the Boers' targeted tactics imposed severe casualties on exposed British troops and forced the British to begin using targeted tactics to reduce their own critical vulnerabilities and target the Boers' critical vulnerabilities. The major battles of the Boer War, notably the siege of Ladysmith and the Battle of Colenso, showcase this British shift from nontargeted tactics during the first phase of the war from 1899 – 1900 to increasingly targeted tactics in the second and third phases from 1900 – 1902. Analysis of various tactics, the casualties inflicted, and the goals of the battle will demonstrate that targeted tactics were more effective at achieving goals and ending battles than nontargeted tactics.

Before the War: Military Preparedness

The British army was underprepared for a war against an enemy they underestimated when the Second Boer War commenced in 1899. The British aimed to annex the Dutch colonies of Transvaal and the Orange Free State, which neighbored the British colonies of Natal and Cape Colony. Since some in the British Parliament thought the Boers were an insignificant threat, they

⁴⁰ United States, War Department, *Reports on Military Operations in South Africa and China*, no. 33 (Washington: Adjutant General's Office, 1901), http://books.google.com/books?id=j5AtAAAAIAAJ&printsec=frontcover&source=gbs_ge_summary_r&cad=0#v=onepage&q&f=false; Winston Churchill, *The Boer War* (London: W.W. Norton & Co, 1900), 32.

felt little need to prepare for an upcoming military conflict. Instead, they fought to keep British forces at a minimum in South Africa to avoid provoking the Boers prematurely. In addition to antiquated military training, this overconfidence in British prowess proved a deadly mistake in the ensuing war.⁴¹ The British maintained a force of 30,000 troops in Natal and Cape Colony,⁴² 10,000 of which had only recently arrived from India, exhausted from their travel. The rest of the troops were scattered around the two colonies or one of several garrisons; the troops had neither satisfactory maps nor an adequate understanding of the terrain.⁴³

At the turn of the 18th century, military weaponry consisted of rifles, machine guns, and field artillery. Smokeless powder rifles, invented in 1886, eliminated the puff of smoke emitted with every shot as well as increased the range of and velocity of bullets. Machine guns were also a fairly new invention and increased the potential firepower of a smaller force. These were single-barrel, belt-fed weapons such as the Vickers-Maxim. Automatic light field artillery was also first used in the Second Boer War; the “Pom-Pom” used a continuous stream of fire instead of issuing a flash that indicated soldiers should take cover before the shell landed, and some long-range artillery, such as the “Long Tom,” could reach 11,000 yards.⁴⁴

⁴¹ Eversley Belfield, *The Boer War* (Hamden: The Shoe String Press, 1975), 12; Churchill, *The Boer War*, 32; *Reports on Military Operations in South Africa and China*, 263; United States, *Papers Relating to the War in South Africa*, no. 2 (Washington: Government Printing Office, 1900), 20.

⁴² Belfield, *The Boer War*, 12.

⁴³ John Ormond Neville, *Boer and Britisher in South Africa; A History of the Boer-British War and the Wars for United South Africa, Together with Biographies of the Great Men Who Made the History of South Africa* (Chicago: Thompson & Thomas, 1900), 139; Great Britain, The Royal Commission on the War in South Africa, *Report of His Majesty's commissioners appointed to inquire into the military preparations and other matters connected with the war in South Africa* (London: Wyman and Sons, Ltd, 1903), 103-107; Harold Felix Baker Wheeler, *The Story of Lord Kitchener* (London: G.G. Harrap, 1917), 165; Norman, *Great Power Diplomacy*, 10.

⁴⁴ Craig, Dylan. "The Weapons and Battles of the Second Anglo-Boer War (1899-1902)." Last modified May 4, 2009. Heliograph, Inc. <http://www.heliograph.com/trmgs/trmgs4/boer.shtml>

The British had few mobile heavy artillery units, supplies, or mounted soldiers. Their totals amounted to 174 guns, 6,350 cavalry, and 42,700 infantry, most of whom were unfamiliar with the African terrain. The British required thousands of reinforcements to make up for these deficiencies, which only arrived after a full year of warfare.⁴⁵ Furthermore, in the face of significant military defeats, British commanders struggled to ascertain effective strategies and tactics to achieve absolute victory. The British strategy, put in place by General Sir Redvers Buller (1839-1908)⁴⁶ began with an invasion of the Orange Free State. Once the army captured the capital of Bloemfontein, the British would force a surrender and annex the Orange Free State, and eventually, the Transvaal as well.⁴⁷

Conversely, the Boers were on a constant war footing; they had a superior understanding of African terrain, were well supplied, and employed tactics that utilized Boer strengths. Every man between the age of sixteen and sixty was required to be ready for war with ten days' rations, a pony, a rifle, and thirty pounds of ammunition.⁴⁸ These measures enabled the Boer fighting force to number around 40,000 at the start of the war, nearly all of whom were mounted on horses accustomed to the African climate. This gave the Boers the advantage of great mobility and speed.⁴⁹ In addition, the Boers were exceptionally well trained with their rifles; they were

⁴⁵ Great Britain, *The Ghastly Blunders of the War: A Guide to the Report of the Royal Commission on the South African War, 1899-1900*, 15; Wheeler, *The Story of Lord Kitchener*, 168.

⁴⁶ Ian F. W. Beckett, "Buller, Sir Redvers Henry (1839–1908)," *Oxford Dictionary of National Biography*, (Oxford University Press, 2004), <http://www.oxforddnb.com/view/article/32165>.

⁴⁷ *Reports on Military Operations in South Africa and China*, 276.

⁴⁸ Belfield, *The Boer War*, 9; "The Boer War," *Sierra Leone Weekly News*, December 14, 1901, <http://tinyurl.galegroup.com/tinyurl/SwWG2>.

⁴⁹ Churchill, *The Boer War*, 29; *Reports on Military Operations in South Africa and China*, 264; United States, War Department, *Annual Reports of the War Department for the Fiscal Year Ended June 30, 1901*, no. 224, *Extracts from an Article on Army Reorganization* (Washington: Government Printing Office, 1901), 224, <http://congressional.proquest.com.er.lib.k->

exceptionally lethal and had the ability to target British officers who were usually mounted on white horses with distinct uniforms.⁵⁰ Boer leadership was also highly decentralized, which gave Boer commanders the freedom to make military decisions based on present events instead of waiting on the chain of command. This independence served as an asset to Boer mobility and quick decision-making, but also inhibited implementation of their overarching strategy.⁵¹ The Boers planned to invade Natal and take the Harbor of Durban to block the British from invading the Orange Free State and the Transvaal, and eventually, force a British retreat.⁵²

Phase One, October 1899 – January 1900: Boers Victorious

The first phase of the Boer War from 12 October 1899 to 10 January 1900 put the British immediately on the defensive and demonstrated the inferiority of traditional British massed line assaults against the targeted tactics of the Boers. Exposed British troops primarily relied on

state.edu/congressional/result/pqpresultpage.gispdfhitspanel.pdflink/http%3A\$2f\$2fprod.cosmos.dc4.bowker-dmz.com\$2fapp-bin\$2fgis-serialset\$2f2\$2fd\$2fa\$2f0\$2f4271_hdoc2-.

⁵⁰ Bennet Burleigh, *The Natal Campaign* (London: Chapman and Hall, 1900),

[http://www.angloboerwar.com/books/32-burleigh-the-natal-campaign/733-](http://www.angloboerwar.com/books/32-burleigh-the-natal-campaign/733-burleighillustrations-and-maps)

[burleighillustrations-and-maps](http://www.angloboerwar.com/books/32-burleigh-the-natal-campaign/733-burleighillustrations-and-maps); Frederick W. D. Evelyn, "Official Targets," *Times*, November 24, 1899,

<http://find.galegroup.com/dvnw/infomark.do?&source=gale&prodId=DVNW&userGroupName=ksu&tabID=T003&docPage=article&docId=CS102294904&type=multipage&contentSet=LTO&version=1.0>; Norman, *Great Power Diplomacy*, 12; Churchill, *The Boer War*, 224; Deneys Reitz, *Commando: A Boer Journal of the Boer War*, (New York: C Boni, 1930), 47.

⁵¹ *Annual Reports of the War Department for the Fiscal Year Ended June 30, 1901*, no. 224, *Extracts from an Article on Army Reorganization*, 228.

⁵² *Annual Reports of the War Department for the Fiscal Year Ended June 30, 1901*. no. 224. *Extracts from an Article on Army Reorganization*, 217; Carver, "The Boer War," 4; Churchill, "Some Impressions of the War in South Africa," 112; Neville, *Boer and Britisher in South Africa; A History of the Boer-British War and the Wars for United South Africa, Together with Biographies of the Great Men Who Made the History of South Africa*, 198; *Reports on Military Operations in South Africa and China*, 228-29; Wheeler, *The Story of Lord Kitchener*, 164, 166, 181.

coverage from British artillery, which at this point was not especially accurate or deadly.⁵³

Conversely, the Boers utilized concealing terrain and dispersed troops to reduce their vulnerabilities as well as provide more positions to shoot at the British.

The first engagement of the war, a perfect example of British nontargeted tactics, occurred on 19 October 1899 at Talana Hill, ending in a costly British victory. The invading Boers moved toward the British towns of Glencoe and Dundee in northern Natal, west of the Orange Free State. Four thousand British troops were stationed in a valley between the two towns for their protection. However, the hills made this position difficult to defend and gave the Boers a strategic advantage. The Boers took Talana Hill by stealth in the middle of the night, surprising the British with a shell attack from above. The British responded with a frontal infantry assault and only retook the hill after losing hundreds of soldiers. The cavalry did not play a key role and only helped secure the British position and captured a few prisoners after the bulk of the engagement was over. British casualties totaled around 500 men whereas the Boers only lost around 200.⁵⁴ Although technically this engagement ended in a British triumph, it resulted in heavy losses to protect strategically minor towns that the British abandoned soon thereafter. When the Boers took Talana Hill, the British responded with a fatal nontargeted attack by forming a massed line of troops with no geographic cover to conduct a frontal assault in order to retake the Hill. If the British had attacked Talana Hill from multiple directions or used their cavalry which could climb the hill more quickly, they would have reduced their exposure by

⁵³ Stephen Biddle, *Military Power* (Princeton: Princeton University Press, 2004), 31.

⁵⁴ Thomas Guthrie Marquis and Charles Frederick Hamilton, *Earl Roberts, V.C., Lord Kitchener and the Great Boer War: Early Life of a Great Soldier*, (Montreal: Roberts and Kitchener Publishing, 1910), 405; Neville, *Boer and Britisher in South Africa; A History of the Boer-British War and the Wars for United South Africa, Together with Biographies of the Great Men Who Made the History of South Africa*, 141-144; Belfield, *The Boer War*, 15-17.

becoming a much harder target for Boer shells and potentially retaken the hill with fewer losses.⁵⁵ Instead, the result was a messy engagement that resulted in high British casualties for an insignificant victory.

The next engagement at Elandslaagte Station on 21 October 1899 proceeded similarly to Talana Hill with an artillery duel, infantry frontal assault, and a cavalry pursuit to obtain prisoners and secure the position, but included a few targeted improvements.⁵⁶ One of the most important improvements were khaki uniforms, first worn in India in the 1800s, that slowly spread throughout the British military. They became the standard for foreign operations during the Boer War, where they were highly effective as camouflage compared to traditional red coats.⁵⁷ Exchanging uniforms helped the British capture the Elandslaagte supply train station with around 5,000 soldiers who presented a much less obvious target to accurate Boer fire. They began with a frontal attack combined with two flanking assaults against 2,000 Boers, positioned on a hill near the station. The flanking positions spread out British forces to mitigate troop exposure, a targeted tactic. However, the British had no natural cover and relied solely on artillery cover. The Boers exchanged artillery fire with the British until the British led a nontargeted bayonet charge to seize the hill. British reinforcements comprised of a field battery and several squadrons, numbering two and a half battalions total, with 550 gunners and eighteen pieces of artillery secured their victory. Nevertheless, the troops, with their strong

⁵⁵ "The Boer War-Attacks Of Positions," *Times*, December 27, 1899, <http://find.galegroup.com/dvnw/infomark.do?&source=gale&prodId=DVNW&userGroupName=ksu&tabID=T003&docPage=article&docId=CS137160091&type=multipage&contentSet=LTO&version=1.0>.

⁵⁶ Neville, *Boer and Britisher in South Africa; A History of the Boer-British War and the Wars for United South Africa, Together with Biographies of the Great Men Who Made the History of South Africa*, 148-49.

⁵⁷ Belfield, *The Boer War*, 17-19; Harold Raugh, *The Victorians at War, 1815-1914: An Encyclopedia of British Military History* (Santa Barbara: ABC-CLIO, 2004), 278-79.

reinforcements, only inflicted seventy fatalities and wounded 100 Boers. The British also lost around fifty soldiers with over 100 wounded, many fewer than Talana Hill.⁵⁸ Although the flanking assaults and khaki uniforms at Elandslaagte Station reduced British offensive vulnerabilities, their tactics remained largely non-targeted; British soldiers were largely unprotected, fighting primarily from lower ground with little cover and proved easy targets for the Boer guns. These two engagements revealed that the Boers were a greater enemy than expected and indicated that the tactics the British used tended to incur heavy losses, even if successful.

Following these engagements on 19-21 October, the Boer's superior numbers and tactics led to the start of one of the most defining, tactically impractical, and strategically unwise confrontations of the Boer War: the siege of the British garrison of Ladysmith from 30 October 1899 to 28 February 1900. On 24 October 1899, Boer reinforcements began moving toward Talana Hill, threatening the remaining British forces and spurring a retreat toward Ladysmith.⁵⁹ British forces, approximately 10,000 to 12,000, reached Ladysmith on 27 October as the Boers, approximately 14,000 to 15,000, occupied surrounding hills and ridges, effectively trapping a significant portion of the British army in the garrison.⁶⁰ This was a targeted tactic that neutralized British power, but required a large number of Boer forces to maintain. The British tried to thwart the Boers from completely encircling Ladysmith with a three-pronged assault attacking nearby Nickolson's Nek on 29 and 30 October. However, the British infantry had little natural or artillery cover and failed to take Nicholson's Nek because of the Boer's lethal accuracy from the

⁵⁸ Belfield, *The Boer War*, 17-19; *Reports on Military Operations in South Africa and China*, 270.

⁵⁹ Neville, *Boer and Britisher in South Africa; A History of the Boer-British War and the Wars for United South Africa, Together with Biographies of the Great Men Who Made the History of South Africa*, 152; Reitz, *Commando: A Boer Journal of the Boer War*, 39.

⁶⁰ Reitz, *Commando: A Boer Journal of the Boer War*, 41-42.

surrounding hills.⁶¹ Although the British were forced to retreat into Ladysmith, the Boers did not attack and take advantage of the grossly exposed British troops massed at Ladysmith's gates for entry.⁶²

The Siege of Ladysmith lasted four months, creating a standstill during which the Boers failed to force a British surrender and neither army was able to advance their strategic goals. The Boers initially hoped to force the British to capitulate by shelling the garrison. However, the British were relatively safe behind their walls, prompting the Boers to try and starve the British into submission before reinforcements arrived. This tactic required thousands of Boer troops to remain at Ladysmith, unable to advance other military objectives. This decision was a strategic mistake for the Boers since the garrison had enough supplies to last until its relief at the end of February and the Boers failed to destroy enough railroads, bridges, and roads to block British reinforcements, which would have been a targeted tactic.⁶³ The Boers instead conducted artillery duels with the garrison nearly daily, but their artillery failed to overcome British fortifications just as British artillery failed to remove the sieging Boers, both nontargeted attacks that did not destroy the others' ability to fight. Both armies only succeeded in forcing the other to remain locked in a protected position with no offensive options.⁶⁴

⁶¹ Marquis and Hamilton, *Earl Roberts, V.C., Lord Kitchener and the Great Boer War: Early Life of a Great Soldier*, 406; Neville, *Boer and Britisher in South Africa; A History of the Boer-British War and the Wars for United South Africa, Together with Biographies of the Great Men Who Made the History of South Africa*, 171.

⁶² Reitz, *Commando: A Boer Journal of the Boer War*, 49.

⁶³ Belfield, *The Boer War*, 24; J. Y. E. Blake, *A West Pointer With The Boers* (Boston: Angel Guardian Press, 1903), 74; Churchill, *The Boer War*, 33.

⁶⁴ Blake, *A West Pointer With The Boers*, 99; Belfield, *The Boer War*, 25; Neville, *Boer and Britisher in South Africa; A History of the Boer-British War and the Wars for United South Africa, Together with Biographies of the Great Men Who Made the History of South Africa*, 176.

The smaller British garrison of Kimberly was similarly and nearly simultaneously put under siege by the Boers on 14 October 1899, creating another stalemate until British reinforcements arrived. General Buller felt the sieged garrisons were indefensible and strategically unimportant to their battle against the Boers. However, the British citizenry placed heavy political pressure on the Cabinet to urge General Buller to relieve Ladysmith, the largest of the garrisons. Both sieges effectively trapped half of the British army in South Africa, which again was a targeted way to neutralize British forces but also immobilized over half of the Boer troops, which was strategically unwise since the Boers did not have enough troops to make significant gains elsewhere.⁶⁵ Although the remaining Boers were virtually unopposed and controlled increasing amounts of the railway in Cape Colony, the Boers' decentralized leadership became another liability. Tactical victories by independent companies failed to achieve cohesive strategic advancement to take the Harbor of Durban.⁶⁶

During the British attempt to relieve Kimberly in the Battle of the Modder River on 28 November 1899, the Boers used targeted conceal and fire tactics particularly effectively. Because the Boers knew the British would take the only feasible route through the Modder river valley to reach Kimberly, they built trenches along the river and placed range markers along the valley. The Boers waited, hidden in their trenches, until British troops were within range and began firing, gunning down the unprotected and unaware soldiers. Because the Boers were located down on the flat river valley, they were able to fire horizontally, giving their rifles further lethal range than if they fired from above the British into the ground. Although both armies had around twenty-two heavy artillery guns, the British were far more vulnerable than the Boers. Bends in

⁶⁵ Belfield, *The Boer War*, 27-28; Henry Mortimer Durand, *The Life of Field-Marshal Sir George White* (London: William Blackwood and Sons, 1915), 205-06.

⁶⁶ Churchill, *The Boer War*, 33; Belfield, *The Boer War*, 28.

the river also gave the Boers multiple angles to shoot at the British; when British artillery concentrated in one direction, the Boers could begin firing safely from another. The Boers used their trenches and the bends in the river to provide multiple, sheltered positions to fire upon the British, using targeted tactics that effectively diminished their vulnerabilities and took advantage of British exposure. The engagement left 475 British and 150 Boer casualties and only ended when the Boers retreated back toward Kimberly on 29 November.⁶⁷ Even though both the British and Boers generally fired their artillery in an effort to destroy the entire enemy fighting force, a nontargeted offensive tactic, the defensive measures the Boers took against British artillery allowed the Boers almost two thirds fewer casualties.

The two targeted Boer tactics of concealing troops in trenches and then firing upon the British when they drew near led to three British military defeats at Stormberg, Magersfontein, and Colenso over the course of a few days in early December 1899, in what became known at “Black Week.” The British suffered a total of 2,800 casualties and the Boers only around 400.⁶⁸ In the Battle of Stormberg on 10 December, British forces sought to surprise the Boers, but moved forward without proper maps along a route that had not been previously scouted. The British were ignorant of the terrain, unaware of the Boer position, and moved in exposed columns. The Boers exploited these vulnerabilities with their conceal and fire tactics, entrapping the British with well-placed guns and surprising the fatigued British marching columns. The

⁶⁷ Murray Cosby Jackson, *A Soldier's Diary: South Africa 1899-1901* (London: M. Goschen, 1913), 20; Neville, *Boer and Britisher in South Africa; A History of the Boer-British War and the Wars for United South Africa, Together with Biographies of the Great Men Who Made the History of South Africa*, 193-96; Belfield, *The Boer War*, 41, 45.

⁶⁸ Belfield, *The Boer War*, 48.

British were forced to implement a retreat and furnish the Boers with a victory.⁶⁹ In the Battle of Magersfontein on 11 December, the Boers again concealed themselves in trenches. The British tried to destroy the Boer position with a massive artillery attack, but the Boers remained relatively unscathed in the face of indiscriminate British nontargeted artillery. Few Boers were wounded, one soldier's diary noted only three casualties, and instead used their accurate marksmanship to pin down the British heavy artillery and infantry with only Boer rifles. Although the British tried to mount a frontal assault and split the Boer forces, a targeted offensive tactic, they could not maintain their position under Boer fire and eventually retreated.⁷⁰ Lastly, the Battle of Colenso displayed the power of Boer concealment and accurate fire on 15 December when the British sought to relieve Ladysmith. Because the British had only one feasible route toward the garrison, the Boers prepared fortified trenches in advance and positioned 6,000 soldiers and twelve artillery pieces along high ground the nearby river. The British planned a series of targeted brigade attacks with suppressive artillery fire as cover to keep the Boers in their trenches; however, their 35,000 soldiers and ninety-six cannons mistakenly shelled an abandoned Boer position. The Boers, well instructed to hold fire and stay hidden until the British drew near, remained concealed until the British were exposed without effective cover.

⁶⁹ Neville, *Boer and Britisher in South Africa; A History of the Boer-British War and the Wars for United South Africa, Together with Biographies of the Great Men Who Made the History of South Africa*, 201-05; Belfield, *The Boer War*, 48-50; *Reports on Military Operations in South Africa and China*, 283.

⁷⁰ Neville, *Boer and Britisher in South Africa; A History of the Boer-British War and the Wars for United South Africa, Together with Biographies of the Great Men Who Made the History of South Africa*, 207-09; Belfield, *The Boer War*, 52-59.

As the British casualties mounted to over 1,000, they retreated, whereas multiple reports cite Boer fatalities at only six soldiers and around thirty wounded.⁷¹

At the end of Phase One in early January 1900, Boer targeted tactics had effectively exploited British vulnerabilities, producing multiple tactical victories. However, the Boers lacked strong central leadership and overall strategic direction. Their forces originally invaded Natal intending to capture the Harbor of Durban before British reinforcements could arrive.⁷² Even with poor strategic direction, the Boers employed their tactics successfully and became well-entrenched during the sieges, trapping the British army and denying them any ability to achieve significant military goals. They also kept the war on British territory and conducted military actions on rocky terrain that suited Boer tactics.⁷³ Their skill with rifles allowed the Boers to take advantage of the British troops grouped in nontargeted traditional massed-line assaults. The British army's high casualty rate was an important impetus for the British switch to targeted tactics, while the Boer's targeted offensive tactics were a significant element of their military successes.

⁷¹ Belfield, *The Boer War*, 60-65; Michael Davitt, *The Boer Fight For Freedom* (London: Funk & Wagnalls Company, 1902), 277; Marquis and Hamilton, *Earl Roberts, V.C., Lord Kitchener and the Great Boer War: Early Life of a Great Soldier*, 411; Blake, *A West Pointer With The Boers*, 101-04; Lord Marshall Carver, "The Boer War," *Journal of the Royal United Services Institute*, 144 (1999): 82; Neville, *Boer and Britisher in South Africa; A History of the Boer-British War and the Wars for United South Africa, Together with Biographies of the Great Men Who Made the History of South Africa*, 219-21; *Reports on Military Operations in South Africa and China*, 287.

⁷² Durand, *The Life of Field-Marshal Sir George White*, 202; Rich Norman, *Great Power Diplomacy* (New York: McGraw Hill, 1991), 294, 277.

⁷³ Churchill, *The Boer War*, 97.

Phase Two, January – June, 1900: The British Recovery

10 January 1900 brought the British new leadership with Lord Frederick Sleigh Roberts (1831-1914)⁷⁴ as Commander-in-Chief over the Boer War and his Chief of Staff, Lord Horatio Herbert Kitchener (1850-1916),⁷⁵ who became the subsequent Commander-in-Chief in 1901. Both were both experienced military leaders; Lord Roberts served in India, Afghanistan, and Egypt and Lord Kitchener in Palestine, Cyprus, Sudan, and Egypt. The British Cabinet felt great pressure to replace General Buller since his strategies and tactics had yet to achieve victory, so the appointment of Lord Roberts and Lord Kitchener helped reinvigorate British morale and bolstered military support. In addition, the Boer War had grown much larger in magnitude than initially estimated, requiring increased leadership to oversee operations. Lord Roberts chose to keep General Buller in command of the Natal campaign because Lord Roberts respected General Buller's experience and grasp of the war. Lord Roberts also did not immediately switch to different tactics and strategies, so relied on General Buller to continue his plans.⁷⁶

Lord Roberts and Lord Kitchener arrived with tens of thousands of reinforcements, which significantly bolstered British power and made up for their remaining strategic and tactical

⁷⁴ Brian Robson, "Roberts, Frederick Sleigh, first Earl Roberts (1832–1914)," *Oxford Dictionary of National Biography*, (Oxford University Press, 2004), <http://www.oxforddnb.com/view/article/35768>.

⁷⁵ Keith Neilson, "Kitchener, Horatio Herbert, Earl Kitchener of Khartoum (1850–1916)," *Oxford Dictionary of National Biography*, (Oxford University Press, 2004), <http://www.oxforddnb.com/view/article/34341>.

⁷⁶ George Forrest, *The Life of Lord Roberts, K.G., V. C* (New York: Cassell, 1914), 198; Horatio Herbert Kitchener, St. John Broderick Douglas Haig, and John Grenfell Maxwell, *Australian and New Zealand Papers*, State of New South Wales Archives, [PRO7055-7057], Canberra: Australian Joint Copying Project, 1899, 1-2; Charles Henderson Melville, *Life of General the Right Hon. Sir Redvers Buller* (London: E. Arnold & Co, 1923), 126, 264-278; Henry Smith Williams, *The Historians' History of the World: A Comprehensive Narrative of the Rise and Development of Nations As Recorded by the Great Writers of All Ages*, vol. 22 (London: The Times, 1907), 310.

weaknesses.⁷⁷ The Boers now possessed around 46,000 troops including new recruits and the British around 120,000. However, the British required nearly half their forces to protect their lines of communication, a critical vulnerability, whereas the Boer forces were highly independent and mobile and utilized their troops for combat instead of protection and communication.⁷⁸ With new leadership and strong reinforcements, the British hoped it would only be a matter of time before their superior numbers ensured a victory. Although initially Lord Roberts employed the same nontargeted tactics as General Buller, he instituted new changes to increase the mobility of the army that allowed him to shift to more targeted tactics later in the war. The British were highly dependent on railways to carry their supplies, but Lord Roberts commanded troops to carry less, improving their speed, as well as ordered additional horses to create new cavalry units.⁷⁹ Although these cavalry units appropriated large numbers of troops from existing infantry units, increased British mobility became an asset to Lord Roberts. The British were able to move their artillery much more quickly, deploy troops with greater ease, and catch up to retreating Boer forces more rapidly.⁸⁰

The Battle of Paardeberg on 18 February 1900 marked the turning point when Lord Roberts switched the offensive strategy in the middle of the battle away from the same British frontal assault to more targeted tactics. The British attacked the Boers' rearguard at Ladysmith

⁷⁷ *Reports on Military Operations in South Africa and China*, 289.

⁷⁸ Belfield, *The Boer War*, 68; Neville, *Boer and Britisher in South Africa; A History of the Boer-British War and the Wars for United South Africa, Together with Biographies of the Great Men Who Made the History of South Africa*, 184; Wheeler, *The Story of Lord Kitchener*, 168.

⁷⁹ Kitchener, Broderick, and Maxwell, *Australian and New Zealand Papers*, 1-2.

⁸⁰ Belfield, *The Boer War*, 68; Bertram Frankenberger, *Reorganization of the British forces under Lord Roberts in the Boer War*, (Fort Leavenworth: The Command and General Staff School, 1928), <http://cgsc.contentdm.oclc.org/u?/p4013coll14,459>; Marquis and Hamilton. *Earl Roberts, V.C., Lord Kitchener and the Great Boer War: Early Life of a Great Soldier*, 414.

positioned near the Modder River, initially proceeding in the same general pattern as many other British defeats. The Boers knew the British were coming and built fortified trenches that provided excellent protection as well as an unobstructed line of vision to British troops over the flat river valley. The British mistakenly shelled a Boer position that was unoccupied, and as they advanced, were unprepared when Boer artillery came in another direction. The British prepared a nontargeted frontal assault without suppressive supporting artillery and no simultaneous flanking assaults; their attack was thoroughly repelled by the well-defended Boers. At this point, Lord Roberts saw the futility in their tactics and ordered a change. Although the British had sufficient resources to continue using nontargeted tactics, Lord Roberts says that minimizing British vulnerabilities and targeting Boer vulnerabilities was a more efficient use of resources. He decided to trap the Boers in their trenches with heavy artillery to suppress all Boer fire without a direct assault. Although the Boers were relatively safe in their trenches, they also could not fire back at the British without exposing themselves. Gradually, the British snuck up on the Boers at night and, at close range, were able to trap the Boers completely with suppressive artillery and rifle fire. The British neutralized the Boers' advantage in the trenches and used the artillery with a targeted goal that supported British troops instead of trying to destroy Boer forces. This combination of artillery at night allowed the British a targeted attack that minimized British vulnerabilities. On 27 February, the Boers recognized their plight and surrendered.⁸¹ This British victory began a tactical and strategic shift that relied less on massed frontal assaults, especially against such well-positioned enemies. Instead they focused on shorter advances coordinated with

⁸¹ Blake, *A West Pointer With The Boers*, 150; Marquis and Hamilton, *Earl Roberts, V.C., Lord Kitchener and the Great Boer War: Early Life of a Great Soldier*, 421-423; Reitz, *Commando: A Boer Journal of the Boer War*, 92; Wheeler, *The Story of Lord Kitchener*, 183-93.

suppressive fire to minimize exposure in addition to taking advantage of the terrain to conceal and cover.⁸²

Although the British had strong reinforcements, the final advances in the Relief of Ladysmith lasted over a month, demonstrating that numbers without effective tactics or a wise strategy do not always guarantee a quick victory. The night of 23-24 January 1900, British forces captured Spion Kop, a strategic point in the Boer defenses near Ladysmith, and began building trenches as the Boers did in so many successful battles. However, the British failed to scout the area effectively and the Boers could clearly see British troops in their shallow trenches the following morning. The British had no hope during the ensuing artillery battle, and surrendered Spion Kop after losing 1,300 troops to the Boers' 300.⁸³ The British required three more advances to relieve Ladysmith, first taking many strategic hills and the bank of the Tugela River north of Colenso on 18-19 February. However, the next British advance did not utilize these strategic positions well and the Boers, with fewer troops and artillery, utilized their defensive high ground near Ladysmith to hold and then repel the British from 20-25 February. Finally, the British employed targeted tactics that divided their forces for a multi-pronged attack that simultaneously used the cavalry, the artillery, and the infantry. One British division remained in place to distract and engage the main Boer force while the other forces moved to other locations surrounding Ladysmith in order to break through the Boers' weaker defenses. Combined arms and flanking troop positions to minimize vulnerabilities while focusing on Boer vulnerabilities

⁸² Biddle, *Military Power*, 31.

⁸³ Belfield, *The Boer War*, 74; Blake, *A West Pointer With The Boers*, 121; Churchill, *The Boer War*, 136, 156; Reitz, *Commando: A Boer Journal of the Boer War*, 76-77; *Reports on Military Operations in South Africa and China*, 292-93.

were all targeted tactics that helped the British finally break the siege of Ladysmith on 28 February after 118 days.⁸⁴

Although Ladysmith required several advances to secure, Lord Roberts employed targeted tactics to relieve Kimberly, which was close to surrendering, with a speedier and less costly attack. The British utilized the railways to keep the army well supplied, but Lord Roberts improved the army's mobility in order to abandon the railway for a final march toward Kimberly. Although 500 horses died or became unfit, the British cavalry rode to Kimberly fast enough to outrun Boer intelligence, which thought these troops were a feint instead of a true attack. British speed allowed the cavalry to break through Boer defenses that were unprepared for such an assault, ending the 124-day siege of Kimberly on 15 February with only nine British casualties. This rapid and flanking attack used targeted tactics that served the British much better than their usual frontal assault.⁸⁵ After both Ladysmith and Kimberly were relieved, the British army concentrated their forces and used their superior numbers to easily overwhelm Boer forces. The British invaded the Orange Free State and took the capitol of Bloemfontein on 13 March through sheer nontargeted military might. They continued with an arduous march through the Transvaal and continually pushed back the defending Boer forces until the British took the capitol of Pretoria on 13 June 1900.⁸⁶ The British, now confident in numbers, mistakenly thought

⁸⁴ Belfield, *The Boer War*, 89-92; Blake, *A West Pointer With The Boers*, 125-28; Reitz, *Commando: A Boer Journal of the Boer War*, 91; *Reports on Military Operations in South Africa and China*, 302-03.

⁸⁵ Belfield, *The Boer War*, 78-80; "The Boer War," *Gold Coast Express*, January 3, 1900, <http://tinyurl.galegroup.com/tinyurl/SwWu7>; Forrest, *The Life of Lord Roberts, K.G., V.C.*, 204-05; Marquis and Hamilton, *Earl Roberts, V.C., Lord Kitchener and the Great Boer War: Early Life of a Great Soldier*, 417-18; Reitz, *Commando: A Boer Journal of the Boer War*, 96-111.

⁸⁶ Belfield, *The Boer War*, 94-99; Davitt, *The Boer Fight For Freedom*, 430; Alfred Milner and M. T. Steyn, *Correspondence between His Honour the State President of Orange Free State and His Exc. the High Commissioner*

the Boer's lack of massed armed resistance meant they had finally won the war and Lord Roberts declared victory.⁸⁷

Phase Three, March 1900 – May 1902: Guerilla Warfare

Although the Boers decreased their direct engagements with the British following the end of their sieges, the Boers regrouped into a robust guerilla-like fighting force with targeted tactics that plagued the British from March 1900 to the official end of the war on 31 May 1902. Ill-advisedly, British forces did not pursue the Boers after the relief of Ladysmith and Kimberly on 28 and 15 February 1900, allowing the Boers peaceful retreats and time to formulate a new strategy. The Boers decided that though the conventional war was lost, their small, highly mobile fighting groups could still take advantage of British vulnerabilities. By continually harassing British forces, the Boers hoped that eventually the British would abandon their fight in South Africa.⁸⁸ The Boer fighting force numbered in total around 60,000, but when the Boers were not needed for an operation, they resumed farm work. No more than 15,000 Boers were in the field at any one time, usually moving in groups of fifty to two hundred men, all on horseback with around 200 pounds per horse. These extremely mobile forces moved across 150,000 square miles of countryside, eluding British forces while capturing convoys and destroying rail lines and bridges to disrupt supply routes.⁸⁹ Their targeted guerilla tactics used their resources efficiently,

on the Placing of Troops on the Borders of the Republics, Etc, Boston, 1899, 1; *Reports on Military Operations in South Africa and China*, 298.

⁸⁷ Belfield, *The Boer War*, 112.

⁸⁸ Belfield, *The Boer War*, 103; Neville Chamberlain, *Field-Marshal Sir Neville Chamberlain on the Conduct of the War* (London: South African Conciliation Committee, 1901), 2.

⁸⁹ Belfield, *The Boer War*, 103-04, 114; Chamberlain, *Field-Marshal Sir Neville Chamberlain on the Conduct of the War*, 2; Davitt, *The Boer Fight For Freedom*, 263; Reitz, *Commando: A Boer Journal of the Boer War*, 121;

expending few lives and requiring limited supplies while creating expensive disruptions and diversions for British forces.

By 1 September 1901, both the Orange Free State and Transvaal were formally annexed to Great Britain and the British controlled all major towns; however, the Boers still freely roamed the countryside. Both Lord Kitchener and Lord Roberts urged the Boers to surrender voluntarily and halt the destruction of their countries and earn clemency, but with little success. The British forces were now mostly on horseback though few troops had quality horsemanship and all carried around 300 pounds. Although the cavalry was capable of more targeted tactics than foot soldiers, the British still had little chance of capturing the small and light Boer fighting groups. Most of the total British force of 200,000 soldiers were required to protect their lines of communication; around 75,000 troops chased the Boers around 150,000 square miles of in columns of 1,000 to 5,000. British intelligence was too slow to keep up with the movements of the Boers, consequently orders from British central command were often too late to be effective. In addition, the trained British cavalry disliked fighting on foot except at short range. They struggled to hit the Boers by rifle while mounted, which the Boers specialized in. British horses were also not adequately acclimated to Africa after being shipped by sea; of the 518,794 horses shipped to Africa, 347,007 died from poor care and exhaustion.⁹⁰

Frederick Sleigh Roberts, *South Africa: Correspondence, Etc., between the Commander-in-Chief in South Africa and the Boer Commanders so Far As It Affects the Destruction of Property* (London: H.M. Stationery Office, 1901), 12.

⁹⁰ Belfield, *The Boer War*, 104, 108, 113-15; Great Britain, *The Ghastly Blunders of the War: A Guide to the Report of the Royal Commission on the South African War, 1899-1900*, 36; *Reports on Military Operations in South Africa and China*, 318; Roberts, *South Africa: Correspondence, Etc., between the Commander-in-Chief in South Africa and the Boer Commanders so Far As It Affects the Destruction of Property*, 11; Reitz, *Commando: A Boer Journal of the Boer War*, 164; Wheeler, *The Story of Lord Kitchener*, 199.

The Boers continued to trouble and elude the British army until Lord Kitchener instituted blockhouses along all integral railways. Blockhouses were simple but fortified structures that could be built in six hours with six trained engineers and a few infantrymen. Bullet-proof metal sheets with twelve rifle slots, a perimeter trench and wire fence, as well as tin cans strung on wires as an alarm between blockhouses effectively hindered free movement around the countryside, a targeted tactic to hinder the Boers' ability to fight. Some Boers learned the locations of all houses and with their small fighting forces, could move successfully through without alerting the British, but most found the blockhouses difficult to break through.⁹¹ These blockhouses required fewer resources than chasing the Boers around the countryside and proved an effective, targeted tactic.

Lord Kitchener came up with a "drive system" in February 1901 in hopes of successfully pushing the Boers from 20,000 square miles of territory while destroying their means of sustenance through a scorched-earth policy. This punishment tactic was nontargeted and both required and destroyed massive amounts of resources. These drives used a total of around sixty British columns to march in coordinating sweeps, forcing the Boers to either fight or become trapped against the mountainous terrain or British searchlights and guns. The British managed to commandeer 272,572 head of stock, 2,281 Boer carts, and eleven guns, but only 1,350 Boers, the rest of whom slipped through the mountains or British columns. Although these drives were relatively ineffective in capturing Boers, the concurrent scorched-earth policy increased Boer war-weariness. The British were accused of wantonly destroying Boer homes, who in turn accused the Boers of destroying property. Although the destruction drove the Boers to negotiate

⁹¹ Belfield, *The Boer War*, 105, 132-34; Davitt, *The Boer Fight For Freedom*, 443; Reitz, *Commando: A Boer Journal of the Boer War*, 182, 195; Wheeler, *The Story of Lord Kitchener*, 197.

for peace, it also wrecked land and property that the British hoped to gain. The peace talks failed, but the Boers were beginning to tire of their guerilla campaign.⁹²

The drives and scorched-earth policy also displaced large numbers of Boers and African families who were sent to British concentration camps. By July 1901, thirty-one camps held 75,819 refugees; lack of fresh food and contagious epidemics officially led to a 1,304 deaths, but reports cite the fatalities at tens of thousands. These camps damaged Boer morale and weakened the Boer's will to continue fighting as well as became highly unpopular with the British public who criticized this tactic as inhumane. It was a nontargeted tactic that cost enormous civilian casualties. Although the camps and scorched-earth policy were effective in bringing the Boers to new peace talks on 12 April 1902, they were highly inefficient.⁹³

The Second Boer War finally concluded on 31 May 1902 although the British failed to capture any of the Boer leaders or destroy a large portion of their troops, indicating that the British shift to more targeted tactics destroyed the Boer's willingness to fight without needing to destroy their entire fighting force. The British process of attrition cut the Boer forces in half, not by killing them, but primarily by creating circumstances to encourage desertion. The British also managed to capture around 19,500 Boers, but only around 2,000 Boers were killed in the final

⁹² Belfield, *The Boer War*, 125-26, 135, 203-07; Chamberlain, *Field-Marshal Sir Neville Chamberlain on the Conduct of the War*, 2; Great Britain, Foreign Office, *British and Foreign State Papers, 1900-1901*, Edited by Augustus Oakes and Willoughby Maycock, (London: Harrison & Sons, 1904), 1011-12; *Reports on Military Operations in South Africa and China*, 315; Reitz, *Commando: A Boer Journal of the Boer War*, 164; Roberts, *South Africa: Correspondence, Etc., between the Commander-in-Chief in South Africa and the Boer Commanders so Far As It Affects the Destruction of Property*, 2-9.

⁹³ Belfield, *The Boer War*, 140, 142; Chamberlain, *Field-Marshal Sir Neville Chamberlain on the Conduct of the War*, 3-4; Davitt, *The Boer Fight For Freedom*, 547; *Unofficial Dispatches from the Anglo-Boer War*, Edited by Edgar Wallace (London: Hutchinson & Co. Press, 1901), <http://gutenberg.net.au/ebooks12/1200121h.html>; Wheeler, *The Story of Lord Kitchener*, 202, 208.

year of the war. The low fatality count indicates that the Boers were skilled tacticians, but with an ineffective strategy against the British. Lord Kitchener's strategy, however, successfully compelled the guerilla fighters to surrender, an unusual victory in such a short time compared to most guerilla warfare throughout history.⁹⁴

The British learned throughout the Boer War that their traditional training was poor preparation for war against the Boers and targeted tactics were much more effective. British tactics primarily focused on massed assaults in formation and firing artillery indiscriminately at the enemy position. The artillery in this time period was relatively unsuccessful as cover; gunners often missed the enemy position, hit the enemy position as well as their own frontal assault, or failed to provide any cover at all. Tactics were slow to change, but eventually the British shifted away from massed attacks in line to targeted shorter advances that were coordinated with their supporting artillery. Greater portions of the infantry began riding horses and carrying less, becoming a more mobile and effective fighting force as a whole, as well as used terrain to minimize exposure.⁹⁵

The Boers employed targeted tactics well suited to their strengths, but failed to implement a successful strategy, illustrating the power of targeted tactics as well as the importance of strategy. Although the Boers could have engaged the British with similarly nontargeted frontal assaults, they chose to minimize their vulnerabilities and disrupt British strengths. They were impressive riflemen and fought unmounted, but used their horses to deploy rapidly as well as retreat quickly. Their independence and lack of a fixed base meant they could

⁹⁴ Belfield, *The Boer War*, 103, 131, 144, 148; John Ferguson, *American Diplomacy and the Boer War* (Philadelphia: University of Pennsylvania, 1939), 44; Reitz, *Commando: A Boer Journal of the Boer War*, 303.

⁹⁵ Biddle, *Military Power*, 31; Carver, "The Boer War," 82; Winston Churchill, "Some Impressions of the War in South Africa," *Journal of the Royal United Services Institute*, 156 (1901): 105, 109; Jackson, *A Soldier's Diary: South Africa 1899-1901*, 20, 22.

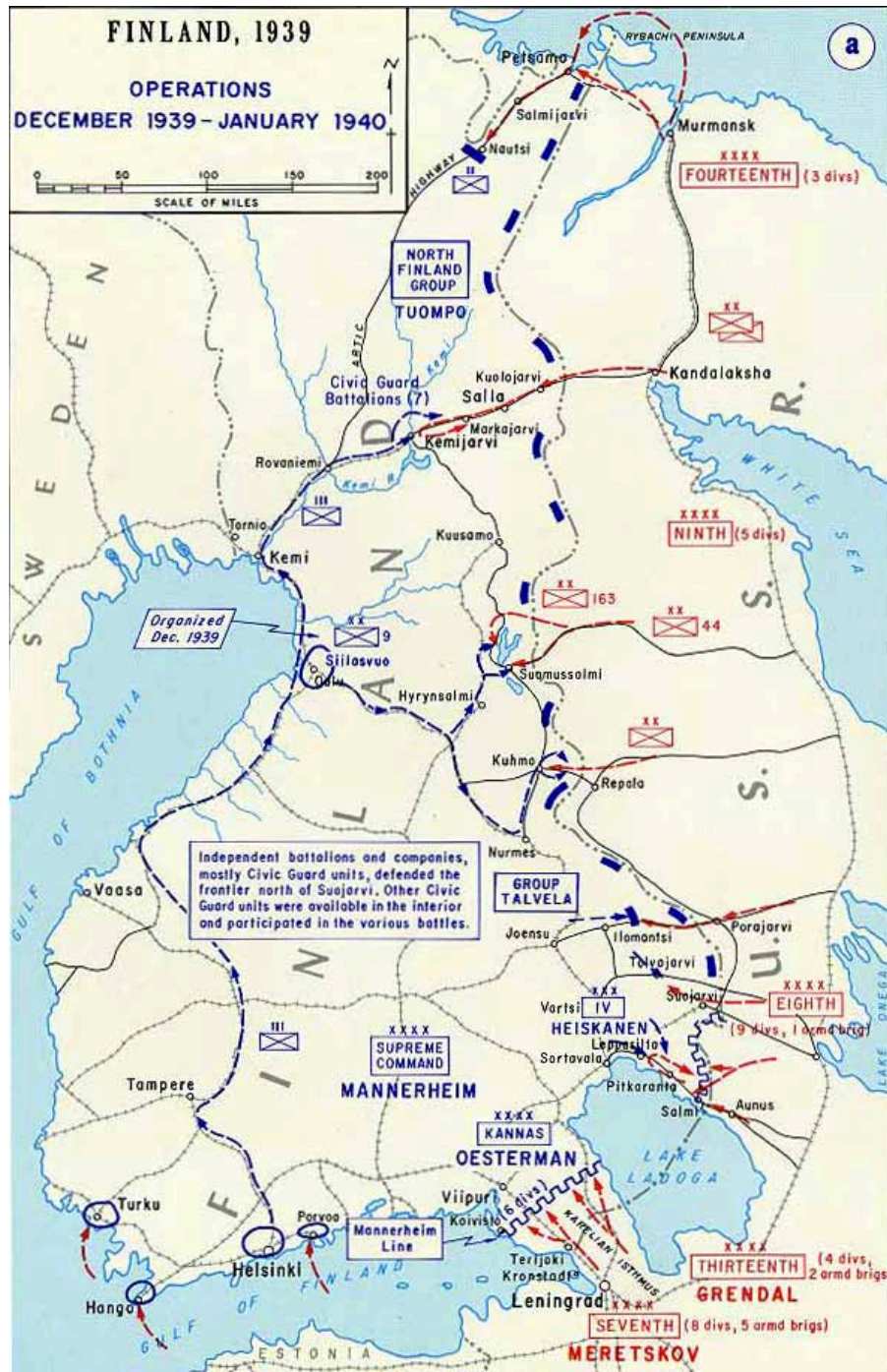
engage in targeted military actions without waiting for orders and employ guerilla-like tactics swiftly. The Boers avoided concentrating their forces and, especially in the third phase of the war from 1900 – 1902, fought more “actions” than “battles.” These smaller engagements decreased hazardous exposure as well as rendered British training to conduct volleys of fire between lines of soldiers ineffective. However, despite their tactical superiority, the Boers failed to raise the cost of the British invasion enough that the British gave up their fight. Boer strategy opened with a strong invasion of Natal, but once the sieges began, they failed to continue making progress toward the Harbor of Durban, failed to keep the British out of the Orange Free State and the Transvaal, and finally failed to force a British retreat.⁹⁶

Tactics and strategy are concurrently significant to military actions; the British demonstrated the efficacy of targeted over nontargeted tactics, and the Boers illustrated that successful tactics require a strong guiding strategy for full effectiveness. The British began decreasing their vulnerabilities and expended fewer soldiers and resources to reach their military objectives, although without reinforcements, their shifting tactics may not have allowed the British to achieve eventual victory. In addition, had the Boers successfully implemented their primary strategy, the war may have ended rather differently. Nevertheless, the Boer War aptly showcased the advantage of employing targeted tactics to achieve victory.

⁹⁶ *Annual Reports of the War Department for the Fiscal Year Ended June 30, 1901*. no. 224. Extracts from an *Article on Army Reorganization*, 217; Carver, “The Boer War,” 4; Churchill, “Some Impressions of the War in South Africa,” 112; Neville, *Boer and Britisher in South Africa; A History of the Boer-British War and the Wars for United South Africa, Together with Biographies of the Great Men Who Made the History of South Africa*, 198; *Reports on Military Operations in South Africa and China*, 228-29; Wheeler, *The Story of Lord Kitchener*, 164, 166, 181.

Chapter 5 - The Winter War: 1939-1940

Figure 2 Map of the Winter War



⁹⁷ “Finland War Map,” La Historia Con Mapa, accessed March 15, 2016, <http://www.lahistoriaconmapas.com/atlas/map-war/Finland-war-map.htm>.

Although the Red Army attacked Finland in the Winter War with a numerically greater and vastly more powerful force, a war intended to last two weeks became months of intense combat.⁹⁸ The Finns' targeted tactics and strategically placed defenses, in addition to what many historians describe as "sisu," or a combination of guts, daring, and tenacity, thwarted the Soviet Union's attempt to obtain Finland.⁹⁹ The Red Army began their attack with a strategy of annihilation but was forced into a strategy of attrition as the Finns used targeted tactics well suited to maneuver and defense. Although the Finn's defensive position was a great asset, their focus on destroying the Soviet's ability to fight while reducing their own vulnerabilities produced targeted tactical decisions that saved Finland from occupation.

Before the War: Military Preparedness

During the inter-war period, the twenty miles separating Leningrad and the Finnish border became a major security concern to the Soviet Union. Although General Secretary Joseph Stalin (1879–1953)¹⁰⁰ did not believe Finland itself was a threat, he did not trust their statement of neutrality and feared potential German aggression via the Karelian Isthmus.¹⁰¹ The Soviet

⁹⁸ Eloise and Paananen. *The Winter War: The Russo-Finnish Conflict, 1939-40*, 1; Carl Gustaf Emil Mannerheim, *Memoirs* (Cassell, 1950), 328; William Trotter, *A Frozen Hell: The Russo-Finnish War of 1939-1940* (Chapel Hill: Algonquin Books of Chapel Hill, 1991), 34, 62.

⁹⁹ Eloise Engle and Lauri Paananen. *The Winter War: The Russo-Finnish Conflict, 1939-40* (New York: Charles Scribner's Sons, 1973), 84; Gordon F. Sander, *The Hundred Day Winter War: Finland's Gallant Stand against the Soviet Army* (Lawrence: University Press of Kansas, 2013), 1.

¹⁰⁰ "Joseph Stalin," *Oxford Reference*, Jan 2002.

¹⁰¹ Albin T. Anderson, "Origins of the Winter War: A Study of Russo-finnish Diplomacy," *World Politics* 6, no. 2 (1954), 169–89, 173; Eloise and Paananen. *The Winter War: The Russo-Finnish Conflict, 1939-40*, 6, 8; Max Jakobson, *Finland Survived: An Account of the Finnish-Soviet Winter War, 1939-1940* (Helsinki: The Otava

Union negotiated with Finland for half a year in an attempt to move the Finnish border twenty miles into Finland and obtain several islands in the Bay of Finland in return for 3,450 square miles of Soviet Keralia in return. However, Finland refused to surrender their territory and negotiations ended on 13 November 1939.¹⁰²

The Finnish government expected that the West would come to their aid should the Soviets attack, so it allocated many government funds to the 1940 Olympics instead of war preparation. These included a new stadium that hosted multiple anti-aircraft guns on its observation tower after the Red Air Force attacked Helsinki.¹⁰³ On 26 November 1939 seven shots were heard inside Soviet territory near Mainila that signified a shift in Finnish-Soviet relations. Although General Carl Gustav Emil Mannerheim (1867–1951)¹⁰⁴ had already ordered Finnish guns out of range of Soviet troops to prevent unintended hostilities, Soviet Commissar of Foreign Affairs Vyacheslav Mikhailovich Molotov (1890-1986)¹⁰⁵ sent a diplomatic note claiming that four Soviet soldiers were killed and nine wounded from the exchange. The Finnish government sought resolution through diplomatic channels but received silence from Commissar Molotov. General Mannerheim resigned the next day out of frustration when the Finnish

Publishing Co., 1984), 9; David E. Murphy, *What Stalin Knew: The Enigma of Barbarossa* (New Haven: Yale University Press, 2005), 48; Trotter, *A Frozen Hell: The Russo-Finnish War of 1939-1940*, 3, 7-8, 16; John O. Virtanen, "Finland's 'Pearl Harbor.'" *New York Times*. ProQuest Historical Newspapers. November 30, 1979.

¹⁰² Robert Edwards, *White Death: Russia's War on Finland, 1939-40* (London: Weidenfeld & Nicolson, 2006), 76, 77; Jakobson, *Finland Survived: An Account of the Finnish-Soviet Winter War, 1939-1940*, 3; Trotter, *A Frozen Hell: The Russo-Finnish War of 1939-1940*, 16-17.

¹⁰³ Jakobson, *Finland Survived: An Account of the Finnish-Soviet Winter War, 1939-1940*, 55; Sander, *The Hundred Day Winter War: Finland's Gallant Stand against the Soviet Army*, 64, 67; Trotter, *A Frozen Hell: The Russo-Finnish War of 1939-1940*, 20.

¹⁰⁴ "Carl Gustav Emil Mannerheim," *Oxford Reference*, Jan 2007.

¹⁰⁵ "Vyacheslav Mikhailovich Molotov," *Oxford Reference*, Jan 2003.

government neglected to identify this incident as a trigger for war and immediately ready the Finnish army for attack.¹⁰⁶

The commanders of the Red Army expected a total defeat of the Finnish military within two weeks, aided by the Finnish population who would welcome the Communist liberators. The commanders wanted to emulate the German Blitzkrieg with a plan that would overwhelm the Finns with a massive ground offensive. Aerial support would destroy Finnish communications and spread terror among the populace to attain victory before the harsh winter began. Although the Soviets planned a strategy of maneuver, their challenges on the battlefield, such as geography and Finnish obstacles, required a shift to a strategy of attrition, for which their tactics were also better suited.¹⁰⁷

Most of the bogs and smaller lakes were frozen enough to drive on but not enough snow had fallen yet to be a major obstacle.¹⁰⁸ Twenty-six divisions, one motorized arm corps, and five armored brigades were initially sent into Finland with a total of around 500,000 soldiers, 2,000 tanks, and 1,000 airplanes.¹⁰⁹ The 7th Army would attack the Karelian Isthmus, breach the Mannerheim Line, take Viipuri, and eventually move on to Helsinki. The 8th Army would attack

¹⁰⁶ Eloise and Paananen. *The Winter War: The Russo-Finnish Conflict, 1939-40*, 14, 29; Jakobson, *Finland Survived: An Account of the Finnish-Soviet Winter War, 1939-1940*, 148, 151; Murphy, *What Stalin Knew: The Enigma of Barbarossa*, 51; Trotter, *A Frozen Hell: The Russo-Finnish War of 1939-1940*, 21.

¹⁰⁷ Sander, *The Hundred Day Winter War: Finland's Gallant Stand against the Soviet Army*, 78; Trotter, *A Frozen Hell: The Russo-Finnish War of 1939-1940*, 40, 43.

¹⁰⁸ Eloise and Paananen. *The Winter War: The Russo-Finnish Conflict, 1939-40*, 2; Jakobson, *Finland Survived: An Account of the Finnish-Soviet Winter War, 1939-1940*, 174; Mannerheim, *Memoirs*, 327; Roger R. Reese, "Lessons of the Winter War: A Study in the Military Effectiveness of the Red Army, 1939-1940." *The Journal of Military History* 72, no. 3 (2008), 827; Sander, *The Hundred Day Winter War: Finland's Gallant Stand against the Soviet Army*, 63, 67; Trotter, *A Frozen Hell: The Russo-Finnish War of 1939-1940*, 35-37, 148; Virtanen, "Finland's 'Pearl Harbor.'"

¹⁰⁹ Eloise and Paananen. *The Winter War: The Russo-Finnish Conflict, 1939-40*, 16; Max Jakobson, *Finland in the New Europe* (Westport: Praeger, 1998), 32; Mannerheim, *Memoirs*, 365.

north of Lake Ladoga and circle southeast to break the northern Finnish defenses on the Isthmus. The 9th Army would move west to divide Finland in half and cut its communications with Sweden and the 14th Army would capture the Finnish arctic port of Petsamo to cut communications and halt any aid from arriving from the north.¹¹⁰

Despite the Red Army's massive resources, they were not prepared to fight well during winter in the forest. The war occurred after General Secretary Stalin's purge, so most Red Army officers had little experience; training standards between units varied greatly and largely emphasized mass frontal assaults and volleys of rifle fire.¹¹¹ This method of fighting begs for qualification as nontargeted; grouping soldiers in one location leaves them vulnerable to various methods of attack, such as artillery or ambush, and volleys of rifle fire are inefficient against an enemy that is spread out, concealed, and well fortified. Soviet field guns were also best at a close range on a flat-trajectory and few of their howitzers were able to angle very high, leaving both weapons less effective among the trees that encompassed much of Finnish territory. Although the Soviets had submachine guns, they were only used for police work because the military preferred rifles. The Red Army also had no winter camouflage for their soldiers or tanks until January and although some units possessed ski-combat manuals, none of the soldiers were trained in ski-combat before the conflict began. In addition, although the Finns had no operational armor, the Soviets brought modern antitank guns on their campaign, which were of great use to the Finns once captured. The Soviets also used outdated maps and unreliable intelligence regarding

¹¹⁰ Edwards, *White Death: Russia's War on Finland, 1939-40*, 152; Mannerheim, *Memoirs*, 330; Reese, "Lessons of the Winter War: A Study in the Military Effectiveness of the Red Army, 1939-1940," 828; Sander, *The Hundred Day Winter War: Finland's Gallant Stand against the Soviet Army*, 79; Trotter, *A Frozen Hell: The Russo-Finnish War of 1939-1940*, 38-39, 51-52.

¹¹¹ Ulrich Pilster and Tobias Böhmelt, "Coups-Proofing and Military Effectiveness in Interstate Wars, 1967-99," *Conflict Management and Peace Science* 28, no. 4 (2011), 336-38.

Finnish defenses, which meant they severely underestimated the quality and quantity of Finnish fortifications and instead expected the Winter War to progress similarly to their invasion of Poland.¹¹²

General Mannerheim's strategy for the Finnish Army relied on creating a war of attrition and enduring long enough against the Soviets that either aid from the West or Finland's own tenacity forced a negotiated settlement. General Mannerheim knew that the thick forests north of Lake Ladoga would diminish the Red Army's numerical advantage so he could concentrate his forces on the Karelian Isthmus. In reality, General Mannerheim knew at his 72 years of age that foreign aid was not probable and did not expect his army to perform as admirably as they did.¹¹³ However, the Finns had several advantages. Before the war, most Finns trained on terrain that was similar to terrain they fought on during the war, so they knew how to utilize the forest and practiced ambushes, deceptions, and raids. These became highly valuable tactics against the Red Army in the north. They had meticulous maps that were already ranged correctly during trainings for their batteries in order to make the most use of their minimal resources. Their artillery contained primary howitzers and mortars that were light and could angle over trees. Many of

¹¹² Otto Preston Chaney, "The contribution of Georgi Konstantinovich Zhukov to the Soviet scene, 1918-1968, an appraisal," (PhD diss., The America University, 1968), 104; Christopher Andrew and Julie Elkner, "Stalin and Foreign Intelligence," *Totalitarian Movements & Political Religions* 4, no. 1 (2003): 69; Kimmo Rentola, "Intelligence and Stalin's Two Critical Decisions in the Winter War, 1939-1940," *The International History Review* 35, no. 5 (2013): 1090; E. N. Kulkov, O. A. Rzheshhevskii, and Harold Shukman, *Stalin and the Soviet-Finnish War, 1939-1940* (London: Frank Cass, 2002), 4; Murphy, *What Stalin Knew: The Enigma of Barbarossa*, 55; Sander, *The Hundred Day Winter War: Finland's Gallant Stand against the Soviet Army*, 61; Trotter, *A Frozen Hell: The Russo-Finnish War of 1939-1940*, 36-38, 46.

¹¹³ Edwards, *White Death: Russia's War on Finland, 1939-40*, 20; Stig Jägerskiöld, *Mannerheim: Marshal of Finland* (London: C. Hurst & Co., 1986), 112; John Langdon-Davis, *Invasion in the Snow* (Boston: Houghton Mifflin Co., 1941), 7; Rentola, "Intelligence and Stalin's Two Critical Decisions in the Winter War, 1939-1940," 1096; Sander, *The Hundred Day Winter War: Finland's Gallant Stand against the Soviet Army*, 78; Trotter, *A Frozen Hell: The Russo-Finnish War of 1939-1940*, 40, 43.

their troops were trained in ski combat, which is highly mobile, and their standard infantry rifle was of better quality than the Soviet equivalent.¹¹⁴ These resources and training set the Finns up to employ targeted tactics that focused on discriminate use of ammunition to negate the Soviet's resource advantages.

However, before 1918 the Finns did not have a formal army and never practices full-scale mobilization. Not enough of their able-bodied soldiers had formal training and officers had little practice commanding large units. Most soldiers had not seen a tank or even trained in anti-tank tactics. At the beginning of hostilities, only 10 divisions were fully equipped. Some of their equipment dated to the Russo-Japanese War of 1904-1905 and few divisions had ordinance bigger than a maxim gun. The army had 60 days-worth of ammunition for rifles and light automatics as well as gas and oil, around 20 days-worth of shells for light field guns and 122mm howitzers as well as shells for their heavy and coastal batteries, and only 30 days of aviation fuel. The Finns had the same total amount of ammunition in reserve as the Soviets could afford to use in one day.¹¹⁵

General Mannerheim positioned the 2nd and 3rd Corps, each with three divisions along the Mannerheim Line and sent the 4th Corps with two divisions north of Lake Ladoga to cover 60 miles. The North Finland Group, which was a collection of Civil Guards, border guards, and

¹¹⁴ Jakobson, *Finland Survived: An Account of the Finnish-Soviet Winter War, 1939-1940*, 174; Mannerheim, *Memoirs*, 323; Trotter, *A Frozen Hell: The Russo-Finnish War of 1939-1940*, 40, 42, 44-45.

¹¹⁵ Edwards, *White Death: Russia's War on Finland, 1939-40*, 27, 112, 157; Eloise and Paananen. *The Winter War: The Russo-Finnish Conflict, 1939-40*, 37; Jägerskiöld, *Mannerheim: Marshal of Finland*, 113; Jakobson, *Finland in the New Europe*, 32; Max Jakobson, *Finland Survived: An Account of the Finnish-Soviet Winter War, 1939-1940*, 220; Mannerheim, *Memoirs*, 324; Trotter, *A Frozen Hell: The Russo-Finnish War of 1939-1940*, 42-44, 47; Olli Vehviläinen, *Finland in the Second World War: Between Germany and Russia* (Gordonsville: Palgrave Macmillan, 2002), 52.

reservists covered the remaining 625 miles of the Soviet border for a total of nine divisions and 300,000 soldiers.¹¹⁶

Phase One, 30 November 1939 – 8 January 1940: Finland Holds Fast

On 30 November 1939 Soviet planes dropped leaflets over Helsinki and Viipuri that urged Finns to embrace communism and overthrow their government. These leaflets were followed by a bombing attack that targeted transportation and economic centers in Helsinki, Viipuri, Turku, Imatra, and Lahti, killing 200 Finns.¹¹⁷ Although these targets were intended to take out Finnish capabilities, Finnish transportation and economic centers were too widely dispersed for the Soviets to take advantage of an otherwise targeted tactic. General Mannerheim immediately withdrew his resignation as the Red Army invaded and Finns were ordered to evacuate their homes on the anticipated fronts. On 1 December the Soviets announced they had “liberated” the area surrounding Terijoki and set up the Democratic People’s Government of the Finnish Republic which served as a piece of propaganda with no real political impact. Although the new “head of state” signed a treaty of mutual assistance and friendship with the Soviet Union

¹¹⁶ Edwards, *White Death: Russia’s War on Finland, 1939-40*, 27; Jason Lavery, *The History of Finland* (Westport: Greenwood Press, 2006), 118; Trotter, *A Frozen Hell: The Russo-Finnish War of 1939-1940*, 44.

¹¹⁷ Edwards, *White Death: Russia’s War on Finland, 1939-40*, 120; Eloise and Paananen. *The Winter War: The Russo-Finnish Conflict, 1939-40*, 22 Jakobson, *Finland Survived: An Account of the Finnish-Soviet Winter War, 1939-1940*, 157-58; James T. Kallman, "My Remembrance of the Winter War." *The Finnish American Reporter*, 09, 1994. <http://search.proquest.com.er.lib.k-state.edu/docview/207132843?accountid=11789>; Mannerheim, *Memoirs*, 322; Rentola, “Intelligence and Stalin’s Two Critical Decisions in the Winter War, 1939-1940,” 1090 Sander, *The Hundred Day Winter War: Finland’s Gallant Stand against the Soviet Army*, 49; Trotter, *A Frozen Hell: The Russo-Finnish War of 1939-1940*, 48-50.

on 5 December and formed the First Army Corps of Finland's People's Army, neither played a role in the remainder of the war.¹¹⁸

The Soviet Air Force was comprised of 3,000 planes against the Finns' 162. The Soviets conducted 2,075 bombing attacks in 516 locations, killing 650 civilians and wounding 2,000. Through the course of the war the Finns shot down up to 800 Soviet planes with anti-aircraft guns and 240 by Finnish planes. Soviets shot down 26 Finnish planes in return and struggled to find effective transportation or economic targets in Finland's unconcentrated population. Although rail lines were easy targets, they were also easy to repair and few civilian centers were strategically important to the war. Although the Soviets had decisive air superiority, it was not strategically significant to any military operations before February.¹¹⁹ Attacks on civilians were nontargeted since they supported no strategic goals and did not hinder the Finnish Army's ability to fight. In addition, Finnish transportation and economic centers were too widely distributed throughout the country for air power to significantly affect Finnish capabilities. Neither the Red nor Finnish Navies played a large role since both were created as coastal defense forces and not equipped for considerable naval warfare. The Red Navy engaged in some ship to shore gunnery

¹¹⁸ Seweryn Bialer, *Stalin and His Generals; Soviet Military Memoirs of World War II* (New York: Pegasus, 1969); Edwards, *White Death: Russia's War on Finland, 1939-40*, 117; Jakobson, *Finland Survived: An Account of the Finnish-Soviet Winter War, 1939-1940*, 166, 170; Mannerheim, *Memoirs*, 323; Kimmo Rentola, "The Finnish Communists and the Winter War," *Journal of Contemporary History* 33, no. 4 (1998), 600; Rentola, "Intelligence and Stalin's Two Critical Decisions in the Winter War, 1939-1940," 1090; Trotter, *A Frozen Hell: The Russo-Finnish War of 1939-1940*, 52-53; Vehviläinen, *Finland in the Second World War: Between Germany and Russia*, 47.

¹¹⁹ Eloise and Paananen. *The Winter War: The Russo-Finnish Conflict, 1939-40*, 3; Mannerheim, *Memoirs*, 346; Trotter, *A Frozen Hell: The Russo-Finnish War of 1939-1940*, 187-92.

duels, but conducted few naval operations. In addition, the Gulf of Finland began to freeze by the end of December, ending the possibility for further operations.¹²⁰

The primary theatre of the Winter War was located in the Karelian Isthmus along the Mannerheim Line. This 80-mile line of Finnish fortifications was comprised of 109 reinforced concrete pillboxes with armor plate covering the roofs and gun ports, situated along lakes and rivers that buttressed the defensive fortifications. The line was largely erected earlier in 1939 and stretched from Lake Ladoga to the Gulf, neither of which froze enough to support the weight of tanks until February, making the line difficult to outflank. In addition, Finns placed miles of barbed wire, concrete and wooden anti-tank obstacles, ditches, and mine fields in front of the line as well as blew up 142 bridges, viaducts, and other road structures before the Soviets drew near.¹²¹ These obstacles were a targeted tactic because they hindered the Soviets ability to advance and directly attack the Mannerheim Line. They also supported the strategic goal to create a war of attrition that lasted long enough for the Finns to reach a settlement.

General Marshal Kiril Meretskov (1897-1968)¹²² led 120,000 troops, 1,000 tanks, and 600 pieces of artillery toward 21,000 Finns deployed in “covering groups” to delay Soviet progress through the buffer zone between the border and the Mannerheim Line. These groups rolled cellophane over frozen lakes to make them look unfrozen and left mines on pull ropes in the lakes to break ice and force the Red Army to travel in straight lines on the roads or through

¹²⁰ Edwards, *White Death: Russia's War on Finland, 1939-40*, 120; Mannerheim, *Memoirs*, 346; Trotter, *A Frozen Hell: The Russo-Finnish War of 1939-1940*, 55.

¹²¹ Eloise and Paananen. *The Winter War: The Russo-Finnish Conflict, 1939-40*, 64; Fred Singleton, *A Short History of Finland* (Cambridge: Cambridge University Press, 1989), 128; Kulkov, Rzheshhevskiĭ, and Shukman. *Stalin and the Soviet-Finnish War, 1939-1940*, 2-3; Mannerheim, *Memoirs*, 325; Murphy, *What Stalin Knew: The Enigma of Barbarossa*, 54; Trotter, *A Frozen Hell: The Russo-Finnish War of 1939-1940*, 64.

¹²² "Marshal Kirill Meretskov," *Oxford Reference*, Jan 2003.

the forests, both of which slowed their travel and left forces exposed to flank attacks and ambush. The Finns also left booby traps in villages that were evacuated along the Soviet border to cause delays through both physical destruction as well as fear of triggering further traps.¹²³ These were targeted tactics that forced the Soviets to march in vulnerable positions.

The Finnish Army devised many effective and economical tactics to slow the progress of the Red Army, primarily in response to their first experiences fighting tanks. Although some Finns panicked in the face of Soviet tanks, soldiers in the Isthmus destroyed 80 tanks the first week. Tank-hunter squads had a 70 percent casualty rate, but if soldiers lived long enough to get close, tanks were easily immobilized by jamming crowbars and logs into the bogie wheels, a useful critical vulnerability.¹²⁴ In addition, fighting in the buffer zone inaugurated the use of the Molotov Cocktail. Supposedly, a Finnish soldier became frustrated and in desperation threw a kerosene lantern at a tank and the grease caught on fire. Finns mixed gasoline, kerosene, tar, and chloride of potassium in a bottle and named the incendiary after Commissar Molotov, whom they blamed for the war. Finns used around 70,000 Molotov Cocktails during the course of the war, 20,000 of which were made on the front lines. The Finnish army gained valuable experience and learned how to diminish one of the Soviet's greatest advantages. They destroyed dozens of tanks before the Red Army even reached the Mannerheim Line.¹²⁵

¹²³ Edwards, *White Death: Russia's War on Finland, 1939-40*, 119; Eloise and Paananen. *The Winter War: The Russo-Finnish Conflict, 1939-40*, 27; Trotter, *A Frozen Hell: The Russo-Finnish War of 1939-1940*, 68-71, 119.

¹²⁴ Edwards, *White Death: Russia's War on Finland, 1939-40*, 120; Trotter, *A Frozen Hell: The Russo-Finnish War of 1939-1940*, 71-73.

¹²⁵ Eloise and Paananen. *The Winter War: The Russo-Finnish Conflict, 1939-40*, 29, 39; Jägerskiöld, *Mannerheim: Marshal of Finland*, 113; Jakobson, *Finland Survived: An Account of the Finnish-Soviet Winter War, 1939-1940*, 174; Trotter, *A Frozen Hell: The Russo-Finnish War of 1939-1940*, 72-73, 146; Virtanen, "Finland's 'Pearl Harbor.'" "

By 6 December most of the “covering troops” in the 2nd and 3rd Corps withdrew to the Mannerheim Line as the Red Army advanced. Taipale was located on flat marshy land at the north end of the Mannerheim Line near Lake Ladoga and received the brunt of the Red Army’s initial campaign. The Soviet’s strategy on the Mannerheim Line was to wear down the Finns with artillery fire and reduce their ability to respond during the subsequent tank and infantry attacks. Depending on the accuracy of artillery strikes to cover infantry without friendly fire, this could be a targeted attack, but at this point in time Soviet technology was not accurate enough to allow the infantry and armor sufficient cover before an exposed frontal assault. Instead these nontargeted tactics used indiscriminate artillery fire and vulnerable infantry charges. In addition, tanks were intended to protect the infantry, but the Soviets failed to coordinate effectively to offer mutual support.¹²⁶

The Soviets initiated on 6 December with a four-hour bombardment followed by an infantry swarm to gain the Kuokunniemi peninsula. This open, marshy land was an intentional strategic loss by the Finns that drew the Red Army into a nontargeted attack. The concentrated formation of soldiers with no snow camouflage left the soldiers highly vulnerable; soldiers were easy targets on the flat peninsula in their khaki uniforms. The Soviets suffered hundreds of casualties, retreated, and halted any significant assaults until reinforcements arrived.¹²⁷

By 14 December the Red Army had three divisions near Taipale with 84 batteries against the Finnish nine. The Soviets again opened with an artillery barrage but the Finns did not respond in order to conserve ammunition. An entire infantry division then marched toward the

¹²⁶ Eloise and Paananen. *The Winter War: The Russo-Finnish Conflict, 1939-40*, 67, 69; Mannerheim, *Memoirs*, 342; Trotter, *A Frozen Hell: The Russo-Finnish War of 1939-1940*, 47, 73.

¹²⁷ Eloise and Paananen. *The Winter War: The Russo-Finnish Conflict, 1939-40*, 67, 69; Mannerheim, *Memoirs*, 342; Trotter, *A Frozen Hell: The Russo-Finnish War of 1939-1940*, 76-79.

Mannerheim Line flanked by 50 tanks intending to overwhelm Finnish forces. However, once they reached a pre-plotted line, the Finns opened their guns into the unprotected and unconcealed infantry. This wave retreated with 300 to 400 casualties and 18 destroyed tanks. On 16 December the Soviets conducted an eight-hour artillery barrage, attacked with the infantry and tanks, and managed to overwhelm the Finns and breach the Mannerheim Line in two locations. However, by the end of the night the Finns had regained their position with mortars, grenades, rifle fire, submachine guns, and automatic rifles. Thousands of Soviet soldiers lost their lives in their nontargeted attacks on the Mannerheim Line in this area, but the Finns never lost this sector throughout the entire war.¹²⁸

After failing to pierce the Mannerheim Line near Taipale, the red Army turned to the Summa Sector. On 17 December the Soviets opened with a five-hour artillery barrage as well as air strikes from 200 aircraft. They attacked Finnish positions in the village of Summa as well as the road defenses northeast of the village and destroyed most of the Finns communications in the area so Finnish command had no idea what was occurring. This was a targeted tactic by the Soviets in order to hinder the Finns ability to fight. However, no significant breakthroughs occurred. Although the anti-tank obstacles were too small to stop the tanks, the tanks were forced to expose their underside as they climbed over the obstacles. The Finns learned that in that vulnerable position, the tanks could not fire low enough to stop soldiers from placing mines right in front of the advancing tank. Many tanks tried to drive on the frozen lakes but these exposed locations made them easy targets to Finnish ambush parties and antitank guns. The Soviets lost

¹²⁸ Eloise and Paananen. *The Winter War: The Russo-Finnish Conflict, 1939-40*, 67, 69; Mannerheim, *Memoirs*, 342; Trotter, *A Frozen Hell: The Russo-Finnish War of 1939-1940*, 76-79.

35 tanks on the 17th, a third of the tanks deployed.¹²⁹ Soviet nontargeted tactics that exposed their tanks and Finnish targeted tactics that positioned mines directly under an advancing tank were a destructive combination.

By 20 December, seven infantry divisions and two armored brigades with at least 500 guns and at least that many aircraft had failed to break through the Summa sector. The Finns utilized ditches and bogs as well as mine fields and tank traps and closer to the Mannerheim Line used artillery, antitank obstacles, camouflaged pits. If infantry and tanks advanced further, the Finns used gasoline bombs, satchel charges, cluster grenades, and small arms as well as their few Bofors antitank guns. This combination of obstacles and use of varied and economical weapons was a targeted use of resources that allowed the Finns to repel every attack as well as destroy a total of 239 tanks in the Isthmus. One of the responding Soviet tactics sent lateral lines of infantry toward the front in order to clear mines from the paths of tanks, a nontargeted tactic that placed soldiers in vulnerable positions, although manpower was one of their greatest, dispensable resources.¹³⁰

Tolvajrävi Road

At the outset of the war the Soviet 139th Division began marching toward a strategic transportation junction at the intersection of Tolvajrävi Road and the Värtsilä rail line. Tolvajrävi Road ran behind the Mannerheim Line north through the interior of Finland and transected the Värtsilä rail line, which supplied the Ladoga front and would provide the Soviets with a means to attack the Mannerheim Line from the rear. The 139th Division had 20,000

¹²⁹ Eloise and Paananen. *The Winter War: The Russo-Finnish Conflict, 1939-40*, 69; Jägerskiöld, *Mannerheim: Marshal of Finland*, 115; Trotter, *A Frozen Hell: The Russo-Finnish War of 1939-1940*, 80-81.

¹³⁰ Mannerheim, *Memoirs*, 343-44; Trotter, *A Frozen Hell: The Russo-Finnish War of 1939-1940*, 81-83.

soldiers, 147 pieces of artillery, and 45 panzer guns against a small contingent of Finns stationed in the area. Although Finnish units were spread too thinly for a full-scale defensive front, they conducted surprise ambushes in order to stall the advance of the Soviets and await reinforcements.¹³¹

By 6 December all units retreated to Lake Tolvajärvi, which offered a strong defensive position in the path of the Red Army. On 8 December the Soviets advanced near this point and the Finns launched a night raid. Their bicycle battalion feinted in the early morning allowing the 4th and 9th companies to ski undetected across the lake toward the Soviet positions. The Finns fired from shifting positions as they circled the Soviet encampment in the dark. Although the Soviet casualty count is unknown, the Finns only bore one casualty. This targeted attack took advantage of the Finns mobility, which allowed discriminate attacks from multiple adaptable positions, against the concentrated and vulnerable Soviet forces. On 10 December an entire Soviet battalion laid an ambush on the Finnish supply line but were so hungry that they became distracted by the Finnish rations in what became known as the “Sausage War.” The Soviets lost momentum and the Finns regrouped and used their bayonets in close combat and then pursued the fleeing Soviets. The Finnish casualty count is unknown, but over 100 Soviets were killed. Another Soviet ambush was attempted from south of the village over one of the lakes. However, the Finns noticed this attack beforehand and gunned down over 200 Soviets in their highly

¹³¹ Eloise and Paananen. *The Winter War: The Russo-Finnish Conflict, 1939-40*, 20; Trotter, *A Frozen Hell: The Russo-Finnish War of 1939-1940*, 94-98.

exposed position on the ice.¹³² Although the Soviets had far more soldiers, their hunger and unadapt ambushes failed to dislodge the Finns from their defensive position.

The Finns began a counteroffensive on 12 December with three groups of soldiers making a pincer movement, attacking from the north, west, and south of the Soviet position. The northern arm snuck up on a large number of Soviets who were simultaneously sneaking up on them, leading to a surprise engagement on both sides. However, the Soviets had far more guns and soldiers, which forced the Finns to retreat except for a small contingent of 100 Finnish soldiers who never received the order. This group engaged a large number of the Red Army and held them in place, blocking them from fighting elsewhere. The southern arm also suffered from lack of soldiers and ammunition so could not gain and hold any ground.¹³³

However, the center group of soldiers made moderate progress toward a hotel that gave the Soviets a strategic vantage point. The Finns used their Maxim machine guns in lieu of light artillery, which required soldiers to carry the 40-pound guns close to the front and use them without a tripod, but this allowed close coordination with the infantry. Three tanks moved in to reinforce the Soviet infantry under attack but drove on a narrow road that trapped them in exposed locations. The Finns destroyed the tanks with their only antitank gun before the tanks could get close enough to offer any support; dislocating one of the Soviet's greatest strengths before it could aid the Soviets was a targeted tactic that capitalized on the tanks' exposed position. At the hotel the Finnish soldiers attacked from two directions with grenades they threw into foxholes and snipers who aimed at the hotel windows. Although the Soviets were under fire

¹³² Edwards, *White Death: Russia's War on Finland, 1939-40*, 182; Eloise and Paananen. *The Winter War: The Russo-Finnish Conflict, 1939-40*, 90 Mannerheim, *Memoirs*, 334-35; Trotter, *A Frozen Hell: The Russo-Finnish War of 1939-1940*, 99, 101, 105-109.

¹³³ Eloise and Paananen. *The Winter War: The Russo-Finnish Conflict, 1939-40*, 91; Mannerheim, *Memoirs*, 335; Trotter, *A Frozen Hell: The Russo-Finnish War of 1939-1940*, 112-14.

from three directions, they managed to fire from the top floor of the hotel and keep the Finns at bay until the Finns made a costly charge to storm the hotel. The Finns threw grenades ahead of them to clear each room and eventually took the hotel and controlled this vantage point. The Finns lost 30 percent of their officers and 25 percent of their enlisted soldiers; these were proportionally the highest Finnish losses of the war.¹³⁴ The Finns used diverse weaponry to suppress Soviet fire and clear Soviet defenses while attacking from multiple directions. These targeted tactics minimized their vulnerabilities of their soldiers while taking advantage of multiple types of firepower for different situations. The Finns' nontargeted charge to storm the hotel cost them dearly in casualties, but the mix of targeted tactics with this nontargeted tactic allowed a small Finnish contingent to succeed offensively against a larger Soviet contingent.

From 13 to 20 December the Red and Finnish Army were at an impasse on the Tolvajärvi Road; the Finns did not have enough resources to push the Soviets back further and the Soviets were paralyzed in the foot-deep snow without skis. They could not flank the well-defended Finnish position and although the Finns had little ammunition, they became adept at waiting until Soviet tanks were in vulnerable positions before destroying them, a targeted tactic that conserved their supply of ammunition and cost the Soviets. The Finns began sporadically ambushing Red Army positions, using their white camouflage and skis to appear suddenly and then ski away before the Soviets could respond. On 20 December the Soviets attacked in a column headed by a tank on a narrow road; the Finns managed to blow up the tank, blocking the road to any progress from the rest of the Soviet armor. The Finns aimed one of their antitank Bofor guns at the last tank in the column and blew it up; they then slowly began picking off the tanks down the road and Soviets abandoned their running vehicles, allowing the Finns to capture all remaining

¹³⁴ Mannerheim, *Memoirs*, 336-37; Trotter, *A Frozen Hell: The Russo-Finnish War of 1939-1940*, 113-16.

working tanks and trucks. This method was not targeted but was efficient; their tactics allowed the Finns to capture many of the vehicles in perfect condition and destroy the Soviet threat without destroying the entire Soviet force. Neither side launched any further significant offensives for the rest of the war; over 4,000 Soviets had been killed and over 5,000 wounded in this sector. In total the Finns captured 59 tanks, three armored cars, as well as hundreds of machine guns and thousands of rifles with around 630 killed and over 1,320 wounded.¹³⁵

Another Soviet contingent on the northern shoreline of Lake Ladoga was victim to a unique Finnish tactic called a motti. The Finns attacked an invading Soviet force on 13 December but were forced to retreat in the face of Soviet firepower. The Finns continued to skirmish with the Soviets but neither force made much progress. Then, on 26 December the Finns concentrated their forces in multiple positions flanking the road where the Red Army was located. The Finns coordinated their attacks in snow camouflage on skis and forcibly divided the Soviets into 10 separate segments, called mottis. The Soviets fortified their disconnected positions but over the next month were subject to numerous small-scale Finnish assaults as well as lack of food and freezing temperatures. The Soviet air force tried to resupply the Soviets with ammunition and food, but largely failed to curb starvation and frostbite. In one instance, Finnish soldiers snuck into the motti at night, killed the gun crews, and stole two 120mm mortars and some shells. The next morning the Finns used their newly acquired artillery to destroy some

¹³⁵ Edwards, *White Death: Russia's War on Finland, 1939-40*, 187; Eloise and Paananen. *The Winter War: The Russo-Finnish Conflict, 1939-40*, 92; Trotter, *A Frozen Hell: The Russo-Finnish War of 1939-1940*, 99, 101, 117-22.

Soviet bunkers that Finnish grenades and submachine guns could not destroy. No motti surrendered even though one of the mottis suffered 83 casualties from a total of 85 soldiers.¹³⁶

Although the Finns did not have enough resources to storm the mottis, their battle of attrition eventually wiped out all but three, the largest of which was over twenty square miles on the shoreline of Lake Ladoga. The Finns acquired a large number of tanks, ammunition, and artillery to boost their reserves. The use of mottis was a targeted tactic that was highly successful without the advantage of being on the defensive. The Finns destroyed the Soviet's ability to fight with far fewer soldiers, fewer weapons, and less ammunition thanks to their mobility and concealment techniques in the forest. However, the mottis were strategically unwise since the Finnish soldiers were also unavailable to aid the Mannerheim Line. The length of time and number of Finns required to slowly eliminate the Soviet mottis worked defensively in the Red Army's favor.¹³⁷

The Northern Forest

Part of the Soviet strategy was to cut through the middle of Finland and sever Finland's internal communications and principal contact points to Sweden. General Mannerheim received reports that the Soviets were going to send 33 divisions into the northern forest but he did not believe the Red Army would try to send such a large force through the dense, wintry woodland.

¹³⁶ Eloise and Paananen. *The Winter War: The Russo-Finnish Conflict, 1939-40*, 110, 113; Jägerskiöld, *Mannerheim: Marshal of Finland*, 115; Mannerheim, *Memoirs*, 348; Reese, "Lessons of the Winter War: A Study in the Military Effectiveness of the Red Army, 1939-1940," 832; Trotter, *A Frozen Hell: The Russo-Finnish War of 1939-1940*, 135-40.

¹³⁷ Eloise and Paananen. *The Winter War: The Russo-Finnish Conflict, 1939-40*, 114, 119; Reese, "Lessons of the Winter War: A Study in the Military Effectiveness of the Red Army, 1939-1940," 833, 851; Trotter, *A Frozen Hell: The Russo-Finnish War of 1939-1940*, 134-40.

However, the Soviets had secretly built roads toward the border that aided in a swift deployment of troops and deployed over 60 divisions, which was half of their infantry and about a quarter of their armor. In this theatre, 42 Soviets were deployed for every one Finnish soldier.¹³⁸

However, the Red Army was ill prepared for the coldest Finnish winter since 1828 with temperatures averaging 42.7 degrees Fahrenheit below zero in Sodankylä, located in the northern half of Finland. Soviet petroleum lubricants froze at sub-zero temperatures and hindered weapons from firing. Although the Red Army was issued ski warfare manuals before deploying, they had few skis and no training. They were expected to fight in their skis, which had tight bindings that were not meant to be taken off easily, with their bayonets in close combat. Unfortunately, using a bayonet effectively requires the traction that skis were created to circumvent. In addition, Soviet units traveled along roads where a single division could be spread out over twenty-five miles, vulnerable to attack. The Soviets also liked roaring fires to keep warm and their kitchens were highly visible and created large plumes of smoke, all providing excellent targets to the highly mobile Finnish soldiers.¹³⁹

Finnish soldiers, on the other hand, used gasoline and gun oil to clean their rifles and alcohol and glycerin for automatic weapons and artillery. Their skis had no heel straps that allowed them to jump off quickly to fight and then jump back on to ski quickly away. They

¹³⁸ Eloise and Paananen. *The Winter War: The Russo-Finnish Conflict, 1939-40*, 88; Jakobson, *Finland Survived: An Account of the Finnish-Soviet Winter War, 1939-1940*, 174; Mannerheim, *Memoirs*, 340; Rentola, "Intelligence and Stalin's Two Critical Decisions in the Winter War, 1939-1940," 1091-92; Trotter, *A Frozen Hell: The Russo-Finnish War of 1939-1940*, 53-54, 144, 171.

¹³⁹ Bialer, *Stalin and His Generals; Soviet Military Memoirs of World War II*, 133; Edwards, *White Death: Russia's War on Finland, 1939-40*, 165; Eloise and Paananen. *The Winter War: The Russo-Finnish Conflict, 1939-40*, 43, 45; Trotter, *A Frozen Hell: The Russo-Finnish War of 1939-1940*, 145-48.

dressed in many layers of snow camouflage, used small stoves that produced little smoke, and camouflaged their dugouts that they also lined with furs and skins to keep warm.¹⁴⁰

Although many battles were fought in the northern forests, the Battle of Suomussalmi represents the epitome of clashes between the Soviets and the Finns. The 163rd and 44th Soviet Divisions, a total of 48,000 soldiers, 335 cannons, over 100 tanks, and 50 armored cars, aimed to capture Oulu, Finland's central rail connection to Sweden. The Finns were unprepared to defend such a strategically important target and could only gather "Task Force Susi" and JR-27 to the area for a total of 17,000 soldiers and 11 cannons. The soldiers hastily evacuated the 4,000 residents of Suomussalmi on 7 December and tried to torch the entire town to destroy any shelter and future hideouts for the Red Army; that evening, the 163rd Division marched into Suomussalmi unopposed. On 9 December General Mannerheim ordered the Finns to completely destroy the 163rd Division, so on 12 December the Finnish soldiers began their first of many road-cutting operations. Many of the Finnish ski troopers grew up in the area and knew the terrain well. They waited in concealed positions flanking the road, then suddenly attacked with mortars and sub-machine guns at one concentrated point. They then shifted fire about 300 feet to the right or left in order to seal a narrow segment of the road. Next their assault teams attacked foxholes, trucks, and tents with grenades and demolition teams targeted tank hatches, field kitchens, and mortar pits with explosives. Sharpshooters would remain on the edge and target any officers while reserve infantry then would try to widen the breaks in the Soviet column. JR-57 mounted two to three of these operations simultaneously, targeting chokepoints along the

¹⁴⁰ Eloise and Paananen. *The Winter War: The Russo-Finnish Conflict, 1939-40*, 18, 44; Jägerskiöld, *Mannerheim: Marshal of Finland*, 116; Trotter, *A Frozen Hell: The Russo-Finnish War of 1939-1940*, 145-46.

Soviet column. Only 350 soldiers were needed to close the road to an entire Soviet division.¹⁴¹

These operations worked similarly to mottis, except that the mottis were monitored and kept in isolation while at Suomussalmi the Finns continued moving and sought to degrade the 163rd Division's numerical advantage and create massive roadblocks to hinder future movement. This meant that the offensive targeted tactics that were so successful for the Finns with their mottis in this case did not suffer from the strategic disadvantage of tying up as many troops.

Between 13 and 22 December the Finns and Soviets skirmished and the Finns continued to launch ski raids on Soviet positions in order to increase pressure. Around 20 percent of Soviet forces became battle and frostbite casualties, but no significant progress occurred. JR-57 received reinforcements of a battalion of ski troopers, an infantry battalion, two batteries, and two bofors antitank guns and became the newly designated Finnish 9th Division. On 23 December the 44th Soviet Division advanced to aid the 163rd Division, but two Finnish ski detachments ambushed two locations, killing dozens of men and horses and destroyed several trucks and a field kitchen. The Finns continued to conduct random sniper attacks and mortar barrages to ruin hot meals and sleep for the 44th Division, which halted its advance despite no serious injury to the unit.¹⁴² The Finnish decision to attack sources of comfort was a targeted tactic that degraded Soviet morale and helped halt any forward advance of the 44th Division without significant engagement. In addition, the Finns' mobility made the 9th Division seem much larger than in reality and the trees protected troops from aerial attack. These targeted

¹⁴¹ Edwards, *White Death: Russia's War on Finland, 1939-40*, 152-55; Eloise and Paananen. *The Winter War: The Russo-Finnish Conflict, 1939-40*, 94; Sander, *The Hundred Day Winter War: Finland's Gallant Stand against the Soviet Army*, 188, 190; Trotter, *A Frozen Hell: The Russo-Finnish War of 1939-1940*, 150-52, 154-57

¹⁴² Edwards, *White Death: Russia's War on Finland, 1939-40*, 159-60; Sander, *The Hundred Day Winter War: Finland's Gallant Stand against the Soviet Army*, 202; Trotter, *A Frozen Hell: The Russo-Finnish War of 1939-1940*, 152, 158-60.

tactics decreased vulnerabilities and employed their meager resources to extinguish the 44th Division's will to fight.

On 27 December the 9th Division launched an attack to destroy the 163rd Division sending one unit a mile outside of Suomussalmi on the road, one into Suomussalmi where Soviets took refuge in non-burned homes, and several diversionary companies to flank the road and target fleeing Soviets. Soviet resistance broke on 28 December after attacks from multiple directions. This multi-fronted offensive used targeted tactics that reduced vulnerabilities since the Soviets could not target their enemy. The cold and hungry Soviets tried to flee, but the Finns placed barbed wire and tank traps into the ice on Kiantajärvi Lake. In addition, the Soviets were still wearing khaki uniforms, rendering them easy targets on the open ice. Over 5,000 Soviets were killed and the 163rd Division was destroyed.¹⁴³

The 44th Division was located only six miles away from this battle, stretched over 20 miles along the road leading from Suomussalmi. The Finns proceeded to break the 44th Division into seven distinct mottis in the beginning of January, using combat engineers to blow up trees, plant mines, and create roadblocks to ensure the partitions. Finnish snipers tied themselves up in trees in their snow camouflage and waited to target Soviet officers, a targeted tactical decision to remove Soviet leadership. The Soviets called them “cuckoos” and feared their unpredictable and deadly shots.¹⁴⁴ Finnish sniper Simo Häyhä was dubbed “White Death” and killed a confirmed

¹⁴³ Edwards, *White Death: Russia's War on Finland, 1939-40*, 161; Sander, *The Hundred Day Winter War: Finland's Gallant Stand against the Soviet Army*, 191; Trotter, *A Frozen Hell: The Russo-Finnish War of 1939-1940*, 160-62.

¹⁴⁴ Edwards, *White Death: Russia's War on Finland, 1939-40*, 162, 164; Eloise and Paananen. *The Winter War: The Russo-Finnish Conflict, 1939-40*, 100; Trotter, *A Frozen Hell: The Russo-Finnish War of 1939-1940*, 162-64.

505 soldiers, but his unofficial kill count is up to 700. The Red Army placed a price on his head before he was put in a coma after being shot in the head.¹⁴⁵

The Finns established a rotation for patrols and small raids to keep continual pressure on the 44th Division. The Finns built dugouts to provide warmth and rest for themselves while intentionally targeting anything that provided warmth or nutrition for the Red Army. The Soviet Air Force did not provide sufficient supplies and by 8 January the last of organized Soviet resistance broke. Again, the Finns' mobility and decision to target sources of comfort destroyed the Red Army's ability to fight effectively. Over 28,500 Soviets died in the Battle of Suomussalmi and the Finns destroyed 43 tanks and 270 other vehicles while acquiring 48 pieces of artillery, 600 rifles, 300 submachine guns, and some mortars and working tanks. The Finnish Army suffered 900 fatalities and 1,770 wounded in the most decisive of the battles in the northern forests that demonstrates that targeted offensive tactics can make a significant difference in asymmetrical warfare.¹⁴⁶

Phase Two, 8 January – 1 February 1940: The January Lull

General Secretary Stalin intended to celebrate his 60th birthday on 18 December with a Finnish victory, but the two-week war instead continued into its second month. In early January, Hella Wuolijoki, a Finnish Communist, connected with her acquaintance Alexandra Kollontay, the Soviet Union's ambassador to Sweden. The Finnish Foreign Minister Väinö Tanner had previously tried and failed to open talks about a negotiated settlement to end the war with the

¹⁴⁵ Chuck Lyons, "Finland's White Death," *Military History* 30, no. 1 (May 2013), 17; Trotter, *A Frozen Hell: The Russo-Finnish War of 1939-1940*, 165.

¹⁴⁶ Eloise and Paananen. *The Winter War: The Russo-Finnish Conflict, 1939-40*, 101, 104; Trotter, *A Frozen Hell: The Russo-Finnish War of 1939-1940*, 166-70.

Soviet Union, but these two women arranged a meeting on 10 January to discuss settlement possibilities for their respective governments, illustrating the role of the bargaining theory in warfare. The war had become much bigger than General Secretary Stalin intended and he wished to have his troops ready for potential war with other states and also hoped to end the war before any Anglo-French intervention in Finland could become a reality. However, he also hoped to end the war without losing too much face, so felt he could not end the war too quickly or without significant gains.¹⁴⁷

In January the Red Army halted any major assaults to restructure troops and leadership. General Marshal Semyon Timoshenko (1895-1970)¹⁴⁸ was placed in command with a new focus to win the Winter War. He reorganized the Red Army and concentrated most resources to General Meretskov in the southern Isthmus in order to break the Mannerheim Line. General Meretskov's troops were concentrated over 10 miles between Summa and the Lähde road on the southern section of the Mannerheim Line with nine infantry divisions, five tank brigades, one machine-gun division, and enough artillery that each mile had around 80 guns. General Timoshenko planned gradually escalating aerial bombardments that suddenly increased preceding an infantry and tank attack. This plan of attack was similar to all other attacks on the Mannerheim Line except for the increased concentration of firepower on this sector as well as the extent of the artillery barrage. He hoped this cumulative attack would wear the Finns and their meager resources down until the Red Army broke through the Line. The Soviets mobilized a totally of 47 divisions of 600,000 troops ready to attack and large amounts of ammunition that

¹⁴⁷ Edwards, *White Death: Russia's War on Finland, 1939-40*, 98; Rentola, "Intelligence and Stalin's Two Critical Decisions in the Winter War, 1939-1940," 1090; Sander, *The Hundred Day Winter War: Finland's Gallant Stand against the Soviet Army*, 231; Trotter, *A Frozen Hell: The Russo-Finnish War of 1939-1940*, 202, 234-35.

¹⁴⁸ "Marshal Semyon Timoshenko," *Oxford Reference*. Jan 2004.

would widen the break until the Finns surrendered.¹⁴⁹ This strategy used nontargeted tactics that relied on strength of numbers and amount of firepower.

The Red Army also received new equipment to augment their capabilities. Soviet troops and tanks on the front lines were issued snow camouflage and forward observers given new radios to communicate targets to artillery. With their superior air power, they could also protect balloons that relayed specific Finnish positions. The Soviets developed flame-throwing vehicles that spewed naphtha onto the Finns as well. However, the Finns learned that if they covered their faces, only their snowsuits would become scorched and they could quickly run through these flames unharmed. The only change the Finns could afford was to replace the 5th Division with the 6th and General Mannerheim renamed the other divisions in an effort to make the Soviets believe they were facing all fresh troops.¹⁵⁰

Phase Three, 1 February 1940 – 13 March 1940: The February Offensive

On 1 February 1940, 1,500 Soviet planes flew over Summa and dropped 300,000 shells in an intense carpet-bombing attack. The Finnish fortifications were well camouflaged, but the Soviets noticed any hint of smoke so the Finns only operated their field kitchens by night. During any lull in the bombing campaign, every Finnish soldier was required to quickly make repairs to damaged dugouts and telephone cables, aid wounded soldiers, or gather new supplies. On 5 February one Finnish regiment lost its commander three times as 400 shells fell each

¹⁴⁹ Eloise and Paananen. *The Winter War: The Russo-Finnish Conflict, 1939-40*, 27, 122; Jakobson, *Finland in the New Europe*, 33; Jakobson, *Finland Survived: An Account of the Finnish-Soviet Winter War, 1939-1940*, 174; Kallman, "My Remembrance of the Winter War," Reese, "Lessons of the Winter War: A Study in the Military Effectiveness of the Red Army, 1939-1940," 830; Sander, *The Hundred Day Winter War: Finland's Gallant Stand against the Soviet Army*, 209; Trotter, *A Frozen Hell: The Russo-Finnish War of 1939-1940*, 206, 214.

¹⁵⁰ Mannerheim, *Memoirs*, 353; Trotter, *A Frozen Hell: The Russo-Finnish War of 1939-1940*, 208-09, 213, 223.

minute on Summa. The Finnish pillboxes lacked deep foundations, thick walls, or enough steel to hold well under prolonged artillery fire, and since the pillboxes were positioned far apart, they could not aid one another well if directly attacked.

Soviet tanks also improved their tank and infantry coordination and tactics. The Finns could use their Maxim guns in deadly attacks on infantry, but these guns had little impact on tanks. Since the Finns had few antitank guns to effectively destroy the tanks, when possible the tankers began parking directly in front of Maxim gun ports in the pillboxes. This protected the Soviet infantry so they could get close to the pillboxes without undergoing such intense fire, which forced the Finns to leave their pillboxes and fight exposed. This coordination also allowed the Soviet infantry to protect their tanks by obstructing Finnish attempts to use Molotov Cocktails or grenades to dismantle the tanks. This targeted tactic by the Soviets hurt the Finns ability to fight while simultaneously diminishing the Soviets' own vulnerabilities. It focused on negating the Finns' strengths and forced the Finns out of their protected strongholds into the open, which devastated their ability to hold their positions.¹⁵¹

However, after 11 days of fighting, the Mannerheim Line held. By 7 February the Finns destroyed around 90 tanks and killed thousands of Soviets; soldiers were forced to climb over piles of their comrades in order to reach Finnish strong points. The Soviets attempted to take out Finnish coastal batteries that had turned inland against the tanks, but were killed before any

¹⁵¹ Edwards, *White Death: Russia's War on Finland, 1939-40*, 246; Eloise and Paananen. *The Winter War: The Russo-Finnish Conflict, 1939-40*, 122; Kallman, "My Remembrance of the Winter War;" Sander, *The Hundred Day Winter War: Finland's Gallant Stand against the Soviet Army*, 259; Trotter, *A Frozen Hell: The Russo-Finnish War of 1939-1940*, 208-209, 215-219.

soldiers could get closer enough. North on Lake Ladoga, coastal batteries killed 2,500 Soviet infantry in similar attacks.¹⁵²

On 12 February General Timoshenko achieved his objective and the Mannerheim Line was breached on the Lähde Road. On the 12th alone the Finns suffered 1,200 casualties, an amount that the Red Army could endure multiplied by 10. Finnish command did not immediately recognize the significance of the breach in the Mannerheim Line due to broken communications. In addition, the line had been breached before in multiple places but always retaken through counterattacks in the night. However, by the 13th the breach on Lähde Road had not been retaken and the Soviets pushed the Finns behind Lake Summajärvi.

However, the rest of the Mannerheim Line stood even though the Red Army attacked Taipale with five regiments and 50,000 shells on 13 February. General Mannerheim knew that the longer the Finns held on, the better their bargaining position would be in negotiations with the Soviets, but ordered a retreat back to the Intermediate Line on the 18th as the Soviets punched through more locations. On the 23rd the Soviets managed to take out the deadly coastal batteries and set up a new offshore position, creating additional pressure. By the 24th the Soviets were close enough to Viipuri to target communications with their artillery and the Intermediate Line was in danger of falling. Most of the Finnish forces retreated to the Rear Line by 28 February when General Timoshenko launched a massive assault on the Intermediary line and found it unguarded. On 2 March the Finns opened the Saimaa Canal northeast of Viipuri to slow down

¹⁵² Edwards, *White Death: Russia's War on Finland, 1939-40*, 253; Eloise and Paananen. *The Winter War: The Russo-Finnish Conflict, 1939-40*, 125; Trotter, *A Frozen Hell: The Russo-Finnish War of 1939-1940*, 216, 218-220.

the Soviet advance, a targeted attempt to hinder the Soviets' ability to fight. However, the Red Army continued forward, wading through three feet to chin-level water and towing the tanks.¹⁵³

On 5 March Commissar Molotov recorded his fear of foreign intervention; the Soviets knew that France and England had prepared a plan to send 100,000 troops to aid the Finns. However, this Anglo-French force needed passageway through Norway and Sweden, which was not offered. Neither Norway nor Sweden wanted to give up their neutrality and align themselves against any of the great powers. In addition, Finland never made a formal request for aid because they knew suspected their military could not last long enough for the tenuous Anglo-French aid to arrive.¹⁵⁴ However, on 6 March a peace delegation between Finland and the Soviets began the final negotiations for a settlement to end the war.

The final Soviet offensive occurred on 4 to 9 March, creating military pressure on diplomatic negotiations as the Red Army engaged the reserves and threatened the rear of the troops on the Isthmus. Thirty Soviet divisions attacked the Rear Line with over 1,200 armored vehicles and 2,000 aircraft. The Finns held their positions but were slowly running out of

¹⁵³ Edwards, *White Death: Russia's War on Finland, 1939-40*, 251, 259; Wolfgang Hallstén Halsti, Björn Collinder, and Bror Gustaf David Geijer, *Försvaret Av Finland*, (P.A. Norstedt & Söner, 1940), 242-244, 301; *Memoirs*. Cassell, 1950, 357; Trotter, *A Frozen Hell: The Russo-Finnish War of 1939-1940*, 225-245.

¹⁵⁴ B.D.P. Conduit, "Britain's Arctic Gamble: The Russo-Finnish War 1939-40," *History Today* 32 (1982), 30; Eloise and Paananen. *The Winter War: The Russo-Finnish Conflict, 1939-40*, 53; Jakobson, *Finland Survived: An Account of the Finnish-Soviet Winter War, 1939-1940*, 207; Pauli Kruhse, trans. *Svensk utrikespolitik under andra världskriget*. Internationell politik 24, skrifter utgivna av Utrikespolitiska institutet, Kooperativa förbundets bokförlag, Stockholm, 1946; Singleton, *A Short History of Finland*, 130; Vehviläinen, *Finland in the Second World War: Between Germany and Russia*, 55; Virtanen, "Finland's 'Pearl Harbor.'" "

artillery. The Mannerheim Line was disintegrating but scattered resistance kept Viipuri from Soviet occupation.¹⁵⁵

On 12 March negotiations concluded and the war officially ended at 11am on 13 March after 105 days of fighting. At 10:45am the Soviets launched one last assault with no strategic objective, classifying itself as a nontargeted attack. However, fifteen minutes later the nearly constant artillery, armor, and infantry attacks ended after a month of little relief. Finland lost the Karelian Isthmus, some of their coastline, the Rybachy Peninsula, and some of Karelia north of Lake Ladoga, totaling around 25,000 square miles.¹⁵⁶ The Red Army lost around 1,000 aircraft of the original 3,000 as well as around 2,000 of the original 3,000 tanks. Half of the Soviet Union's Europe and Western Siberia divisions were mobilized to fight, 110 divisions, with 1.2 million Soviet soldiers eventually deployed. The official casualty count for the Soviets equaled 48,745 killed and 159,000 wounded; however, other estimates place the numbers at over 200,000 killed and 300,000 wounded, which is about a 60 percent casualty rate with around 5,000 Soviet casualties a day.¹⁵⁷ The Finns began the war with 300,000 soldiers with around 25,000 killed and 43,000 wounded, a casualty rate of around 23 percent.¹⁵⁸

¹⁵⁵ Halsti, Collinder, and Geijer, *Försvaret Av Finland*, 259-60; Jakobson, *Finland Survived: An Account of the Finnish-Soviet Winter War, 1939-1940*, 248; Kallman, "My Remembrance of the Winter War," *Memoirs*. Cassell, 1950, 362; Rentola, "Intelligence and Stalin's Two Critical Decisions in the Winter War, 1939-1940," 1103.

¹⁵⁶ Edwards, *White Death: Russia's War on Finland, 1939-40*, 213, 271; Halsti, Collinder, and Geijer, *Försvaret Av Finland*, 251, 261, 263; Jakobson, *Finland Survived: An Account of the Finnish-Soviet Winter War, 1939-1940*, 221, 234, 250, 253; *Memoirs*. Cassell, 1950, 363-64; Rentola, "Intelligence and Stalin's Two Critical Decisions in the Winter War, 1939-1940," 1101, 1103; "The Treaty of Moscow," 1940. *Bulletin of International News* 17 (6), Royal Institute of International Affairs, 342-43; Trotter, *A Frozen Hell: The Russo-Finnish War of 1939-1940*, 216; Virtanen, "Finland's 'Pearl Harbor.'"

¹⁵⁷ Bialer, *Stalin and His Generals; Soviet Military Memoirs of World War II*, 130; Eloise and Paananen. *The Winter War: The Russo-Finnish Conflict, 1939-40*, 143; Halsti, Collinder, and Geijer, *Försvaret Av Finland*, 263; *Memoirs*. Cassell, 1950, 366-67; Reese, "Lessons of the Winter War: A Study in the Military Effectiveness of the Red Army,

The Winter War clearly demonstrates the power of targeted tactics, particularly in gaining a more advantageous bargaining theory. The Soviets relied on massed frontal assaults and overwhelming firepower, although targeting communications and parking tanks in front of firing ports were both important targeted tactics that aided the Red Army's strategic goals. The Soviets intended a maneuver strategy, which lends itself well to targeted tactics, but the Soviets' tactics in reality were largely nontargeted and their strategy shifted to a strategy of attrition. Although the Soviets out-resourced the Finns by far, they did not achieve a swift nor complete victory. However, their reckless use of resources did spur modernization that manifest in Operation Barbarossa with better camouflage, equipment, and tactics.¹⁵⁹

The Finnish Army had the advantage of defending their homeland; they were well trained in winter combat, knew their territory, and were usually on the defense. However, their tactics played an enormous role in their military successes, especially in the northern forests where the Finns were often on the offensive and destroyed whole Soviet divisions. Although the Finns had far fewer troops and resources, they used targeted tactics that concentrated resources on focused attacks that destroyed the Soviets ability to fight. The Finns mobility was a huge asset that provided cover as well as opportunity to use their resources where necessary. The Finns targeted

1939-1940," 830; Vehviläinen, *Finland in the Second World War: Between Germany and Russia*, 53; Virtanen, "Finland's 'Pearl Harbor.'"

¹⁵⁸ Eloise and Paananen. *The Winter War: The Russo-Finnish Conflict, 1939-40*, 142; Halsti, Collinder, and Geijer, *Försvaret Av Finland*, 260; Jakobson, *Finland Survived: An Account of the Finnish-Soviet Winter War, 1939-1940*, 254; Reese, "Lessons of the Winter War: A Study in the Military Effectiveness of the Red Army, 1939-1940," 830; Virtanen, "Finland's 'Pearl Harbor.'"

¹⁵⁹ Bialer, *Stalin and His Generals; Soviet Military Memoirs of World War II*, 131; Chaney, "The contribution of Georgi Konstantinovich Zhukov to the Soviet scene, 1918-1968, an appraisal," 104; Halsti, Collinder, and Geijer, *Försvaret Av Finland*, 264; Kulkov, Rzheshesvskiï, and Shukman. *Stalin and the Soviet-Finnish War, 1939-1940*, xviii; Trotter, *A Frozen Hell: The Russo-Finnish War of 1939-1940*, 64.

officers and tanks in order to mitigate the Soviet's strengths as well as use Finnish resources where they had the biggest impact.¹⁶⁰ These targeted tactics made a significant difference in the outcome of this war; although the Soviets expected Finland to fall easily to Soviet control, the Finns fought effectively with far fewer resources to maintain the integrity of their homeland.

¹⁶⁰ Jakobson, *Finland Survived: An Account of the Finnish-Soviet Winter War, 1939-1940*, 173; Trotter, *A Frozen Hell: The Russo-Finnish War of 1939-1940*, 62.

Chapter 6 - Conclusion

Tactics are only one piece of the complex system of warfare and cannot determine war outcomes, but tactics also play far too important a role to relegate as only an extension of strategy. Effective tactics are key to operational victories and the building blocks of a successful military campaign. Furthermore, targeted tactics employ resources efficiently in order to increase the bargaining advantage at a lower cost. These tactics disrupt enemy power by destroying critical vulnerabilities while defensively minimizing their own vulnerabilities.

Military technology has become increasingly powerful and accurate, creating opportunities for targeted tactics to both protect vulnerabilities that were impossible to protect before as well as assault critical vulnerabilities that were impossible to attack earlier. Focusing on vulnerabilities both offensively and defensively is highly useful in order to undermine technological advantages. This relies on employment of resources more than possession of superior resources, making military might less important than military methods. A weaker force can still effectively engage a stronger enemy with targeted tactics that mitigate their disadvantages; targeted tactics render an enemy's strength irrelevant instead of destroying it.

The Second Boer War and the Winter War both demonstrate the potential of targeted tactics to make a marked difference in warfare. The Boers and the Finns both employed their smaller forces to disrupt enemy strengths, using targeted tactics that took advantage of enemy critical vulnerabilities. Although these case studies display the potential of targeted tactics, they cannot offer data on how often targeted tactics precede victory or in which military scenarios targeted tactics most often precede victory. Statistical analyses on the correlation of certain tactics and operational and strategic outcomes may offer additional information on the significance of targeted tactics in warfare. Further study may illuminate some of the complexities

that factor into war outcomes, adding to the scholarship on the mechanics of coercive negotiations, communication and commitment problems, and war termination. However, this thesis explores the theory behind the bargaining model of war and aptly demonstrates that tactics are significant to war outcomes and targeted tactics specifically hold the potential to increase the bargaining advantage at a lesser cost.

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