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Author(s):
MAJ Gregory J. Bozek, USA

Performing Organization Name(s) and Address(es):
School of Advanced Military Studies
Attn: RTP-4SW
Fort Leavenworth, KS 66027-6900
Comm (913) 684-3437 Autovon 552-3437

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Major Gregory J. Bozek

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Approved by:

LTC Johnny Brooks, MA

COL James R. McDonough, MS

Philip J. Brookes, Ph.D.

Monograph Director
Director, School of Advanced Military Studies
Director, Graduate Degree Program

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ABSTRACT


This monograph conducts a doctrinal analysis of Red Army planning and execution of the Soviet-Finnish War to determine if poorly developed doctrine was the cause of Soviet failures. Military doctrine is critical to a nation. Sound doctrine will contribute to accomplishing missions in an economical manner. A poorly developed doctrine will lead to disaster. Stalin believed the Red Army's first major test in modern war was the "Winter War" in Finland. After the war, Stalin blamed the generation of officers that developed Red Army doctrine for failing to prepare the Soviets for the rigors of modern war.

This study reviews the development of the Red Army doctrine during the interwar years. This paper then analyzes the status of Red Army doctrine in 1939 in term of eight major features. The study than conducts a doctrinal analysis of Red Army planning and execution of the Soviet-Finnish War to determine if the doctrine was the cause of the Soviet failures in Finland.

This monograph concludes that doctrine was not the primary cause of Soviet failures in Finland. Doctrine by itself cannot ensure victory on the battlefield. Leaders, soldiers, and units must be trained, organized, and equipped to execute in accordance with doctrine. In 1939 the Red Army was poorly trained and incapable of executing its doctrine under battlefield conditions. Red Army doctrine, however, must be faulted for failing to serve Soviet 1939 national interests. The 1939 doctrine presented Marshal Tukhachevsky's 1936 vision of modern war. The same doctrinal ideas would later serve Soviet interests in the drive to victory in World War II. But in 1939, doctrine did not align with Stalin's vision or Soviet strategic requirements.
TABLE OF CONTENTS

I. Introduction ........................................ 1
II. Development of Red Army and Military Doctrine.. 3
III. Status of Red Army Doctrine in 1939. ....... 17
IV. The Soviet-Finnish War .......................... 26
V. Doctrinal Analysis of the Finnish Campaign ... 33
VI. Conclusion ......................................... 39

Appendices:
   A. Terrain and Communications Map ............. 42
   B. Red Army Invasion Axes Map ................. 43
   C. Mannerheim Line Map ......................... 44

Endnotes ................................................ 45
Bibliography ......................................... 54
INTRODUCTION

Military doctrine is critical to a nation. Doctrine provides the guiding policies, principles, and methods for achieving a nation’s political objectives using military means. Doctrine provides guidance to properly organize, train, and equip an armed forces to accomplish its wartime mission. In the Preface to Soviet Military Doctrine, D.A. DeWeerd, explains that a sound military doctrine, well calculated to serve the national interests in a given situation, will contribute to accomplishing missions in an economical manner, while a poorly developed doctrine will lead to disaster. Michael Howard when discussing the importance of doctrine, says that a nation’s peacetime military doctrine is probably wrong. But, he believes, it is important that doctrine not be "too badly wrong" and that the armed forces have the ability to get it right quickly in war. The Soviets had embraced a different view of doctrine.

The Soviets based the development of their pre-World War II doctrine on their combat experiences in the Russian Civil War (1918-1920). They assumed their doctrine "to be correct until proven in error . . ." The ideas M.V. Frunze, Mikhail Tukhachevsky and their followers developed in the 1920s and 1930s formed the basis for Soviet pre-World War II doctrine. These
ideas later also formed the basis for the doctrine the Soviets employed to secure victory in 1943-1945. But was Red Army doctrine "correct" in 1939 when the Red Army received its first major test in modern combat in the "Winter War" with Finland?

In November 1939, the Soviet Union invaded Finland to take control of land the Soviets thought was critical for the defense of Leningrad. The Soviet ground, naval, and air forces were vastly superior in size to the small Finnish forces. After repeated unsuccessful attempts to defeat the Finns using maneuver doctrine, the Soviets reorganized, retrained, and massed their forces on a narrow front. They then attacked, gradually exhausting the defending Finns. The Soviet losses were greatly disproportionate to what they actually gained through negotiated peace. Stalin blamed the generation of officers that had developed the Red Army's doctrine for the initial Soviet military defeat. Stalin "renounce[d] the cult of the Civil War" for failing to prepare the Red Army for the rigors of modern war. Did Red Army doctrine improperly prepare the Red Army for combat in Finland? Was the 1939 Red Army doctrine the cause of the Soviet disaster in Finland?

This monograph will briefly review the development of the Red Army and its doctrine to determine the
status of forces and doctrine in 1939. Soviet planning and execution of the Soviet-Finnish War will then be reviewed. This monograph will then analyze the campaign in terms of eight major features of Soviet doctrine to determine if Soviet failures in the Winter War were the result of a poorly developed doctrine or other reasons.

DEVELOPMENT OF THE RED ARMY AND MILITARY DOCTRINE

The historical development of Red Army doctrine paralleled the development of the Red Army between World War I and World War II, which consisted of three phases: early development, maturation, and years of trial. The first phase, early development, began in 1922 and ended in 1929. The Red Army grew and improved throughout this period while the new Soviet regime struggled. Soviet military thought searched for an identity during this phase as ideas flourished and Red Army doctrine emerged.

The second phase, maturation, began in 1929 and ended in 1937. It started with Stalin's economic expansion of the Soviet Union. The Red Army grew to an incredible size and began to modernize. Red Army doctrine peaked in late 1936 with the publication of
the 1936 Field Service Regulations. The phase ended abruptly with Stalin's purge of the military.

The third phase, the years of trial, ran from 1938-1941. These years were times of trial for the Soviet Union. Soviet armed forces attempted to recover from the purges while being tested in a series of armed conflicts. The ongoing purges effectively suppressed original military thought at the same time that Stalin and the Soviet High Command questioned Red Army doctrine.

Early Development.

Early Soviet combat experiences were critical in the development of the Soviet armed forces. While most of the world based ideas of future war on experiences in the First World War, most Soviets tended to disregard those experiences. The Russian Civil War (1918-1920) marked the creation of the Soviet Red Army and served as the basis for the Soviet strategy and doctrine that prevailed until World War II. The Civil War blended the political and military aspects of warfare in a much different manner than was applied in the First World War. In the Russian Civil War the revolutionary fervor of the working masses allowed the Red Army to form untrained million man armies and defeat the superior White Guards on the battlefield. Tukhachevsky attributed the Red Army's victories to the
"tremendous force of the Civil War's revolutionary slogans," and to the army's energy and determination in conducting operations." The Red Army conducted operations over areas exceeding anything other European nations experienced on the Western Front of World War I. While other nations struggled with the question of how to break the stalemate on the battlefield, the Soviets studied how to conduct and sustain large scale maneuvers in depth. Based on their experiences and study, the Soviets believed future wars would consist of offensive wars of maneuver.11

During the first phase of Red Army development, active debate raged on its proper role, organization, and strategy. One group, headed by Leon Trotsky, recommended the development of a large territorial based army primarily focused on countering internal threats.12 Another group, led by M.V. Frunze,13 favored a mass army designed to counter external threats. Frunze's ideas prevailed, guiding the initial development of the Soviet army.14

The newly formed Red Army was, however, in desperate need of organization to make it functional. In 1924 it was a large, loosely organized force resembling "an overgrown partisan army," possessing few of the common bonding features of traditional armies, such as discipline and tradition.15
From 1924-1925, Frunze personally led the army as the People's Commissar of War. During those 18 months he reorganized the army's structure, established staff procedures where political officers were subordinate to unit commanders, and set up several military schools to educate the officer corps. His efforts improved the organization of the army, and more importantly, helped establish the environment for further creative thought on army doctrine.

The 1920s were also an important time for the development of Soviet military thought. Exchange programs with foreign armies influenced the development of Soviet military thought and doctrine. From 1922 until 1933, the Soviets secretly conducted joint officer training and exchanged technical ideas with the Germans. Throughout the 1920s, as many as one hundred senior Soviet officers studied annually at German military schools in Berlin. The Soviets studied German writings and doctrine because German doctrine, like Soviet doctrine, focused on the offensive. The Soviets also wanted to learn more about the Germans, whom Red Army officers perceived as a possible future enemy. The Soviets also studied the works of great Western theorists such as Jomini and Clausewitz and more contemporary theorists such as J.F.C. Fuller and
The Soviets did not, however, rely solely on foreign ideas.

The influence of former Tsarist officers on the development of the Red Army and its doctrine was also significant. Trotsky brought in many of these officers to serve as military specialists to train new officers and serve as unit commanders. Trotsky believed the experience of officers of the former regime was important in the training of a new generation of Soviet officers. As late as 1929, over half of the Red Army officers involved in writing army doctrine were from the Russian Imperial Army. Until the late 1930, numerous former Tsarist officers remained on active duty in the Red Army.

The works of former Tsarist officers such as Tukhachevsky, Svechin, Triandafillov, and Shaposhnikov created a flow of ideas that included deep battle, the mechanization and motorization of the entire army, and the concepts of airmobile and airborne forces. These ideas were designed to increase the simultaneity and tempo of offensive operations. The theorists continued to refine their ideas over the next ten to fifteen years, creating the intellectual basis of Soviet Pre-World War II doctrine. One of the important ideas in the doctrine was the definition of the operational level of war.
The Red Army claimed credit for being the first army to recognize the changing nature of warfare and to adjust its military art to accommodate the operational level of war. The emergence of operational art as a specific topic of study within the Red Army was based largely on Soviet experiences in the Civil War. Military theorists recognized that the probable scale of military operations in the 1920's precluded the Red Army from destroying an enemy army in a single operation. Various theorists realized that a series of successive operations were required to exhaust the enemy and force them to accept battle under disadvantageous conditions. In 1923 Svechin articulated the requirement for an intermediary category between strategy and tactics. He referred to this category as operational art and defined it as the totality of maneuvers and battles in a given part of a theater of military action directed towards the achievement of a common goal, set as final in the given period of the campaign.

This concept was embraced by others; operational art became an important theme in Red Army doctrine.

During this phase of development, the Red Army produced two Field Regulations to articulate its doctrine. The Field Service Regulations 1925 was significant because it was the first version of Red Army Doctrine. The document attempted to standardize army operations. Recent historians consider the
regulations "highly tentative" because the ideas presented were new and not well developed.\textsuperscript{24}

Toward the end of this period, the Red Army wrote and distributed the Field Service Regulations 1929 (also referred to as PU-29). Although it had strictly a tactical focus, PU-29 was a significant step in the development of doctrine. It was a forward looking document that addressed the impact of mechanization and motorization on Soviet offensive operations.\textsuperscript{27} The doctrine made major contributions to the field of Red Army Doctrine to include introduction of the idea of deep battle. It also emphasized the importance of combined arms cooperation and "troop control" in combat operations.\textsuperscript{29}

By 1929, at the end of this first phase of development, the Red Army had advanced its ideas greatly and the organization of the army began to take shape. It was not a modern army, but its base of career officers provided a solid foundation for further growth and development.\textsuperscript{29} Although its actual combat capability was still far from overwhelming, the Red Army was prepared for modernization and continued growth in the maturation phase.\textsuperscript{30}

\textbf{Maturation.}

The second phase of development began with the first of Stalin's Five Year Plans. Stalin, who rose to
power after Lenin's death, was dissatisfied with the size, composition, and modernization of the Red Army, as was the Soviet High Command. Stalin realized he had to improve the Soviet industrial base before he could improve the army. This improvement was the focus of the first of Stalin's Five Year Plans, initiated in 1928. The purpose of this first plan was to improve the Soviet industrial base in order to equip and maintain a modern army. As a result of the growth in industry the Red Army modernized and grew, nearly tripling in size by 1935. Production of tanks and artillery also increased dramatically. The Red Army was becoming "an awesome machine" of tremendous size and armament, but was still an organization of questionable tactical capability.

At the close of 1936, the Defense Commissar approved and issued the new Provisional Field Service Regulations of 1936 (PU-36), the primary medium for articulating and promulgating Red Army military doctrine. In this document the ideas Tukhachevsky and his followers had developed and refined over ten to fifteen years were consolidated into a single, official statement of Red Army Doctrine. PU-36 provided the Soviet High Command's vision of modern war and described the manner in which the Red Army would conduct operations. PU-36 refined the 1929 doctrine
by updating tactical aspects and by expanding concepts to extend into the operational level. PU-36 also accounted for changes required by increased levels of mechanization and motorization.35

The Soviet High Command attempted to modernize and equip the Red Army to meet the demands of this new doctrine. Red Army armored and mechanized corps were created to support the maneuver based doctrine. High speed tanks and tactical aircraft were designed and built to provide commanders the capability to conduct the operations Tukhachevsky envisioned.36 In the final outcome, however, actual capabilities still failed to meet the requirements of the doctrine.

After publishing PU-36, Tukhachevsky warned Red Army leaders not to confuse mastery of ideas with the ability to execute on the battlefield. Tukhachevsky stressed the importance of combined arms training to develop battlefield capabilities. Major training exercises conducted throughout the mid.1930s demonstrated the existing lag between the ideas on paper and the Red Army’s ability to execute on simulated battlefields.37

Soviet combined arms exercises during this period drew international attention. British observers were clearly impressed by Tukhachevsky, his ideas, and the mechanization of the forces. French observers were
very impressed by "the immense superiority [of mechanization and armaments] of the Red Army over all other European armies." The observers were equally unimpressed by the "tactical clumsiness" of the Red Army forces. The Red Army conducted the exercises more as rehearsed parades than as tactical exercises. To minimize control problems, forces were concentrated into relatively small training areas. The units demonstrated very little tactical ability." Although the Red Army of 1937 clearly had its training deficiencies, modern historians still considered it a superior army to Western Armies in almost all fields. The training, organizations, and equipment of the Red Army were maturing along with the doctrine. The maturation process ended abruptly, however, with Stalin's purge of the military.

Stalin's reign of terror, which lasted from about 1934-1939, hit the military in 1937 with a massive purge. The purge, intended to eliminate all political opposition, removed over fifty percent of the senior officers and many junior officers from the Red Army. The purges could not have come at a more inopportune time in the development of Red Army or Soviet military thought.

Stalin's purges liquidated the generation of officers who had defined operational art and who had
formulated and articulated the maneuver theories and doctrine of deep battle and deep operations. Their ideas were quickly associated with traitors to Stalin's regime. Although the survivors of the purge were generally conservative and reluctant to openly embrace the ideas of the fallen predecessor, the doctrine lived on. The General Staff Academy and other officer training schools continued to teach the doctrine of deep operations. G. Isserson, the Deputy Director of Military Operations, believed the Red Army was well indoctrinated in Tukhachevsky's maneuver ideas at the time of the purge. The senior surviving officers, the future higher commanders and staff officers of the Red Army, had lived through the development of the doctrine and had been trained and educated by the authors. These Red Army officers, and others continued to think in maneuver based terms well after the purge.

At the end of the second phase of development the Red Army was a powerful army. PU-36 provided the army a well developed military doctrine, and the army had grown tremendously in size and capabilities. However, Stalin's purges had severely damaged the army's leadership. Despite all the changes and modernization, the Red Army remained a semi-mechanized army. While it contained mechanized corps to support the maneuver

13
based doctrine, the predominance of its units were not mechanized.

The Years of trial.

The Red Army's third phase of development began in 1938. This phase was marked by several armed conflicts that led up to the German invasion in 1941. As they prepared for war, Soviet leadership had to deal with conflicting lessons from these experiences.

During this time period, the Soviets provided "volunteers" and equipment to support forces involved in the Spanish Civil War. The Spanish Civil War served as a tactical and technical laboratory for the many participating nations, allowing the opportunity to evaluate ideas and equipment on real battlefields. The conditions in Spain were different than conditions the Soviets had previously experienced; the restrictive terrain and increased lethality of modern weapons were conducive to positional style warfare and the defense was dominant in most tactical engagements. As a result, General Pavlov, who had served in Spain as a senior Soviet adviser, convinced Stalin and Voroshilov, the Commissar of Defense, that the tank would no longer play a dominant role on the modern battlefield. General Pavlov's observation caused the Soviet High Command to adjust their ideas and to change Red Army organizations. They switched to a belief in the
strategy of attrition, based on strength of the defense and positional warfare.

The shift in thinking toward a strategy of attrition primarily impacted on the organization and employment of mechanized forces." The High Command moved to abolish the mechanized corps which were critical to the maneuver doctrine. They organized their mechanized forces into brigades, which could better support the infantry in positional style warfare." Before the change was fully implemented the Red Army was tested again.

In 1938 Red Army forces battled the Japanese Army on the border of Japanese-occupied Manchuria. The conflict with the Japanese allowed the Red Army to put its doctrine and equipment to a practical test." Although the initial actions consisted primarily of frontal engagements, many of the ideas professed in PU-36 were validated, such as the use of air power, the requirement for heavy artillery support, and the importance of combined arms operations." Later, Marshal Zhukov, Commander of the First Army Group, achieved a decisive victory against Japanese forces using maneuver and deep operations. Zhukov employed his forces in a double envelopment, attacking and destroying the enemy forces in depth."
The performance of the Soviet forces under Marshal Zhukov, particularly that of the mechanized units and tactical air power, validated the Red Army's ability to fight coordinated, mobile warfare in accordance with their 1936 doctrine. The performance of Zhukov and his forces also confirmed the Soviet leadership of the "invincibility" of their forces. Stalin and the High Command used the performance of the army in Manchuria to support the contention that the purge did not reduce the effectiveness of the Red Army but had strengthened it. Interestingly, despite Marshal Zhukov's success with maneuver warfare and the mechanized corps, the Soviets continued to dismantle their mechanized forces. The Red Army observations and conclusions of the Spanish Civil War proved more influential than experiences against the Japanese. This may indicate Stalin's belief that the conflict with the Japanese was not indicative of the rigors of modern warfare, since the Japanese did not field a modern army. It may also indicate that Stalin, Voroshilov, and the Soviet High Command did not fully embrace Tukhachevsky's maneuver based doctrine. The Soviet leadership favored a doctrine based on attrition and positional warfare, but they never took action to officially adopt it. Now that Tukhachevsky had been eliminated there was no one left to aggressively support maneuver ideas.
STATUS OF RED ARMY DOCTRINE IN 1939

Official Red Army doctrine in 1939 was based on the Field Service Regulations, 1936. The draft of the Field Service Regulation, 1939 built on the maneuver, offensive, and annihilation ideas of PU-36 and even added the concept of "decisive victory at low cost." The 1939 document was not published because of the outbreak of the Soviet-Finnish War, but the focus of the manual indicated the Red Army still favored the maneuver based doctrine. The major features of Red Army doctrine in 1939 included emphasis on offensive operations, maneuver, depth and simultaneity, annihilation of enemy forces, command and initiative, all arms cooperation, mass, and surprise.

Although the first article of the PU-36 identified the purpose of the Red Army as one of strategic defense, the doctrine had an offensive focus. The role of the Red Army was to repel an enemy attack "with the entire might of the armed forces of the Soviet Union," and to transfer the fight to the invading nation's territory. PU-36 described the importance of offensive operation to achieve decisive victory:

... only a vigorous offensive directed against the principal front, coupled with a relentless pursuit, will lead to the complete destruction of the enemy's forces and means of resistance.

Although the doctrine indicated the offensive was the decisive form of war, PU-36 did recognize the
requirement for defensive operations. Tukhachevsky believed the improved weapons of the time strengthened the defense. In most cases, the role of the operational or tactical defense in Red Army doctrine was to set the conditions for offensive operations. PU-36 described the possible reasons for defending as performing an economy of force role on a wide front to allow massing in a decisive area, gaining time until conditions are favorable for an offensive, protecting critical areas, or disrupting an enemy attack to allow a future offensive.

Maneuver, as opposed to positional warfare, was a critical aspect of the doctrine. Maneuver was important to both offensive and defensive operations. Only through maneuver could a commander place his forces in a position of advantage over the enemy and force the enemy to fight under unfavorable conditions. The doctrine emphasized the vulnerability of the enemy's flanks and rear. Tukhachevsky wrote; "Taking the enemy's gun lines in the flank and getting astride his withdrawal routes--that's what PU-36 is all about." Maneuver gave the commander the capability to strike the enemy where and when the enemy was most vulnerable. Tukhachevsky believed that although improved weapons had strengthened the defense, pure positional warfare was never necessary. He believed
the only times a commander should adopt positional warfare was when his army was poorly prepared or poorly trained.\textsuperscript{61}

The concept of depth played an important part in Red Army doctrine. Tukhachevsky developed deep battle ideas in close coordination with Triandafillov. Deep battle originated as the broad front concept. The idea behind the broad front concept was to increase the maximum contact area between opposing forces on the battlefield to achieve simultaneity. Improved mobility and weapon lethality caused Tukhachevsky to reorient his maximum contact area. He reoriented from across the front of the enemy, to throughout the depth of the enemy.\textsuperscript{62} The Red Army doctrine also applied depth at the tactical and operational level. PU-36 preached the importance of employing the cooperation of combined arms and of neutralizing the enemy by attacking the enemy formation simultaneously through its entire depth, allowing the maneuvering Red Army forces to encircle and destroy the enemy.\textsuperscript{63}

After long debate, Red Army doctrine had oriented on the destruction of the enemy as the objective in combat. The debate between attrition and annihilation pitted Svechin against Tukhachevsky. Svechin believed combat was not likely to achieve decisive results in the early stages of war. Svechin believed the Soviet
state and its specific strategic situation was suited for protracted war and attrition. Tukhachevsky, who eventually won the debate with Svechin, believed through industrial programs, mobilization, and mechanization the Soviets could have the necessary tools to achieve destruction of the enemy.

Tukhachevsky believed terrain was normally a secondary objective, used to support the ultimate objective of destroying the enemy force. As a result, PU-36 stated that "every battle, offensive and defensive alike, has as its aim the defeat of the enemy."

Throughout the doctrine, the importance of command and initiative are dominant themes. In terms of command, PU-36 stressed unity of effort and cooperation between all forces involved in the battle. Unity of effort implied centralized control to ensure coordination. The doctrine attempted to balance the advantages of centralized control with the strengths of directive control. Article 11 of PU-36 stated the importance of centralized control:

Any decision adopted must be carried out firmly and with the utmost energy, notwithstanding the changes in combat situation. In the course of battle there will inevitably appear unforeseen situations and unexpected difficulties. The general must properly evaluate all new information of the situation and adopt timely appropriate measures. Command must be uninterrupted, the commander must at all times maintain a firm control over the progress of the battle."
Article 11 also stated: "[The] personal initiative on the part of subordinates is of utmost importance when confronted with a sudden change in the combat situation." Although the methods of control appeared contradictory, initiative and directive control seem to be the dominant themes. Tukhachevsky, who may have had to keep the importance of directive control ambiguous for political reasons, stated in another document:

that the modern battle is so complex, and the situation so subject to change, that every commander must always be ready to take an independent decision based on the actual situation.6

Throughout the remainder of PU-36 there are at least four additional articles that specifically relate to the importance of initiative to support the maneuver based doctrine.7

The Red Army did not believe in the dominance of a single weapon on the battlefield. Red Army doctrine placed great emphasis on the importance of close cooperation between all arms to contribute their respective capabilities to the battlefield. The capabilities of each arm varied based on the mission and specific situational circumstances.71 Soviet doctrine did however emphasize the primacy of ground troops and supporting fires over other arms. Major
General Isayev described the relative importance of Soviet forces:

The foundation of the Soviet Armed Forces is a closely knit combination of infantry, armor, artillery, and tactical air power. Naval forces, the Strategic Air Force, airborne troops, partisan groups, and others are supplementary.\(^{12}\)

The importance of artillery support for the conduct of all operations received great emphasis. PU-36 recognized that a maneuver doctrine placed great demands on supporting fires.\(^{73}\)

PU-36 emphasized the importance of "mass" as a General Principle of Red Army operations:

It is impossible to maintain uniformly strong forces at all points. In order to gain victory, it is necessary to concentrate decidedly superior forces for the main effort...\(^{74}\)

Doctrine did not imply that the sheer weight of the attacking force was the critical component. The Soviet idea of mass was one component of a dynamic quality the Soviets sought through their maneuver doctrine. The Soviets combined mass with velocity to achieve momentum.\(^{75}\) Red Army intention was to find the correct area for a penetration of an enemy defense and, through the coordinated effort of echeloned forces, progressively increase the mass and speed of a breakthrough. The goal was to ruthlessly reinforce success.\(^{76}\)

Red Army doctrine stressed the importance of surprise in all operations. PU-36 identified surprise
of the enemy as the most important condition of success in offensive operations." Surprise implied the requirement for extensive secrecy and security in preparing for operations. Surprise also demanded speed of execution and rapid adherence to orders.

The Red Army doctrine of 1936 was a compilation of many mature ideas, developed by Soviet theorists and military leaders over several years. In 1939, however, the doctrine had three major shortcomings; it was beyond the capability of the Red Army to execute, it failed to support national interests, and it had too narrow a focus.

Red Army officers and soldiers did not have the experience nor the training to conduct operations in accordance with the doctrine. The purge and the rapid expansion of the army affected the army's experience and training level. Junior officers rapidly advanced in rank to fill vacancies of officers eliminated in the purge. The officers, although well educated, were not experienced in leading large, mechanized units. The 1939 Universal Service Act rapidly expanded the army. In 1939 the Red Army quickly grew from 1.6 million to five million soldiers. The growth rate exceeded the Red Army's ability to train soldiers. As a result, Red Army soldiers in 1939 were poorly trained to operate under combat conditions.
In 1939 "Tukhachevsky's doctrine" failed to support national interests in two ways. Doctrine was not based on strategic requirements and the doctrinal requirement for free thinking leaders was not consistent with the atmosphere Stalin had created. Many of Tukhachevsky's ideas were developed from the tactical level up to the operational level. The ideas did not start from a strategic situation and work down to tactics. The result was brilliant doctrine that was not based on strategic requirements. Over the years strong leaders, such as Frunze and Tukhachevsky, had influenced strategic thinking. They ensured there was a link connecting strategy and doctrine. As the influential leaders were eliminated, Stalin easily influenced the surviving members of the High Command and drove military thought. The surviving military leaders failed to ensure the Red Army and doctrine kept pace with changing national strategy. The other breakdown between national strategy and doctrine involved the role of initiative and creative thinking in the military.

The doctrinal requirement for initiative was inconsistent with Stalin's general mistrust of bold, independent thinking officers. Tukhachevsky believed commanders had to think for themselves on the battlefield. Commanders had to demonstrate initiative
and to apply appropriate techniques based on the situation. Stalin's purge strongly encouraged the remaining officers not to think for themselves. The atmosphere Stalin created undermined the military's ability to successfully execute its maneuver doctrine.

The Red Army doctrine in 1939 had a narrow focus on the requirements for modern warfare. As previously discussed, Red Army experiences in the Civil War were much different from the experiences on the static Western Front in World War I. The Red Army operated over large areas with relatively small forces. Opposing forces could easily bypass static defenses. The doctrine in PU-36 focused on the conditions with which the Red Army was familiar. For example, in Chapter Seven of the Field Regulation, twenty-five pages discussed offensive operations and only one third of a single page addressed "Attack Against Fortified Areas." The section concluded by stating "Attacks against fortified areas and zones are delivered on the basis of special instructions." The doctrine failed to adequately address the wide range of conditions the Red Army would encounter. The doctrine also failed to recognize anything less than total war, making no provisions for any situation less than the total mobilization of the nation. It provided no guidance to
military leaders on the conduct of war with limited objectives.

In 1939, the Soviets had a breakdown between strategic thinking, Red Army doctrine, and Red Army capabilities. Stalin and the Soviet High Command began to push a strategy of attrition and positional warfare. Red Army doctrine focused on maneuver, initiative, and annihilation of the enemy. The Red Army was caught between the belief of the Soviet High Command and Red Army doctrine. Rapid growth of the army and changes in organizations affected the Red Army's ability to execute either style of warfare. The conflict in doctrinal thought and strategy resulted in breakdowns in understanding between the strategic, operational and tactical commanders.

THE SOVIET-FINNISH WAR

The Finnish refusal to accept Soviet demands for control of Finnish land was the reason for the Soviet-Finnish War. The Soviet Union wanted control of the Karelian Isthmus and several islands in the Gulf of Finland to protect the approaches enemy forces could use to threaten Leningrad.

In April 1938 the Soviets began negotiations with Finland. Over the next year and a half the negotiations continued and Soviet demands increased.
The Finnish negotiators continued to reject Soviet demands. On 3 November 1939, Molotov, the Soviet Foreign Commissar, stated; "We civilians can see no further in the matter; now it is the turn of the military to have their say."

Before hostilities began, the Soviet Union increased diplomatic pressure on Finland. The Soviet political leadership felt they only had to threaten the use of military force and the Finns would concede. If threats did not work, the Soviets believed a few shots across the border would cause the Finns to instantly surrender. Stalin expected a quick victory.

The Red Army Chief of the General Staff, General Shaposhnikov was less optimistic than Stalin. Shaposhnikov anticipated stubborn Finnish resistance. He proposed a plan based on extensive preparations that used the entire might of the Red Army. Stalin ridiculed Shaposhnikov's plan. Stalin assigned the task of defeating the Finns to General Meretskov and the Leningrad Military District.

The Soviet plan for the invasion of Finland was based on the Soviet political assessment of internal political dissension and weakness within Finland. The Soviets believed the oppressed Finnish workers would greet the Red Army as liberators and join the Red
Army in driving the "White Finns" out of Finland."
The Soviets used propaganda and "fifth column" subversion to incite internal dissension within Finland. To rally the liberated Finns, the Soviets set up a puppet government under Otto Kuusinen, a Finnish Marxist. Kuusinen formed the "Democratic Republic of Finland" in the small town of Terijoki, the first "liberated city."" In conjunction with this unconventional warfare, the Soviet used extensive conventional forces.

The Red Army planned to attack on four main axes across the entire 800 mile Soviet-Finnish border (see Map 2). The purpose of the attacks was to capture Viipuri and threaten Helsinki." The operational significance of the Red Army's axes and objectives increased progressively from north to the south.

In the north the Fourteenth Army, consisting of two rifle divisions, was to attack to seize the ports at Petsamo and move to the south to link up with the Ninth Army. The Finnish defenses in this sector were made up of one reinforced infantry battalion and a couple of independent border companies."

In the center the Ninth Army was made up of five rifle divisions. The Ninth Army's mission was to drive to the northern edge of the Gulf of Bothnia to sever land communications between Finland and Sweden and to
cut Finland in half. Initially the Finnish defensive forces in this sector consisted of a couple of independent border companies. The Finnish forces in this area eventually increased to about one and a half divisions."

In the south, the Soviet main effort consisted of two armies, the Eighth and the Seventh. Their immediate objective was to liquidate the Finnish defenses on the Karelian Isthmus and to capture Viipuri. The Eighth Army, with a total of seven rifle divisions, several armored brigades, and supporting artillery, was to attack north of Lake Ladoga to drive into the flank and rear of the enemy defenses. The Finnish IV Corps, with two Divisions, opposed the Soviet Eighth Army. The Soviet Seventh Army was the main attack. It was made up of twelve rifle divisions, five armored brigades, and supporting artillery. Its objectives were to breach the defenses of the Finnish Mannerheim Line, to secure the lines of communications at Viipuri, and to open the routes to Helsinki. The Finnish II and III Corps defended the Karelian Isthmus with a total of six divisions.

The employment of Soviet air and naval forces was designed to support the ground operations. The Soviets had about 800 aircraft for this operation. The Soviets planned to use air power to destroy the Finnish Air
Force, attack Finnish defensive positions, disrupt mobilization, and cut Finnish internal lines of communications. The Soviets also planned extensive use of air power to terrorize the Finnish population into submission. The Soviet Navy conducted operations in the Gulf of Finland and the Arctic Ocean. The Soviets planned to blockade Finland and to conduct seaborne invasions to seize critical islands and ports.

Before the beginning of the war Stalin ordered General Meretskov, commander of the Leningrad Military District, to command the Seventh Army on the Karelian Isthmus. This action eliminated the theater operational commander. Stalin essentially served as both the strategic and operational commander. The four army commanders worked directly for Stalin and the Soviet High Command.

The war can be divided into two distinct operations. The first operation began in November 1939 and continued until late December 1939. It consisted of a series of failed Soviet attempts at a quick victory using maneuver warfare. The second operation began in January 1940 and concluded on 13 March 1940.

The first shots of the war were fired on 26 November 1939. On 30 November 1939 the Soviets launched the invasion of Finland. The Soviets achieved
very little. The propaganda, "fifth column" activities, and puppet government failed to rally the Finnish masses. These activities actually had the opposite effect and solidified Finnish resistance against the Soviets. Forming the puppet government also led to international isolation and expulsion from the League of Nations. The Soviet Navy conducted successful amphibious operations on a couple of undefended islands. However, Finnish coastal defenses defeated all the Soviet amphibious landing attempts on the mainland. Soviet air attacks were hampered by short winter days and bad weather. The attacks that were executed had minimal effects. The air attacks were generally not executed with sufficient mass or accuracy to be effective. By the time the Soviets launched air attacks on lines of communication, Finnish mobilization was almost complete and most of the forces were moved to their forward defensive positions. Additionally, most of the Finnish population lived in the country and did not present good targets for the Soviet bombing attacks.

Throughout December, Soviet ground forces suffered heavy losses and made minimal gains. Red Army forces were unprepared to fight against the fortified Mannerheim Line. Soviet forces were also unprepared for the restrictive terrain and the harsh
winter conditions they encountered. In the center and north, the well trained and equipped Finns skillfully used maneuver warfare (small patrols on skis) and guerrilla tactics to cut off and defeat repeated Red Army attacks. The Finns conducted numerous raids to disrupt Red Army rear areas and to create havoc for the Soviets.

In late December of 1939, Stalin realized the difficult situation the Soviets faced and called for "decisive steps to be taken." The Soviets had to regroup and reorganize their forces to bring the war to a successful conclusion. Stalin reorganized the Soviet High Command and changed the operational command of the forces fighting in Finland, appointing Marshal Timoshenko as Northwest Front Commander. With this appointment the Soviets had an operational commander between Stalin and army commanders fighting the battles.

Timoshenko used the month of January 1940 to prepare his forces to fight under winter conditions in Finland and to train them to overcome the identified shortcomings of the first month of the war. Timoshenko was told not to use flanking maneuvers but to attack frontally to "crush the fortification on the Karelian Isthmus."
On 1 February the Soviets resumed their offensive. To overpower the Finns, the Red Army massed two armies on the Karelian Isthmus (see Map 3). The constant pressure of massed artillery and ground attacks eventually wore down the defenders. On 1 March the Finns were defending along the Viipuri line. The Soviet forces were then able to cross the frozen Gulf of Finland to outflank the defensive positions. Finnish defenses could no longer resist. On 13 March a negotiated peace between the Finns and Soviets ceased hostilities.

DOCTRINAL ANALYSIS OF THE FINNISH CAMPAIGN

The purpose of this analysis is to assess the compatibility of Soviet planning and execution in Finland with the eight major features of Soviet doctrine previously identified in this study: offensive operations, maneuver, depth and simultaneity, annihilation of enemy forces, command and initiative, all arms cooperation, mass, and surprise.

The Red Army operations were conducted with a completely offensive focus. Offensive operations were consistent with Soviet strategic and operational aims. There was little Finnish operational or strategic counterattack threat and, as such, there was also little or no requirement for Soviet defensive
operations. The Soviets conducted defensive operations to protect critical areas, to disrupt Finnish local counterattacks, and to reorganize for future offensive operations.

The initial Red Army operational plan used extensive maneuver to isolate, encircle and destroy the enemy defensive forces. The Red Army, however, was frequently outmaneuvered at the tactical level. In the center and north, Red Army units were paralyzed on restricted routes and were easy targets for the small, maneuverable Finnish units who encircled and attacked the Soviets almost at will. Finnish forces used tactical exterior lines to strike the flanks and rear of Red Army units as the cumbersome Red Army attempted to move on limited routes. In the South, on the Red Army main axis of attack, Red Army forces massed to conduct repeated frontal attacks into prepared defenses. In the second operation, the Red Army abandoned all operational maneuver and relied strictly on mass to exhaust the enemy.

In initial operations the Soviets attempted to achieve depth and simultaneity with their attacks at the strategic and operational levels. Soviet air and naval operations were designed to simultaneously attack the depth of the Finns. The Red Army, however, failed to achieve any real depth in its operations, as the
armies attacked on a broad front while terrain and weather restricted them from using ground maneuver forces to attack in depth. Air attacks concentrated on strategic targets and used minimal assets to attack tactical targets. The Red Army did not coordinate operations to neutralize the Finnish tactical defense. The Finns had freedom of maneuver to reposition forces and to mount successful tactical defenses. Timoshenko improved the use of depth in the second operation by coordinating the use of fire support and by using the frozen lakes to support flanking maneuvers.

The initial Soviet plan in Finland was consistent with Red Army doctrine of annihilating enemy forces. The Soviet plan for the main attack on the Karelian Isthmus, was designed to "liquidate" enemy defensive forces. The Soviets did not have the capability to annihilate the enemy. The northern and central Soviet forces oriented on terrain objectives. These objectives were consistent with the doctrine because the objectives played a secondary role of support to the overall plan. In the second operation the Soviets focused on relentless mass and attrition to exhaust the Finns.

One of the major failings of the Red Army was the "colossal failure of the Tukhachevsky nerve." This refers to the command structure and specifically the
role of initiative. PU-36 talked about the importance of "uninterrupted command," and commanders having "firm control over the progress of the battle." It discussed the importance of personal initiative to find a better means of executing the plan or of taking advantage of situations that develop in combat.120 Stalin and the purge greatly affected initiative. Command and initiative broke down at all levels. Stalin decided to forego the normal means of planning the war and assigned the mission to a military district instead of the General Staff. Initially he failed to appoint an operational commander and even after he did, Stalin continued to bypass levels of command to issue orders directly to subordinate leaders. There was total lack of independence and lack of initiative by leaders at all level. The purge had eliminated officers who tended to think for themselves and survivors of the purge were not willing to show any sign of independent thought. Political commissars, who reported on the loyalty of Red Army officers, overrode commanders' orders. This dual form of command by unit commanders and political commissars contributed to lack of initiative by leaders.121 Many of the problems units encountered in the Winter War may have been overcome had officers been willing to think for themselves and
take advantage of situations that developed on the battlefield.

The Red Army massed forces to support the main effort but was unable to reinforce any local success. The Soviet plan massed the main effort against the enemy main effort. The mass employed was pure numbers of forces. They were unable to skillfully use their forces to achieve a coordinated massing of effects to create a breakthrough or an envelopment. This failure is closely linked to the failure of initiative and the failure of combined arms cooperation.

If properly coordinated, the sheer weight of the Red Army attacks should have achieved a quick victory. The effect of mass was offset by lack of coordination. General Mannerheim, Commander of the Finnish Forces, described the Soviet performance in the initial stages of the war as a "badly conducted orchestra in which instruments were played out of time." The Soviets could not maximize the capabilities of their forces because they did not operate in concert with each other. The effects of the lack of coordination were piecemeal attacks that the Finns could easily defeat.

The Soviets placed great importance on achieving surprise in all operations. The long and increasingly tense negotiations highlighted by denunciation of non-aggression pacts and severance of political and
economic relations with Finland, compromised any Soviet hope of strategic surprise. As a result the Finns certainly anticipated an attack and were almost fully mobilized when it occurred. The Finns also anticipated and were prepared for an attack on Karelian Isthmus. The Soviets did, however, achieve some operational surprise. The timing, weight, and location of the Soviet attack caught the Finns by surprise. Operations north of Lake Ladoga also surprised the Finns. The Red Army moved with greater strength, faster, and on different axes than the Finns had anticipated. The Soviets, having achieved early surprise, were unable to follow up their initial success.

As a result of this analysis, it is apparent the Red Army was not capable of successfully executing doctrine. In December 1939 the Soviets attempted to achieve a quick victory using operational maneuver. The tactical and technical capabilities of soldiers, units and commanders did not support Red Army attempts at a maneuver solution. Breakdowns in command and initiative, and a lack of combined arms coordination prevented Red Army units from successfully adhering to doctrine. As a result, Red Army units were unable to successfully maneuver, attack the enemy in depth, or mass the effects of their attacks. A combination of inexperienced leaders, poorly trained soldiers, and
unprepared units combined to prevent the Soviets from executing their plan. Decisions by Stalin and the Soviet High Command effectively prevented commanders from initially employing plans they thought appropriate for the situation. In the second operation, the operational commander had time to prepare his forces. He abandoned the maneuver doctrine and relied on mass to accomplish the mission. He was ultimately successful, but at a very high cost. Stalin's demand for a quick, decisive victory combined with his restraints of the ways and means available also contributed to the Red Army's poor performance.

CONCLUSION

Stalin believed the Red Army's first major test of the rigors of modern combat was the "Winter War" with Finland in 1939. After the Soviet debacle in Finland, Stalin blamed the generation of officers who had produced the Red Army's doctrine for failing to prepare the Red Army for the rigors of modern war. This paper began by asking whether Red Army doctrine was the cause of the disaster in the Soviet-Finnish War. To answer this question the monograph reviewed the development of Red Army and its doctrine to determine their status in 1939. The study then analyzed Soviet operations during the "Winter War" to determine if doctrine was the cause.
of the disaster in Finland. This monograph determined that the Soviets were incapable of executing the doctrine and, therefore, doctrine was not the primary cause of the disaster. This demonstrates that doctrine, by itself, cannot ensure victory on the battlefield. Leaders, soldiers and units must be trained, organized, and equipped to execute in accordance with doctrine.

The Red Army's doctrine, however, must be faulted for not serving the Soviet national interests. The doctrine presented Marshal Tukhachevsky's 1936 vision of modern war. The same doctrinal ideas would later serve Soviet interests in the drive to victory in World War II. But in 1939-1940, doctrine did not align with Stalin's vision or the strategic requirements of the Soviet nation. After the purge the Soviet High Command began to reorganize the army and transition to a strategy of attrition and positional warfare. Voroshilov, the Commissar of Defense, should have taken action to modify doctrine and make it consistent with the changing national strategy. Voroshilov failed to change the doctrine. His inaction left the Red Army caught between the conflict of doctrine and the strategy of the Soviet Union.

The result of saddling the Red Army in 1939 with an inappropriate doctrine was initial military defeat
at the hands of the tiny, but effective, Finnish Army. The disastrous losses suffered by the Red Army in this operation highlights that a sound military doctrine, well calculated to serve the national interests in a given situation, will contribute to the accomplishment of military missions in an economical manner. A poorly developed doctrine, not linked to national interests, will lead to disaster.
ENDNOTES


7. Garder, 54–55. Garder uses four phases to describe the development of the Red Army into the Soviet Army. Garder's first three phases are the grey years, the feverish years, and the years of trial. The fourth phase, the decisive years, includes the years 1941–1945. It extends beyond the scope of this monograph.


12. Jacob W. Kipp, Mass, Mobility, and the Red Army’s Road to Operational Art, 1918-1936, (Ft Leavenworth: Soviet Army Studies Office), 11. Trotsky, the founder of the Red Army, wanted a small regular army for frontier defense and a large territorial based army in industrial centers to be a guarantee against any possible peasant agitation. Trotsky also feared the development of a unified military doctrine. He believed “official sanction to a particular concept would invite the transformation of doctrine into an "ossified dogma."

13. J.M. Mackintosh, “The Red Army 1920-1936” in The Red Army, ed. Liddel Hart, (New York: Harcourt, Brace and Company, 1956), 53. The group led by M. V. Frunze, was made up of a group of successful Civil War field commanders. This group believed they had developed, on the battlefield, a new “doctrine of war.” They saw counter-revolution as a very unlikely future requirement for the Red Army. The Frunze Group identified the main danger to the Soviet Union as coming from external threats. They favored a unified military doctrine based on offensive, maneuver warfare of mass armies to defeat the technologically superior Imperialist threat.

14. Garder, 59; Rice, 654-660; and Kenneth R. Whiting, "The Past and Present of Soviet Military Doctrine," Air University Quarterly Review 11 (Spring 1959): 41. The Frunze group believed the mass army would require the mobilization of the entire country and the army should be based on a well trained United Army of cadres side by side with territorial militia. Frunze’s ideas eventually superseded those of Trotsky.

15. Mackintosh, 52.


17. Garthoff, 56.

18. Garthoff, 57.


20. Garthoff, 45.

21. Garthoff, 40-48. Using former Tsarist officers was not popular with many Soviet leaders. In response, the Soviet leadership introduced political commissars. The political commissar’s job was to watch
the political reliability and loyalty of the former Tsarist officers who occupied important jobs in the Red Army.

22. Donnelly, 73.
29. Garder, 82.
30. Garder, 84.
31. Bellamy, 74 and Whiting, "Past and Present," 21-26. The Red Army grew in size from 562,000 in 1934 to 1,600,000 in 1937. Whiting, 26. Tank production increased from 740 a year in 1931 to 3,139 in 1937 and artillery production grew from an annual rate under 2,000 guns in 1931 to over 5,000 in 1937. Whiting, 23.
33. Garthoff, 61; and Simpkin, Deep Battle, 49.
34. Erickson, Soviet High Command, 437.
36. Erickson, "Combined Arms Theory," 5.


40. Rice, 668; and Garder, 54. Historian, Michael Garder, wrote in *History of the Soviet Army*; "What can be stated without reservation is that in 1937 the Red Army was superior to any of the Western Armies at that time in almost all fields." Data presented in White, 426, supports the statement.

41. Garthoff, 220. Senior officer refers to brigade commander and above.

42. Glantz, 25.


44. Simpkin, *Deep Battle*, 49.


47. A.I. Eremenko, "The Wrong Conclusion" in *Stalin and His Generals*, ed. Seweryn Bialer, (New York: Pegasus, 1969), 148. Many Soviets thought the compromise they achieved at forming brigades at the expense of the mechanized corps was the worst possible decision. The mechanized brigade was too small to support its role in operational maneuver and too big to function in an infantry support role.


52. Volkogonov, 369-370.


55. FSR 1936, 1.

56. FSR 1936, 1.


58. FSR 1936, 85.


60. FSR 1936, 37 and Garthoff 98.


63. FSR 1936, 37; and Erickson 1, *Soviet High Command*, 440.


66. FSR 1936, 1; and Simpkin, *Deep Battle*, 177-178. The Regulation uses the terms "annihilation" and "destruction of the enemy's manpower and resources" frequently to describe the preferred method of defeating the enemy. These terms, based on the full description of the principle, seem to refer to rendering the enemy incapable of fighting as opposed to annihilation in the literal sense.

67. FSR, 5.

68. FSR, 5.

70. FSR, Article 11, p 5, article 123, p 42, article 128, pp 43-44, and article 198, p 75. Article 198 addresses the importance of initiative when breaching an enemy defense. It states, "when engaged in action within the hostile position, any delay, or waiting for orders or for neighboring units to catch up, will be most dangerous. Bold and daring action will operate to disrupt the hostile defense and to break the resistance of the enemy."

71. FSR 1936, 2-4 and Rice, 665.

72. Garthoff, 174-175.

73. FSR, 38-40.

74. FSR 1936, 1.


76. FSR, 60-70; and Simpkin, Deep Battle, 260-261.

77. FSR 1936, 2.

78. White, 378.

79. White, 384 and 389.


82. Simpkin, Deep Battle, 44-47.


84. Rice, 663-664; and Ziemke, 13-15.

85. Volkogonov, 318-322.

86. FSR 1936, 59-85.

87. Rice, 669.

89. Erickson, *Soviet High Command*, 541.


91. P. H. Vigor, *Soviet Blitzkrieg Theory*, (New York: St Martin's Press, 1983), 49-50. The Nazi-Soviet Pact prevented the Germans from getting involved in Finland. Soviet treaties with the Baltic states enabled the Soviets to use establish bases on the Baltic territories. Sweden was neutral and feared the Soviets. France and England were unlikely to support Finland because of the German actions in Europe. The Soviet Union had effectively isolated Finland from external support.


94. Garthoff, 10.

95. Chew, 6.

96. Engle, 4, 26; Erickson, *Soviet High Command*, 542-543; and Garthoff, 20.


99. Engle, 161; and Erickson, *Soviet High Command*, 543; and USMA, 4.

100. Meretskov, 109.


102. USMA, 3-4.

103. USMA, 3-4.

104. Engle, 146; Erickson, *Soviet High Command*, 543-547; Meretskov, 106-107; and Volkogonov, 365.
105. Khrushchev, 152; and Garthoff, 23. Both sides blamed the other for initiating hostilities. Most evidence supports the notion the Soviets initiated hostilities but blamed the Finns to appeal to the Soviet military and Soviet population to strike back at the aggressor.

106. Volkogonov, 364.

107. USMA, 7.

108. Chew, 60-61 describes the Mannerheim Line "...the defenses were merely strong field works: earth and timber bunkers, trenches, dugouts, korsus (small underground sleeping quarters), granite antitank obstacles, barbed wire, and mine fields. This line was formidable by the standards of 1914-1918, but it was unimposing in comparison with the Maginot and Siegfried Lines and the technology of the Second World War." Meretskov, 109-111 discusses how unprepared his troops were to attack a fortified position. For example, they had no mine detectors or other counter-mine equipment to support their attacks.

109. Chew, 28 and Engle, 5. Seventy percent of Finland is covered by forests. An estimated 60,000 lakes, connected by rivers and man-made waterways cover the countryside. The winter of 1939-1940 was the second coldest since 1828. The average temperature was \(-30^\circ\) Centigrade and temperatures reached as low as \(-70^\circ\) Centigrade. Heavy snow restricted tracked and wheeled vehicles as well as foot movement.

110. Asprey, 39.

111. Erickson, Soviet High Command, 547.

112. Volkogonov, 364.

113. Erickson, Soviet High Command, 547.


115. Chew, 212; Engle, 142-143; and Khrushchev, 155. Estimates of Soviet losses during the war vary greatly. Molotov officially identified Soviet losses as 49,000 killed and 159,000 wounded. The Finns estimated Soviet losses at 200,000 killed and 300,000 wounded. Khrushchev claimed Soviet losses exceeded 1 million during the war. Regardless which estimate one believes, Soviet losses were extremely high, especially when compared to the Finnish losses for the campaign.
which were 25,000 killed and 55,000 wounded.

116. USMA, 12.
117. Engle, 83-93.
119. Erickson, Soviet High Command, 552.
120. FSR 36, 5-6.
121. White, 402.
123. USMA, Map 1.
124. O'Ballance, 142.
125. USMA, Map 3 a and b.
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