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Ten Principles of Soviet Operational Art: Red Army Operations in Theory and Practice, 1936-1942

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master thesis

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Abstract

Over the course of the Great Patriotic War, fought from 22 June, 1941 to 9 May, 1945, there was a dramatic transformation in the way the Red Army conducted battle. From an army on the cusp of annihilation to one that quickly recovered to vanquish the invading forces of Nazi Germany, this resurgence can be traced in part to its mastery of operational art. Moreover, the ever-increasing series of strategic victories which eventually led to Nazi Germany’s final defeat, beginning in late 1942, revealed the importance that offensive doctrine held for the Red Army leaders.

The guiding principles which formed the basis of operational art were proscribed within many of the Red Army’s prewar and wartime theoretical writings, many of which coalesced unto the pages of several Red Army field manuals. However, for the purposes of this thesis, focus shall be assigned to the 1936 Provisional Field Regulations as the primary source for what the author shall later identify as the ten principles of Soviet operational art.

The first chapter will be devoted to explaining how the author utilized various sources in the examination of this subject. In addition to English-language sources, Russian and German primary and secondary materials were extensively consulted. As part of this literature review, comments regarding both the value and shortcomings of these works will be made to show why they were used and to what degree they proved helpful.

The second chapter will seek to discuss all ten principles of Soviet operational art. This will begin by identifying where in the manual these principles are located and how they were supposed to be applied in the context of tactical and operational offensives. This will be followed by a brief look at how each was conceptually developed. A broader understanding of the nature of these principles will require an examination of their respective roles in the planning and conduct of tactical deep battle and operations in depth.

The third major section of this thesis will assess the importance of the aforementioned principles by examining their roles in two major operations. These are: (1) the Smolensk Counter Offensive Operation, 21 July to 7 August, 1941 and (2) Operation Uranus, 19-23 November, 1942. The Smolensk Counterstroke was chosen to demonstrate operational failure when most of the ten principles of operational art were absent. Conversely, Uranus will be to show success when all are present.

Following this shall be the fourth chapter, which will offer a comparative discussion on the differences and similarities in German and Russian military doctrines as expressed by their respective field manuals, namely the 1933 Truppenführung and the 1936 Soviet Polevyye Ustav.

Lastly, the fifth and final chapter will offer a summary conclusion that will address the question of why the German army failed to win the war, even when abiding by a military doctrine similar to that practiced by the Red Army. This will involve a comparative assessment of Adolf Hitler and Joseph Stalin’s abilities as military leaders and their understanding of operational art.
Acknowledgments

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Dedication

For Cheryl and Cali
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Glossary of Russian Military Terms

Gluboki Boi (Tactical Deep Battle)

The use of lower-level formations to offensively engage the enemy within his tactical depth.

Glubokiye Operatsii (Deep Operations)

Theory of maneuver warfare popularized by Red Army theorists, Mikhail Tukhachevsky and Vladimir Triandafillov, Alexander Svechin, Alexander Yegerov, and others. It is generally understood as the accumulated sum of tactical victories secured in the varied depths of the enemy’s operational area, utilizing principles espoused by Red Army doctrine regarding offensive combat.

Glubokiy Tyl (Deep Rear)

That part of the territory of a state (or states) beyond the range of enemy operational and tactical means of attack.

Maskirovka (Deception)

A variety of active and passive measures designed to create a false disposition of friendly forces to the enemy. This included camouflage, diversion, disinformation, and false maneuvers. Maskirovka was employed to mislead the enemy to a commander’s intent, mission objectives, and combat strength.

Nastuplenie (Offensive)

The principal form of military or combat operation, employed to destroy the enemy and seize key areas, battle lines or installations. It involves using all available firepower to defeat enemy forces, decisive assaults, a high rate of advance into the depth of the enemy’s disposition, killing or capturing his troops, as well as seizing weapons, equipment and key enemy installations and territory. The scale of an offensive may be strategic, operational or tactical and it may take the form of large-scale battles, operations, battles and other types of combat.

Odnovremennost (Simultaneity)

A feature of operational art characterized by the timely and aggregated employment of tactical formations, each operating concurrently towards different objectives subordinate to the same operational goal.

Operativnoye Iskusstvo (Operational Art)

The cognitive application of principles, experience, knowledge and skills by higher staff and subordinate field commanders relating to the orchestration and conduct of offensive operations lying beyond the scope of tactics, but below the strategic scale.
Ob"edinennyii Armiia (Tank Army)

Soviet armored formation specifically structured and designed to conduct operational offensives. Controlled and operated as part of the Red Army’s Front-level formations, their primary combat mission was to breakthrough enemy defenses previously weakened by armies of the first echelon. Once the enemy line was breached, tank armies were to penetrate and exploit objectives, often to a depth of several hundred kilometers. Typically organized in 1-2 tank corps, tank armies ranged from 300 to 500 tanks or more, accompanied by a variety of supporting arms and logistical services. Compared to obshchevoiskovaia armii, the ob"edinennyii armii fought on narrow attack sectors and were to avoid unnecessary engagements which prevented them from proceeding into the enemy depth.

Punkty Upravleniia (Control points)

A tactical term that refers to routes, terrain features, and/or military assets which contribute to the survival and success of large field formations. Control points are generally characterized by fixed installations, natural terrain, and military groups of divisional-size or lower. Bridges, roads, fortifications, hills, command posts, supply depots, and artillery batteries are a few examples of what would be encountered at a control point.

Razvedka (Intelligence)

The acquisition, analysis, and dissemination of battlefield intelligence regarding the size, location, strength, disposition, and intent of enemy forces. Utilizing a wide variety of means and methods, razvedka was to be pursued relentlessly in order that operational leaders could timely integrate information in accordance to the overall goal for achieving battlefield victory.

Udar (Shock)

The imposition of death and destruction upon the enemy by force of combat arms. The aim was not to necessarily destroy the enemy in his entirety, but to break his will to fight. The consistent projection of firepower and unimpeded maneuver of mobile forces throughout the enemy depth allows offensive units to dictate where and when they can go. Moreover, shock compels the enemy to react to ever-changing conditions imposed upon them by friendly forces. In so doing, initiative is thus maintained.
Introduction

Background

Soviet operational art originated in 1920s and 1930s as a response to the changing character of warfare. Newly emerging advances in science and technology compelled Soviet military planners to dramatically review and revise traditional methods of conducting war. The First World War revealed the extraordinary difficulties associated with creating and controlling millions of troops on the battlefield. Moreover, mass armies became increasingly equipped with a greater variety of weapons whose lethality and range proved far above that used during the Great War. Soviet military theorists, such as Marshals Mikhail Tukhachevsky and Vladimir Triandafillov, realized the advantages to be had in controlling large combat formations armed with these new technologies would require the introduction of a new military art, one that acted as an intermediate link between strategy and tactics: this would become known as operational art.¹

The onus of operational art was to translate tactical successes into strategic victory.² How operational art could achieve this became a major issue of debate among Red Army philosophes throughout the interwar period. Proponents of the offensive doctrine advocated principles that valued attack as the superior method of waging war. The ‘spirit of the offensive’ soon found itself among the pages of 1929 Field Regulations (PU-29), and, subsequently, in the 1936 Provisional Field Regulations of the Red Workers’ and Peasants’ Army (PU-36). Though defense was given appreciable treatment in each of these works, it became evident by 1933 that offensive operations would become the template for executing military strategy. In its deliberation over the importance of combined arms, the 1929

² Aleksandr A. Svechin, Strategy (Minneapolis, Minnesota: East View Publications, 1999), 68-70.
Regulation regarded the role of mechanization and motorization in future combat operations as one to be thoughtfully considered by Soviet military planners. The inclusion of armored and mechanized forces took on even greater importance when, in February 1933, Chief of the Red Army, Alexander Yegerov, published a seminal study that would later form the basis of the 1936 Regulations: the Provisional Instructions on the Organization of Deep Battle. From this draft document came the notion that the combination of the offensive doctrine with tactical deep battle and deep operations mandated a much greater emphasis on the use armored formations organized for a variety of missions. By 1935, under the direction of Tukhachevsky and Yegerov, more detailed instructions were provided to senior staff leaders on how to execute deep battle within the context of deep operations. It would become the centerpiece of Red Army field regulations the following year.

Thesis Statement

This thesis will show that, for the Soviet Union, the Red Army’s 1936 Regulations ultimately proved to be among the most important guiding documents of the war. It will show that the principles contained therein were rigorously applied by Soviet military leaders to conduct deep battle and deep operations and in so doing, helped secure final victory over the forces of Nazi Germany. Moreover, in applying those principles embodied in the Regulations, high-ranking leaders of the Red Army were able to utilize combat formations for tactical deep battle missions that translated into operational success and to the favorable outcome of the war as a whole.

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Thesis Framework Overview

The first chapter shall be a general survey of literature consulted for this work and how they were used in its composition. In addition to English-language literature, Russian and German works were also employed. Any similarities and differences between them will be brought to light.

The second chapter will identify those ten principles which the author views as imperative to Soviet operational art, as drawn from the Red Army’s 1936 Provisional Field Regulations. This will be followed by a brief explanation of how each came to be developed by some of the Red Army’s leading thinkers throughout the interwar period. Further, to provide greater context, the interconnected relationship between each of these principles will also be studied. As added depth, it would do well for us to consider the shortcomings of each principle, especially when used in isolation of the others.

A broader understanding of the nature of these principles required an examination of their respective roles in the planning and conduct of deep battle and deep operations. Thus, the third chapter endeavored to weigh the importance of the aforementioned principles in practice by assessing their contribution of two major operations. These are: (1) the Smolensk Counter Offensive Operation, 21 July to 7 August, 1941 and (2) Operation Uranus, 19-23 November, 1942. The Smolensk Counterstroke was chosen to show the perils associated with planning operations without due regard for the ten principles of operational art. Though several principles were present during this operation, many were absent to ensure that success was unlikely. Uranus, by contrast, proved highly successful, yielding far greater results than even anticipated by Soviet planners. Analysis will show that this was due, at least in part, to the accounting for all ten principles in its planning and execution. Moreover, the presence of these principles in the conduct of operational offensives proved to Red Army leaders that they were more than mere theoretical considerations; more importantly, they possessed a strong practical value in the planning, conduct, and exploitation of tactical, operational and strategic success.
To highlight the similarities and differences in German and Russian operational art, the fourth chapter sought to compare the offensive military doctrines of both powers as written in their respective field manuals, the Truppenführung and the Soviet Polevyye Ustav.

The final chapter shall serve as the conclusion. As a final segment to this, the question of why the Wehrmacht failed to achieve victory—even when abiding by a military doctrine similar to the Red Army—shall be explored. This will involve a comparative assessment of Adolf Hitler and Joseph Stalin’s abilities as military leaders and their understanding of operational art.
Chapter One

Literature Review

A range of literature was consulted for this work. English-language sources make up the bulk of the bibliography, followed by Soviet historical works well-known to Western and Russian scholars of the Great Patriotic War. For an occasional account of the German point of view, several diaries and memoirs were also integrated into areas of discussion where appropriate. Among many of the English-language works were translations of Russian books, articles, and archival documents.

Since the first section concerns itself with identifying the principles of Soviet operational art, a translated copy of the 1936 Provisional Field Regulations of the Peasants and Workers Army (RKKA) became the most frequently cited document of the whole work. Concerning the theoretical development of these principles and how they came to be understood by Red Army leaders within the context of offensive operations, sources in both English and Russian were used. If one is to embark on a sustained study of the theoretical background of Soviet operational art, consultation of works in the native language in which they were written is strongly advised. In an effort to provide a more accurate rendering of these principles, as they were originally conceived by Red Army theorists, the author relied heavily upon their writings composed in their original Russian. Several examples include Mikhail Tukhachevsky’s articles “Novye Voprosy Voiny” (New Questions of War), “Voprosy Vysshego Komandovaniya” (Questions of High Command), and “Zadachi obshchevoyskovoy podgotovki” (Tasks of Basic Training). Though some English translations of these works are available, the original language used by these Russian thinkers provided the author with a greater comprehension of their intended meanings and contexts. However, in cases where an English translation proved equally accurate in its interpretation of the original, the former was chosen.
A preliminary survey of literature produced by Red Army theorists revealed a profound concern for how Soviet forces were to adapt to ever-changing conditions of modern warfare within a geo-political landscape viewed as increasingly hostile. This era has frequently been described by scholars as a ‘renaissance’ in Soviet military thought. The plethora of work published at this time, in conjunction with widespread reforms to Soviet military art, made the Red Army one of the most dynamic forces in the world. In reading the works of Mikhail Tukhachevsky, Vladimir Triandafillov, S.S. Kamenev, Alexander I. Yegerov, A.A. Svechin, Georgi Isserson, I.P. Uborovich, N. E. Varfolomeev and a host of others, one observes common themes and issues foremost on the minds of these military theorists. In identifying these themes and issues, one also acquires a greater understanding of how they came to coalesce onto the pages of Red Army field manuals.

To develop a basic outline for this work, general histories of the war were reviewed. Many were consulted to answer questions regarding the social, economic, and political background of key military decisions and events. Some of these included Anthony Beevor’s *Stalingrad: The Fateful Siege, 1942-1943*, John Erickson’s *The Road to Stalingrad: Stalin’s War with Germany*, Chris Bellamy’s *Absolute War: Soviet Russia in the Second World War*, Richard Overy’s *Russia’s War: A History of the Soviet War Effort, 1941-1945*, David M. Glantz’s *When Titans Clashed: How the Red Army stopped Hitler*, and Alan Clark’s *Barbarossa: The Russian-German Conflict, 1941-1945*. These and all others noted in the bibliography have provided an excellent chronicling of the war’s events.

Given the considerable detail required to outline the disposition of German and Russian forces discussed in the forthcoming analysis, other sources had to be considered. The official Soviet
publication, *Boyevoi sostav Sovetskoi Armii* [Combat Formations of the Soviet Army], for instance, has been included among the bibliographies of many historical works devoted to the war. Its numerous and highly detailed summaries and statistical compilations has proven a rich source of information regarding armies and formations participating in major combat operations throughout the war.

In an effort to determine whether or not Red Army leaders truly understood the importance of applying the principles of operational art during the First Smolensk Counterstroke and Operation Uranus, several post-mortem assessments were reviewed. These included the Soviet Army’s official *Sbornik Boyevykh Dokumentov Velikoi Otechestvennoi Voyni* [Collection of Combat Documents for the Great Patriotic War] and the *Russkii arkhiv, Velikaia Otechestvennaia voyna: Stavka. Dokumenti i materiali* [Russian Archives, The Great Patriotic War: Stavka. Documents and Materials]. Post-war articles published by *Voyennaia Mysl* [Military Thought] and *Voyenno-Istoricheskii Zhurnal* [Journal of Military History], periodicals regularly used by historians of Soviet military history, also served this purpose. Memoirs by contemporary participants of the war were especially fruitful. Georgi Zhukov’s *Reminiscences and Reflections*, A. Eremenko’s *The Arduous Beginning*, Konstantin Rokossovskii’s *A Soldier’s Duty*, and other recollections offer a unique glimpse into how operations were first planned, what obstacles were overcome, what prompted changes, and how conditions on the battlefield were exploited and subsequently developed. These were also helpful in understanding the role Adolf Hitler and Joseph played as military leaders.

The author felt it important to convey to the reader a sense of scope and scale for the first counteroffensive operations conducted at Smolensk in 1941 and Stalingrad in 1942. This was achieved by providing figures for such things as troop strength, tanks, artillery, aviation, casualties, equipment losses, etc. Geographical data—which included the names of towns, cities, rivers, and landmarks—was also sought to provide an appreciation for the size and distance of the battlefield where these respective operations took place.
David M. Glantz’s Barbarossa Derailed: The Battle for Smolensk 10 July – 10 September 1941, Volume 1: The German Advance, the Encirclement Battle, and the First and Second Soviet Counteroffensives, 10 July – 24 August 1941, was an especially valuable work. In addition to the numerical facts and figures in this book, Glantz provides the names of numerous small towns and villages dotting the environs of Smolensk, names not commonly found in other Western histories of the war. In so doing, he offers readers specific points of geographical reference in order to reveal the location of armies and formations during various operational phases.

Accomplishing much the same for Operation Uranus was Alexei V. Isaev’s Stalingrad. No land beyond the Volga for us. Like Glantz’s Endgame at Stalingrad: Book Two: December 1942 February 1943 The Stalingrad Trilogy, Volume 3, Isaev provides a kind of moving tableau in his historical retelling of this counteroffensive. In terms of Uranus’ outcome, both are successful in impressing upon the reader the strategic gravity with which the city of Stalingrad held to the Soviet leadership and the implications this operation had for the war.

For a comprehension of the costs associated with each counteroffensive for both German and Soviet forces, figures concerning casualties and material losses were discussed. Because so many Western works have traditionally relied on G.F. Krivosheev’s Soviet casualties and combat losses in the twentieth century as a source for these figures, this work appeared to be an excellent candidate for inclusion. However, Krivosheev’s discussion on Axis casualties proves meagre. To compensate for this, Rüdiger Overmans’ Deutsche militärische Verluste im Zweiten Weltkrieg (German Military Casualties in the Second World War) was consulted.
Chapter Two

Ten Principles of Soviet Operational Art

The ten principles of Soviet operational art I have identified were extrapolated from the Red Army’s 1936 Provisional Field Regulations. They are (1) **simultaneity**, (2) **combined arms**, (3) **surprise**, (4) **tempo**, (5) **mass**, (6) **shock**, (7) **command, control, and intelligence**, (8) **depth**, (9) **mobility**, and (10) **pursuit**.

As an attribute of offensive doctrine, **simultaneity**, understood as the concurrent wide-scale employment of combined armies across a broad front—in both the initiation and continuity of deep battle and deep operations—was given considerable emphasis throughout the manual. Moreover, the application of **simultaneity** as a means of achieving **depth** had been long recognized by Soviet planners as an essential ingredient to deep battle and deep operations. It thus seems prudent to begin this discussion with an examination of its tactical and operational significance.

Another prominent principle present throughout the manual is that of **combined arms**. Whatever the various arrangements of arms within a given type of formation, its combat potential became all the greater when launched against an enemy caught unawares of its sudden intentions and presence.

The element of **surprise** is consistently underscored by the 1936 Regulations as an important criteria for battlefield success; in it, Red Army staff officers responsible for planning military activities of operational scope were frequently urged to employ measures necessary to avoid detection by the neighboring enemy prior to engagement (e.g. to engage in *maskirovka*). Striking an enemy when he is caught unawares confers upon the attacker a valuable advantage. Lack of diligence in maintaining **surprise** compromised an offensive’s chance for success, since an opponent aware of an impending
attack will make vigilant preparations to receive it. Thus, a prepared enemy is a much more dangerous adversary than a surprised one.

As a concept, *tempo* is generally understood in terms of time and distance, two measures traditionally used in assessing the rate of progress. Time constraints imposed upon commanders supervising offensive operations in *depth* dictated that forces move aggressively towards objectives before enemy units can react to interrupt its momentum. The vast distances traversed by mechanized units and motorized troops—combined with numerous objectives designated for seizure or destruction within those operational areas—also makes obvious the need to have available large numbers of tanks and vehicles.

While *mass* was viewed as a means of introducing numerous armies throughout the enemy *depth*, there remained the challenge of how to deliver the requisite force needed to combat enemy formations defending against them.

The continuous projection of offensive power throughout the duration of deep operations ensured that initiative was maintained to the benefit of friendly forces throughout the *depth* of the enemy defense zone. Though overwhelming *shock* could paralyze the enemy, it could only do so temporarily. Given sufficient time, the enemy—with the arrival of fresh reinforcements from reserves located in the rear—could potentially contain incoming offensive forces if the latter failed to seize objectives which would allow the defender to recoup.

Orchestrating the multitude of units and sub-units making up the many formations necessitated a high degree of command, control, coordination and information on the part of senior commanders. In its effort to address the complexities involved, the 1936 Regulations devoted considerable content to how staff officers were to deal with both expected and unforeseen developments, to ensure that changes made throughout the course of deep battle did not jeopardize operational success.
While striking into the enemy’s immediate flank and rear was obvious for tactical success, the manual stressed that objectives situated further out into the operational depth of the enemy defense zone were paramount. Whether it is within the tactical, operational, or strategic depth, this area represents an opponent’s most vulnerable area. The presence of numerous hostile forces operating throughout the depth of an enemy’s defensive position was, for the attacker, to acquire a powerful advantage.

Reaching objectives within the enemy’s depth demanded that offensive forces possess a high degree of mobility. Moreover, mobility allowed attacking units to conduct maneuvers capable of placing them in a more favorable position at the enemy’s expense. Further, with the timely injection of strong forces throughout the tactical and operational depth, enemy defense became untenable.

In the event that the enemy is forced to retreat, the 1936 Regulations strongly urged relentless pursuit of withdrawing forces. As we shall see, pursuit was aggressively practiced by Soviet field commanders. In fact, it became one of the most distinguishing features of deep operational art.

**Simultaneity**

Though described in general terms, simultaneity was clearly seen within the provisions of the 1936 Red Army field manual as a pervasive and ever-present element that was to remain in effect throughout the entire duration of offensive military operations. Of all principles in Soviet operational art, simultaneity was one that played the broadest role. Traditionally, scholars have interpreted and discussed this feature of deep operations in strong literal terms, outlining its many advantages. Yet, when accounting for the degree of interconnectedness simultaneity has in relation to all other principles, one begins to appreciate just how broad it truly was.
The 1936 Regulations first recognized the paramount importance to the success of *simultaneity* when it noted that:

> “Modern combat materiel makes possible the simultaneous destruction of the enemy at all echelons. There is an increase in the options for reorganization, surprising flank movements, and occupation of areas behind enemy lines with attacks against his escape routes. When the enemy is attacked, he must be surrounded and completely destroyed.”

Further on, in the section of the manual devoted to the doctrine of attack, we see this repeated once more:

> “In joint operations by all branches and services, offensive operations must have the objective of simultaneously overwhelming the entire depth of the enemy defense.”

While the first makes clear the need to strike enemy defenses from as many positions possible, the second specifically stated that this was to be accomplished in totality; that is, if it was to overcome the enemy in his depth, an offensive must be of operational-scale. By implication, *simultaneity* is thus viewed by authors of the manual as one that allowed all combat forces the opportunity to engage the enemy in unison, not in a single frontal attack, but throughout the most vulnerable areas within the operational depth of his inner and outermost defenses. It is easy to see how the application of force against all hostile sectors comprising the enemy defense zone conferred numerous advantages to those conducting offensive operations in depth.

Perhaps the most obvious advantage offered by *simultaneity* was that it provided maximum application of force against the enemy. Through continuous and uninterrupted combat engagement

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6 PU-36, Section 9.
7 PU-36, Section 164.
with an adversary over a widest possible area—utilizing as many attacking formations available—one imposed enormous pressure upon the defender. Rather than focusing on specific routes of advance, numerous attacks were to be made along the whole of the enemy front. The idea was that this would eventually lead to the progressive weakening of certain sectors, becoming a target of penetration for shock armies, and thus ready to fully exploit any sudden gaps in enemy defenses. For successive echelons of incoming attacking forces, the widening rupture of enemy defenses provided access to areas containing valuable objectives. In so doing, simultaneity, thereby, contributed to the overall development of deep operations as a whole, from its initiation to its conclusion. The ability to persist throughout the entire duration of operations attributed to what Richard Simpkin describes as ‘interchangeability.’

In using large numbers of combat formations against an adversary’s defenses, it was believed that this forced the enemy to commit the bulk of his manpower and materiel to focus on the immediate dangers posed from attacking armies. Over time, weaknesses in the defense would become evident. This presented opportunities for intruding forces to move forward into the depth of enemy territory. Failure to achieve penetration shortly after the launching of simultaneous attacks across the entire front eventually translated into failure of the operation overall. If simultaneity was to work, penetration into the enemy depth had to occur and occur quickly if its potential was to be fully exploited.

Conversely, overextension of offensive resources placed the operation’s outcome into jeopardy. The inadequate application of force to produce such an opening or series of openings did not generally bode well for the attacking side; to apply less than the requisite measure was to, in effect, regress to the

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9 Ibid.
disastrous days of the First World War when broad frontal attacks resulted in high casualties with little gain. In his work, The Nature of the Operations of Modern Armies, Vladimir Triandafilllov devoted considerable thought to how commanders were to avoid such perils in their orchestration of deep operations:

“One must move on as wide a front as possible for convenience and rapid movement, for convenience of positions to rest, for more rational and fuller employment of local resources, and to retain freedom of maneuver. The broader the movement frontage, the smaller the march formation columns, the faster the march maneuver progresses...Broad movement frontage provides greater opportunities for envelopment and turning the enemy flanks. But a desire for very broad frontages may lead to a complete loss of the offensive power of the forces [which] may lead to an operation cordon unable to accomplish any offensive missions at all.”

On the surface, it may seem that simultaneity implied launching all combat formations into the teeth of the enemy at the exact same moment in time. This was not necessarily the case. Tactical missions could be carried out by a large number of formations at different times and in different locations, with resulting success translating into favorable completion of the parent operation. However, if such missions were not sequenced to synchronize with others in accordance to the prescribed parameters of the overall operation, this could potentially lead to defeat. As Tukhachevskii, Triandafillov and many other Soviet theorists were quick to point out; the timing of integral components was paramount to operational success. If a defending enemy was equipped with modern technological advances, such as rail transport, aviation, and motor vehicles, they were likely to recover quickly from the initial tactical gains made by attacking forces.

Aleksandr Svechin observed:

11 Triandafillov, 95.
12 Ibid.
13 Ibid, 90-91.
“In certain conditions, an operation must be massive enough in order to achieve at least minimal results, otherwise the elasticity of fronts and the inertia of resistance compel everything to return to its initial position.”

A commander had to be cognizant of the enemy’s ability to shift fresh reinforcements into threatened areas of the front; if sufficient forces were brought forward to blunt an incoming offensive, the operation risked being contained. Yet, this could be utilized to one’s advantage. In luring the enemy to less important areas, one also had a greater chance of seizing more valuable objectives. While siphoning sorely-needed troops away from embattled sectors strengthened some sectors of the front, it was always to the cost of those they were taken from. Positioning strong shock armies—each highly mobile and bristling with firepower—on these depleted areas of the front appeared ideal for performing successful penetration into the depth of the enemy defense zone. In utilizing offensive forces in this way, one can see that simultaneity did not necessarily mean instantaneous unison of action by all participating forces, but a well-orchestrated sequence of tactical missions occurring over an area of operational proximity within a prescribed timeframe.

Combined arms

Of all the principles noted in the Regulations, the principle of combined arms was the one assigned the greatest attention. The considerable length devoted to this feature of deep operations strongly suggested that it was regarded by Soviet military planners as the most prominent. To the modern mind—with the benefit of hindsight—the advantages offered from combined arms seem obvious. However, inexperience with integrating newly emerging military technologies (alongside radical advances of existing ones) in the early 1920s and 1930s did much to challenge Soviet operational

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14 Svechin, 299.
15 Triandafillov, 90-91, 117.
planners on how best to apply them in concert on the battlefield. Though the Regulations made clear the benefits of using combined arms formations (obshchevoyskovaia armiia), it was equally concerned with the difficulties and challenges associated with their employment. The Regulations first noted its importance when it stated:

“...a single assemblage of superior forces and materiel is not sufficient to defeat the enemy. It is mandatory that cooperation be established between all branches of service deployed in the same area and at all echelons; the combat operations of troops in different areas must be coordinated.”

It went on to add that:

“The deployment of any branch of the service of combat must be preceded by a consideration of its characteristics and strengths. Any branch will be used in close cooperation with the others, making use of all its capabilities.”

In mutual appreciation for the role simultaneity played in the use of combined arms, the manual declared the critical value each hold in executing encirclement as an operational technique:

“Modern neutralization weapons, primarily tanks, artillery, aviation, and mechanized units in large scale provide the option of simultaneous attacking the entire depth of the enemy battle formation with the objective isolating, encircling, and destroying the enemy.”

The integration of all branches of the Red Army under one unified command offered Soviet planners a range of military missions. Formations could be organized with a variety of arms, tailored to meet specific tactical objectives which, when taken as a whole, become key to operational success.

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17 PU-36, Section 4.
18 PU-36, Section 7.
19 PU-36, Section 112.
Though structuring combat formations with a balanced mixture of arms was initially viewed as ideal prior to the war, formations, such as the mechanized corps, were assigned large number of tanks at the expense of other arms. However, the stark realities of the battlefield soon after Barbarossa revealed that the mechanized corps was too tank-heavy, making them—from the command and control perspective—unwieldy and cumbersome to manage. This, in turn, compelled Red Army planners to disband the mechanized corps while introducing new formations with an emphasis a more balanced mixture of arms (e.g. tank armies). The authors of the 1936 Regulations understood long before the war that combined-arms armies offered a degree of flexibility which allowed Red Army leaders to adapt to changing conditions without compromising the operation’s overarching goals.

In effort to optimize the combined arms concept, Red Army leaders worked towards organizing what they felt would be ideal formations for conducting deep battle and for deep operations. From 1931 to 1935, the Red Army experimented with a variety of formations, using light, medium and heavy tanks. By the mid-1930s, the Red Army adopted the mechanized corps; however, the use of tanks during the Spanish Civil War, led Red Army leaders to conclude that the mechanized corps was too difficult to control. By the end of the decade, the mechanized corps, as a formation, was disbanded, with the bulk of the remaining tanks to be distributed to brigade-size units. But after witnessing the success of German armored forces during the invasion of France in May 1940, the mechanized corps

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22 Glantz, *Colossus Reborn*, 216.
23 Ibid.
24 Ibid.
was revived once more.\textsuperscript{25} By early July, the People’s Committee for Defence (NKO) had authorized the formation of 9 mechanized corps, with an additional 20 ordered in March 1941.\textsuperscript{26}

Each corps was to consist of two tank divisions and a motorized division, totaling 36,000 troops and 1,031 tanks.\textsuperscript{27} Yet, by the time of the German invasion, few achieved their authorized strength. Worse, due to perennial issues related to command and control, logistics, communications, and training, mechanized corps were ill-suited to perform combat operations at the operational level.\textsuperscript{28} Within weeks after Barbarossa, German forces managed to destroy over 10,000 of the Soviet’s 23,000 tanks.\textsuperscript{29} In August 1941, the mechanized corps was again disbanded, with surviving units reorganized as small tank divisions, and later, as tank brigades and battalions, formations better suited for junior officers with limited combat experience.\textsuperscript{30}

In September 1942, the NKO authorized the creation of a new kind of mechanized corps.\textsuperscript{31} This new formation would become the size of a German panzer division and was to encompass a much better balance of arms.\textsuperscript{32} This time, however, they were not to be used in the breakthrough phase of an operation. Instead, they were to be used for exploitation of the enemy depth. The task of penetrating enemy lines would go to another formation, one designed for this specific purpose in mind: the Soviet tank army.\textsuperscript{33}

\textsuperscript{25} Ibid.
\textsuperscript{26} Ibid.
\textsuperscript{28} Armstrong, 16.
\textsuperscript{29} Glantz, *Colossus Reborn*, 217.
\textsuperscript{30} Ibid.
\textsuperscript{32} Armstrong, 25.
\textsuperscript{33} Hill, 97.
Like the mechanized corps, tank armies were originally organized as large unwieldy bodies which proved too difficult to control.\textsuperscript{34} In March 1942, the Red Army recreated the tank corps, as the mechanized corps of the late 1930s was at one point named, reducing not only their size for greater ease of management and control, but made them much more suitable for mobile operations.\textsuperscript{35} Like the mechanized corps, the tank corps was composed of two tank brigades, a formation roughly comparable to a German panzer division in size, but with fewer tanks.\textsuperscript{36} For extra firepower, a third tank brigade was included, with self-propelled artillery gun regiments later added as the war progressed.\textsuperscript{37}

By 16 October 1942, the NKO issued a directive that outlined how tank armies were to be employed during offensive operations.\textsuperscript{38}

Independent tank units of regimental or brigade-size were to assist the infantry (rifle divisions) in combat, offering direct fire support, and were to never stray more than 200-400m from one another. In the event enemy tank forces were to appear, tanks—pending overwhelming superiority—were not to engage enemy armor; rather, Soviet artillery (anti-tank) would be used to destroy them. To assist breakthroughs, heavy assault gun regiments, in cooperation with infantry and artillery, were tasked with smashing fortifications and other obstacles. Once having accomplished that, they were to rally in areas where enemy counterattacks were expected.\textsuperscript{39}

The tank corps was controlled at the Front or Army-level command. Its main mission was to deliver a crushing blow, to break up and encircle the enemy’s primary grouping of forces. This was done in conjunction with supporting ground and air forces. When encountering enemy armor, tanks were not to engage; this was, as noted above, to be assigned to anti-tank units. When possible, however, tanks

\begin{itemize}
  \item \textsuperscript{34} Ibid, 96-97.
  \item \textsuperscript{36} Glantz, \textit{Colossus Reborn}, 217-218; 225-226.
  \item \textsuperscript{37} Ibid, 225-226.
  \item \textsuperscript{38} Hill, 109-111.
  \item \textsuperscript{39} Ibid.
\end{itemize}
could be used to separate enemy infantry from supporting tanks while the latter is engaged by friendly anti-tank forces.\textsuperscript{40}

The NKO order also recognized independent mechanized brigades as a useful tactical formation to be used in the conduct of offensives. Army-level command could deploy them as mobile reserves, to seize important objectives within the enemy depth. Once having captured it, they were to remain there pending the arrival of incoming friendly forces. Once relieved, they could be unleashed, to pursue the enemy further into his depth, seeking out weak areas with which to deliver further blows.\textsuperscript{41}

Following up on the success of a breakthrough, the mechanized corps was to proceed through the main line of enemy defenses once they had been penetrated. Generally composed of motorized infantry, supporting tanks and artillery, the mechanized corps was to capitalize on the breakthrough by moving into the furthest depth of the enemy’s defenses. When operating independently, they—under special conditions—qualified for additional support from indirect artillery units, air forces, and assault tanks.\textsuperscript{42}

As the NKO order showed, the most immediate advantage to \textbf{combined arms} is its ability to deal with a variety of known and unforeseen threats. Within the context of firepower, maneuver, and communications, the interconnected relationship (\textit{vzaimodeystviye}) between various arms, when coordinated properly, resolved and overcame the many emerging crises that often faced units attempting to function independently of or in cooperation with other arms.\textsuperscript{43} It thus became obvious that \textbf{combined arms}, as expressed in the organization of those formations noted above, enabled Red Army leaders to perform a variety of offensive missions of both tactical and operational importance.

\textsuperscript{40} Ibid, 109-110.
\textsuperscript{41} Ibid, 109-111.
\textsuperscript{42} Ibid.
\textsuperscript{43} House, 3-6.
When compared to the amount of ordnance that could be brought to bear upon an enemy by airstrikes, mass tank attacks, and long-range artillery support, it became clear that the firepower of a segregated arm, such as an unsupported infantry formation, was extremely limited. However, technical advances in aviation, armor, and gunnery during the interwar period resulted in an ever-increasing reliance by all services upon the other for its survival and success. The 1936 Regulations noted the importance of this symbiotic relationship when it stated:

“Mechanized armies consisting of tanks, self-propelled artillery, and lorry borne infantry are able to carry out independent tasks disengaged from other types of troops, or in cooperation with them. Mechanized units possess great mobility, powerful fire capacity, and great shock power. The basic form of the operation of the mechanized unity in combat consists of the tank attack, which must be secured with artillery fire. The maneuver and shock-blow of the mechanized unit must be supported by aviation.”

One could go on ad nauseam about how each service provides mutual support to the other, but that is not the only point being made here. What must be remembered is that combined arms did more than simply add extra firepower, it also offered mutual protection. With protection, naturally, came survival, and with that, an opportunity to fight for the next objective. But getting to the next objective necessitated that one have more than firepower and protection. It required surmounting another challenge, that of maneuver and mobility.

Advances in mechanization and motorization during the interwar period led to the radical improvement in the performance of tanks, trucks, aircraft, and automotive transportation, which, when organized within a combined arms formation, was discovered to facilitate overall movement over the battlefield. The exploitative advantages to be found in mechanized forces can be brought to their

44 PU-36, Section 7.
greatest potential when applied within combined arms formations. The use of combat engineers, for example, to clear artificial barriers and surmount natural obstacles standing in the way of tanks and infantry was one example of how combined arms facilitate movement over difficult terrain. Another was aerial reconnaissance; in providing data on an enemy’s location and disposition to friendly ground units, alternate routes for performing outflanking maneuvers became available. Yet, it was perhaps reconnaissance information that did more to move armies across the battlefield than all else. Without the ability to communicate timely and accurate information to the varied services making up the combined arm formations, advancing to the multitude of objectives critical to operational success may well have been jeopardized.

The heterogeneous mixture of forces required for effective combined arms gave an operational commander multiple sources of information with which to form a larger picture of the overall strategic situation as it appeared from time of receipt. The Regulations noted the importance of reconnaissance within combined arms when it stated:

“The collection of information about the enemy and the general situation is the common duty of all large units, staffs, headquarters, and individual soldiers at all times during combat. Information about the enemy can be obtained in the following ways: through combat action of the troops, by air and ground reconnaissance; by observation and message interception; from prisoners and deserters, through radio reconnaissance; by the examination of acquired papers and documents, and from the local population.”

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47 Tukhachevskii, “Inshenernoe Sorazmerenie Operashchii,” (1920), Izbrannye Proizvedeniia, [“Engineering Operations” (1920), Selected Works], para. 1-137.
49 PU-36, Section 19.
But as units progressed into the depth of the enemy’s operational territory, controlling troops became increasingly difficult. Communication became somewhat of a double-edged sword; while it provided the commander with multiple sources of information, processing and transmittal of orders to the appropriate units ultimately proved the greater challenge as they were funneled down to lower-level echelons in the face of ever-changing developments. Yet, the variety of reconnaissance assets available within a combined arms formation enabled commanders to validate and verify incoming data in order to assess the quality of battlefield intelligence. Reliable reconnaissance data determined where troops were to be massed and on which point of the axis tanks were to be positioned for the next phase of the operation, the most suitable terrain for moving them over, and other factors facilitating movement and maneuver.

Surprise

The element of surprise was traditionally viewed by Soviet military leaders as imperative to battlefield success:

“Surprise paralyzes. That is why all combat actions conducted with maximum camouflage and speed. The speed of combat operations, together with appropriate organization, good mobility, and good terrain use, while keeping track of enemy air activity, is the basic prerequisite for success in combat. Those troops can always count on being successful who comply quickly with commands, regroup quickly upon changes in the situation, make a quick transition from a rest period, quickly assume their battle formation and open fire, attack quickly, and pursue the enemy.”

In an effort to gain maximum advantage, surprise—like the principle of simultaneity—was achieved from the very outset of offensive operations and, preferably, applied along the broadest front possible. Unlike simultaneity, however, the benefit of surprise only lasted temporarily, with its overall

50 PU-36, Section 6.
effect diminishing shortly after the launch of offensive operations.\textsuperscript{51} That it was able to confer upon Soviet forces numerous advantages much needed in the orchestration of operational art made surprise an important element in planning operational offensives. It was thought that an enemy caught unaware is a less capable enemy, one that is less likely to cope with sudden changes and thus more likely to be defeated.

Another advantage of \textit{surprise} is that it allowed offensive forces to wrest the initiative from the enemy, denying them time to react and respond to incoming attacks. The sudden appearance of tanks and mechanized infantry moving at full speed, preceded by powerful artillery and air strikes, was believed to place the defender in a heightened state of confusion and panic, with the potential to demoralize him into surrender, to prevent further casualties. Intrinsic to this was the use of speed.

As previously mentioned in our discussion regarding \textit{combined arms}, increased speed and \textit{mobility} from advances in automotive and aviation technology were widely recognized as being able to offer a greater way to achieve superiority on the battlefield. Not only could fast moving armored units suddenly appear, to clash with hostile defenses, but other formations, such as long-range mobile groups, could drive through into the heart of the enemy’s operational \textit{depth}, bypassing main strongpoints or through weakened lines of resistance.

The manual noted that:

\textit{“Surprise is attained also by using new weapons and new procedures in a manner not expected by the enemy.”}\textsuperscript{52}

In other words, the unexpected presence of large offensive forces armed with powerful new weapons allowed operational commanders to exploit an unprepared enemy.\textsuperscript{53} By engaging at such an

\textsuperscript{51} David M. Glantz, \textit{Soviet Military}, 160.
\textsuperscript{52} PU-36, Section 6.
early phase, a prompt and timely resolution to the operation can thus be had. However, it was believed that for an operation to be successful, surprise had to remain in effect long enough for offensive units to work their way throughout the depth of the enemy defense zone. In other words, to attain the full benefit of surprise, it had to serve the effort’s operational purpose.

To reach objectives necessary for the function and survival of the enemy unexpectedly heightened the operation’s prospect of success. In instances where enemy forces were equal or larger in size, the element of surprise became all the more valuable. As such, it retained a validity which marked it as an important feature of deep battle operations.

Conversely, reliance upon surprise as a means to achieving a favorable outcome entailed a high degree of risk. Though widely touted as an important factor in achieving operational success, it was understood that surprise did not necessarily guarantee a positive outcome. The risks and dangers associated with the uncertainty of ever-changing combat conditions compelled planners to consider using surprise not only as a way of accentuating the value of an attack, but to also proactively defeat enemy counterattacks that sought to use it against them too:

“For their part, the troops of the Red Army must be prepared at all times to reply to an enemy surprise attack with a lightning counterstrike.”

The benefit of surprise is limited insofar as the enemy remained incapable of recovering either by timely consolidation of embattled defenses or through successful counterattacking efforts to recapture positions recently lost. However, once unleashed, surprise became subject to the tyranny of

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53 Glantz, Soviet Military, 26.
56 Ibid.
57 Section 6.
time as attacking forces had to move quickly and decisively to their assigned objectives. Moreover, failure to achieve surprise, especially in the face of determined and vigilant enemy, invited a high probability of failure or, at best, threatens to impose upon its bearer a much higher cost than anticipated, namely in terms of casualties and loss of materiel. Yet, the potential for rewards in the successful execution of surprise in the minds of Soviet operational planners remained an integral factor when estimating prospects for success. While there were indeed risks involved in utilizing surprise, thorough preparations enhanced an operation’s chances for a favorable outcome.

The Soviet use of maskirovka during the Second World War was long associated with surprise and was often viewed by Red Army leaders as an inseparable feature of operational planning. The purpose of maskirovka was to prevent the enemy from learning when an offensive was going to take place, from which direction(s) it would come from, the amount of force designated to carry it out, how long it is expected to last, and what objectives it intends to capture in fulfillment of victory conditions established by leaders of the operation.

The manual noted the importance of creating surprise through calculated deception:

“The most important prerequisite for a successful attack is surprise. That is why all preparations must be made in utter secrecy.”

Lulling the enemy into a state of complacency naturally took time, with large formations exercising camouflage, noise, and light (during night activity) discipline. Lack of discipline could also

58 Svechin, Strategy, 272-273.
59 Savkin, 230.
61 Simpkin referred to this as ‘moral surprise’; that is, a state in which the enemy is not aware of one’s presence, as opposed to ‘material surprise’ where the enemy is not given sufficient time to respond to on-going developments throughout the duration of the offensive.
62 PU-36, Section 172.
63 Glantz, Soviet Military Deception, 51, 112, 290.
be intentionally committed to present the false appearance of a forthcoming offensive; one that would supposedly take place in an area far from where it is to actually occur.\textsuperscript{64} To maintain plausibility, however, commanders had to ensure that the level of activity was consistent with the size and scale of a force capable of performing operations in depth.\textsuperscript{65} In support of operational surprise, tactical deception measures also included the use of smoke for unintended crossings, false radio messages, false dissemination of information, concealment of tanks and troop concentrations, phony command posts, dummy installations, fuel depots, even field kitchens!\textsuperscript{66} In so doing, it was hoped that the enemy became misinformed and likely to weaken his forces by diverting them to defense sectors where they could not hinder the operation’s progress once initiated.\textsuperscript{67}

**Tempo**

Among the most important underlying principles of the 1936 Regulations was tempo. Tempo represented the dynamism of an operational offensive and was unique among other principles in that it offered planners a way to measure the progress of an operation during execution.\textsuperscript{68} Soviet theorists believed that for an offensive to succeed, waves of ever-increasing concentrations of forces had to be applied against the enemy. Triandafilov advocated a series of deep blows, with each more powerful than the last, delivered with increasing frequency and intensity.\textsuperscript{69} To strictly define the concept of tempo as the rate of advance based on the distance and speed an army moves across the battlefield was not entirely accurate; it also had to incorporate the medium of time as an added dimension, since

\begin{itemize}
\item \textsuperscript{64} Richard N. Armstrong, *Soviet Operational Deception: The Red Cloak*, Combat Studies Institute, U.S. Army Command and General Staff College, Fort Leavenworth, Kansas, 2.
\item \textsuperscript{65} Ibid, 15-16.
\item \textsuperscript{66} Ibid, 2, 23;PU-36, Sections 152, 229(a), 236(d), 244, 255, 274,
\item \textsuperscript{67} Ibid, 2.
\item \textsuperscript{68} Glantz, *Soviet Military Operations*, 150.
\item \textsuperscript{69} Triandafilov, *The Nature of the Operations*, 128.
\end{itemize}
Soviet military leaders stressed that operations be brought to a timely and prompt resolution. Simpkin explained tempo as:

"...the total distance from initial concentration area to final operational objective divided by the time from receipt of orders by the executing formation to accomplishment or abandonment of its mission."

The purpose of tempo was to ensure that armies timely arrive at their assigned objectives in order to secure a positional advantage over the enemy. If friendly forces moved faster and fought harder than the opponent in seizing key targets before the latter could mount an effective resistance, then the operation will have utilized tempo to its proper effect. Moreover, if an operation was concluded within a short period of time, then it was thought that the operation had achieved high tempo. High tempo operations were particularly effective in denying the enemy time needed to regroup his forces. In addition to disrupting the enemy’s internal depth, tempo also denied the defender space needed for moving reserves and mounting counterattacks, bringing him closer to defeat. To prevent the enemy from avoiding encirclement, the rate of advance had to exceed that of the enemy. This not only set the stage for surrounding hostile forces, but developed conditions for rapid pursuit of those that manage to escape.

The provisions of the 1936 Regulations reveal that operational tempo was best achieved when offensive forces were assigned two distinct types of missions. The first was the holding mission. The primary focus of these forces was to make contact with the enemy, to prevent them from disengaging,

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71 Simpkin, Deep Battle, 54.
72 Coroalles, Fighting in the Medium of Time, 1-3.
73 Ibid, 3-4.
74 Ibid, 4.
75 Ibid.
76 Triandafillov, 136;
either for the purpose of diverting reinforcements for bolstering weakened defense sectors or for retreating. Its second purpose was to compromise the tactical depth of the enemy defense to allow passage of mobile forces into the interior of the defense zone.\textsuperscript{77} The manual noted:

“The battle formation consists of assault and neutralization groups, which are echeloned in depth (in 2-3 lines). The second or third lines provide security for the operational echelon of the battle formation.”\textsuperscript{78}

The following section went on to add:

“The assault group is intended for operations in the main direction of effort by the offensive battle formation.

The more weapons are available to the assault group to hold down the enemy, the easier it becomes the infantry attack and the more secure is its success. This is why the major portion of the weapons available to the troop unit for holding down actions are [sic] concentrated in the assault group. Infantry units must be large enough so that, supported by tanks and artillery, it is able to destroy enemy troops in the entire depth of his defensive position.”\textsuperscript{79}

It then later stated:

“The second echelons consolidate gains and support the first echelons on their own, without waiting for supplementary orders. That is why second echelons must advance independently in the main direction of thrust, without lagging behind. Their leaders are responsible for timely and resolute support development for the combat actions of the first echelon. The second echelon faces almost the same difficulties as the first and must therefore not expect to be able to conquer the area as quickly as it would like. One it has lagged behind, the second echelon becomes as a rule useless until the end of the engagement.

First echelon troops are allocated a combat sector, while the following echelons are given directions of effort.”\textsuperscript{80}

\textsuperscript{77} Savkin, 167-201.
\textsuperscript{78} PU-36, Section 106.
\textsuperscript{79} PU-36, Section 107.
\textsuperscript{80} PU-36, Section 108.
To avoid being dislodged from their newly captured positions, assault groups were to proactively conduct further attacks to thwart efforts by the enemy to regroup for a counterattack:

“The holding force in an offensive action must hold down enemy troops in a secondary direction and mount secondary attacks to prevent the enemy from consolidating his forces against the assault group.

...When the enemy battle formation becomes shaky as a result of the main assault, the attack of the holding force should be combined with that of the main force...

Under favorable conditions, the effect of a gain achieved by the assault group should transition into a general counterattack against a weakened and confused enemy.”

While it was the primary aim is to compel the enemy to commit the majority of his forces to dealing with incoming holding forces, assaulting units were to prevent forthcoming counterattacks from repelling the first echelon from its initial gains. In shattering the tactical depth of the enemy defense, operational commanders could then send in mobile forces to advance into the flank and rear, to maneuver them into positions that allowed them to later turn inward, achieving total encirclement.

As a critical component of operational tempo, the 1936 Field Regulations strongly emphasized the importance of using mobile forces as a means of maneuvering into the flanks and rear of the enemy defense. Mobility is clearly associated with the use of tanks and mechanized forces; according to the manual, it was the main means of achieving this feat of maneuver:

“Mobility and vital assault capability, supported by allied firepower, are the basic concepts of infantry combat.”

It further states:

“Tanks have great mobility, great firepower, and tremendous assault capability...”

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81 PU-36, Section 109.
82 PU-36, Section 7.
Therefore, given these qualities:

“Tanks which support combat teams are used, apart from infantry support, for penetrating the enemy line, with the goal of destroying his reserves, artillery, headquarters, and storage areas; also to make enemy retreat impassable.”

We should also add that:

“Mechanized combat teams consisting of tanks, self-propelled artillery, and infantry on personnel carriers are capable of accomplishing independent missions either separated from the other branches or in cooperation with them. They have great mobility and massive firepower and penetration power. The basic combat procedure for a mechanized combat team is a tank attack which must be supported by planned artillery fire. Movements and assault by the mechanized combat team must have air support.”

Having identified those arms to be used as mobile forces, the manual further expanded on the role which they were to perform:

“The battle plan, for the flank attacks as well as penetration, should not strive for producing an enemy retreat, but rather an encirclement of his personnel and confiscation of his materiel.”

To accomplish this, mobile forces were directed towards the weakest areas of the enemy’s defense. The manual identified this when it stated that:

“Open flanks and boundary positions are the most vulnerable points of the defense. Open flanks must always be searched for with the purpose of attacking them immediately, since an open flank is only a temporary occurrence.

83 Ibid.
84 Ibid.
85 Ibid.
86 PU-36, Section 172.
Detouring [sic] a wing of an enemy defense zone makes it possible to start an attack with a direct assault against artillery positions, headquarters, message centers, and columns. However, an enemy attacked in the flank must be at the same time be attacked by a detachment on his front."\(^{87}\)

When considering the emphasis placed on speed, mobility, maneuverability, and projection of firepower, we begin to see the role tempo plays in the successful outcome of operational offensives. Victory was had when both holding and mobile forces were used in simultaneous synchronization to achieve what Simpkin referred to as 'leverage.'\(^{88}\)

Leverage against an enemy position occurred when attacking mobile forces penetrated the flanks and rear, to seize positions that allowed them to make a turning movement towards the opponent’s center of gravity.\(^{89}\) Pivoting to drive one’s forces inward disrupted the opponent’s ability to maintain the defense as he became increasingly denied access to his reserves of manpower, materiel, and communications. The reaction to this would be to devote ever-diminishing resources to conducting counterattacks into threatened rearward areas while simultaneously facing of increasingly powerful frontal attacks.\(^{90}\) If tempo was not brought about with the requisite speed and promptness of maneuver, however, there was a chance that the operation would become jeopardized.

As the forthcoming operational analyses will show, tempo was used to influence the cast of the die in Soviet favor. But it will also reveal that unless the qualities were sufficiently present to produce the proper momentum, tempo could also be disrupted, to deflate the power of the offensive.

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\(^{87}\) PU-36, Section 173.
\(^{88}\) Simpkin, 53-55, 62-64.
\(^{89}\) Ibid.
From the manual’s call for using holding and mobile forces to leverage against the enemy, we learn that there is, indeed, a very vulnerable point between these offensive forces. Simpkin referred to this point of pivot as the ‘hinge.’ It was at this point that one could best disrupt an offensive.

Just as the manual urged operational planners to seek out vulnerable sectors of the enemy defense, so too would opponents to look for ways to diminish the attacker’s offensive tempo. By focusing powerful forces towards the hinge, the defense could potentially compromise the operation’s progress. With forces originally slated for flank and rear attacks, the offensive commander was to allocate resources to securing the hinge. This forced mobile units to become relegated to holding missions, rather than be put to use for what they were originally intended for. Even if mobile forces were successful in managing to breakthrough enemy lines, there always lay the possibility that the defender could reduce the attacker’s tempo by identifying the hinge and applying the requisite amount of force.

Mass

Mass was the most basic element of battlefield success. While superiority in numbers was not always available nor a guarantee of victory, it remained, nonetheless, sought by military leaders. Mass represented a quantitative measure of military power. Large numbers of troops and considerable material resources provided immense potential for projecting overwhelming force. This belief persisted throughout military history, since the time of antiquity to modern times. A unique view of mass was presented in the Red Army’s 1936 Field Regulations. Rather than looking at mass in purely quantifiable terms, the manual emphasized the importance of quality. The conjunction of quantity and quality in the creation of mass was viewed as a critical factor in the development and organization of combined-arms

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91 Simpkin, Deep Battle, 53-55, 62-64.
92 Gribling, Soviet Attack Tempo, 11-12.
93 Savkin, 203-229.
forces suited for operational offensives. Though it did not prescribe specific numbers, the Regulations however revealed that the correlation of combat power—as an aspect of mass—was to be considered by operational commanders when estimating the prospect of victory. For instance, tanks were openly recognized by the manual as the primary arm of operational offensives and though they were used as one arm among a variety of other services, they were, nonetheless, needed in significant numbers:

“In the attack, tanks must be used in mass formations.” ⁹⁴

This is later reiterated:

“Availability of tanks and aircraft facilitates envelopment and makes success more likely.” ⁹⁵

In terms of combat support, it appeared that the manual also considered the importance of combining mass with artillery:

“Considerable superiority of “neutralization weapons” must exist in the direction of main effort, as well as superiority in numbers of personnel. The breadth of the front for the main assault is determined by the number of available neutralization weapons, by the terrain, as well as by the enemy antitank defenses, and engineer-built defense installations.” ⁹⁶

We should also observe that the use of such words as ‘strength’, ‘superiority’ or ‘availability’ in the Regulations strongly implied the use of mass as a principle of operational success. To conduct simultaneous attacks along a wide front required large numbers of men and arms. One Soviet theorist observed:

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⁹⁴ PU-36, Section 7.
⁹⁵ PU-36, Section 173.
⁹⁶ Section 175.
“An enemy front capable of enduring dozens of small strikes may be broken by one big strike. In certain conditions, a certain mass of operation is necessary in order to obtain even minimal results.”

The manpower and weapons to project the level of firepower needed to destroy well-prepared enemy defenses throughout its breadth and depth, even when the attacker was equipped with highly mobile forces, presupposed the use of mass. Considering the numerous objectives contained within the enemy depth once attacking forces had penetrated, planners were to forward sufficient numbers if he adversary’s declining position was to be exploited.

Mass was a component of operational tempo; without it, tempo could not have achieved. To conduct attacks along a broad front, armies had to possess sufficient manpower and materiel if it was to have the necessary mass to bring about simultaneity of attacks stressed by operational planners. Since ancient times, the idea of mass had traditionally been applied to large units of segregated arms. However, as the 1936 Regulations showed, in the age of modern warfare, this principle was best suited for operations involving combined arms formations. Whereas segregated arms only allowed mass to be factored as a rough quantitative measure for combat effectiveness, the complimentary effects of combined arms revealed that quality to be an equally important feature of mass.

Shock

Though it did not make direct references to the use of shock during offensive operations, the 1936 Regulations, nonetheless, regarded it as an important feature of combat operations. If one considered that shock was to be applied to every phase of an offensive, then all activities prescribed by

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97 A.A. Svechin in A.V. Kadishev, Readings in Strategic and Operational Soviet War Doctrine, Moscow: Voenizdat, 1965, 257.
98 Armstrong, 19.
99 Savkin, 203-229.
100 Triandafillov, 45-68.
the manual for those combat arms involved in bringing about operational success made this not only evident, but quite pervasive. But if we are to recognize shock by extrapolating it from the precepts of the PU-36, it would do well for us to further ask ourselves what shock truly was. Was it more than just inflicting violence and destruction upon the enemy? How did shock contribute to the overall success of operational art? In other words, how was it best applied? In terms of its importance, where did it stand among other principles?

A survey of the manual revealed numerous references to the destruction of the enemy. The first among them strongly implied the use of shock as means of achieving decision on the battlefield:

“Red Army combat operations will always be oriented toward the annihilation of the enemy. Gaining a decisive victory and the total destruction of the enemy are the basic objectives in a war imposed upon the USSR.

The only means to gain that objective is combat. Combat results in:

a. the destruction of the enemy's animate forces and materiel;

b. the impairment of his morale and ability to resist.”\(^{101}\)

With implicit recognition of the importance associated with weaponry and equipment used throughout an operation, another provision noted that:

“Modern combat materiel makes possible the simultaneous destruction of the enemy at all echelons. There is an increase in the options for reorganization, surprise flanking movements, and occupation of areas behind enemy lines with attacks against his escape routes. When the enemy is attacked, he must be surrounded and completely destroyed.”\(^{102}\)

\(^{101}\) PU-36, Section 2.

\(^{102}\) PU-36, Section 9.
The destruction of enemy personnel and equipment by means of offensive combat on an operational scale certainly involved the application of shock, not only at the outset, but throughout all phases. Despite the most careful preparations involved in planning in an operational offensive, commanders expected to constantly clash with enemy forces throughout the entire operational depth of the defense zone. Even when large reserves of manpower, weapons, ammunition, and equipment were allocated for an operation, one had to anticipate costs much higher than originally estimated.

Georgii Isserson concurred with this when he stated:

“A modern operation is an operation in depth. It must be planned for the entire depth, and it must be prepared to overcome the entire depth. Moreover, it must be anticipated that the intensity of resistance within this depth tends to increase and grow denser from front to rear.”

It was understood that the principle of shock was offensive in nature, best applied within the enemy depth if it is to have operational value. But the question remained: what exactly was shock?

Shock basically represented the combat power of a given unit or formation. However, it was more than just firepower. It was also the ability to confront the enemy with overwhelming might at a time and place of the attacker’s choosing. Shock was witnessed when attacking forces collide or make contact with the enemy defense. As noted earlier, confronting a particularly difficult and resilient enemy compelled operational commanders to employ shock with ever-greater intensity and delivered with increasing frequency. To do anything less would have been to potentially compromise operations.

103 PU-36, Sections 16, 180, 183, 194.
104 Ibid.
106 Ibid.
Shock is not employed purely for the sake of creating mayhem and destruction; it is also used to shatter the enemy’s will to fight.\textsuperscript{107} If shock can force an adversary to cease his resistance to your operational goals, then it has achieved its highest aim.\textsuperscript{108} Moreover, in compelling the enemy to surrender at the earliest possible moment, one has averted further casualties and loss of equipment.\textsuperscript{109}

It should also be noted that shock achieved results when it was directed at the enemy’s weakest point in the defense. This did not apply just to sectors of the front slated for attack, but to any area within the enemy depth. Just as operational tempo sought to leverage offensive forces into position by striking into the enemy’s flank and rear; shock facilitated this even further when commanders applied it to sectors where it made the greatest difference. To do otherwise represented not only a serious misallocation of combat resources, but threatened to undermine the operation’s outcome.

In those instances when attacking forces encounter either a counterattack or an enemy who was committed to initiating their own offensive, one may ask whether or not shock was present in such cases. This type of encounter was referred to as a meeting engagement. Meeting engagements were favored by offensive planners, since the opponent shared the same vulnerability as the attack, since both were exposed in the open terrain. Without the protection of defensive works and field fortifications, the adversary thus becomes subject to the full power of shock delivered by the opposing side. The advantage then lay with the side able to maneuver quickly and freely without compromising combat power. The manual mentioned this when it said:

\textsuperscript{107} Tukhachevskii, “Voina Klopov,” (1923) Izbrannye Proizvedeniia, [“War of Bugs”, Selected Works]. In his famous treatise “On War”, Karl von Clausewitz’s declared his famous dictum: “War...is an act of violence to compel our opponent to fulfil our will.” It seems plausible that familiarity with this premise enabled Tukhachevskii and the other authors of the PU-36 to conceptualize shock as more than the tactical means of inflicting death and destruction upon the enemy. It could also demoralize an opponent into surrender or subdue him into compliance. This expanded understanding of shock reveals it as serving a much higher purpose when used to bring about resolution to military operations.
\textsuperscript{108} Ibid.
\textsuperscript{109} Ibid.
“He who is slow and marks time waiting for the situation to clear up will himself be reconnoitered by the enemy and lose the initiative.

In a meeting engagement, the decision on the direction of the main thrust sometimes can be made based on the conveniences granted by the terrain for delivering a crushing blow on the enemy.”\textsuperscript{110}

The difficulty with acquiring and maintaining this advantage was the chaotic nature of meeting engagements. In an area where clashes were continuous and developments remained uncertain, the delivery of shock against the enemy becomes increasingly complex, even when tactical shock was not hindered. One source claimed this situation as typical of meeting engagements:

“An encounter battle is characterized by obscurity of the situation and by abrupt changes in it, by the rapid movement to contact of the two sides and by the decisiveness and dynamic nature of their encounter, by rapid changes in march, approach-march and combat formations, by the swift build-up of effort from depth, by an intense struggle to gain time and to seize and hold the initiative, and by the presence of open flanks, and free maneuver.”\textsuperscript{111}

To ensure that shock could be properly applied throughout an incessantly fluid situation, operational commanders had to have in place an effective system of command, control and intelligence. As the forthcoming operational analyses will show, the effectiveness of shock (and other principles) was indelibly linked to the quality of battlefield information and the ability of the commander to utilize it for operational success.

\textbf{Command, Control, and Intelligence}

\textsuperscript{110} PU-36, Section 142.
The principle of command, control and intelligence played a formidable role in determining the outcome of operational engagements. The acquisition, processing, and dissemination of information were imperative in controlling both planned missions and unforeseen developments as they unfolded on the battlefield. Air and ground reconnaissance units were viewed as the primary means of collecting battlefield intelligence. Decisions by operational commanders were made on the basis of accurate battlefield information. Accuracy was assessed through corroboration of various reconnaissance sources, each originated from within the various units making up those formations operating within the enemy depth. Moreover, combat orders were formulated as the most appropriate response to what could be achieved based on the current capabilities of friendly forces versus that of the enemy’s. Such orders were relayed in the most prompt and efficient manner, obeying established protocols and procedures regarding communication and signals intelligence. While subordinates were tasked to carry out their missions, it was ultimately the responsibility of senior officers and the operational commander to ensure that those orders were executed in a timely and expeditious manner.

The Regulations noted the general duties of the combat leadership:

“Troop command in combat encompasses all of the following: careful reconnaissance of the enemy; decision-making appropriate to the situation; assigning tasks to the troops and organization of their interaction; timely transmittal of those tasks to the organizations concerned and monitoring their execution; reliable and timely orientation of subordinates and neighbors and situation reports to the superiors; quick reaction to changes in the situation; demonstrating personal initiative; and organization of security, liaison of all types, and the functioning of rear area facilities.”

The procurement of current battlefield information is derived from an array of reconnaissance assets from combat formations making up the various arms. The manual stated:

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112 PU-36, Section 105.
“The collection of information about the enemy and the general situation is the common duty of all large units, staffs, headquarters, and individual soldiers at all times during combat. Information about the enemy can be obtained in the following ways: through combat action of the troops; by air and ground reconnaissance; by observation and message interception; from prisoners and deserters; through radio reconnaissance; by the examination of acquired papers and documents; and from the local population.”

The critical value of intelligence mandated that both passive and aggressive means were to be used in acquiring it; that it was to be utilized not only in the preparatory stages of an offensive, but through all phases of the operation and beyond. The pursuit of intelligence was to be done relentlessly and without pause. In doing so, the information presented to the operational commander remained as the most current available, granting a possible advantage over opposing forces:

“Reconnaissance is performed at all times and without interruption: prior to the combat action, during the action, and during rest periods, in accordance with the general reconnaissance plan of the headquarters.

Information about the enemy acquired through combat or reconnaissance is examined daily and reconfirmed through reconnaissance.

To supplement the enemy situation prior to an attack or when the situation requires it, reconnaissance information is requested also through combat action of detachments specifically used for this purpose.”

Though data gathered from individual units represented a small section of the battlefield, qualifying it as tactical intelligence, its overall accumulation formed a much larger picture for the operational commander. Based on the general understanding of the operational area within which he was to direct his forces, the commander then proceeded with detailing his plan to conduct the offensive:

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113 PU-36, Section 19.
114 PU-36, Section 22.
“Once he has gained knowledge of the enemy disposition of forces to the extent possible under the circumstances, and has evaluated the conditions for an offensive in the various sectors as determined by the terrain and enemy field fortifications, he decides on the sequence in which the parts of the enemy battle formation are to be attacked. Of great importance to the decision is the condition of the attacking enemy, e.g., whether he is in good condition and able to resist, or whether he is battle-weary, without willpower, etc. Incomplete reporting of the situation does not excuse the commander from the responsibility for timely decision-making. The worst thing one can do is to make no decision at all or to make it too late. A lack of reconnaissance data can force the commander to base his decision about the direction of main effort more on terrain considerations than on the enemy situation. The commander chooses the direction of main effort in such a way that as quickly as possible he comes upon that part of the enemy battle or march formation which he wants to destroy first. This is meant to be the first phase of the enemy's overall defeat.

Once a decision is made, it is executed without deviation.”

While knowledge of the battlefield situation was to be made evident to senior commanders, it was to also be disseminated to subordinates directly involved in executing the offensive. The Regulations noted that:

“All enemy information obtained by specialized reconnaissance and observation of the individual branches and services are to be immediately transmitted to the troop commander. The staffs and heads of the individual branches and services are required to exchange particularly significant enemy information among them.”

It went on to add:

“Careful command functions require the timely issue of preliminary orders which on the one hand enable the troop units to make preliminary preparations and which on the other hand provide the infantry commanders and their supporting troops with additional

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115 PU-36, Section 125.
116 PU-36, Section 35.
time for studying the enemy situation and the approach and combat development area."117

Issuance of combat order to subordinate officers was to not only confirm that they had been received, but that they were to be repeated, to ensure that they were clearly understood:

“The execution of any combat order must be monitored. The superior checks on the receipt and execution of his order. The subordinate reports to him on all measures he has taken to execute the order he has received.

Verbal orders are immediately repeated loudly to the individual giving the order, and then are executed. If a verbal order is transmitted by a third party, the latter repeats it upon receiving it and upon returning from delivering it.”118

With thoroughness of communication aside, it was evident that a clear plan of action is what lay at the center of the decision-making process and was to be a fundamental requirement for the purposeful control of troops.119 Moreover, the management of troops was to be continuous, regardless of developments.120 Operational commanders and their subordinates were under the strictest obligation to respond to those changes which could affect the overall outcome of operations. The lack of decision was viewed as worse than making poor decisions.121 Ill-considered decisions could be corrected, but to make no decision at all in the face of on-going developments was viewed as potentially disastrous.122 Under combat conditions, indecision was unacceptable. Officers of all ranks were to be proactive and unafraid to take personal initiative. This was to be demonstrated by field and staff officers at all levels if an operation was to progress to its favorable conclusion.

117 PU-36, Section 130.
118 PU-36, Section 131.
120 Ibid.
121 Ibid.
122 PU-36, Section 125.
The manual’s emphasis on aggressive reconnaissance and continuous control was linked to the introduction of combined arms and the vast scale of territory within which operations were to occur. The problem of coordinating large groups of fast-moving forces moving simultaneously across a large battlefield area presented a major challenge to Soviet operational leaders. Soviet theorists observed that large scale military operations during the First World War were often slow to change and painfully difficult to control when attempting to exploit new developments. They also noted that the substantial increase in mobility by armored and mechanized vehicles—stemming from new technological advances during the interwar period—permitted armies to conduct maneuvers with much greater scale and rapidity, creating ever-increasing changes in battlefield developments. It became clear that if commanders were to maneuver million-man armies—equipped with mass formations of tanks, motor vehicles, artillery, and aircraft—changes in the conduct of command and control would be needed. Moreover, Tukhachevsky noted that as combat formations (and their units and subunits) dispersed over the battlefield, spreading further and further into the enemy’s operational depth, the task of controlling these fragmenting elements became increasingly onerous.

In addition to the difficulties associated with maintaining command, control, and intelligence during operational offensives were the potential dangers that arose when leaders among various formations ventured further and further into the enemy depth. The 1936 Regulations required battalion, regimental, and divisional officers to position themselves as near to the frontline as safety allowed, to closely monitor their respective tactical battles; incoming situation reports sent to corps, front, and army-level leaders were then to be collated and given to the high command, creating a

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125 ibid.
broader understanding of how the operation is progressing. However, constant repositioning of command posts and field staff about the battlefield was a complex affair, requiring numerous security precautions and logistical accommodations.

Among the greatest dangers were enemy signals interception and the possible compromise of encryption codes used by friendly forces during transmission of messages to and from various staff leaders. Should the locations and intent of friendly command and control nodes be discovered by hostile forces, there was a great probability that an adversary would exploit this, leading to disastrous consequences for on-going operations. Even if the enemy was unable to do so, it nonetheless, remained a serious disadvantage, which—if unresolved—could lead to the compromise of on-going or future operations. Naturally, the degree of disruption to an operation’s control points (punkti upravleniia) was directly dependent upon the enemy’s combat capabilities and whether he was able to utilize them in the time available to him. However, enduring such a perilous risk—even temporarily—was to harbor a vulnerability that could grant the enemy the potential power to inflict defeat at any given moment. Such a disposition had to be avoided entirely when possible. Leaders from all ranks were obliged to take proactive measures to eliminate or minimize that which threatened operations. To do otherwise was to be negligent in one’s duties. In the event that command and control of an operation became compromised, measures were to be immediately taken to evacuate, disperse, and reorganize command posts in alternate locations in order to reestablish communications between units.

127 PU-36, Sections 132, 133.
128 PU-36, Section 132-139.
in the field and the higher echelons of command.\textsuperscript{132} To ensure uninterrupted communication, the manual called for additional reserves of communication equipment (i.e. radio, telephone, telegraph) to be made immediately available in the event of technical problems.\textsuperscript{133} Multiple lines of communications were to be introduced, to act as a redundancy.\textsuperscript{134} On those occasions when technical difficulties arose, repairs to communication equipment were to be made immediately.\textsuperscript{135}

**Depth**

Of then ten principles noted in this paper, **depth** is that which all others sought to achieve. The principle of **depth** in military operations is mentioned extensively throughout the 1936 Regulations. Prevailing mention of **depth** denoted its considerable importance in the minds of operational planners. In nearly every mission, be it offensive or defensive in nature, the task of operating in **depth** appeared to be viewed as a vital prerequisite to success. As a concept, fighting in **depth** or trying to strike into the interior of the enemy position via flank or rear was neither original nor new to warfare. However, with the advent of modern weapons, such an effort could, nonetheless, prove extremely difficult. The stalemate of the First World War proved this. Even when millions of men—armed with rifles and supported by powerful artillery forces—were used to attack across a broad front, victory was rarely had, especially when faced with a determined opponent armed with machine guns and artillery. Based on his analysis of Soviet theoretical works written during the interwar period, Simpkin suggested that it was a response to the belief of the superiority of defense that the modern concept of operations in **depth** was born.\textsuperscript{136} It should be also remembered that **depth** represented more than a singular dimension of the

\textsuperscript{132} Ibid, 3.  
\textsuperscript{133} PU-36, Section 179.  
\textsuperscript{136} Simpkin, 34-44.
battlefield; for Soviet commanders, it was an indicator of overall progress, more notably when tactical successes accumulated to take on operational significance.

While this paper will not be citing all sixty-seven instances where depth as noted throughout the Regulations, it is interesting to observe that, as a principle, it was applied to almost every major mission conducted by every combat arm, be in an offensive or defensive capacity. We are reminded that in the attack, battle formations were arrayed in several echelons when entering enemy territory. In the pursuit of their respective goals and missions, successive waves of offensive forces stretched across the operational area, creating, in effect, its own depth as it proceeded further and further into the enemy’s own. Conversely, in the role of defense, troops were traditionally deployed in depth throughout the rear of friendly positions. By dispositioning troops over a large area, attacking forces were delayed in that they were compelled to deploy units in order to deal with the defenders. The First World War demonstrated that defense was insurmountable when tactical successes could not be translated into overall operational success. However, post-mortem analysis of this alleged superiority of defense led Soviet military thinkers to conclude that for an offensive to succeed, the principle of depth had to be applied.

Offensives conducted during the Great War were frequently characterized by massive waves of infantry attacking over a broad front. In many cases, this led to disastrous results, with millions in casualties accrued over four years. Unleashing vast numbers of slow-moving foot soldiers against well-fortified enemy positions was not only suicidal, but rarely resulted in the capture of territory of any substantial scale. In his assessment of the war, Isserson observed that the greater the depth of the

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137 PU-36, Section 106.
enemy defense, the greater the likelihood that attacking forces will exhaust themselves, especially when it involved numerous single-echeloned armies attacking simultaneously along a broad front.\footnote{Isserson, 54.}

Soviet theorists recognized that in those instances during the war when attacking forces managed to penetrate enemy lines, fresh reserves were frequently thrown into the breach to consolidate their newly-won gains. Yet, seldom were attacking troops ever able to press forward thereafter. To make good on their gains, they had to move further and further into the enemy depth.\footnote{Triandafilov, 150-151; Isserson, 53-76.}

The manual encouraged leaders to do more than merely hold captured ground:

“A gain in one of the attack sectors must be consolidated with all available resources. The commanders have the duty of immediately concentrating heavy artillery fire on that sector and to direct the troops of the second (or third) echelon and the reserves to that area without delay so as to exploit the successful action.

The troop commander proceeds in like fashion at the point of main effort if the enemy offers stiff resistance along the entire front.”\footnote{PU-36, Section 108.}

Simpkin noted that in order to exploit a point of penetration, Soviet thinkers had to thoroughly consider ‘deepening’ as a governing characteristic of an attack. While armies could maintain ‘maximum contact’ with the enemy along the entire front, it had to—during an early phase of the offensive—penetrate into a series of sectors which allowed attacking forces to enter the enemy depth.\footnote{Simpkin, 37.}

He stated that:

“...the turning point between “broad front” to “deep battle” came when the need to reinforce the main effort on the main axes of advance led to a deliberate thinning out of the troops on other sectors until, diversions apart, they came to assume a holding role rather than an offensive one. The conceptual change is perhaps the selection of main axes in advance rather in response to the course of the battle. This did not of course
prevent the further reinforcement of a successful thrust at the expense of less successful ones.”

It was also realized that one massive blow against a single point of the front would not be sufficient, since reinforcements from neighboring formations could be brought forth to contain an attack. Containment could be prevented, however, by applying pressure along the entire line through holding actions as shock armies delivered a series of powerful successive blows against several weakened areas. The aim of the first echelon of forces was to clear the way for the following echelon, which consisted of fast moving tanks and mechanized forces. Rather than supporting units belonging to the first echelon, these long-range tank groups would bypass these contested areas in order to reach into the furthest depth of the enemy defense zone. Once having secured their objectives, the stage would then be set for encirclement.

An opponent’s operational depth represented their greatest area of vulnerability. It is where the vital functions needed to maintain and reinforce its forces were carried out. Petrol storage areas, food and water supplies, ammunition depots, repair facilities, all those things necessary for armies to survive and succeed in the field, resided within the enemy’s depth. Command posts and communication stations were also situated throughout the interior of the defense zone. Capturing greater numbers of enemy command posts throughout the course of operations progressively diminished their capacity to coordinate and control troops, preventing them timely transferring them to sectors where they were most needed. The loss of command and control also prevented enemy forces from realizing the true danger of their situation. In denying them knowledge of the encirclement, this complicated efforts to organize a prompt retreat. To fully exploit this, surrounded units were to be forcibly prevented from withdrawing in time to slip through the closing noose. Though it was important to surround the enemy

\(^{145}\) Ibid.
with haste, what went on within the interior of the operational depth would eventually determine its outcome.

The area representing the enemy’s operational depth was recognized by Soviet military thinkers as a critical center of gravity. It was the arena where the outcome of the operation was decided. In positional warfare, such as that played out in Europe during the First World War, depth was traditionally understood in terms of space. Success was measured by the amount of ground captured or territory taken from the enemy. However, as armies became increasingly mechanized, hosting mass armored formations, large air fleets, self-propelled artillery, and motorized infantry, positional warfare was usurped by the idea that future wars were to be decided by maneuver, a form of war largely based on offensive doctrine.

Simply put, battlefield success was to be viewed as something more than smashing one’s way into the inner recesses of the enemy’s defense zone; it would mean learning how to effectively utilize all offensive assets necessary for the seizure, consolidation and exploitation of the many objectives residing within it. Thus, depth became more than the mere occupation of space. Because of the amount of manpower and material required to stretch across the vast distances of the operational area, it also had to be regarded as an extension of resources. Logistical concerns aside, the length of that extension—in the minds of offensive planners—became a barometer for operational progress.

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146 Savkin, 172.
148 Ibid.
150 Tukhachevskii, “Novyi Voprosy Voiny,” Izbranye Proizvedeniia, para. 77-98. In the latter portion of this article, Tukhachevskii notes that in addition to the tasks involved in the command and control of the many tactical missions comprising deep battle, staff officers must also understand how combat developments are likely to affect the outcome of the operation as a whole. Where units are located within the enemy Depth at the time of on-going developments—when highlighted against their final objectives—indicates how operations are proceeding, revealing the length of time remaining for its conclusion.
In their quest to avoid the bloody attrition battles of the Great War, Soviet military thinkers were compelled to reexamine the notion of depth as an element of battle and how it was to be understood in light of the newly-emerging technological advances during the interwar period. It would be the renewed understanding of depth that enabled Red Army theorists to introduce operational art as a system of military thought that would reside between tactics and strategy.¹⁵¹ This reworked concept of depth allowed planners to develop a doctrinal framework that would enable them to conduct operations as a means of translating tactical success into strategic victory, something that eluded them throughout four years of war on the battlefields of Europe. And while space remained an inseparable component of depth, it prompted its proponents to also account for the resources needed to achieve it.

**Mobility**

Armies engaged in deep operations were highly dependent on the ability to project fast moving mechanized forces into the enemy’s operational depth. The offensive nature of deep battle summoned within the minds of Soviet thinkers an appreciation for mobility. As a principle, the Regulations made clear its significance, for mobility via mechanization offered much more than traditional armies, especially when reorganized in accordance to their capabilities and limitations.

After the First World War, improvements in automotive technology fueled the rise of mechanized armies. In Soviet Russia, experimentation in armored warfare and tank production were pursued with rigor.¹⁵² Though mechanized armies could move with much greater range and speed, Soviet leaders realized that such advances also required a level of reorganization that permitted the technology to be exploited to its fullest potential, moving away from the traditional ‘foot and hoof’ armies of the past.¹⁵³ Along with radical improvements in mobility came the challenge of deciding what

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¹⁵² Ibid.
roles certain mobile formations were to play and what missions they were to carry out in the courses of operations. But despite the promises mobility offered to operational planners, difficulties associated with their use arose, especially when confronted by an enemy equally armed and who too understood its potential.

**Mobility** facilitated the process of integrating the various services comprising **combined arms** armies. Mechanization of tanks, artillery, infantry, and logistic transport granted all combat arms and their means of support the ability to maneuver about the battlefield. Whether used in the attack or in defense, mobility and firepower produced a formidable combination, one acknowledged by the manual as the basis of combat power:

“**Mobility** and vital assault capability, supported by allied firepower, are the basic concepts of infantry combat.”

It further added:

“Mechanized combat teams consisting of tanks, self-propelled artillery, and infantry on personnel carriers are capable of accomplishing independent missions either separated from the other branches or in cooperation with them. They have great mobility and massive fire and penetration power. The basic combat procedure for a mechanized combat team is a tank attack which must be supported by planned artillery fire. Movements and assault by the mechanized combat team must have air support.”

For operations to be properly effective mobility was to serve more than the combat arms; it also had to be provided to rear services supporting them:

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154 Triandafillov, 22.
155 PU-36, Section 7.
156 Ibid.
“Special Service Troops: engineer, chemical, communications, railroad, transport, motor vehicle transport, and medical service troops support the operations of the combat troops in their special areas. Only if the special service troops perform independently and proficiently, especially the engineer, communications and transport troops (rail and motor vehicle) is it possible to derive maximum benefit from the mobility of modern armed forces.”\textsuperscript{157}

It is interesting to note that mobility further contributed to combat effectiveness by accentuating another principle previously discussed, that of surprise:

“Surprise is one of the most important elements of the operation and of successful combat. Modern weapons, which combine extraordinary mobility with great fire and penetration power, enable the troop commander to use quick and surprising movements to bring his troops into a favorable position vis-à-vis the enemy, and to force the latter into combat under for him unfavorable conditions.”\textsuperscript{158}

By extraordinary, the manual implied high mobility; that is, movement characterized by high speed and long range. ‘Extraordinary mobility’ empowered operational commander to speedily contest for possession and control those areas vital to the survival of the enemy defense.

In his early assessment of the role mobility would play in future tank warfare, Tukhachevsky rejected Fuller’s belief that million-man armies were to be supported by small professional tank forces.\textsuperscript{159} Such a strategy worked well for quelling small localized insurrections among the overseas territories of the British Empire. But for the open spaces of the Eurasian steppe, small tank armies were woefully inadequately for covering the vast and lengthy distances of Soviet Union. Moreover, Tukhachevsky believed that small mobile armies were incapable of transforming tactical success to the

\textsuperscript{157} Ibid.
\textsuperscript{158} PU-36, Section 111.
\textsuperscript{159} Tukhachevskii, “Preface to J. Fuller ‘Reformation War’” (1930), Selected Works.
operational level since their diminutive numbers could only achieve limited gains.\textsuperscript{160} For Tukhachevsky, large tank armies were ideal for providing the necessary coverage of such a vast front. Moreover, large tank armies would enable the Red Army not only tactical but operational and strategic \textit{mobility}, necessary prerequisites for victory.\textsuperscript{161} Achieving victory, however, required a reassessment of what roles different combined-arms formations were to play.

Tanks were viewed as ideal for projecting combat power into the \textbf{depth} of the enemy defense system. In the First World War, tank performance in battle was mixed. Shortcomings in the early use of armor were identified as due to the slow \textbf{mobility}, mechanical unreliability and vulnerability.\textsuperscript{162} For Tukhachevsky, armored warfare was simply not given sufficient time to demonstrate its full potential.\textsuperscript{163} Yet, as noted previously, advances in automotive technology after war introduced dramatic improvements in speed and range. To exploit these emerging advantages, military planners lobbied the Soviet leadership for the production of large tank armies, in order to be able to meet the requirements of modern warfare. For the production and support of such a large number of armored vehicles, a massive infrastructure would first have to be built. Under the first of the Five-Year Plans, a crash industrialization program was initiated by Joseph Stalin to accomplish this.\textsuperscript{164} In the interim, military planners would have to focus on the qualitative use of armored vehicles.

In recognition of the value of \textbf{mobility}, the Regulations duly noted the tactical value of armor in the conduct of battle. To harness \textbf{mobility} with tactical success, it was important to organize tanks and

\textsuperscript{160} Ibid.
\textsuperscript{161} Ibid.
\textsuperscript{163} Tukhachevskii, “Novyi Voprosy Voiny,”, para. 23-45.
military vehicles for missions that could be best achieved in accordance to their optimal capabilities and technical limitations.\textsuperscript{165}

**Pursuit**

Though pursuit is seen during the closing stages of operations in depth, it, nonetheless, played a pivotal part in its finalization. The role of pursuit was by viewed by 1936 Regulations as one involving the total destruction of enemy forces.

The goal of pursuit was to curtail the enemy's potential for recovery, to prevent regrouping or remarshaling of its strength:

"Any battle—offensive as well as defensive—has the goal of defeating the enemy. But only a resolute attack in the main direction of effort, which leads to irresistible pursuit, results in total destruction of enemy forces and materiel.

A constant urge to fight the enemy with the goal of defeating him, must be the basis of the training and conduct of any leader and soldier of the Red Army. The enemy must be attacked in a resolute and courageous manner wherever he is found, without specific orders being given to that effect."

The manual strongly urged Soviet officers to conduct pursuit with vigor and unrelenting aggression. Yet, to pursue enemy forces as they were retreating required more than simply chasing them pell-mell. Just as with every other military operation, pursuit had to begin with reconnaissance. Reconnaissance units were to assess the size and strength of the retreating enemy, even during a full rout. The commander was given a better idea of what he was dealing with and thus able to select what appropriate forces would be needed and how they could be best directed to cut off their retreat. Moreover, commanders were to proactively perform this task even before waiting for the next issuance

\textsuperscript{165} PU-36, Section 7 and 113.
\textsuperscript{166} PU-36, Section 2.
of orders. Time lost waiting for orders was time given to the enemy in favor of his survival. The manual stated:

“All After the annihilation of the enemy in the defense zone, relentless pursuit of troops which have escaped from the encirclement and confiscation of rear area installation and transport vehicles of the enemy must commence immediately. Reconnaissance of all types must establish the following:

a. in what strength and on what routes the enemy is retreating;

b. in what sectors and in what strength his rear guards are offering resistance;

c. how the enemy is reorganizing during his retreat (bringing up reserves, retreat direction of the columns, preparation of defense sectors, and their staffing).

Enemy forces which have escaped encirclement can be destroyed only through relentless pursuit. This is performed independently by tank and infantry troops as soon as a retreat by part of the enemy forces becomes evident. Pursuit occurs using all available forces, with full discretion of their commanders as to their actions. During pursuit, it is forbidden to wait for lagging neighbors to catch up. Even the smallest infantry or tank detachment can administer the final blow to the enemy by courageous action.168

As the above section noted, all units were to be involved in matters of pursuit. Pursuit was not to be seen as some chaotic dash for the enemy, but an orderly systematic effort, using all available forces, to ensure that all avenues of escape were closed to the enemy long before they could be

167 Tukhachevskii, “Novyi Voprosy Voiny,” para. 77-98.
168 PU-36, Section 203.
reached. This task was to be done with urgency, but not at the cost of forsaking caution and thoroughness:

“The commander of a combat team directs the pursuit by quickly advancing available personnel and weapons to cut off the enemy's retreat routes as quickly as possible. To retain steady pressure on the enemy flanks, the pursuit is conducted along a wide front. The commanders of the pursuit forces protect their flanks against surprise enemy advances through security and reconnaissance.

Mechanized units which penetrate between the retreating enemy troops attack them from the rear and cut off their retreat routes.”


170 PU-36, Section 204.

171 PU-36, Section 205.

Just as the failure to initiate pursuit at first opportunity was viewed as verboten, so too was the unauthorized breaking of pursuit during on-going operations. Only senior staff officer were permitted this, and only after a thorough assessment had been made:

“Only the high command is authorized to discontinue pursuit, taking into consideration the combat capability of the troop units and the condition of their weapons, the general supply situation and possible reports of encounters with new enemy forces. Until he receives the order to break off pursuit, every commander must devote all forces at his command to strive for the enemy's final defeat.”

For an on-going operation to be ultimately successful, an encircled enemy was to never—under any circumstances—be permitted to escape. The rationale behind the manual’s emphasis on unrelenting aggression in the act of pursuit was simple. If sufficient numbers of enemy personnel managed to avoid encirclement—even without weapons and equipment—there loomed the possibility that they would return to challenge you in the next battle, wiser, better organized and much stronger.
than seen previously. Given that risk, it became all the more incumbent upon Soviet commanders to pursue retreating enemy units with maximum aggression. In this way, pursuit acted as a kind of preventative measure, continuously knocking enemy forces off balance. This was to be done in several ways, with each form of pursuit offering specific advantages and disadvantages.

In all, there were three basic modes of pursuit: frontal, parallel, and combined.

Frontal pursuit occurs immediately after enemy forces have disengaged from fighting in order to retreat to more defensible positions. It was the most direct method of maintaining contact with the enemy during this time. All the elements making up combined arms formations were to participate in frontal pursuit. Long-range artillery and air forces, for instance, were to harass and menace retreating units. Ground forces, however, proved far more effective in being able to inflict greater casualties upon the enemy during pursuit.¹⁷² Frontal pursuit placed the greatest amount of pressure upon a retreating enemy, hindering efforts to consolidate a defensive position. Despite its usefulness, however, frontal pursuit was difficult to conduct at night, especially when facing natural barriers, like rivers and swamps.¹⁷³ It was also incapable of limiting the enemy’s freedom to maneuver; though units engaged in frontal pursuit could continuously push them rearward, they could not prevent retreating forces from moving to a more favorable flanking position.

Parallel pursuit occurred when pursuing forces are moving in parallel to the enemy’s route of retreat. The main advantage lay in being able to strike the enemy’s flank at a time when they were most vulnerable and least prepared to deal with an attack.¹⁷⁴ This mode of pursuit proved particularly useful for maintaining momentum for operations in depth, as the high rate of advance needed to prevent the enemy from consolidating his defenses could be achieved using fast moving forward detachments, tank-

¹⁷² Reznichenko, Tactics, 104-106.
¹⁷³ Ibid.
heavy units tasked with specific objectives. With sufficient forces allowing, parallel pursuit could be conducted alongside both flanks of the enemy. Though this severely limited his room to maneuver, it could not prevent his retreat entirely, for this required both frontal and parallel pursuit to occur simultaneously.

Combined pursuit incorporates both frontal and parallel pursuit. This mode was the most difficult for a retreating enemy to avoid. For a routed opponent, the highly unfavorable battlefield conditions created by combined pursuit made disengagement extremely arduous. Because it was able to maintain maximum contact with the enemy, combined pursuit hampered an adversary’s efforts to conduct an organized and timely withdrawal. Of the three modes, it was the most capable of achieving total encirclement. In dealing with pursuing forces in their rear, flanks, and even ahead of them, enemy commanders were forced to split their forces, leaving even fewer troops to escape from the closing ring of Soviet forces.

Though it is generally witnessed during the concluding stages of an operation, pursuit could occur at any phase of a military operation, depending on the rate and accumulation of tactical successes. Because pursuit takes place during an enemy’s retreat, it tended to be viewed as an action that only happened in the very final stages of operations. From a tactical perspective, this is certainly true. However, when most tactical units became actively engaged in pursuit, it then took on operational significance. It is only when the enemy defense became compromised at the operational level was it said to have achieved operational closure. Though pursuit occurred during final stages of an offensive, it was also understood by Soviet military leaders as signifying the beginning of the next operation.

Chapter Three

Operational Analysis

After having reviewed the ten principles of Soviet operational art that I have identified as particularly important in Soviet military theory in the late 1930s, and reflected in PU-36, we now turn to the second section of this paper. The aim of this chapter shall be to identify the relative importance of these ten principles in practice by assessing their role in the planning and execution of two major operations, and indeed to determine whether not they were in fact applied in practice.

The first operation to be examined shall be the First Smolensk Counter Offensive Operation conducted by Marshal Timoshenko, from 21 July to 7 August, 1941. Though unsuccessful, it did yield important implications for the war, imparting harsh, but valuable lessons to Red Army leaders as they desperately sought to master military operations in time to stem the advance of the German Wehrmacht. For an offensive operation to have a reasonable chance for success, most of the ten principles had to be present. But as we will see, few principles were implemented during this first counterstroke; that most were woefully absent in its planning and execution disallowed any real prospect for victory.

Secondly, we shall then turn to another operation, one that proved detrimental for the German forces in southern Russia: Operation Uranus. Unlike the Smolensk Counterstroke, Uranus was highly successful, yielding far greater results than originally anticipated by Soviet planners. The forthcoming analysis will show that the application of the ten principles of Soviet operational art as practiced by the Red Army leadership directly contributed to Uranus’ victorious conclusion.
Smolensk Counter Offensive Operation (21 July to 7 August, 1941)

Disposition of Forces

Since the start Operation Barbarossa on 22 June, 1941, the Wehrmacht had achieved remarkable progress. Having overrun Brest, Bialystok and Minsk weeks earlier, the forces of Field Marshal Fedor von Bock’s Army Group Center, by mid-July, were poised to encircle the city of Smolensk. Like Minsk, Smolensk was also a major railway junction and communications center. Residing 400 km away from Moscow, the city was selected by the German High Command for its direct route to the Soviet capitol. Prior to their arrivals at Smolensk, the German Fourth and Ninth Armies had inflicted approximately 341,073 casualties on the Soviet armies of the Western Front (3rd, 4th, 10th, and 13th Armies). Including 76,717 wounded, this totaled 417,790 troops. By the conclusion of the Minsk encirclement on 3 July, the armies of the Western Front collectively sustained an attrition rate of over 23,000 per day. Within several weeks, 66 per cent of the personnel making up this Front were removed from the order of battle. Those armies that did manage to survive retreated eastward to Smolensk.

By mid-July, the situation regarding the status of the encircled Soviet forces in Smolensk had reached a critical stage. Surrounding them were Army Group Center’s Third Panzer Group, led by Colonel-General Hermann Hoth, Second Panzer Group, commanded by Colonel-General Heinz Wilhelm Guderian, along with supporting formations belonging to General Field Marshal Gunther von Kluge’s Fourth Army.

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176 Krivosheev, 111-112.
177 Ibid.
To the north were forces of Third Panzer Group. Stretching from the Dvina River south of Belyi to the entire length of the Vop River north of Yartsevo, were divisions belonging the XXXIX Motorized and LVII Motorized Corps. Included in this group was the OKH Reserve’s 900th Motorized ‘Lehr-Brigade.’ Situated in the northern environs of Smolensk, placing immense pressure upon the three Soviet armies, were infantry divisions belong to the German V, VIII, and XXXII Army Corps.  

Attacking from the southwest, moving into the southern outskirts and easterly towards Yelna and in the southerly direction of Roslavl, were forces belonging to Second Panzer Group’s XXIV, XXXVI, XXXVII Army Corps. Even further south, along an axis spanning from Rogachev, Slavgorod, Cherikov, Krichev and Mstislavl, stood a composition of forces originating from XXIV and XXXVI Panzer Corps, XXII Army Corps, and the 112th Infantry Division from the OKH Reserve.

By 23 July, from north and south, both Panzer Groups pressed hard to complete the Smolensk encirclement. Frustrating their efforts were Soviet forces desperately determined to hold open the corridor. Leading this was Rokossovskii’s Yartsevo Group, an operational group made up of stragglers regrouped around the core of the battered 38th Rifle Division. Recognized as essential to the survival of the beleaguered 16th, 19th, and 20th Armies in Smolensk, a plan was created to not only keep this gap open, but to annihilate the German Smolensk groupings altogether. This intent was the aim of would become the first Smolensk Counter Offensive Operation.

The Plan

In what would be the first of three major counteroffensives near the Smolensk Pocket, the first operation, conducted from 21 July to 7 August 1941, was, as noted, hastily assembled as part of a frantic

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179 Ibid.
180 Ibid.
effort to preserve the embattled 16th, 19th, and 20th Army trapped in both the environs and within the city proper.\footnote{182} Initially, this was to be achieved by organizing four operational groups.

The armies which formed these four operational groupings came directly from Stavka’s Reserve Front.\footnote{183} On 20 July, Marshal Georgi Zhukov, Chief of the General Staff of the Red Army, authorized the transfer of four armies from the Reserve Front to Timoshenko’s Western Front, to be allocated among the various groups ordered to participate in the counter offensive.\footnote{184} Named after their respective commanders, these operational groups included (1) Group Maslennikov (29th Army), (2) Group Khomenko (30th Army), Group Kalinin (24th Army), and Group Kachalov (28th Army).\footnote{185} To bolster the counter offensive, a fifth group, Rokossovskii’s ad hoc ‘Group of Forces Yartsevo’, was tasked to support Group Khomenko’s efforts in addition to maintaining the Smolensk corridor.\footnote{186} To give Khomenko even further strength, a Cavalry Group, composed of the 50th and 53rd cavalry divisions under the command of I.A. Pliev, was also added.\footnote{187}

The initial operational summaries issued by Stavka via Timoshenko clearly show that the operational groupings north of Smolensk (Maslennikov, Khomenko, and Kalinin) were intended to form a line, which, when done, would stretch from Velizh, Demidov, Dukhovshchina, and Yartsevo.\footnote{188}

\begin{footnotesize}
\begin{itemize}
\item[183] Ibid.
\item[186] Ibid; Rokossovskii, 22.
\item[187] Russkii arkhiv, Stavka VGK, 86.
\item[188] Ibid, 85.
\end{itemize}
\end{footnotesize}
Group Maslennikov, made up of the 243rd, 252nd, and 256th Rifle Divisions, was to deploy in the Staro-Toropa region, occupying the Toropets axis, an area roughly 165km north of Smolensk. Originally scheduled to attack on 23 July, Group Maslennikov was to move southward in the direction of Demidov (65km northwest of Smolensk), Chikchachi (40 km northwest of Toropets) and Lake Zhizhitskoe at Artemovo Station.\(^{189}\) It was to perform this task in collaboration with 30th Army, an adjacent that shared the same mission.\(^{190}\)

On Maslennikov’s left flank was 30th Army’s Cavalry Group, poised to strike into the rear of 20th Panzer Division. With the 242nd, 250th, and 251st Rifle Divisions, Group Khomenko was to attack southward in the general direction of Dukhovshchina and was to establish communications with the 50th and 53rd cavalry divisions as soon as they arrived within the vicinity.\(^{191}\)

South of Khomenko was the Soviet 53rd Rifle Corps’ 89th, 91st, and 166th Rifle Divisions making up Kalinin’s 24th Army. The initial operation summary revealed that it was to attack westward towards Vetlitsy, located nearly 30 km northeast of Yartsevo, and was to drive toward the mouth of the Vop River, to help consolidate Khomenko’s newly won gains.\(^{192}\)

To bolster the counter offensive’s chances for success, Timoshenko incorporated Rokossovskii’s Group Yartsevo into the plan.\(^ {193}\) Composed of stragglers from 38th Rifle Division, it was already engaged in heavy fighting with the forces of the German 7th Panzer and 20th Motorized Divisions, trying to halt the German advance toward Vyazma and Moscow.\(^ {194}\) In his recollection of the battle, Rokossovskii noted in his memoirs:

\(^{189}\) Ibid.
\(^{191}\) Russkii arkhiv, VGK, 85.
\(^{192}\) Ibid.
\(^{193}\) Glantz, *Barbarossa Derailed*, 197.
\(^{194}\) Rokossovskii, 23-24.
“The fighting in Yartsevo was continuous and heavy. Our contribution to the Western Front was to prevent the enemy from moving further south, to encircle our armies in Smolensk while inflicting as many casualties upon them as possible.”

It was assumed by Stavka that having vanquished enemy forces threatening the corridor to Smolensk, Rokossovskii’s Group Yartsevo could then be used to provide flank protection for Group Khomenko in its parallel move westward. Once having cleared enemy forces along areas lying north of the city, it could then be participate in a future effort to retake Smolensk itself. For this, Stavka assigned to Rokossovskii the 101st and 107th Tank Divisions, which, when tallied, amounted to 80 tanks, most of which were either the obsolete T-26s or the BT series.

Furthest south stood the 28th Army. With the 145th, 149th Rifle Divisions and 104th Tank Division, Group Kachalov was, by 21 July, expected to deploy along Krapivenskii, Vezhniki, and Roslavl, an axis whose distance reached approximately 110km from Smolensk. It was to move northward the following day. Kachalov’s northern advance would bring up the southern axis. The plan was to anchor itself from Engel’gartovskaia Station to Pochinok to Khislavichi, placing it 50-55 km from the city.

Assessment

Among the reasons for the appalling failure of this first counterstroke was the lack of simultaneity in its execution. The difference of a day between attacking formations involved in an offensive of operational scale is, generally speaking, quite marginal. As noted earlier in this paper, operational offensives could be choreographed to occur in phased sequences, for simultaneity can still

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196 Russkii arkhiv, VGK, 85.  
197 Glantz, Barbarossa Derailed, 197.  
be achieved even when forces attack at differing times. However, all participating formations had to initiate offensive operations within a short timeframe if the advantages of simultaneity were to be had.

The operational summaries issued by Stavka through the week of 20 July did indeed reveal Timoshenko’s intent for all groups to act in relative unison.\(^{200}\) However, the poor performance of Red Army troops strongly suggests that many of these groups were simply not ready to commit to battle within the aggressive time schedules prescribed.\(^{201}\) Joseph Stalin’s impatience and incessant interference via Stavka in Timoshenko’s conduct of the operation did much to contribute to this.\(^{202}\) Moreover, that dates and objectives for the counter offensive were continuously changed did much to keep operational groups off balance, producing an uneven application of force once the counterstroke got underway.\(^{203}\) Compounding this even further was the tactic of feeding small units into combat at different times throughout the offensive; the result of this practice did much to undermine the prospect of exploiting simultaneity to any operational advantage.\(^{204}\)

With the exception of Melnik’s Cavalry Group and several understrength tank divisions, the armies making up the operational groups were primarily made up of rifle (infantry) divisions. Large numbers of obsolete tanks (mostly T-26s, BTs, with a few T-34s) were indeed spread out among them, but this qualitative deficiency relegated them to the role of infantry support, since few were capable of speedily penetrating far into the enemy depth.\(^{205}\) That mission was given to the cavalry. Artillery forces were present in sufficient numbers, but all were horse-drawn and often bogged down when having to traverse over difficult terrain. Air forces of the Red Army (VVS) also played a supporting role in the counter offensive. Group Maslennikov received assistance from the 31\(^{st}\) Aviation Division. Group

\(^{200}\) Russkii arkhiv, VGK, 85.
\(^{201}\) Glantz, Barbarossa Derailed, 202.
\(^{203}\) Russkii arkhiv, VGK, 85-88.
Khomenko was assigned the 190th Army Aviation Regiment (AAR) and the 122nd Front Aviation Regiment (FAR) while Group Kachalov had allocated to them the 209th AAR and 239th FAR. In testament to the ferocity of the air war over Smolensk between 10 and 31 July, the Soviets conducted over 5,200 sorties, a considerable accomplishment when one considers that most of the Red Air Force was destroyed within the first few weeks of the war.  

In his memoirs, Eremenko made considerable mention of the devastating effectiveness of the Luftwaffe when bombing concentrations of attacking troops.  

What should be noted here is that while the armies of Timoshenko’s operational groups were, technically speaking, structured for combined-arms missions, the poor balance of supporting arms presented a scale of disproportion which effectively limited their combat power to that of infantry formations. Moreover, the minimal military training among new recruits arriving at the front left many without a basic understanding of tactics. This made it difficult for commanders to use them when coordinating the various armed services of combined-armed armies. Compounding this even further was the lack of experience among junior commanders to lead integrated formations. It should be noted, however, that Smolensk, as observed by Soviet Marshal Alexander Vasilevskii, did ultimately provide a source of much needed combat experience for future veterans.

Despite ever-shortening logistical lines, difficulties in Soviet military production combined with massive losses since the invasion diminished, during this time, the general availability of weapons and equipment, reducing their capacity to function as a combined army. General Andrei Eremenko recalled this when noted that:

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“All the general armies of the first echelon along the Western Front were of satisfactory strength with 8 to 10 thousand men per division. However, there was a distinct shortage of mortars, 76mm guns, and 122mm howitzers. The anti-tank weapons consisted chiefly of 45mm guns.”

**Surprise** does not appear to have been attained from the outset of the first counterstroke. Given the intensity of the fighting between the Third and Second Panzer Groups in trying to close the ring around Smolensk, achieving ***surprise*** against those forces would have been extremely difficult at best. That the operational groups stood directly across the most active combat sectors of the front did not present favorable conditions for surprise. Groups situated on the extreme flanks, such as Maslennikov’s, may have been able to venture into the ***depth*** of the Army Group Center’s rear to ***surprise*** enemy forces. It was, after all, an ideal area to launch an attack in ***depth***. Yet, even with the advantage of surprise, its lack of size in armored ***mobility*** and fire support precluded it from performing this mission successfully. Even if it had been able to employ ***surprise*** to maximum effect, its limited number of forces would not have been sufficient to transform those tactical gains into operational success. Furthermore, as the last operational group to attack (29 July), Maslennikov’s late timing, along with the varied schedules of other groups, voided any possibility of utilizing the element of ***surprise***.

It has been said that the Germans were indeed surprised by the appearance of a third echelon of forces; this ***surprise*** was made worse when the outermost forces of both Panzer Groups encountered them when they were at their weakest. Though not as powerful as the armies which fought the

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213 *Sbornik boevikh dokumentov Velikoi Otechestvennoi voiny, vypusk 1* [Collection of Combat Documents for the Great Patriotic War, Issue 1], (Moskva: Voennoe izdatel’stvo ministerstva obrony soiuza SSR, 1947), 5-12.
214 Ibid.
215 Ibid.
216 *Istoriia Velikoi Otechestvennoi voiny Sovetskogo Soiuza 1941-1945, tom vtoroi, Otrazhenie sovetskim narodom verolomnogo napadenia fashistskoi Germanii na SSSR. Sozdanie uslovi dlia korennogo pereloma v voine* (iiun’ 1941 g. — noyabr’ 1942 g.), *The History of the Great Patriotic War of the Soviet Union 1941-1945, Volume Two*, The
Wehrmacht along the Dnepr and Dvina Rivers during the second week of July, the appearance of Timoshenko’s operational groups did raise considerable alarm among German military leaders. This discovery was preceded by the belief that Barbarossa was entering its concluding stages. Colonel-General Franz Halder, Chief of the German General Staff, noted in his war dairy on 11 July that the war was over:

“Under these circumstances, it is clear that the front, which also has no more reserves left, cannot hold much longer, despite the attempt to give that front apparently at least a backbone of energetic leadership...”

Subsequent events, of course, showed this to have been a mistaken presumption. Given the apparently unstoppable success of Wehrmacht forces, with its capture of most of European Russia and the enormous losses suffered by the Red Army, Halder could hardly be blamed for arriving at this conclusion. To his defense, it must be said that Halder did, in fact, express concerns over the capabilities of Russian armored forces and their potential for mounting successful operational offensives. But as the war was to later show, the belief in Soviet Russia’s imminent capitulation after Smolensk was proven to be premature. And while the appearance of Soviet forces slated for the counterstroke may have surprised the Germans to some degree, Red Army leaders, for reasons already given above, were not able exploit the element of surprise to any operational advantage.

Given that most of Timoshenko’s forces were stopped long before reaching their objectives, it became evident that operational tempo had not been achieved. Throughout the entire period of the

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217 Ibid.
219 Ibid.
first counterstroke, little positional advantage was gained in the limited advances made by the various groupings. Despite profound exhaustion and heavy casualties suffered by Wehrmacht troops, the Red Army was, for the most part, fully contained, a state Tukhachevsky and Triandafillov warned of in their prophetic writings regarding the importance of operational tempo. The lack of long-range mobile forces capable of penetrating into the enemy depth denied Soviet forces room to maneuver. This prevented exploitation of objectives critical to the survival and success of either German Panzer Group. Slow moving infantry, making up the bulk of the Soviet groupings, were relied upon to provide the offensive dynamism needed to maintain operational tempo. Such a woeful misuse of infantry in the absence of fast-moving mobile groups cut short the possibility of creating and sustaining any kind of momentum. In the absence of large mobile tank groups capable of striking far into the interior of the enemy depth, prospects for using infantry to consolidate gains made by the tank forces was lost. Moreover, by employing infantry as the primary striking arm for conducting offensives—characterized by broad frontal attacks—Timoshenko’s counterstroke then became not an example of operational art, but a fruitless reversion to tactics of the First World War.

We should also consider Timoshenko’s lack of reserves. To initiate and maintain operational tempo, large reserves of manpower and materiel were needed to sustain the momentum of advancing echelons moving into the interior of the enemy depth. All reserves of the Reserve Front, prior to the first counteroffensive, went directly to the Western Front’s operational groups. In a directive issued on 20 July, Zhukov authorized the transfer of all four armies of the Stavka Reserve Front to the Western Front, to flesh out the operational groups slated for the counteroffensive. Hence, most of the armies of the operational groupings were not remnants of battle-tested formations that were used as the nucleus for new formations to join. Rather, they consisted of reserves normally held for other armies in need of
refit and replenishment. The use of such reserves, composed entirely of fresh conscripts and untrained recruits, made the prospect of success against hardened veterans of the Wehrmacht unlikely.\textsuperscript{220}

The issue of \textit{mass} as a factor in offensives of operational scale is also noteworthy when considering the first Smolensk offensive. Our recall of the 1936 Regulations reminds us that the purpose of artillery and armored forces were to serve the needs of the infantry by providing fire support \textit{en masse}.\textsuperscript{221} Tank forces, in particular, were singled out to be employed \textit{en masse}.\textsuperscript{222} As noted above, many of the tanks available for the first counterstroke were stark in their qualitative inadequacy for participating in offensives of operational \textit{depth}. The technical limitations associated with obsolescent armored vehicles, like the T-26, did much to negate the value of \textit{mass} to the Smolensk counteroffensive.

It appeared that there were indeed some tanks available at the outset of the counter offensive on 20 July, but after the catastrophic border battles, the Red Army lacked any real combat capability for deep operations. The 101\textsuperscript{st} Tank Division, for instance, lost 140 tanks from 18-21 July while fighting under Group Yartsevo. By 21 July, it only had 77 tanks at its disposal, including 70 T-26 and BTs and 7 KVs. After 1 August, it fought as infantry.\textsuperscript{223} On 14 July, Group Kachalov’s 104\textsuperscript{th} Tank Division fielded 208 tanks, which consisted of 50 BT-7, 19 BT-5, 3 BT-3, and 136 T-26 light tanks. It added 30 T-34 and 12 KV tanks on 20 July. On 1 August it escaped from encirclement from Roslavl with 5 T-34 and 2 BT-7s.\textsuperscript{224} The 107\textsuperscript{th} Tank Division (formerly the 96\textsuperscript{th} Motorized Division) on 20 July possessed 200 tanks in support

\begin{thebibliography}{9}
\bibitem{220} Glantz, \textit{Barbarossa Derailed}, 196-197.
\bibitem{221} PU-36, Section 302.
\bibitem{222} PU-36, Section 7.
\bibitem{224} Ibid, 638; On 27 July, Halder also observed that some Russian troops fighting from the direction of Roslavl were thrown into battle without rifles, \textit{The Private War Journal of Generalobserbt Franz Halder, Chief of the General Staff, Supreme Command of the German Army (OKH), 14 August 1939 to 24 September 194}, excerpted, 276. Retrieved from http://militera.lib.ru/db/0/pdf/halder_eng6.pdf
\end{thebibliography}
of 30th Army, but most of these were obsolete models. Nonetheless, these were thrown into battle, which predictably resulted in their complete loss. By late July and early August, the 107th Tank Division fought as infantry.

During those periods when the Red Army did have sufficient numbers of tanks (such as the 5th and 7th Mechanized Corps at Lepel in early July), they failed to properly employ them, losing most to German aircraft (JU-87 Stuka attacks), anti-tank guns, artillery, and infantry weapons. The cavalry, which lacked staying power, was not able to get into the German rear.

The element of shock was certainly not absent during attacks conducted by Timoshenko’s operational groupings. The spectacular performance of the new Katyusha multiple rocket batteries in delivering devastating destruction upon German forces summoned considerable praise by the highest levels of Red Army leadership. But the use of this fantastic weapon was used by the Soviet’s 20th Army, a formation residing within encircled Smolensk, to support forces defending the city. Originally designed to operate in support of offensive operations, the application of this rocket artillery system for defensive purposes demonstrated, once more, that such a powerful weapon would have been best used had it supported large tank forces attempting to breakthrough weak sectors of the enemy front. To strike so terrible a blow against German forces without following up with massive formations of attacking tanks and infantry merely resulted in the Wehrmacht replacing those losses without losing substantial ground. Shock to a limited extent, was indeed applied, but in the case of 20th Army, it was used only in support of offensive groups attempting to relieve Smolensk. That it did so from within a beleaguered city made it unable to maneuver about the enemy depth. For shock to be of value to

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225 Ibid, 641.
226 Ibid.
operations in depth, planners must ensure that tanks, artillery, air power and other arms provide continuous fire support as they follow attacking (infantry) formations. When combined with mobility and maneuver, shock enables a formation to dictate to the enemy when and where its offensive forces could go.

In addition to artillery, armored formations also played a role in the delivery of shock. Once more, the tanks available during this initial counterstroke did not have the qualitative combat power to take objectives which would place Timoshenko’s operational groupings in a greater positional advantage over German forces. In the face of well-placed anti-tank guns spread throughout those areas occupied both Panzer Groups, the obsolete tank forces unleashed from all groupings ultimately proved inconsequential.

The Red Army Air Force (VVS) at this time was particularly active, making aggressive use of what few fighters and bombers were available. Nonetheless, Luftwaffe pilots were the clear masters of the skies, shooting down numerous Soviet aircraft. The Soviet high command assigned several air divisions to assist with the operational effort. Under conditions of parity, the VVS may have well struck formidable blows in prelude to Timoshenko’s initial counter offensive. But the pervasive dominance of German air power did much to minimize any shock value the VVS was capable of delivering.

In terms of depth, territorial gains achieved from the counterstroke were abysmal. The amount of effort expended—in casualties and loss of materiel—seem comparable to that of the First World War. But we would do well to recall that territorial gain is not the hallmark of operational art, for operational planners must no longer conduct wars of positions, but of maneuver. That all operational groups, save Kachalov’s, were expected to converge at Dukhovshchina as a preceding stage to the rescue of Smolensk

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230 Geoffrey Jukes, *The Defence of Moscow*, 42. Jukes puts the total number of Soviet aircraft available for the Smolensk counter offensive at 153.
revealed this important aspect of operational depth. While its capture would have created an important anchor for an axis north of the city, it would not have significantly impeded Hoth’s ability to move the divisions of his Third Panzer Group about the battlefield. Nor would its seizure have jeopardized his logistical capacity. Had it been successful, German forces would have simply retreated westwards at a much greater speed with their tanks and motorized units than the foot-slogging infantry making up most of the Soviet armies. The capture of Dukhovshchina would not have denied the Germans the capacity to maneuver throughout its own depth, for Maslenikov’s 29th Army and Melnik’s 50th and 53rd Cavalry Divisions could not have prevented Third Panzer Group from moving its divisions to where they were most needed.232

The small territory acquired at such enormous expenditure of blood and loss of materiel was nothing less than appalling in its senseless futility.233 Group Khomenko’s uneven advance ranged from 5-15 km, with those making the least progress facing the sectors of greater resistance.234 Group Kalinin’s clash with the battered, but still formidable 20th Motorized Division led to even less, earning a miserly 2-5 km for its strained efforts.235 Further south, Rokossovskii’s Group stubbornly maintained a stalwart defense against German forces seeking to close the ring around Smolensk, but even with Stavka’s additional armored support, it did not have the wherewithal to following through on orders to first destroy the 7th and 12th Panzer Divisions before participating in the recapture of the city.236 Kachalov’s Group made the most progress, reaching a rail line less than 30 km south of Pochinok before being fully stopped by forces of Guderian’s Second Panzer Group, an area roughly 20 km north of their starting line of departure in Roslavl.237 By the end of July, the Wehrmacht had successfully prevented

234 Glantz, Barbarossa Derailed, 217.
235 Ibid.
236 Rokossovskii, 28.
any of the Soviet formations from penetrating any point on the front. Red Army efforts to reach any part of the enemy depth had failed.

As noted above, the Third and Second Panzer Groups comprised of formations that possessed numerous tanks, mechanized infantry and motorized vehicles. Unlike the bulk of the Soviet operational groupings, which consisted primarily of non-motorized infantry, the German’s highly mobile armored forces, including their motorized infantry components, could move rapidly, covering far greater distances in much less time. Conversely, most Soviet tanks during the first Smolensk counterstroke were assigned as infantry support, forcing them to move slowly alongside escorting foot soldiers. Greater mobility thus placed the Germans at a superior advantage. Much like Red Army doctrine found in the 1936 Regulations, the German Army, too, believed in using large tank forces to move far into the enemy depth, and doing so independently, advancing far ahead while waiting for following infantry to arrive shortly after capturing their assigned objectives. This interim proved a hazardous one as German panzer units were frequently forced to fend off ferocious counterattacks while waiting for following infantry to plod its way to the battle. Yet, with the advantage of mobility, attacking Soviet armies discovered that the Germans were able to seize key positions vital to a defense network and could cut off and encircle groups of Red Army units without proper flank protection. They were also able to suddenly withdraw in the face of a determined attack, only to immediately regroup, a process which they would repeat over and over until momentum for the counteroffensive was deflated.238

The challenge of fighting superior German armored forces was an immensely difficult task for these Soviet mechanized armies. Their mobility was handicapped by the limited number of functioning tanks available, compounded by the obsolescence of such models as the T-26 and BT-series. Without being able to forcefully break through defense lines along important sectors, exploiting objectives within

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the enemy depth was impossible. The battered condition of Timoshenko’s operational groupings after the first counterstroke not only made the prospect of encircling German forces surrounding Smolensk unlikely, but also forfeited any notion of pursuit as an option.

Operation Uranus (19-23 November, 1942)

Disposition of Forces

In a second major effort to deliver a knockout blow to the Soviet Union, Adolf Hitler, on 28 June 1942, initiated Operation Blau. The aim of this summer offensive was to drive the German Army deep into southern Russia, to seize the Baku oil fields in Azerbaijan and, secondly, to capture the city of Stalingrad, a major population center and industrial region lying along the Volga River. Two months later, the forces of Army Group South had reached the environs of Stalingrad, beginning what would become a long and torturous struggle to take the city. By mid-November, a substantial portion of Marshal Friedrich Paulus’ Sixth Army was heavily engaged in fighting with Vasily Chuikov’s 62nd Army within the city. Protection of the Sixth Army’s highly vulnerable northern and southern flanks was entrusted to the armies of Germany’s Eastern European allies, namely Romania.

Guarding the northwest flank of Sixth Army stood the 3rd Romanian Army, led by General Petre Dumitrescu. West of the city resided the rear depth of Sixth Army, with Paulus’ headquarters stationed in Golubinsky, north of Kalach. Shielding it from the south were forces belonging to General Constantin Constantinescu-Claps’ 4th Romanian Army.

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239 Halder, 279.
241 Mihai Filipescu, Reluctant Axis: The Romanian Army in Russia, 1941-1944, (Chapultepec, Guatemala, FTM, 2006).
Facing the 3rd Romanian Army were formations of the Nikolai Vatutin’s Southwestern Front, consisting of the 1st Guards (General D.D. Lelyushenko), 5th Tank (General Pavel L. Romanenko), and 21st Armies (Major-General Ivan M. Christyakov).\(^{242}\)

Arrayed from west of Veshenskaya to east of Elanskaya were the 1st Guards’ 1st, 153rd, 197th, 203rd, 266th, 278th Rifle Divisions. To its left, stretched from west of Ust’Khoperskaya to Khovansky, was the formidable 5th Tank Army, composed of the 14th, 47th, and 50th Guards Rifle Divisions, 119th, 159th, 346th Rifle Divisions, 1st and 26th Tank Corps and 8th Cavalry Corps. From south of Serafimovich to Podnizhny-Kletskaya were 21st Army’s 63rd, 76th, 96th, 277th, 293rd, 333rd Rifle Divisions, 4th Tank Corps and 3rd Guards Cavalry Corps. Southwestern Front’s aerial support was provided by the 2nd and 17th Air Armies.\(^{243}\)

Located on 6th Army’s northern flank, residing along the southern bank of the river, was the Don Front’s 65th, 24th, and 66th Armies.\(^{244}\)

Situated south of Kremenskaya to Trekhostrovskaya were 65th Army’s (Lieutenant-General Pavel I. Batov) 4th, 27th, 40th Guards Rifle Divisions and 23rd, 24th, 252nd, 258th, 304th, 321st Rifle Divisions. Between Trekhostrovskaya and Kotluban were the 24th Army’s, 16th Tank Corps, 49th Guards Rifle Division, and 84th, 120th, 173rd, 233rd, 260th, 273rd Rifle Divisions, commanded by General Ivan V. Galanin. And from Kotluban to the banks of the Volga were the 64th, 99th, 116th, 226th, 299th, 343rd Rifle Divisions and 58th Tank Brigade belonging to Major-General A.S. Zhadov’s 66th Army. The mission


\(^{244}\) Ibid.
of battling the Luftwaffe in the skies above the Don Front while attacking enemy ground forces below was assigned to the aviation forces of 16th Air Army.²⁴⁵

Pinning down Wehrmacht forces west and south of the city was General Andrei Eremenko’s Stalingrad Front. These included the 62nd, 64th, 57th, 51st, and 28th Armies.²⁴⁶

The tenacious 62nd Army, commanded by Vasily Chuikov, had been given the grim and grisly task of holding on to the city of Stalingrad at all costs.²⁴⁷ Made up of a composite units, these included the 13th, 37th, 39th Guards Rifle Divisions, the 45th, 95th, 112th, 138th, 193rd Rifle Divisions, 10th NKVD Division, 42nd, 115th, 124th 149th, 160th Special Brigades, 92nd Marine Infantry Brigade, and the 84th, 137th, 189th Tank Brigades.²⁴⁸ Guarding the left bank of the Volga bend south of the city were the formations of General Shumilov’s 64th Army: 36th Guards Rifle Division, 29th, 38th, 157th, 204th Rifle Divisions, 154th Marine Infantry Brigade, 66th, 93rd, 96th, 97th Special Brigades, and the 13th and 56th Tank brigades.²⁴⁹ Respectively stationed west of Kirova and Kirova proper were the 169th and 422th Rifle Divisions of Major-General Fedor Tolbukhin’s 57th Army.²⁵⁰ Also attached were units belonging to the 143rd Special Brigade, 90th and 235th Tank Brigades, and 13th Mechanized Corps (T.I. Tanashchishin). Facing the Romanian 6th Corps was Major-General Nikolai I. Trufanov’s single 15th Guards Rifle Division, whose left flank was guarded by the 4th Mechanized Corps and 4th Cavalry Corps.²⁵¹ Much further south, east of Elista, was Lieutenant-General Vasily Gerasimenko’s 28th Army, whose formations consisted of the 34th Guards Rifle Division, 248th Rifle Division, 52nd, 152nd, 159th

²⁴⁵ Ibid.
²⁴⁶ Ibid.
²⁴⁸ Boyevoy sostav Sovetskoy Armii.
²⁴⁹ Ibid.
²⁵⁰ Ibid.
²⁵¹ Ibid.
Special Brigades and 6th Guards Tank Brigade. Air forces above Stalingrad and its environs was the responsibility of the 8th Air Army.

The Plan

Originally conceived by Georgi Zhukov in late September, plans to trap the Sixth Army at Stalingrad underwent numerous revisions. Though complex in its planning, the goal of Operation Uranus was simple. The purpose was to unleash a large scale offensive that resulted in the encirclement of the German Sixth Army besieging Stalingrad.

Initial concerns over the diminishing strengths of the many rifle divisions fighting under the Southwestern, Don, and Stalingrad Fronts led to some skepticism over where or not such a plan was feasible. However, Soviet recovery in industrial production by early 1942, combined with careful husbanding of troops and resources, inevitably led to the gradual replenishment and reorganization of these forces, doing much to assuage the concerns of the high command.

It was finally decided that on 19 November, forces of the Southwestern and Don Fronts would attack and destroy the 3rd Romanian Army, and once having done so, to continue eastward, striking deeply into the rear of Sixth Army, with all armies converging at Kalach-on-the-Don. The 1st Guards Army was to strike south, which, when formed along with elements of 5th Tank Army, would secure the right flank of offensive forces moving towards Kalach. 5th Tank and 21st Armies were to form the main

252 Ibid.
253 Ibid.
255 Ibid.
256 Ibid.
259 Ibid.
spearhead of the attack. Though armies of the Don and Stalingrad Fronts would initiate offensives of lesser strength, they would to tie down large numbers of German troops, which would be sorely needed to bolster sectors threatened by incoming forces of the incoming Southwestern Front. For its part, the 62nd Army, of course, was to prevent as many German divisions occupying Stalingrad from disengaging. Further south, the 64th and 57th Armies would attack the following day, with the aim of linking up at Kalach once having dispatched the 4th Romanian Army. To prevent outside German reinforcements from breaking the encirclement, 51st Army would battle through the 4th Romanian Army, to make its way toward Kotelnikovo.

Assessment

The success of Plan Uranus was one that took Soviet planners by surprise. Based on reconnaissance data, it was originally thought that 85-90,000 enemy troops had been caught inside the kessel. Only when it was finally understood that over 250,000 German troops were actually trapped in the Stalingrad pocket did the true operational-strategic value of Uranus become evident. This number swelled even higher when accounting for retreating allied troops, as well as substantial numbers of Hilfswilligers (Hiwis, or Russian volunteers in German service). In addition to prisoners, the Red Army also captured 100 tanks, 2000 guns, and 10,000 trucks.

Among the most identifiable reasons for Uranus’ outcome was the simultaneous employment of the many armies used in its execution. Selected to lead the breakthrough against the defenses of

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260 Ibid.
261 Ibid.
262 Rokossovskii, A Soldier’s Duty, 91-119; Vasily Chuikov, From Stalingrad to Berlin, 8-335.
263 Andrei I. Eremenko, Stalingrad, 325-386.
264 Ibid, 388.
265 John Andreas Olsen, Martin van Creveld et.al, The Evolution of Operational Art: From Napoleon to the Present, (Oxford University Press, 2010), 77-78.
266 John Erickson, The Road to Stalingrad, (London: Cassell, 1975), 470.
267 Ibid.
268 Ibid.
the 3rd Romanian Army, the Soviet 1st Guards, 5th Tank, and 21st Armies of the Southwestern Front numbered over 398,100 troops, 2,705 field guns, 5,582 mortars, 218 rocket artillery, and 721 tanks. Massed along an attack front of 32 km, these three armies struck south-southeast and then east, to push through to Kalach. In the interim, Rokossovskii’s Don Front committed to an offensive that kept occupied the comparatively weaker forces of Sixth Army’s 11th, 8th, and 19th Corps. This, in effect, held down over 75,000 German troops, preventing many from being transferred to contain the incoming attack forces of the Southwestern Front. While not as strong as Southwestern Front in terms of armor, the Don Front did have approximately 100 tanks, but more importantly, it possessed over 53 artillery regiments, which included large stocks of 120mm mortars, Katyusha rockets, and heavy field guns. In total, the Don Front contained over 284,373 troops, 2,138 field guns, 4,168 mortars, 194 rocket artillery, and 354 tanks. Attacking along a narrow 10.5 km sector, these forces ultimately proved successful in pushing German forces into the Stalingrad pocket. During this time, Chuikov’s 62nd Army continued its efforts to pin down in Stalingrad as many enemy divisions as possible.

On 20 November, residing just south of the city, the armies of the Stalingrad Front struck westward, to link up with forces of the Southwestern and Don Fronts at Kalach. With over 225 tanks at its disposal, 57th Army reached this objective in good time, with 64th Army moving up to secure its right flank. Including reserves, the strength of the Stalingrad Front, in toto, amounted to over 367,943 troops, 2,197 field guns, 4,223 mortars, 53 rocket artillery, and 575 tanks.

As the 1936 Red Army Field Regulations noted, simultaneity was a principle of importance in operations involving the encirclement and destruction of large enemy forces. Attacking from as many positions possible across hundreds of kilometers required having sufficient numbers of troops, tanks,

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269 Isaev, Table 15.
270 Ibid, para. 32.
271 Ibid, Table 16.
272 Ibid, Table 17.
273 PU-36, Section 9.
artillery, and air forces. As shown above, with over 1 million troops, 13,541 guns, 894 tanks, and 1,115 aircraft assigned to Uranus, it was evident that all three Soviet Fronts possessed more than adequate strength to achieve simultaneity.274

The overwhelming force brought to bear upon the Romanians and German Armies summons to mind Tukhachevsky’s belief that simultaneity was achieved when one was in maximum contact with the enemy.275 That nearly all enemy forces were confronted and eventually corralled into the Stalingrad pocket certainly demonstrated this.

The timing of both offensives upon the north and south flanks of Sixth Army within one day of the other ensured that operational simultaneity was maintained. Further delay of any operational grouping, especially at the Front-level, may have resulted in a less favorable outcome for the Red Army.

It also interesting to note that, unlike the first Smolensk counterstroke, the armies involved in Uranus did not send their units into battle in piecemeal fashion. When the 5th Tank Army struck southward, becoming the lead formation to breakthrough, it did so in unison with forces of the 1st Guards and 21st Armies on its flanks. Alongside them were neighboring forces of the Don Front, whose 65th, 24th and 66th Armies held down weaker, but large numbers of German troops stationed on the Sixth Army’s northern periphery. By attacking in simultaneity with Southwestern Front, Don Front denied those Wehrmacht forces room to maneuver its troops to threatened sectors. Much the same can be said of 64th Army as it assisted 57th Army’s efforts to reach Kalach.

The simultaneous execution of all three Fronts did more than batter the Axis armies into encirclement; it concurrently created a strong defensive line—composed of 1st Guards Army, elements of 5th Tank Army, and 51st Army—that would formed an outer ring, to thwart any effort by outside

274 Erickson, 462.
forces to rescue German forces trapped in the Stalingrad pocket. In so doing, this prevented the possibility of Red Army breakthrough formations from becoming encircled themselves.²⁷⁶

We should remember that it was not only the simultaneity of Uranus’ execution that rendered it so wondrously effective; its success can also be attributed to the use of combined armies.

The integration of artillery, tanks, infantry, and air forces among Soviet armies throughout Operation Uranus made evident the Red Army’s continuing belief in the use of combined arms. Prior to initiating the operation, Red Army leaders felt confident that the difficulties associated with coordinating combined-arms arms were finally overcome. In his final appraisal to Stalin regarding the prospects of Uranus, Marshal Georgi Zhukov, on 11 November, wrote:

“Orders and assignments issued to all command staff down to regimental level are not only well and correctly understood but have also been worked out in practical terms on the spot. All questions of cooperation of infantry, armour, and artillery have been well worked out down to regimental level. Special attention has been paid to the problems of the tank, mechanized, and cavalry corps.”²⁷⁷

The success of Uranus demonstrated that Red Army leaders had finally resolved the issues related the organization and development of combined-arms formations. As noted earlier, due to its large size and overwhelming emphasis on tanks, the combat performance of the mechanized corps at the outset of the war proved woefully inadequate when facing German armored forces which encompassed a better balance of arms among its formations. To become more effective, formations had to be organized for specific operational missions. By November 1942, the Red Army had finally imposed the needed reforms to accomplish just that.²⁷⁸

²⁷⁶ Erickson, 458-459.
²⁷⁷ Erickson, 459.
²⁷⁸ Glantz, Stumbling Colossus, 225.
The Southwestern Front’s 5th Tank Army, for instance, reflected those changes. 1st and 26th Tank Corps were each composed of three tank brigades, one motorized infantry brigade, and a Guards mortar (rocket artillery) battalion. This new organization made the tank armies much easier to control and more mobile, making them well-suited for breakthroughs and thus ideal for operations in depth.

Preceding the 1st and 26th Tank Corps of 5th Tank Army was the first echelon of attacking rifle divisions. Their operational purpose was to breach enemy defenses in order to facilitate penetration by the tank corps in the following second echelon. This is precisely what occurred when the 228th, 119th, 124th, and 210th Rifle and the 14th and 47th Guards Rifle Divisions attacked the defenses of the Romanian’s 9th and 14th Infantry Divisions. Though they did not have as heavy a compliment of tanks as the tank corps of breakthrough formations, these rifle divisions, nonetheless, possessed an impressive balance of arms and support services. Each included one tank battalion, three infantry regiments, one artillery regiment (which also included a flak platoon), one antitank battalion, one pioneer (engineer) battalion, as well as other services. Unlike armored units of the tank corps—which were designed to penetrate into the furthest reaches of the enemy depth as quickly as possible—tank forces assigned to rifle divisions served primarily as infantry support units, moving alongside troops during the attack.

The success of Uranus was to show that Red Army leaders finally understood that to exploit the full potential of combined-arms armies, they had to be remain flexible in their organization. Rather than adhering to a rigidly prescribed format, the size and strength of formations were instead determined by the specific requirements of the operational mission.279

The use of strategic surprise was also put to good effect at the outset of Uranus. Stavka had done well to conceal the assembly of large forces in preparation for the offensive. On 23 October 1942,

279 Erickson, 458-459.
Generaloberst Kurt Zeitzler, Hitler’s Chief of the Army General Staff (Halder’s replacement), reported that:

“...the Russians no longer had any reserves worth mentioning and are not capable of launching a large-scale offensive. In forming any appreciation of enemy intentions, this basic fact must be taken into consideration.”

However, conditions around Stalingrad made deception operations an arduous task. For one, the open steppe offered little cover or concealment. Secondly, only one rail line serviced the Southwestern and Don Fronts and this was frequently monitored under the surveilling eyes of German aerial reconnaissance.

It has been argued that the Germans were never truly surprised, but fully expected a major strike into Sixth Army’s northern flank. As one author observes:

“...German optimism and even overconfidence tended to distract intelligence officers from the actual evidence. German intelligence reports in the last week “indicated that the build-up opposite Army Group ‘B’ was limited to the Serafimovich bridgehead opposite Rumanian Third Army.”

Moreover, on 29 October, Romanian reconnaissance units reported a conspicuous increase in crossings over the Don River. This was further validated by statements made by deserters under interrogation. Heavy reconnaissance activity by Soviet forces also revealed that preparations for a major offensive were underway. Such observations were taken seriously by the German High Command. Long before this, it was obvious to most—including Hitler—that Sixth Army was in a

280 Glantz, Soviet Military Deception, 117.
281 Ibid, 116-117.
283 Ibid.
precarious position. Though a major effort was expected as early as 6 November, the Eastern Intelligence branch of the OKH, Foreign Armies East (Fremde Heere Ost), reported that local attacks of limited operational value were much more likely to manifest, that the lack of large reserves made a major counteroffensive less probable. 284 This gross underestimation of Soviet forces building up along the Don played well into the Red Army’s program of Maskirovka and its efforts to achieve surprise.

Despite German awareness of military activity along the Don, Maskirovka ultimately proved successful. Movement of forces at night, false radio signals and jamming stations, camouflage discipline, equipment mock-ups, noise, concealment of ammunition and supplies, and many other feints were used by the Russians to distract and mislead the Germans. 285 While Uranus did not achieve total surprise, in terms of operational success, the result was the same as with any operation of comparable size that did.

Another principle contributing to Uranus’s success was tempo. To achieve high tempo, it was clear to planners that Soviet forces would have to move quickly to secure the most advantageous positions within the rear of the enemy depth. Momentum for the offensive had to be continuous; if operational tempo was to be maintained; Soviet forces had to be able to reach their objectives without interruption, despite enemy resistance. Time was a critical factor in the execution of operational tempo. It was not enough to simply arrive at established objectives; forces had to arrive within the prescribed time.

For example, breakthrough forces of the Southwestern Front were able to not only smash through the thin lines of the Romanian Third Army with alarming speed, but were able to secure positions that allowed them to ply the leverage needed to timely conclude the operation. For instance, the seizure of Bokovskaya, Oblivskaya, and Nizhniy Chirskaya by 1st Tank Corps, led by Major-General

Vasily Butkov, did more than enable 5th Army to outflank Dumitrescu’s Army from the west and east; it put it to full flight, lifting it “right off its hinges.” Running parallel to 1st Tank Corps were the tank brigades of Major-General A.G. Rodin’s 26th Tank Corps, which clashed with counterattacking forces from the understrength 1st Romanian Tank Division and depleted forces of the Wehrmacht’s 22nd Panzer Division (48th Corps). Weak resistance by these formations allowed Rodin to achieve his objectives in a timely fashion. By 20 November, he was able to reach Perelazovsky. Two days later, Ostrov was captured. By 23 November, it had finally taken its objective: Kalach. On Rodin’s left were mobile attack formations of Major-General Andrei G. Kravchenko’s 4th Tank Corps. Despite stiff resistance in several sectors of the front, 4th Tank Corps had managed to successfully route the remnants of the Romanian Third Army, pushing it back from Morozovskaya. It then wheeled southeast towards Golubinsky, arriving at the riverside town by the 23rd.

On the Stalingrad Front, 57th Army’s 13th Mechanized Corps (Major-General Trofim I.Tanaschishin) struck towards Kalach on 20 November, crossing the Karpovka River, in an attempt to push through Gavrilovka, 40 km south of the city. On 13th Mechanized Corps’ left flank ran the spearhead of the Stalingrad Front’s breakthrough forces, 51st Army’s 4th Mechanized Corps, commanded by Major-General Vasily T. Volsky. Encountering little opposition neither from General Constantin Constantinescu-Claps’ 4th Romanian Army nor from 4th Panzer Army, Volsky’s forces charged northwest towards Sovietsky, later meeting up with reconnaissance detachments from Rodin’s 26th Tank Corps south of Kalach on 23 November.

What this retelling of Uranus serves to show is that in moving such large Front-level forces into the enemy depth with a speed that brought operational resolution within days after launching the

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286 Erickson, 465.
offensive, the principle of **tempo** was clearly achieved. In this case, it was executed to the highest standard.

As a feature of operational art, the principle of **mass** was certainly well represented during Operation Uranus. The enormous numbers of men, tanks, artillery, aircraft, and other materiel marshaled for Uranus enabled all three Soviet Fronts to project overwhelming power into the **depth** of Sixth Army’s rear.

When accounting for the number of Soviet troops versus German, it appears that the Red Army held the numerical advantage. If we incorporate Germany’s East European allies, we begin to see that both sides were somewhat comparable in size.\(^{289}\) While German personnel in the Stalingrad region numbered roughly 600,000 troops, Romanian forces in total possessed 300,000 men with the Italian Eight Army fielding 100,000.\(^{290}\) This totaled approximately 1 million men, a figure slightly lower than the combined 1,143,500 men of the three Soviet Fronts, including supporting peripheral forces belonging to the Voronezh Front (Soviet 6\(^{th}\) and 2\(^{nd}\) Air Armies).\(^{291}\) The difference between these forces was approximately 143,500 men (the numerical equivalent of one Front-level Army) in favor of the Soviets.

The number of tanks fielded for Uranus was consistent with the 1936 Field Regulations’ call for using armored vehicles en **mass**, for 721 tanks and assault guns were assigned for the offensive.\(^{292}\) Since it would be leading the breakthrough, the Southwestern Front’s 5\(^{th}\) Army received the lion’s share, with 359 tanks as compared to 1\(^{st}\) Guards and 21\(^{st}\) Armies’ respective allotment of 163 and 199.\(^{293}\) This gave the Southwestern Front a ratio of 2.8 to 1 against the combined tanks of the Romanian Third and

\(^{289}\) Glantz, *When Titans Clashed*, 346.
\(^{290}\) Ibid.
\(^{291}\) Krivosheev, 127.
\(^{292}\) PU-36, Section 7.
\(^{293}\) Isaev, Table 15.
German Sixth Armies. On the Don Front, Russian tanks forces were equal to opposing German forces, with 280 tanks each. Though Southwestern Front had the greater number of tanks, the greatest superiority lay with the Stalingrad Front. When pitched against the paltry sum of Paulus’ depleted tank forces, however, Eremenko’s 455 tanks received a ratio of 3.2 to 1.

In line with the Red Army’s field manual’s call for the use of neutralization weapons, superior quantities of heavy mortars, field guns, howitzers and rockets were also present among the many artillery formations of all three Soviet Fronts. The Southwestern Front included 5,888 artillery pieces of various types and calibers while the Don Front and Stalingrad held 4,682 and 4,931; this provided all three Fronts with favorable ratios of 1.4 to 1, 2.4 to 1, and 1.2 to 1, respectively.

As noted in the Regulations, air units were also expected to fully participate in operations. Between the air forces of the Red Army and the Wehrmacht, aircraft numbers were equal, with a slight edge given to the Soviets’ 1,350 warplanes versus the Luftwaffe’s 1,216.

As noted earlier in this paper, sizable numbers of men and materiel did not guarantee victory. Nonetheless, Soviet leaders understood that for their armies to engage in offensives of operational scale, military commanders had to have at their disposal large quantities of manpower, weapons, and equipment. By 1942, when Soviet industry had finally recovered, the introduction of greater quantities of new and more advanced weapons, such as the T-34 medium battle tank, provided a qualitative improvement to Soviet arms. Unlike Smolensk, the combined armies of Uranus would not be

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294 Boyevoy sostav Sovetskoy Armii, Table 6.
295 Ibid.
296 Ibid.
297 PU-36, Section 175.
298 Boyevoy sostav Sovetskoy Armii, Table 6.
299 PU-36, Section 173.
300 Boyevoy sostav Sovetskoy Armii, Table 5.
handicapped by obsolescence. It not only had increased firepower and protection, but much greater mobility to perform the multitude of frontal, flank, and rear maneuvers needed for its many divisions to capture and destroy enemy objectives throughout the Sixth Army’s operational depth.

Moving into the enemy depth also required the ability to deliver shock. The projection of combat power into the German rear by breakthrough forces of the Southwestern Front was formidable. Attacks were concentrated across a 32 km sector, through which rushed the forces of 2 tank corps, supported by 18 rifle divisions, 8 artillery regiments and 2 air armies. With over 700 tanks and nearly 400,000 troops, preceded by massive artillery fire from over 5,800 mortars, field guns, howitzers, rockets, supplemented with aerial bombardment, the level of shock applied to the Third Romanian and German Sixth Armies was more than sufficient in overcoming their tactical defenses. Moreover, in lifting the Romanian Third Army “off its hinges”, it forced many to retreat eastward, to join their neighboring German allies, who too, would join them in a headlong flight towards Stalingrad. Applying such an intense level of shock set in motion the beginning of the Axis Armies’ disintegration. That it maintained that same level of intensity throughout the entire duration of the operation ensured that the forces of the Southwestern Front could maneuver wherever necessary to conclude it.

Striking the weakest flank of Sixth Army with such overwhelming power accentuated the value of operational shock. With few anti-tank weapons above 47mm to destroy incoming Soviet armor, the Romanian Third Army could do little to stop the onslaught. This enabled the forces of Uranus to maintain the initiative throughout its duration. By dictating to Axis forces when and where they could maneuver, Soviet forces were able to ultimately position themselves for encirclement of the Sixth Army and their allies in Stalingrad. Maximizing the value of shock, however, also required effective coordination between the various arms.

Executing offensives depended on the ability of Soviet officers to command and control formations in the field, issuing orders based on the most current and accurate intelligence available. Yet, before operations were initiated, it was important that they were planned carefully. Reliable information on enemy forces, of course, facilitated this. But control of troops at lower-levels by officers with a clear understanding of their missions ultimately determined whether or not operational success was forthcoming.

In an effort to initiate a strategic summer offensive, Hitler, on 28 June 1942, had ordered the division of Army Group South into Army Groups A and B. Group A would strike into the northern Caucasus, primarily to capture the oil fields in Baku. To cover their left flank, Group B, led by Sixth Army, would capture the city of Stalingrad. From this, Soviet military planners recognized an important opportunity to deliver a crippling blow to the Wehrmacht. On 6 October, members of Stavka and the Red Army General Staff began formulating a plan for a counter offensive that would eliminate the Army Group B’s most powerful formation: the Sixth Army.

Inspection of friendly forces in the Stalingrad areas, combined with an analysis of battlefield intelligence regarding the enemy’s disposition—drawn from a variety of reconnaissance assets—led Zhukov, Vasilevskii, and commander of Red Army Artillery, Colonel-General Nikolai Voronov to conclude that with sufficient resources, a large strategic operation could be conducted against Sixth Army and part of the 4th Panzer Army.

One of the most important observations made by Red Army planners was the presence of weak Romanian forces covering the flanks of Sixth Army and the lack of reserves behind them. As

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304 Ibid.
305 Ibid.
306 A.M. Vasilievskii, “Nezabyvaemye Dni” [Unforgettable Days], VIZh, No.10 (October 1965), 8.
mentioned previously, Zhukov and members of the General Staff initially underestimated the actual number of German troops and their allies at Stalingrad. Nonetheless, Soviet reconnaissance provided a sufficient assessment on the disposition of Axis forces. This data ultimately proved reliable enough to plan an operation that—with sufficient strength and creative effort—would hold a reasonable chance of success of capturing an entire German Army.\textsuperscript{307}

Even during successful operations, the \textit{control} of troops was an arduous task. In his memoirs, Marshal Zhukov noted that the operational success of Uranus was greatly dependent on the initiative of officers who not only clearly understood their tactical missions and its relationship to the ‘main direction’, but had the foresight to proactively deal with difficulties likely to arise when carrying them out.\textsuperscript{308}

As was observed years before by Tukhachevsky, communication among armies became increasingly difficult when spread across a large area. In compliance with the 1936 Regulations, breakthrough forces of the Southwestern Front were concentrated over a very narrow attack sector.\textsuperscript{309} This, of course, facilitated communication between formations. Moreover, thorough knowledge of the location and progress of neighboring armies by field and staff commanders also contributed to the effectiveness of their coordination and \textit{control}.\textsuperscript{310}

The 1936 Regulations mandated that staff and field officers position their command posts as far forward as possible, to monitor a given formation’s progress and to ensure that orders were understood and carried out in accordance to the assigned mission.\textsuperscript{311} During Uranus, many staff and field

\textsuperscript{307} Ibid; Zhukov, \textit{Reminiscences}, 119-120.
\textsuperscript{308} Ibid; See also PU-36, Section 128.
\textsuperscript{309} PU-36, Section 107.
\textsuperscript{310} PU-36, Section 124.
\textsuperscript{311} PU-36, Sections 108, 131, 133.
commanders made it common practice to establish and visit command posts in forward positions during battle.\footnote{Erickson, 394-475.}

Another outstanding feature that highlighted Uranus was the Red Army’s ability to achieve operational \textit{depth}. That the offensive forces of the Southwestern Front were able to smash their way 140 km into the rear of Sixth Army within three days truly illustrated the importance Soviet military leaders held for the principle of \textit{depth} in operational planning. Under combat conditions, Russian infantry, on average, moved at around 20-25 km per day. The daily rate of advance among armored units was roughly double that, at 40-45 km. Forces of the Don Front moved at a slower rate, with rifle divisions of the 65\textsuperscript{th} and 24\textsuperscript{th} Armies averaging 15-20 km and 8-10 km per day, respectively; accompanying tank forces among these infantry formations moved at the same rate. The Stalingrad Front proceeded as the slowest of the three Fronts. For the 64\textsuperscript{th}, 57\textsuperscript{th}, and 51\textsuperscript{st} Armies, the rate of advance was approximately 5-8 km, 8-12 km, and 10-15 km per day.

To give further context to the varying rates of advance by the aforementioned forces, it would help to account for not only the distance into the enemy \textit{depth} that was achieved, but also the duration and final destination to each objective assigned.

As the primary breakthrough force for Uranus, the Southwestern Front had the greatest amount of ground to cover to reach Kalach, its final objective. This distance had to be covered in only 3 days. Moreover, coordinating the movement of nearly 400,000 troops and their accompanying weapons and equipment within a 10 km width for three days over 140 km to their correct objective while vanquishing enemy forces along the way was indeed a remarkable feat.

The neighboring armies of the Don Front had much less distance to cover, but also a much smaller area to operate within. Whereas the 65\textsuperscript{th} Army had—in simultaneous movement with 24\textsuperscript{th}
Army—to traverse 60 km to reach Golubinskaya, the latter had only 20 km, since its starting deployment was much closer to its objective.

On the Stalingrad Front, the 64th, 57th, and 51st Armies were spread out at over 40 km, the largest width of attack coverage of all three Fronts. But with the least amount of resistance encountered, these forces were able to maintain a pace which allowed them to reach their respective objectives by the 23 November deadline. Since 64th Army was assigned the mission of securing the southern sector of Stalingrad, due south of the city, it had the shortest route. Out of all three armies, it was closest to the more powerful formations stationed in Stalingrad, and thus experienced the most resistance. On its left flank, Tolbuhin’s 57th Army dashed towards the southern environs of Kalach, making 50 km within 2 days while Trufanov’s 51st Army covered 90 km to Kotelnikovo within the same time.

Covering the vast distances needed to complete Uranus required that Soviet armies move with considerable mobility. The presence of mechanized forces among armies of the three Fronts was much greater than that seen during the first Smolensk Counterstroke. Moreover, Red Army forces would not be handicapped by obligatory use of obsolete T-26 and BT-series tanks. Nor would mobility of Soviet artillery also be limited to using horses when maneuvering about the battlefield. The recovery of Soviet industrial production in early 1942, along with assistance provided by the Western powers’ Lend-Lease aid program, introduced to the Red Army a greater degree of mobility than that witnessed during the Smolensk counteroffensive in 1941. In addition to tanks, the Red Army also marshaled large numbers of motorized transport, some of which included sizable stocks of American-made Studebaker trucks.

It should be noted that the technical improvements in the design and performance of the T-34 medium tank contributed enormously to the combat capabilities of the Red Army’s armored forces. In addition to its firepower and protection, the T-34’s wider tracks and powerful V12 500 horsepower engine gave it the advantage of negotiating its way through the deep mud and snow, a feat only done
with extreme difficulty by German tanks. Under ideal road conditions, T-26 tanks could move over at a top speed of 30 km per hour. But the T-34 Models 1942 and 1943 were able to achieve a maximum of 55 km per hour, even under less than suitable conditions. As Uranus demonstrated, the T-34 proved far more reliable than the T-26 for operational missions dependent on highly mobile forces.

In addition the T-34 tank and other domestically-produced transport vehicles, over 27,000 Lend-Lease trucks were used by the Red Army in preparation for Uranus. While large-scale deliveries of Lend-Lease vehicles to Soviet Russia were not fully underway until 1943, substantial numbers of Lend-Lease trucks, jeeps, and other transport vehicles did indeed arrive. By the end of 1942, Allied Lend-Lease shipments managed to deliver to the Soviet Union 9,600 towing vehicles (e.g. Studebaker, GM, Chevrolet), 17,400 trucks (Ford-6, Dodge 1.5 ton, Bedford), 5,900 Light vehicles (Willis, Bantam), totaling over 32,500 vehicles. As Stalin was to observe, nearly all rocket artillery systems, such as the famous rail-mounted BM13 Katyushas, were carried on the backs of American Studebakers.

The cross-country performance of these vehicles immensely contributed to the mobility of the Red Army. Moreover, in following the Red Army’s highly mobile tank forces into the depth of enemy defenses, transport vehicles, like the Studebaker and Dodge, not only facilitated continuation of fire support, but ferried food, fuel, ammunition, spare parts, and other cargo needed to maintain an offensive.
With **mobility** also came the ability of Soviet armies to conduct operational **pursuit**. **Pursuit** commenced soon after the breakthrough armies of the Southwestern Front smashed through weak Romanian forces. After a horrific eighty minute artillery bombardment from Voronov’s Katyusha rockets and artillery guns, surviving remnants of the Romanian Third Army could do little to stop 5th Tank Army’s **mass** of hard charging T-34 tanks. From its right flank, it was hammered by strong armored forces belonging to the 21st Army’s 4th Tank Corps. For a very brief time, the Romanians did manage to hold.\(^{320}\) However, once Soviet tanks and cavalry broke through into the rear areas, destroying command posts, capturing communication centers, seizing supply depots, and preventing reserves from moving forward, the entire Romanian Third Army quickly disintegrated.\(^{321}\) While panicked Romanians troops scattered in a multitude of directions, many headed eastward, towards the false safety of Stalingrad.\(^{322}\)

The practice of combined **pursuit** was vividly seen when columns of Soviet tanks forces from the various armies of the Southwestern Front pursued the fleeing remnants of Third Army by racing alongside their flanks and into areas of the rear which allowed them to block those seeking to escape. Attacking from behind, maintaining steady pressure upon the retreating Romanians were following Red Army rifle divisions.

Moving southeasterly towards Kalach were the rushing tank columns from 1st, 26th, and 4th Tank Corps. Covering the extreme left flank of the 1st Tank Corp were the forces of the Soviet 8th Cavalry Corps. To the far right of 4th Tank Corps were the Red Army horsemen of the 3rd Guards Cavalry Corps. Surviving troops from the Romanian Third Army’s 1st Cavalry, 5th, 6th, 7th, 9th, 11th, 13th and 14th Infantry Divisions (including 7th Cavalry and 15th Infantry Divisions in reserve) initially found themselves surrounded on their lateral flanks. In the course of retreating, many of these divisions scattered, but

\(^{320}\) Beevor, 240-241.  
quickly found their routes of escape blocked in nearly every direction. Aggressively moving at a respectable pace along the width of 5th Tank Army’s route of advance were infantry formations belonging to 14th and 47th Guard Rifle Divisions and 119th and 124th Rifle Divisions. With Soviet infantry quickly closing in from behind, fleeing units from the Romanian 2nd, 5th, and 6th Corps were subjected to constant and sustained pressure, as they were pushed further east towards Stalingrad. By 20 November, many would never make it that far, for just east of the Romanians, Soviet forces of the 65th and 24th Armies had moved south to confront Sixth Army’s 376th, 44th, 384th Infantry Divisions under General Karl Strecker’s 11th Army Corps.

To the south of Stalingrad, operational pursuit also worked to the benefit of the Red Army. As already noted, the 64th, 57th and 51st Armies attacked the divisions of the 4th Panzer and Fourth Romanian Armies. Fighting in a northwesterly direction, the combined might of 64th and 57th Armies proved successful in pushing the severely weakened units of the German 4th Panzer Army into the southern environs of Stalingrad. With 64th Army’s capture of Veketovka and 57th Army’s occupation of Kalach and Sovietsky, the southern area of the Stalingrad encirclement was locked shut. This was, more or less, accomplished by direct frontal attacks against the German 371st and 297th Infantry Divisions and the 20th and 29th Motorized Infantry Divisions. Assisting Soviet infantry with flanking attacks were tanks from the 4th and 13th Mechanized Corps. Like their brethren further north, the Romanian Fourth Army endured the brunt of the Soviet’s southern pincer. And though they too—with the assistance of their German allies—managed to exact a heavy toll on attacking Soviet tanks, they were eventually overwhelmed with frontal, flanking and rear attacks by surrounding Red Army forces. Within several days, the Fourth Army was effectively destroyed, with only the Romanian 2nd and 18th Infantry Divisions surviving to find temporary refuge in Stalingrad. In having dispatched these forces into the city’s southern environs, the pursuing forces of the Stalingrad Front were able to prepare for the next stage of operations: the elimination of the Stalingrad pocket.
Chapter Four

A Comparison between German and Soviet Military Doctrine

After having identified and discussed the ten principles of Soviet operational art while highlighting them against the background of the Smolensk and Stalingrad operations, it would seem appropriate to look at the similarities and differences between German and Soviet military doctrine. A comparative reading of the German Army’s field manual, the Truppenführung (Troop Command), and the Red Army’s Polevyye Ustav, revealed that the two doctrines bore an uncanny similarity to one another. Differing in terms of written style and format, both manuals, however, demonstrated a startling resemblance in their recognition and emphasis of the very same ten theoretical principles comprising operational art. Moreover, each also recognized the Clausewitzean notion of annihilation as the driving goal behind every offensive operation. While differences between these two doctrines will be noted, we should also endeavor to understand their similarity.

The Truppenführung was first published in 1933 under the German title ‘Heeresdienstvorschrift 300’ (Military Regulations 300). It was issued to all commissioned and non-commissioned officers and contained the basic military doctrine of the German Army. It comprised of two main sections: the first was published in 1933, the second introduced the following year. Whereas part one focused on guiding procedures and other practical aspects of governing field armies in war, part two emphasized the supporting roles played by other services, which included commanding armored combat vehicles, air forces, air defense, signals, engineers, transportation, and logistical. Though key concepts were written in a different order than the Soviet manual, the principles of operational art underpinning German military doctrine were found to be nearly identical.
**Simultaneity** was certainly an underlying principle of the Truppenführung. As the following excerpts reveal, both manuals made clear the importance of striking the enemy from all sides in unison with adjacent forces, for the ultimate purpose of achieving envelopment:

“A flanking attack (unfassender angriff) is more effective than a frontal attack. The simultaneous attack against both enemy flanks requires great superiority. The envelopment of one or both enemy flanks, reaching deep into his rear, can result in the destruction of the enemy.”

When compared to PU-36, the similarity becomes evident:

“Modern combat materiel makes possible the simultaneous destruction of the enemy at all echelons. There is an increase in the options for reorganization, surprising flank movements, and occupation of areas behind enemy lines with attacks against his escape routes. When the enemy is attacked, he must be surrounded and completely destroyed.”

Both agree that to surround the enemy throughout his depth, attacking forces must do so in a multitude of directions in concurrence with all other forces available.

The use of combined armies when conducting attacks is one given considerable attention in the Truppenführung. How infantry, artillery, tanks, and other arms were to interact during an offensive was addressed at length and in great detail. Before doing so, however, it began by first noting its purpose:

“The objective of **combined arms** elements in an attack is to support the decisive action of the infantry with sufficient firepower and **shock** effect against the enemy. This allows the infantry to break through deeply and to break the enemy resistance decisively...

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323 Truppenführung, Section 316.
324 PU-36, Section 9.
All arms committed to an attack must know each other’s mutual capabilities and limitations. They must maintain close and continuous communications with each other.\(^{325}\)

Let us now recall a similar passage in the Soviet manual:

“...a single assemblage of superior forces and materiel is not sufficient to defeat the enemy. It is mandatory that cooperation be established between all branches of service deployed in the same area and at all echelons; the combat operations of troops in different areas must be coordinated.”\(^{326}\)

It is also understood in both manuals that surprise was key to battlefield success. Surprise is first recognized by the manual within its first pages:

“Surprise is a decisive factor in success. Actions based on surprise are successful only if the enemy is given no time to take effective countermeasures.”\(^{327}\)

Red Army regulations also sanctioned the use of surprise when it declared:

“Surprise paralyzes. That is why all combat actions must be conducted with maximum camouflage and speed. The speed of combat operations, together with appropriate organization, good mobility and good terrain use, while keeping track of enemy air activity, is the basic prerequisite for success in combat.”\(^{328}\)

The Germans, like the Soviets, were also aware that frontal attacks were generally expected by an awaiting defender, especially one who anticipated an upcoming offensive. In such cases, surprise was difficult to achieve. However, as the Truppenführung states, changing conditions during battle could present new opportunities for surprise to be acquired. Flank attacks, for example, could prove

\(^{325}\) Truppenführung, Section 329.  
\(^{326}\) PU-36, Section 4.  
\(^{327}\) Truppenführung, Section 32.  
\(^{328}\) PU-36, Section 6.
devastating if attacking forces suddenly appeared to an enemy who already committed the majority of his forces to dealing with frontal attacks:

“A flank attack follows from a previous approach or from flank marches. It especially is [sic] effective when it hits the enemy by surprise and gives him no chance to take countermeasures. It requires superior mobility and the deception of the enemy at other positions.”329

The following section also goes on to add:

“The conditions for success are: surprise, the deployment of the breakthrough forces in the area where prospects for the attacking infantry are favorable deeper into the enemy’s zone; and strong forces [tanks] to exploit the attack after the breakthrough.”330

In agreement with this, the Soviet manual notes:

“Open flanks and boundary positions are the most vulnerable points of the defense. Open flanks must always be searched for with the purpose of attacking them immediately, since an open flank is only a temporary occurrence.”331

While surprise is viewed as important to penetrating and exploiting enemy defenses, both also realized that such actions were not enough. If the enemy was to be perpetually knocked off balance and made increasingly incapable of dealing with incoming attacking forces, offensive units had to continue maintaining the momentum into the defensive depth, striking at decisive points. In addressing this very problem, the underlying principle of tempo becomes increasingly evident when reading both manuals. For instance, the Truppenführung stated that:

“The main force or mass of munitions must be committed at the decisive point (entscheidende Stelle) [sic]. In envelopment, these forces are deployed on the enveloping wing. Based on the commander’s

329 Truppenführung, Section 318.
330 Ibid, 319.
331 PU-36, Section 73.
intent, the situation, and the terrain, it is at that point that the effect of all arms will be brought to bear to achieve decisive results...

If the decisive point cannot be identified from the start, then the decisive action must be planned in uncertainty and shifted later. If success occurs at a position other than that planned or intended, it must be exploited decisively. Should the point of the main effort or be established later in the action, sufficient reserves must be available. The strong and combined effect of all arms must be focused in the new direction...

As a rule, every attack passes through a series of crises until it reaches the point of culmination. It is critical that the command recognizes this point, and possesses the ability to make a decision to immediately exploit the success with all available means, or to prevent failure.

If the attack starts to stall under its present organization, then it must be revitalized by altering the organization for combat, by committing fresh forces, or by a reorganization of fires. If this cannot be accomplished, then the attack must be suspended, rather than risk the loss of combat power by continuing.

As mentioned earlier in this work, tempo was understood by Soviet theorists as primarily composing of speed, mobility, maneuverability, and the projection of firepower. As the above shows, all these factors were viewed as vital to sustaining an attack in depth.

If there is one principle where German and Russian doctrines may differ, it is that of mass. This difference lies not with the idea of size itself. It is important to bear in mind the restrictions of the Versailles Treaty during the time of the Truppenführung’s publication. Despite the patronage of Germany’s newly-elected chancellor, Adolf Hitler, that same year, the German Reichswehr was forbidden from having more than 100,000 troops (seven infantry and three cavalry divisions).

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332 Truppenführung, Section 323.
333 Ibid, 324.
334 Ibid, 325.
335 1919 Treaty of Versailles, Article 160.
Moreover, the Treaty expressly forbade the armed forces from possessing tanks, armored cars, and other things of ‘similar construction’ which could be construed as having military value.\textsuperscript{336}

The imposition of such stringent restrictions on the German Army likely limited the value of mass as an element of military doctrine in the minds of many theorists, including those who contributed to the Truppenführung. For instance, a reading of the manual’s chapter on armored combat vehicles urges leaders to appreciate the technical capabilities and limitations of tanks when commanding units during an attack. Factors, such as terrain, weather, visibility and other conditions of the battlefield are, of course, discussed. How tank commanders were to account for these conditions while in coordination with infantry, artillery, air forces, and other arms under certain conditions was its main source of concern. Conspicuously absent among the provisions of the manual was anything suggesting the use of tanks in mass formations, such as that noted by the PU-36.\textsuperscript{337}

It has been suggested that German armored doctrine developed from infiltration tactics used by infantry during the First World War, as a means of breaking the deadlock in trench warfare; small groups penetrated through weaker areas of the defense line, bypassing enemy strongpoints in order to surround the enemy and force him into surrender.\textsuperscript{338} However, the early Germany military writings did express a great desire to see large tank formations introduced into the German Army long before the start of the Second World War.\textsuperscript{339} Though experiences of the Great War may have indeed inspired innovative employment of armored forces, large German tank forces were in fact used throughout

\begin{footnotesize}
\begin{itemize}
\item \textsuperscript{336} Ibid, 171.
\item \textsuperscript{337} PU-36, Section 7.
\item \textsuperscript{339} Unsigned, “Die Französischen Tanks im Weltkrieg” (French Tanks in the World War), Militär Wochenblatt, 105:32 (5 February 1921), 700-702; Unsigned, “Kampfwagenausbildung in Russland” (Tank Training in Russia), Militär Wochenblatt, 111:13, (4 October 1926), 444-445; Unsigned, “Infanterie und Kampfwagen auf Grund der Französischen Kampfwagenverwendung (The Basic Employment of French Infantry and Tanks), Militär Wochenblatt, 113:5 (4 August 1928), 175-177; Unsigned, “Revolution des Krieg” (Revolution of War), Militär Wochenblatt, Ernst Volckheim, Die Deutschen Kampfwagen im Weltkrieg” (The German Tank in the World War), E.S. Mittler und Sohn, 1923.
\end{itemize}
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Hitler’s conquest of Europe from 1939 to 1945. The removal of restrictions through Hitler’s abrogation of the Versailles Treaty paved the way for a massive rearmaments drive. This allowed the Panzerwaffe to rise from three panzer divisions in 1935 to thirty-eight by war’s end, representing a substantial economic investment in Germany’s capital expenditures towards the war.\footnote{Adam Tooze, \textit{The Wages of Destruction}, (Viking Penguin: New York, 2006), 441-446.}

Prior to Hitler’s rise in 1933, Reichswehr’s Chief of General Staff, Hans von Seeckt, oversaw a covert rearmament program which fully intended to exploit the qualitative potential of the tank. With Hitler’s patronage, starting in 1935, the publicly promoted expansion of Germany’s armored tanks and vehicles was finally brought to light. And though the Truppenführung did not openly advocate the creation of large tank formations per se, the soaring levels of tank production in German can only be viewed as commensurate with a drive for \textit{mass}.

Like the Soviet regulations, \textit{shock} was also identified by the Truppenführung as another important feature of combat operations. Firepower was strongly associated with the application of \textit{shock} on the battlefield. The Germans, too, understood that the continuous projection of combat power into the \textit{depth} of enemy defenses was central to achieving encirclement and the subsequent annihilation of forces trapped within:

\begin{quote}
“During the execution of the attack fires are increased, tanks and reserves are employed. The choice of the area for decisive action is influenced by the artillery, sometimes by the suitability of the terrain for continued tank operation.”\footnote{Truppenführung, Section 323.}
\end{quote}

The manual further observed:

\begin{quote}
“The advance against the enemy is executed under careful regulation of fire and movement. Elements advancing without cover must not lack fire support.”\footnote{Truppenführung, Section 357.} \end{quote}
And in one of its concluding paragraphs, it further added:

“Penetrations are of smaller or greater extent, depending upon the size of the break through element. The success is exploited in depth. The infantry, reinforced by rearward elements, attacks straight ahead against the hostile strong points and nests. Now the attack resolves itself into individual engagements, ordinarily. Heavy infantry weapons and other rearward elements protect the flanks and rear of the forward elements and are to be kept near. By additional forces from the rear and the forwarding of munitions, the attack is continually strengthened, otherwise our force is soon consumed in the depth of the hostile position. In rapid, powerful utilization of the initial success lies the basis for its enlargement.”

In stating that the ‘attack is continually strengthened’, one may reasonably assume that shock was seen by the manual’s authors as imperative to maintaining the momentum of an offensive within the enemy depth. When compared to those sections of the PU-36 noted earlier in this work, one notices that German and Soviet military leaders shared the same belief in this use of shock in facilitating maneuvers about the battlefield.

Command, control and intelligence were clearly and directly identified by German and Russian doctrines as imperative to the execution of all combat missions and activities. While both lauded such virtues as courage, initiative, and daring as invaluable traits among leaders, they also accounted for qualities much more in keeping with that needed for modern warfare. These included learning how to deal with changing combat conditions. When new tasks were given priority in response to these changes, they were to remain subordinate to the overall objective.

The Truppenführung expressed this when it stated:

“The mission and the situation define the course of action (Grundlage für die Führung).

343 Ibid, Section 363.
344 PU-36, Sections 2, 9, 16, 142, 180, 183, and 194.
The mission dictates the objective. The responsible commander must not lose sight of it. A mission that consists of multiple tasks can easily distract attention from the main objective.

Uncertainty will always be present. It rarely is possible to obtain exact information on the enemy situation. Clarification of the enemy situation is an obvious necessity, but waiting for information in a tense situation is seldom the sign of strong leadership—more often of weakness.”

This is further qualified in the following section:

“The mission (Auftrag) and the situation (Lager) lead to the decision (Entschluss) of the course of action. If the assigned mission no longer suffices as the basis for action, or if it is overtaken by events, the course of action must take these circumstances into account. An officer who changes a mission or does not carry it out must report his actions immediately, and he assumes responsibility for the consequences. He always must act within the overall framework of the situation.

The course of action must designate a clear objective that will be pursued with all determination. It must be executed with the full will of the commander. Victory often is won by the stronger will.

Once a course of action has been initiated it must not be abandoned without overriding reason. In the changing situations of combat, however, inflexibly clinging to a course of action can lead to failure. The art of leadership consists of the timely recognition of circumstances and of the moment when a new decision is required.”

This insistence that military leaders must learn to recognize and respond with force of will to the changes in combat while remaining steadfast to the larger objective is echoed in the PU-36 as well:

“Once he has gained knowledge of the enemy disposition of forces to the extent possible under the circumstances, and has evaluated the conditions for an offensive in the various sectors as determined by the terrain and enemy field fortifications, he decides on the sequence in which the parts of the enemy battle formation are to be

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345 Truppenführung, Section 36.
346 Ibid, Section 37.
attacked. Of great importance to the decision is the condition of the attacking enemy, e.g., whether he is in good condition and able to resist, or whether he is battle-weary, without willpower, etc. Incomplete reporting of the situation does not excuse the commander from the responsibility for timely decisionmaking [sic]. The worst thing one can do is to make no decision at all or to make it too late. A lack of reconnaissance data can force the commander to base his decision about the direction of main effort more on terrain considerations than on the enemy situation. The commander chooses the direction of main effort in such a way that as quickly as possible he comes upon that part of the enemy battle or march formation which he wants to destroy first. This is meant to be the first phase of the enemy's overall defeat.

Once a decision is made, it is executed without deviation.\textsuperscript{347}

The last sentence suggests that the Soviet system of \textbf{command} was something more inflexible than its German counterpart. That Soviet officers were to execute orders ‘without deviation’ certainly placed it in contrast to the German tactic of ‘Auftragstaktik’, a style of command where junior officers were assigned a specific mission and given the necessary men and equipment to achieve it independently. By encouraging them to take the initiative in the planning of a mission while granting them the freedom to carry it out demonstrated that the German system of command held greater flexibility than that exhibited by the Soviet.

The issuance of new orders and assignments is usually due to receipt of new information. As discussed earlier in this work, Soviet commanders utilized a variety of reconnaissance assets as a means of attaining an accurate understanding of the battlefield situation. In many instances, the best decisions rest not only on astute leadership, but on the timely arrival of good \textbf{intelligence} data. The Truppenführung was in full agreement with this. As the forthcoming section show, tactical and operational reconnaissance was viewed by German leaders as a major component to \textbf{command} and \textbf{control} of combined-arms armies, especially during combat conditions:

\textsuperscript{347} PU-36, Section 135.
“Reconnaissance (Aufklärung) should produce a picture of the enemy situation as rapidly, completely, and reliably as possible. The results are the most important basis for the commander’s decisions and the deployment of force.

Reconnaissance, both air and ground, can be either tactical or operational. It can be augmented by special means. 348

Operational reconnaissance (operative Aufklärung) provides the basis for operational decisions. 349

Tactical reconnaissance (taktische Aufklärung) provides the basis of the command and deployment of units. Combat reconnaissance (Gefechtsaufklärung) begins after initial contact with the enemy and provides information for the control of battle. All arms must participate in this process.” 350

Like the Soviets, the Germans also knew the importance of validating reconnaissance data in the effort to create a current overall view of the battlefield:

“Different methods of reconnaissance supplement one another. The shortcomings of one are compensated for by the strength of the others.” 351

This is then followed:

“All reconnaissance elements must be deployed on a uniform basis. Only in such a manner can they work together effectively and develop as complete a picture as possible.” 352

In similar fashion, the Soviet Polevyye Ustav once again reminds us of this when it stated:

“The variety of modern combat equipment and the difficulties in their coordinated use make for extraordinarily difficult command..."
problems. Well-planned reconnaissance and continuous security are mandatory prerequisites for success in battle.”  

It further added:

“Operational support has the following mission: continuous reconnaissance of enemy forces and materiel and protection of friendly forces against surprise attacks by aircraft, tanks... 

Operational support of the troops in the field must be ongoing on a continuous basis.”

More specifically, it declared:

“Reconnaissance through combat and ground reconnaissance provide the most reliable and complete information about the enemy. It is performed by special reconnaissance personnel, through combat of units specifically deployed for that purpose, and—during combat—by all personnel.

Aerial reconnaissance is the main resource for operational reconnaissance and one of the most important for tactical reconnaissance.”

In mutually acknowledging reconnaissance as an integral component of command and control that utilized a wide variety of means that functions on both the tactical and operational scale, it may thus be said that German and Russian leaders shared a near identical understanding of the importance intelligence played in the execution of command and control.

Depth was also seen by the German Army as another principle vital to tactical and operational art. Like the Russians, the Germans did not see depth as a single dimension. They looked at depth as

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PU-36, Section 11. 
Ibid, Section 18. 
Ibid, Section 19.
something more than simply being deeply inside the enemy’s defense zone. It also meant having depth to your own offensive forces while in hostile territory. For example:

“Organization in depth ensures freedom of the commander’s freedom of movement in uncertain situations. Initially, it is always appropriate in the face of a quicker or more mobile opponent. The follow-through of a battle usually requires depth of formation at the decisive point.

The commander must distribute his forces before contact with the enemy, and in battle distribute them according to the width and depth as required by the situation.”\(^{356}\)

Of course, depth was seen as a necessary condition for achieving envelopment:

“The envelopment must strike the main enemy forces in in a decisive direction. The success of the envelopment depends upon the timing and extent of the enemy’s ability to shift his forces in the direction of the threat.

The tendency to extend the wing threatened by envelopment quickly leads to overextension and dispersal of forces. In an uncertain situation, therefore, it is better to organize the enveloping force in depth.”\(^{357}\)

The Soviet version read:

“The battle formation consists of assault and neutralization groups, which are echeloned in depth (in 2-3 lines). The second or third lines provide security for the operational echelon of the battle formation.”\(^{358}\)

It later noted that:

\(^{356}\) Truppenführung, Section 46.
\(^{357}\) Ibid, Section 316.
\(^{358}\) PU-36, Section 106.
“Modem neutralization weapons, primarily tanks, artillery, aviation, and mechanized units in large scale use provide the option of simultaneously attacking the entire depth of the enemy battle formation with the objective isolating, encircling, and destroying the enemy.

Encircling the enemy is accomplished as follows:

a. by envelopment of one or both flanks, for a decisive attack against the flank or rear of his main force;

b. by a breakthrough by tanks and infantry on personnel carriers into the enemy rear with the objective of cutting off the retreat route of his main force;

c. by attacks by air, mechanized units and cavalry against retreating enemy columns with the objective of hindering their retreat.”

What is interesting to note here is that whereas the German manual explains the significance of depth by anticipating enemy intent, no such consideration is found within the Soviet. Despite this, both are in full agreement to the importance of depth as a defining feature of their respective attack doctrines, be it at the tactical or operational scale.

The Soviet regulations discussed the topic of depth in far greater length than all other principles. This indicated the level of importance with which Red Army planners held for this principle. It is no exaggeration to say that the theme of depth was one that applied to nearly every military activity of scope and significance. Even during instances when it was not directly stated, its presence was clearly and strongly implied.

Like the PU-36, the Truppenführung valued mobility for allowing mobile forces to shift in different direction and move them towards new objectives with speed. Reaching objectives of critical

359 Ibid, Section 112.
value to the enemy before the defender had a chance to defend it granted the attacker a positional advantage, allowing the latter to dictate, more fully, the outcome of the battle.

Like their Russian counterparts, German military leaders understood modern warfare as one based on movement (Bewegungskrieg). The role of mobility in the development and effectiveness of combined-arms armies was viewed by the manual as one to be carefully considered. The German appreciation for mobility is readily seen in the manual’s advocacy for the motorization of reconnaissance units, for the use of vehicles to speed the movement of troops over the battlefield and, of course, for the employment of armor for long-range missions into the enemy depth. Though outmoded, even cavalry was viewed as having a limited role, for it was still seen as useful because of its mobility.

Among the earliest examples of the manual’s appreciation for mobility is when it stated:

“Motorized reconnaissance units can produce results quickly and at great distances. They will not always be able to identify details. Their operations are normally limited to daylight hours. They can, however, conduct their approach marches during darkness. Their speed is the greatest when using roads.”360

With regard to cavalry, it observed:

“Mounted reconnaissance units have the advantage of high mobility over all types of terrain, plus the capability to conduct split operations over great distances. They are less restricted by weather, terrain or supply than motorized reconnaissance units. Their speed and march duration are limited.”361

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360 Truppenführung, Section 132.
361 Ibid, Section 133.
While horses may perform with great ease in a variety of terrain and conditions, armored vehicles and tanks, nonetheless, possess distinct advantages with regard to mobility. The manual pointed this out when it mentioned that:

"Tanks are more heavily armed and armored than armored cars. They have good cross-country mobility. Their road speed and operating range are less than those of armored cars. Tanks are used for direct combat, mainly in the attack." 362

It later declared:

"A tank attack advances in deeply echeloned formations. The tank units move towards their targets at the maximum speed permitted by the conditions and type of terrain. Supporting units follow closely. Depending on the development of the situation, they reinforce leading elements, rapidly break unexpected resistance, and exploit success. The tank unit’s reserves generally follow from covered position to covered position." 363

It then continued to add that:

"…Because of its speed and wide operating range, a tank unit can conduct surprise attacks against deep objectives." 364

The mechanized mobility of infantry was also seen as another important feature of modern warfare when it stated:

"Motorized infantry units, consisting of motorcycle troops and infantry transported in vehicles with cross-country capability, can be combined with other motorized units (antitank, artillery, combat engineers, signal) and with the necessary support elements to form a light motorized group. Such groups can be attached to armored units to reinforce or to exploit their success. A light motorized group committed independently should be reinforced with armored vehicles.

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362 Ibid, Section 728.
363 Ibid, Section 739.
364 Ibid, Section 747.
Speed, wide operating range, limited cross-country capability, and the potential for transporting fresh troops into the battle make light motorized groups capable of executing various missions. They can rapidly and unexpectedly be brought up to remote battlefield locations. They can deploy their forces quickly to fight on a broad or narrow front.”

As a comparison, let us once again look at the following from the PU-36:

“The speed of combat operations, together with appropriate organization, good mobility and good terrain use, while keeping track of enemy air activity, is the basic prerequisite for success in combat. Those troops can always count on being successful who comply quickly with commands, regroup quickly upon changes in the situation, make a quick transition from a rest period, quickly assume their battle formation and open fire, attack quickly, and pursue the enemy.”

In furtherance to this, it went on to say:

“The increase in the power of motors, the increase in the speed of movement of units (chast) of modern troops and equipment, and also the numerous types of weapons make the troop combat support service especially important and require absolute continuity in performing this service in all cases of troop combat activities and life.”

The principle of mobility was not unique to either German or Russian doctrines during the war period. Most modern armies in general viewed mobility as something to be aggressively pursued in the course of their technological and doctrinal development. However, as the above shows, this was a vision both shared.

365 Ibid, Section 749.
366 PU-36, Section 6.
367 Ibid, Section 12.
The principle of pursuit was vigorously applied as part of German operational art. It was treated with equal gravity to that assigned by the Soviets. Both firmly believed that pursuit was to begin the very moment enemy forces retreated. Though urged to exercise caution in their choice of timing, leaders were, nonetheless, expected to seize the initiative the moment enemy forces disengaged. They were to aggressively utilize all available assets to surround and envelop as many enemy forces as possible in the course of pursuit. Aerial units and fast-moving ground forces were to pursue with maximum speed, to make known and to curtail all known routes of escape. In so doing, the enemy was compelled to engage pursuing forces, assigning some of this own formations to remain behind to delay the attacker with rear guard actions. In the course of that, the enemy's main body itself would become weakened. The Truppenführung revealed this policy of pursuit when it proscribed it in the following sections:

“The preparation for pursuit must be conducted in a timely manner. The overestimation of an advantageous situation can lead to a serious setback. Forces launched too early can endanger success.”

“The victor pursues on a broad front, always intending to outflank the enemy, to overtake him, to take positions in his rear, or to cut him from his rearward communications.”

“When aerial reconnaissance, reports from adjacent units, advancing friendly forces, or the slackening in the enemy action indicate that the enemy cannot hold his position, the senior commander must inject in his subordinate commanders with the will to victory (Siegswillen). He orders all available forces to move in the direction of decisive pursuit, and as soon as possible he advances reformed or newly formed pursuit forces. Rapid and highly mobile weapons should advance with the lead unit.”

368 Truppenführung, Section 411.
369 Ibid, Section 412.
370 Ibid, Section 413.
In terms of when the enemy was to be pursued, it noted:

“From the very moment the enemy begins to retreat, the subordinate commanders who are closest to the enemy initiate the pursuit, immediately and without waiting for orders. They must act boldly and independently. All weaknesses of the withdrawing enemy must be exploited. Coordination with adjacent units is essential.”

To compare, let us now revisit several sections of the Soviet regulations which address the role of pursuit:

“Any battle—offensive as well as defensive—has the goal of defeating the enemy. But only a resolute attack in the main direction of effort, which leads to irresistible pursuit, results in total destruction of enemy forces and materiel.”

“As soon as the enemy starts retreating, relentless and irresistible pursuit commences. Of particular advantage is a leapfrog pursuit of the retreating columns, the purpose being to cut off the enemy’s retreat routes and to destroy him completely.”

“After the annihilation of the enemy in the defense zone, relentless pursuit of troops which have escaped from the encirclement and confiscation of rear area installation and transport vehicles of the enemy must commence immediately...

Enemy forces which have escaped encirclement can be destroyed only through relentless pursuit. This is performed independently by tank and infantry troops as soon as a retreat by part of the enemy forces becomes evident. Pursuit occurs using all available forces, with full discretion of their commanders as to their actions. During pursuit, it is forbidden to wait for lagging neighbors to catch up. Even the smallest infantry or tank detachment can administer the final blow to the enemy by courageous action.”

And finally:

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371 Ibid, Section 415.
372 PU-36, Section 2.
373 Ibid, Section 160.
374 Ibid.
“Only the high command is authorized to discontinue pursuit, taking into consideration the combat capability of the troop units and the condition of their weapons, the general supply situation and possible reports of encounters with new enemy forces. Until he receives the order to break off pursuit, every commander must devote all forces at his command to strive for the enemy’s final defeat.”

In comparing the above sections, one can easily see a strong similarity in views regarding tactical and operational pursuit.

German and Soviet doctrines were undoubtedly similar. It may seem strange that military theorists serving two ideologically-opposed regimes developed doctrines closely resembling the other. However, there were reasons for how this came about.

The result of fighting the First World War left the economy of Imperial Germany in ruin. Ensuing hyperinflation made the maintenance of large expensive armies increasingly difficult to justify. Analogous to this were the draconian provisions of the Treaty of Versailles, which sought to disempower Germany’s military. As noted earlier, the restrictions of Versailles forced the Reichswehr to demobilize its army down to a mere 100,000 troops. This is, in effect, left the German Army prostrate. With such a small force, it could not hope to mobilize enough troops in time to successfully fight another war against the Allied Powers.

Soviet Russia, too, had sustained catastrophic damage from the war. Long before concluding hostilities with Germany via the Treaty of Brest-Litovsk, Bolshevik militias were already engaged in a fierce civil war, fighting against formidable armies of the White Movement, the multinational expeditionary forces of the Allied Interventionists, and numerous armed pro-independence groups

375 Ibid, Section 205.
seeking to break away from Russian suzerainty. Though ultimately victorious, leaders of the Soviet Union found themselves surrounded by a hostile geo-political landscape. The Western Allies fumed over Russia’s unsanctioned departure from the war; this anger was further sustained by the knowledge that its former ally was not only ruled by a radical regime that negotiated a peace treaty that released large numbers of German troops to the Western Front, but one guided by a socialist ideology that advocated their very overthrow.

As international pariahs, both countries sought friendships wherever it could be found. The desperate need for diplomatic normalization and economic recovery prompted a series of international agreements which fostered extensive cooperation. Among the first was the Treaty of Rapallo, signed on 16 April, 1922. From this, both parties renounced all territorial and financial claims against the other as a result of the war. This was later reaffirmed by the Treaty of Berlin (German-Soviet Neutrality and Nonaggression Pact) of 24 April 1926, which pledged that each was to remain neutral in the event that one was attacked by a third party power. These agreements would set the stage for secret military collaboration between the Reichswehr and the Red Army.376

In an effort to rebuild, General Hans Von Seeckt first exploited legal loopholes in the Treaty of Versailles to ensure that the army was disproportionately composed of staff officers and non-commissioned officers. By 1922, almost 60% of the Reichswehr were officers or NCOs.377

Von Seeckt had long distinguished himself as an ardent proponent of mechanization and mobility. Given the herculean task of defending Germany with a paltry force of 100,000 men, small fast-moving tank armies offered the only true prospect for success. His ideas on warfare, emphasizing training in new technology and the development of highly professional mobile forces, required a place

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to test, develop and train a new generation of officers and machines. This would later lead to the creation of the Kama School in Kazan under the secretive auspices of the Soviet government.

Apart from the losses suffered from the war, the Soviet Union also witnessed the deaths of millions from mass famine. To prevent further widespread turmoil, large numbers of troops were released back into the economy. In doing so, the Red Army shrank drastically. Already faced with a limited pool of military expertise, the Soviets had been compelled during the war to rely on former Czarist officers whose political loyalty remained suspect. This led the Soviets to quickly identify this deficiency in trained, professional military officers as the Red Army’s most glaring weakness. Despite some initial debate over whether or not the militia system represented the only true Marxist military organization, General Mikhail Frunze eventually prevailed, allowing him to introduce reforms whose intent was to transform new Red Army cadres into an ideologically sound professional officer corps.

Like the Germans, the Soviets also looked to technological development as a possible solution to problems likely to be faced in a future war, a war where they were likely to be at a disadvantage. As discussed earlier in this work, Marshal Tukhachevsky’s ideas regarding the mechanization of Red Army forces led to the formation of Soviet armored warfare. Like von Seeckt, he too sought an arena with which to conduct experiments in tank warfare. The Kama School would prove suitable both these agendas. In October, 1926, Reichswehr Colonel Hermann Von Der Lieth-Thomsen secretly negotiated an agreement with Janis Berzins, head of Red Army Intelligence, for organizing a tank school, to be located in the outer environs of Kazan in Tatarstan.\(^{378}\) By 1929, the school was opened.

Tukhachevsky was intimately involved with Kama. He frequented German facilities in Russia; he visited Germany to review German tank designs and training methodology. Tukhachevsky was familiar

with the work of such German companies like Krupp, Daimler and Rheinmetall.\textsuperscript{379} Conversely, Tukhachevsky’s German counterparts, Ernst Volckheim, Walter Nehring, and Hans-Georg Reinhardt, graduates of Kama, were equally familiar with Red Army tank development.\textsuperscript{380}

With the rise of the Adolf Hitler and the National Socialist German Workers’ Party (NSDAP or ‘Nazi’), however, ideological differences quickly created a hostile political climate which ended further collaboration between Germany and the Soviet Union. By late 1933, the Kama tank school was closed.

It is by no coincidence that the most valuable contributors of the Truppenführung and the Soviet Polevyye Ustav were also graduates of Kama. Given the degree of observation, training and technical assistance each made and provided to the other during the school’s three year tenure, it is not unreasonable to surmise that many of the principles of operational art espoused in their respective manuals conspicuously shared a common origin. It should also come as no surprise that these two armies, governed by regimes so stark and irreconcilable in their ideological objection to the other, would have eventually come to clash in a war whose scale of bloodshed can only be aptly described as genocidal. Yet, when accounting for the intimate collaboration between the Reichswehr and the Red Army during the interwar period, we come to understand that the extraordinary lethality which German and Soviet armies were able to inflict upon the other lay not so much with differences in ideology, but in their similar theories of operational art. However, as has been shown in Chapter Three, at Smolensk in 1941, the Red Army was unable to put this doctrine into practice, for which I have provided many reasons. That they were to do so by late fall of 1942 with such success was due to many factors, to be highlighted in the following conclusion.

\textsuperscript{380} Dinardo, 89.
Chapter Five

Conclusion

This thesis sought to identify ten key principles of Soviet operational art by extrapolating them from the Red Army’s 1936 Field Manual. These were identified as simultaneity, combined arms, surprise, tempo, mass, shock, command, control and intelligence, depth, mobility, and pursuit.

In demonstration of the importance of these principles to Soviet operational planners during the Great Patriotic War, 1941 to 1945, the author sought to embark on an analysis of two major operations. The First Smolensk Counterstroke was chosen for several reasons. It was the first attempt by Red Army to organize a counteroffensive of operational scale against the German Wehrmacht since the start of the invasion. Secondly, by examining the reasons for its failure, we can identify whether these ten principles of operational art were indeed applied. As we saw, though Soviet military leaders did their utmost to utilize them, prevailing conditions prohibited them from applying them in the proper proportion necessary for tactical and operational success. Operation Uranus, however, clearly revealed what could be achieved when time and resources were available to allow these principles to be accounted for in the course of planning, execution, and subsequent development of operational offensives. As the Red Army’s first operational success of the war, Uranus proved that by adhering to the precepts and provisions espoused by the 1936 Regulations, leaders could reasonably expect to conduct deep battle and operations in depth towards a favorable outcome.

To bring about a more complete understanding of these ten principles, the author thought it fitting to compare the differences and similarities in Soviet and German offensive doctrine. A proper comparison required a German manual that was produced at around the same time as the Soviet. For this, the author chose the German Army’s field manual, the Truppenführung, first published in 1933. Chapter four showed that both manuals did indeed abide by the very same principles which made up
their offensive doctrine. Each viewed them as imperative to tactical and operational success. Whether military missions were of a tactical nature or of operational scale, both agreed that if an operational offensive was to have any reasonable prospect of success, most of these principles had to be present.

It should also be said that the fates of the German and Soviet Armies hung on their respective leaders’ understanding of operational art. For the Red Army, a key factor was Stalin’s willingness to permit his generals and field commanders to employ the principles of operational art that led to victory. Though the Wehrmacht abided by the very same principles themselves, Adolf Hitler’s lack of regard for them contributed to their defeat. As the forthcoming assessment will show, both Hitler and Stalin held little regard for operational art during the early years of the war. However, as the war progressed, it would be Stalin who came to appreciate its true value. It would be their understanding of it that ultimately determined how well they performed as military leaders.

Contrary to Hitler, who began meddling in the affairs of the German Army with often negative consequences after it failed to take Moscow via Operation Typhoon in 1941, Stalin’s shortcomings as a military leader were apparent several years prior to the war. In 1937, he initiated a bloody purge which resulted in the liquidation of many of the Red Army Command’s most talented senior officers.381 Within two years, Stalin, through the work of the People’s Commissariat for Internal Affairs (NKVD), had sanctioned the destruction of three Red Army marshals, nineteen army commanders, ten flag officers of the fleet, sixty-two army corps commanders, one hundred and one hundred and thirty-one division generals, all sixteen army commissars, and two hundred and sixteen brigade commanders.382 By 1938,

over thirty thousand officers were arrested or expelled from the army, leaving the Red Army with a remaining cadre of inexperienced staff.\(^ {383}\)

Stalin also exhibited poor military judgment when he ignored the warnings of an impending German invasion in 1941. Despite continuous reports of German forces massing along the Soviet Union’s western border, Stalin ordered Red Army units to avoid hostile acts that might be seen as provocation.\(^ {384}\) In addition to these reports were clandestine messages from a Soviet spy stationed in Tokyo, Japan. On 1 March, Richard Sorge, a GRU (Red Army Military Intelligence) agent in the Far East, reported to Stalin that numerous German divisions were being sent to the Russian border; this included twenty from France who were to join the eighty divisions already stationed there.\(^ {385}\) Though Stalin knew that war with Germany was likely to occur in the near future, he had hoped to delay it by signing the Molotov-Ribbentrop Pact on 23 August 1939.\(^ {386}\) Aware that the Red Army was still in a state of partial mobilization and reorganization, Stalin knew that a war with Germany would be disastrous. With this in mind, Stalin, on several occasions, replied to Sorge’s warnings of imminent invasion as ‘German disinformation.’\(^ {387}\)

In his postwar memoir, Zhukov noted that though Stalin’s miscalculated when Hitler would invade, he did what he reasonably could to prevent any conflict with Germany while the Red Army was in the midst of reorganization and retraining of its forces. Despite his many criticisms of him, Zhukov, nonetheless, viewed Stalin’s policy of avoiding war as the correct one:

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\(^ {385}\) Ibid, 85-86.


\(^ {387}\) Murphy, 87-88.
“After considering all conversations that took place between Stalin and those closest to him in my presence, I came to the firm conviction that the danger of war with Nazi Germany was foremost in his thoughts and actions. He was imbued with one desire - to avoid war or, at least, delay the timing of its start so he would succeed.

Joseph Stalin was not a cowardly man, but he was well aware that his leadership of the country is clearly late in preparing for a major war with Germany, a strong and experienced enemy.

He understood that we were late, not only in our arming our troops with the latest military equipment and reorganization of the armed forces, but also with all other measures to defend the country, in particular the creation of the necessary state reserves and mobilization reserves.

Stalin knew, even after 1939, that many of our military units and formations had yet to master the necessary tactical-operational and strategic skills.\(^{388}\)

Stalin was well aware of how vulnerable the Red Army was at this time and that every effort had to be made to avert war.\(^{389}\) Zhukov also felt his own sense of responsibility for not having done more to prepare the country for invasion when he stated:

“As the military situation became increasingly dangerous, we soldiers probably did not do everything to convince Stalin of the inevitability of war with Germany in the near future and to prove to him the need to take urgent measures as envisaged in our operative mobilization plan.

Of course, these measures would not guarantee complete success in repelling the enemy's onslaught, as the forces of the parties were far from equal. But our troops could start a fight in a more organized and therefore inflict far greater losses.\(^{390}\)

While he agreed with this policy, Zhukov made clear that in terms of military ability, Stalin during the early years of the war exhibited a limited understanding of operational command:

“Up until the defeat of the German forces at Stalingrad he had only a superficial understanding of combined-arms operations. Not having a thorough grasp of the complexities, methods, and means of

\(^{388}\) Zhukov, Reminiscences, Vol.1, 152.
\(^{389}\) Ibid.
\(^{390}\) Ibid.
preparing modern army-group level operations I. V. Stalin frequently demanded patently unrealistic periods of time for the preparation and carrying out of operations.  

Perhaps the most obvious example of this was Stalin’s decision in 1941 to hold Kiev and Smolensk by mounting counterattacks throughout the Western theatre. Against Zhukov’s advice, his insistence on holding both cities proved disastrous. While efforts to defend Kiev did not yield any appreciable advantage, the defense of Smolensk, however, convinced the Japanese Empire that Soviet Russia was not going to fold, prompting them to expand their campaign of conquest into the South Pacific, rather than the Soviet Far East. Consistent with his resolve for using counterattacks, Stalin did heed the advice of his military leaders during the Battle of Moscow; it was believed that by inflicting heavy losses on the German Army, the chances of German success in taking the capitol that winter was unlikely.

In mid-1942, Stalin failed to anticipate where Hitler would deliver the next major blow of his summer campaign. Anticipating that the next drive would again be towards Moscow, it later turned out that the summer offensive would be directed south, towards Stalingrad and the Caucasus. Regardless, it is there that Stalin’s command abilities would take a remarkable turn. From Operation Uranus onward, Stalin’s improvement in military leadership later earned from Zhukov grudging praise:

“In the second period of the war, which went from the preparation of the Battle of Stalingrad and up to Kursk, inclusive, I must say that Stalin showed definite flashes of insight into modern war.”

Among the earliest signs of improvement in Stalin’s military abilities could be seen in Stavka Directive No. 3, dated 10 January 1942, when he recognized the importance of conducting successive

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393 Ibid.
394 Ibid.
395 Zhukov, 287.
operational offensives at the Front and Army-level. Like an astute leader, Stalin also recognized an opportunity to exploit an opponent’s weakness when he saw it. The failure of Operation Typhoon made it apparent to him that the German Army would not have sufficient strength to mount another attack until the following spring:

“After having worn down the German fascist troops, the Red Army will be moving westward, towards the German invaders. To delay our progress, the Germans have switched over to defensive positions, constructing trenches, barbed wire fences, and field fortifications. The Germans expect to hold out until spring, whereupon gathering strength, will resume once again an offensive against the Red Army. Germans, therefore, will seek to buy time, to gather their breather.

Our task will be to not give the Germans this respite. It will be to drive them west without pause, to get them to expend their reserves until spring, when we will have new larger reserves while the German will have less and thus ensure full the defeat of the Nazi troops in 1942.”

Further examination of the remaining portion of this directive also revealed Stalin’s implicit recognition of several key principles of operational art. For instance, in the following statement, Stalin showed great concern for the German Army’s intent to create defenses in depth while gathering strength for a future offensive. He understood that the more time allotted for the Germans to develop their defenses in depth, the more difficult it would be for the Red Army to mount a successful offensive:

“...it is necessary for our troops to learn how to break the enemy's defensive line, to organize a breakthrough into the enemy’s defenses throughout its entire depth and thus open the way for the advancement of our infantry, our tanks, [and] our cavalry. The Germans have more than one line of defense - they are building and will soon have a second and third line of defense. If our troops do not learn to quickly and thoroughly breakthrough the defensive line of the enemy, our progress will be impossible.”

397 Ibid.
To address this problem, Stalin added:

“What then is required to achieve a breakthrough of the enemy's defensive line throughout its entire depth?

This requires at least two conditions: first is the need to cease the practice of using our armies and fronts by sending into combat separate divisions, replacing them with organized shock groups concentrated in one direction, and, secondly, it is necessary to replace the so-called artillery preparation with an artillery offensive.”

Here and throughout the directive, Stalin makes clear that for an offensive to make any appreciable difference, it would have to be conducted by formations at the Army and Front-level. Cracking strong defensive lines in depth mandated the use of powerful shock armies, supported by mobile artillery forces.

The directive went on to clarify that for armies to succeed, artillery support had to go beyond the role of merely providing a preliminary bombardment; in other words, it was to be more than a curtain of fire, lifted once infantry and tanks moved into close proximity of the enemy’s defenses. Rather, it was to provide continuous fire support throughout the enemy depth during the entire duration of the offensive. In so doing, it became necessary for artillery, in combination with other supporting arms, to deliver the necessary shock required for Soviet armies to move forward. Accomplishing this required artillery units to move with the armies they were supporting. This naturally implied that to accomplish this, artillery forces would need to achieve mobility, in order to keep pace with advancing armies. Such an effort was referred to by Stalin as an ‘artillery offensive.’

\[398\] Ibid.
The directive also went on to note that to achieve continuous artillery support for breakthrough armies operating throughout the enemy depth, it was imperative that a mass of artillery regiments also be made available.

Another instance where Stalin’s military leadership could be viewed as improving was his issuance of the People’s Commissar of Defense Order No. 306, titled “Order on improving the offensive battle tactics and combat formations of units, units and formations.” In it, formations (from companies to divisions) assigned for operational offensives were to attack in single-echelons, supported by small reserves. It was thought that by utilizing greater numbers of formations along an attack sector, this would maximize the amount of firepower that could be brought to bear upon the enemy. Stalin justified this by pointing out that traditional use of infantry during attacks often resulted in high casualties due to its poor use of available firepower:

“The Infantry Division, when assigned to attack, was often forced to be in the first wave, attacking the front edge of the enemy’s defenses with only eight rifle companies, leaving behind 19 of its total of 27 companies.”

Organizing infantry attacks in several echelons, according to Stalin, presented several problems:

“This first echelon was to cover a depth of 2 km. This widespread coverage deprived these combat formations of the opportunity to fully use their firepower. This results in heavy, unjustifiable losses in manpower inflicted by enemy artillery, mortars and enemy aircraft. These units are primarily located in second and third line of enemy defenses.

...these forces are able to strike our forces before they can engage the enemy in combat, which is why the attack is often choked with us at the first stage. Secondly, this prevents the use of over a third of all infantry firepower within the Division, which includes tanks, light and heavy machine guns, mortars and artillery, not to mention the rifles. Units in the second and third echelon are forced to sit by and take

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399 Prikaz o Sovershenstvovanii Taktiki Nastupat’novogo Boia i o Boevykh Porjadakh Podrazdelenii, Chastei i Soedinenii, [Order on improving the offensive battle tactics and combat formations of units, units and formations], Russkiy arkhiv: Velikaiia Otechestvennaia: T. 13 (2—2). Prikazy narodnogo komissara oborony SSSR. 22 iiunia 1941 g. — 1942 g. (Moscow: TERRA, 1997), 323-326.

400 Ibid, 323.
over the role of fire support by means of mortars, artillery and air attacks. These units are not suited for sustaining heavy losses. When proceeding, following units are often forced to cling to advancing echelons. This leads to the inevitable mixing of combat formations of the first echelon. This results in the combat formation becoming a mob, leaving little ability to control them.

Secondly, from this, it follows that the organization of combat units in single echelon not only meets the requirements of modern warfare, but will inflict more damage. This will lead to unnecessary losses. The inaction of the most significant portion of infantry troops deprives our troops the ability to attack the enemy’s entire force with the available firepower of all their units.”

Such an approach made evident Stalin’s understanding of the value of simultaneity. He made this even more explicitly clear when he declared that:

“The basic combat requirement for all infantry formations is the maximum use of firepower through the simultaneous participation in combat alongside all adjacent formations from the beginning to the end of battle.”

As NKO Order No. 306 showed, Stalin was cognizant of the problems associated with attacking with combat formations organized in several echelons. He felt that in using waves of attacking units, with friendly units following closely behind, there lurked the possibility that the offensive could degenerate into chaos when all echelons collided together to engage the enemy. From the viewpoint of command and control, to have combat units fighting alongside neighboring formations in single-echelon—as opposed to successive rows of echeloned forces crashing into one another— not only averted this problem, but made it much easier for commanding officers to direct their troops throughout the course of battle.

Stalin demonstrated insight into the nature of command when he noted that there was a tendency of some lower-level officers to directly lead their men into combat. This usually resulted in junior officers losing touch with their superiors.

401 Ibid, 323-324.
402 Ibid, 324.
Here, Stalin complained:

“According to the Regulations, the rifle platoon commander in offensive combat is required to stay ahead of their formations and personally lead their troops into battle. Traditionally, commanders of infantry companies and battalions, from the beginning of an offensive, have personally led their troops from the front, ahead of their battle formations, as a way of managing their units. As a result, the commander of the platoon and hence, the company, loses the opportunity to personally observe the progress of the battle, to influence the order of battle for the platoon and the company as a whole, making inefficient use of their firepower. In the process, he loses touch with the battalion commander and the whole management of a company is reduced to verbal commands, such as "Company! Follow me!" This is the only command heard before engaging in combat. This results in the unnecessary losses among lower-ranking officers, which, in turn, leads to the breakdown of combat formations.403

Platoon commanders were far more effective when they stayed back from the very front. In staying further behind to monitor the progress of a battle, they were much more effective in directing their troops while responding to changing combat conditions. This mode of management allowed him to stay in communication with his company and battalion commanders and other senior officers, who, in turn, could develop a better overall understanding of how the operation was progressing. This view was consistent with the 1936 Regulations when it stated that:

“Troop command in combat encompasses all of the following: careful reconnaissance of the enemy; decision-making appropriate to the situation; assigning tasks to the troops and organization of their interaction; timely transmittal of those tasks to the organizations concerned and monitoring their execution; reliable and timely orientation of subordinates and neighbors and situation reports to the superiors; quick reaction to changes in the situation; demonstrating personal initiative; and organization of security, liaison of all types, and the functioning of rear area facilities.”404

For Stalin, the reckless acts of courage and derring-do traditionally exhibited by officers who charged into battle to directly confront the enemy were no longer compatible with modern warfare.

403 Ibid.
404 PU-36, Section 105.
Officers were to participate in battle, but with a degree of safety so as to ensure that they were able to successfully complete the tasks associated with **command and control** for their respective formations.

Much has already been said in this thesis regarding the principle of **combined arms** and the Red Army’s numerous experimentations in the reform and reorganization of **combined-armies**. However, Stalin’s appreciation for **combined arms** could be seen when reading People’s Commissar for Defense (NKO) Order 325, dated 16 October 1942, “Order on the battlefield use of tank and mechanized units and formations.” As Alexander Hill reminds us in the *Documentary Reader*, this directive, written and signed by Stalin, revealed the importance of **combined arms** as it sought to reorganize the mechanized corps to enable Soviet infantry and other supporting arms to keep up with tank armies, allowing all to strike into the enemy’s operational depth. As one of the leading figures behind many of the Soviet military’s fundamental reforms, it was evident that Stalin held an appreciation for **combined arms** and understood quite well how it was to be used to make the Red Army more combat effective.

While the cited directives above revealed Stalin’s appreciation for the principles of operational art, we should now consider what other members of his General Staff thought of his military leadership abilities.

Like Zhukov, General Alexander Eremenko, too, shared a sense of culpability for the General Staff’s failure to properly prepare for the war. He wrote that though much of the blame for the war’s disastrous beginnings was unfairly laid at Stalin’s feet, it was ultimately the responsibility of the High Command to have initiated the necessary measures for thwarting the German invasion long before it got underway:

> “Our General Staff had information about the imminent danger of an attack on the U.S.S.R. But the General Staff failed to convince Stalin that this information was reliable. Neither did it succeed in convincing him in the possible consequences of ignoring this

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405 Ibid, 334-338.
406 Hill, 109-111.
information. Our intelligence did not work hard enough to obtain the maximum information either. On receiving the initial reports about the Nazi troop buildup along our Western frontier we should have stepped up and improved our reconnaissance. There were certain avenues whereby the General Staff and the People’s Commissar for Defense could have taken counter-measures over the head of the government, notwithstanding Stalin’s reluctance, proved grown to the task.

The war did not come as a surprise to us from the political point of view. But it caught us unawares strategically. Operationally and tactically the surprise element was complete."  

Like Zhukov and Eremenko, Vasilevskii too agreed that more could have been done by the senior military leadership to avert the catastrophic outset of the war. The enormous burdens of the war imposed on Stalin would ultimately test his mettle as military leader. It was, he felt, important to realize that though Stalin’s military leadership was limited to his experiences in the Russian Civil War, he inevitably developed a remarkable grasp of operational art. In his recollections of Stalin, Vasilevskii stated that the natural combination of personal and political qualities he possessed conferred upon him the necessary attributes to become a formidable military leader:

“I would like to say a few additional words about the Stalin as Supreme Commander...

In the effort to lead the fight against the armed forces of the enemy, Stalin did not have full knowledge of the military, which was required in the area of modern operational art. But it was the experience of the Civil War where he learned how Soviet Army worked and developed. However, I suggest that the most decisive was the extent of Stalin's political authority and the trust the people and army had in him.

I am deeply convinced that Stalin, especially in the second half of World War II, was the most powerful and colorful figure in the Strategic Command. He successfully directed the fronts of all military forces of the country on the basis of the party line and was able to


exercise significant influence over the governing political and military leaders of the allied countries in the war...

It became apparent when reading further that, unlike Hitler, Stalin was more likely to accept a sound military advice when a reasonable argument was presented. Perhaps aware of his own limitations as a military commander, Stalin soon valued good advice and sought it constantly from his General Staff. Moreover, as the war progressed, his understanding of military matters matured:

Stalin was not only a great natural intelligence, but surprisingly held great knowledge. His ability to think analytically was observed during the meetings of the Politburo of the Central Committee, the State Defense Committee and continuous operation at GHQ. He slowly, slightly hunched over, walks, listening attentively to the speakers, sometimes asking questions, cues. And when the discussion was over, he clearly formulated summarized conclusions. His conclusions were terse, but deep in content and, as a rule, laid the basis for decisions of the Party Central Committee, as well as main directives and orders of the Supreme Commander. But sometimes, on Stalin's orders, he would arrange to have someone to attend a meeting with him, to discuss a project. Stalin would read the proposal, sometimes amend it, and if the project did not satisfy him, he would dictate a new version of it...

Stalin now thinks in terms of modern warfare, is well versed in all aspects of training and operations. He already requires that military operations were carried out creatively, taking full account of military science, and that they are determined and agile, assumed dismemberment and encircle the enemy. In his military thinking clearly reveals the tendency to massing of forces and means, a variety of applications all the options and commencement of operations of its conduct. Stalin was not only well-versed in military strategy that was given to him easily, because he mastered the art of great political strategy, but also in operational art.

In an unexpected display of candor during a Kremlin reception in honor of the commanders of the Red Army, May 24, 1945, Vasilevskii recalled Stalin admitting:

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409 Ibid, para. 146, 155.
"Our government has been quite a few mistakes, we were moments of despair in 1941-1942, when our army was retreating, left their native villages and towns of Ukraine, Belarus, Moldova, the Leningrad Region, the Baltic, the Karelian-Finnish Republic, abandoning because there was no other way out. Some people might say to the Government: You have not met our expectations, go away, we will put another government that will make peace with Germany and give us peace. But the Russian people did not do that, because he believed in the correctness of the policy of his Government and made sacrifices to ensure the defeat of Germany. This confidence of the Russian people in the Soviet government was the decisive force which provided a historic victory over the enemy of mankind, over fascism."\(^{410}\)

While Stalin’s prewar political miscalculations and military blunders of the first months of the war nearly brought the country to defeat, he did nonetheless possess the necessary qualities to participate in its recovery. Given the size and scale of military activity across all Soviet theatres during the war, it was hardly Stalin’s capabilities as military leader alone that allowed the Red Army to win the war; his leadership was but one factor among many in determining its outcome.\(^{411}\)

Like Stalin, Hitler was very much involved in the affairs of Germany’s highest levels of senior military leadership. Early in the war, Hitler appeared a much more formidable military figure than Stalin. Using the Wehrmacht to further his expansionist aims in Europe did much to foster confidence in his military prowess. The speed of conquest compelled one German staff officer, Field Marshal Wilhelm Keitel, Hitler’s Chief of the Oberkommando der Wehrmacht (Supreme High Command of the German Armed Forces or OKW) for most of World War II, to declare Hitler as “the greatest military commander of all time.”\(^{412}\) The invasion of Poland in September 1939, for instance, was completed in just eighteen days, with the city Warsaw capitulating ten days later. The 1940 campaign saw the Wehrmacht routing the Anglo-French Armies in Flanders, which later—thanks to Hitler’s intervention—saw the successful evacuation of over 330,000 allied soldiers. This was accompanied by the German capture of the Low

\(^{410}\) Ibid, para. 197.
\(^{411}\) Mawdsley, 723-725.
Countries and Norway. In spring 1941, in prelude to Operation Barbarossa, Hitler launched his Balkans campaign; by early June, he was able to include Yugoslavia, Albania, Greece and Crete to his list of conquests.

Despite the long string of military successes the Germany Army had in Europe during the early years of World War Two, this was only partly due to Hitler’s military leadership abilities that included spotting opportunity. Conversely, history has too frequently attributed to him nearly all of the German Army’s fatal blunders.\footnote{Robert M. Citino, The German Way of War: From the Thirty Years’ War to the Third Reich, (Lawrence, KS: University Press of Kansas, 2005), 268-270.} One scholar does well to point out that historians have traditionally neglected to hold Hitler’s senior military leaders responsible for many of the war’s failures:

“If the Germans lost the war for good reason. Hitler was incompetent, yes, and the buck has to stop at his desk, or perhaps on the map table around which “the greatest field general of all time” made his increasingly inexplicable decisions. Standing right there alongside him, however, was the General Staff. For all its glorious intellectual and theoretical power over the centuries, the staff designed and launched some terrible operations of the war. Some of it was no doubt due to desperation, and it is clear that the longer the war went on, the worse the operations became...”\footnote{Ibid. 269.}

While Hitler may not have lost the war single-handedly, he did play a role in its failure. The extent to which he interfered in the daily activities of the Oberkommando des Heeres (Supreme High Command of the German Army or OKH) was indeed considerable. As the war progressed, and German fortunes waned, Hitler became increasingly inflexible. In many instances where his generals felt it better to temporarily yield ground to avoid heavy casualties, Hitler frequently countermanded any orders that allowed captured territories to be relinquished, even temporarily, to the enemy.\footnote{Erich von Manstein, Lost Victories: The War Memoirs of Hitler’s Most Brilliant General, ed. Anthony Powell (St. Paul, MN: Zenith Press, 2004), 273-288.} Any such gains were to be held at all costs. Such a belief struck many German generals as indicative of a level of
inflexibility much needed among leaders responsible for conducting military operations beyond the tactical level. In the many postwar memoirs penned by general staff officers who had worked with Hitler during the war, it is evident that he held little regard for the principles of operational art.

Though Hitler did exhibit a strong degree of inflexibility, there were several occasions where he authorized the withdrawal of large German forces. The loss of 6th Army at Stalingrad, for instance, compelled him to withdraw Army Group A from the Caucasus. The abandonment of the Rzhev salient during Operation Büffel (Buffalo) in March 1943—which allowed Wehrmacht forces to shorten the front by 230km while creating sufficient reserves for the upcoming Kursk offensive in July—also showed that Hitler, on occasion, could be convinced of the necessity for withdrawal, even when it meant a temporary loss of territory.

Like Hitler, Stalin disliked the notion of surrendering territory. He could hardly be faulted for this during the summer of 1941, especially when considering that forces of Army Group North had nearly surrounded Leningrad by early September 1941, followed a month later by the arrival of Army Group Center in front of Moscow. Further south, the loss of Kiev and Dnepropetrovsk at this time had done little to make him receptive to strategic withdrawal. The continuous retreat of Red Army forces along all areas of the front drove Stalin to initiate draconian measures aimed at stemming what he felt was the widespread collapse in military discipline. On 28 July 1942, he issued Order No. 227, infamously known as the “Not One Step Back” Order. In it, Stalin declared:

“The enemy is throwing new forces forward to the front and, despite increasing losses, is thrusting forward, bursting into the depths of the Soviet Union, capturing new regions, devastating and smashing our cities and villages, and rapping, robbing, murdering our population…

416 Ibid, 275.
...some foolish people at the front are consoling themselves with discussions that we can retreat further to the east since we have great territories, much land, and a large population, and that we will always have an abundance of bread and grain to justify their shameful behavior at the front...such spurious talk and false through and through, and it is advantageous only to our enemy.”

Stalin goes on to add:

“We must stubbornly defend every position and every meter of Soviet territory to the last drop of blood and cling to every shred of Soviet land and fight for it to the utmost.”

Arguably, Stalin sanctioned fewer withdrawals than Hitler, but got away with it thanks to the more abundant resources available to him.

Keitel was one officer who expressed confidence in Hitler’s military prowess. As his statements below reveal, Keitel truly felt that withdrawal from embattled sectors of the front was not always the better option, since it often meant the loss of valuable weapons and equipment:

“...Hitler’s first order to the eastern front [on 16 December 1941] was: ‘Stand fast, not one step back!’ This was because he had correctly realized that to withdraw even by only a few miles, was synonymous with writing off all our heavy equipment; in which case the troops themselves could be considered lost, because without heavy armament they were absolutely defenseless, quite apart from the fact that the artillery, anti-tank guns and vehicles were irreplaceable. In fact there was no other solution than to stand fast and fight, if the army were not to withdraw without weapons and suffer the same fate as Napoleon had in 1812. Obviously this did not preclude well-prepared and limited withdrawals to improved defensive positions, provided the movements were kept firmly in hand.”

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418 Prikaz o merakh po ukrepleniyu distsipliny i poryadka v Krasnoy Armii i zapreshchenii samovol'nogo otkhoda s boyevykh pozitsiy 28 iyulia 1942 [On measures to strengthen discipline and order in the Red Army and the prohibition of unauthorized withdrawal from combat positions 28 July 1942], Prikazy narodnogo komissara obozony SSSR 22 iyhia 1941 - 1942 z. [Decrees from the People’s Commissar of Defence USSR 22 June 1941 - 1942], Russkiy arkhiv: Velikaia Otechestvennaia: T. 13 (2—2), 276-279.

While this may have been viewed by Hitler and Keitel as good tactical reasoning, others, such as Field Marshal Eric von Manstein did not see this as applicable to every situation; in fact, this unshakable belief in static defense, even when holding ground was no longer feasible nor necessary, did much to highlight Hitler’s limitations as a battlefield commander. In his memoir, Manstein stated:

“Now it is generally recognized that defence is the stronger of the two forms of fighting. This is only true, however, when the defence is so efficacious that the attacker bleeds himself to death when assaulting the defender’s positions. Such a thing was out of the question on the Eastern Front, where the number of German divisions available was never sufficient for so strong a defence to be organized. The enemy, being many times stronger than we were, was always able, by massing his forces at points of his own choice, to break through fronts that were far too widely extended. As a result, large numbers of German forces were unable to avoid encirclement. Only in mobile operations could the superiority of the German staffs and fighting troops have been turned to account and, perhaps, the forces of the Soviet Union brought to naught.”

In matters of conducting offensive operations, Hitler’s inability to appreciate the requirements for such missions proved equally stark:

“While Hitler may have had an eye for tactical opportunity and could quickly seize a chance when it was offered to him, he still lacked the ability to assess the prerequisites and practicability of a plan of operations. He failed to understand that the objectives and the ultimate scope of an operation must be in direct proportion to the time and forces needed to carry it out—to say nothing of the possibilities of supplies. He did not—or would not—realize [sic] that any long-range offensive operations calls for a steady build-up of troops over and above those committed in the original assault. All this was brought out with striking clarity in the planning and execution of the 1942 summer offensive.”

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421 Ibid, 275.
Manstein’s observations revealed several very important things about Hitler’s limited understanding of conducting operations in **depth**.

Hitler’s appreciation for the value of the offensive in operations combined with his stubborn dislike for surrendering territory revealed that **mobility** was viewed strictly in terms of the former. This refusal to conduct an elastic defense, even when the German Army’s limited mobile forces were available, meant that hard blows delivered by Soviet armies could not be avoided. This was evident during Uranus, when Hitler rejected Paulus’ pleas to escape the ring of Soviet forces forming around Stalingrad. Naturally, this resulted in high casualties and eventual encirclement, a situation any sensible field commander sought to prevent.

Among Hitler’s greatest critics was one of Germany’s most skilled armored leaders to have ever fought on the Eastern Front, General Erhard Raus. In his memoir, Raus offered a scathing assessment of Hitler’s ability to command military operations. Despite the overwhelming odds faced by the German Army, even after the failure to take Moscow in 1941 and Stalingrad in 1942, Raus wrote that the war could still have been swayed in Germany’s favor had Hitler not forced the Wehrmacht to fight a series of hopeless defensive battles, all for the purpose of preserving territorial gains. This, he felt, was what undermined German strategy. In his memoirs, he noted:

> “Despite Russian and the Russian soldiers, despite the cold and mud, despite inadequate equipment and a virtually ridiculous numerical inferiority, the German soldier actually had a victory over the Soviet Union within his grasp.

> Why then did German lose the war?

> …The perfection of defensive tactics and the superhuman efforts of the field forces were insufficient to turn the tide as long as we were unable to restore the balance of strength essential for an eventual victory over the Red Army.

> …As a prerequisite, German potential should have been brought into proper relationship with the elements of time and space to
compensate for Soviet superiority in manpower and equipment, allowing victory to be achieved through the application of superior strategy. At no time should the German army have expended its strength so recklessly as Hitler required it to do in front of Moscow and at Stalingrad. Contrary to Hitler’s concepts, a timely halt in the offensive or a temporary withdrawal would not have undermined the confidence of the field forces but would have led to additional successes, the sum total of which might have been brought the war against the Soviet Union to a favorable conclusion.”

Manstein observed that while Hitler’s maintained his fanatical insistence of disallowing withdrawal and even sustained periods of operational defensive under any circumstances right to the very end of the war, Joseph Stalin did not:

“Obstinate defence of every foot of ground gradually became the be all and end all of that [Hitler’s] leadership. And so, after the Wehrmacht had won such extraordinary successes by dint of operational mobility, Hitler’s reaction when the first crisis occurred in front of Moscow was to adopt Stalin’s precept of hanging on doggedly to every single position. It was a policy that brought the Soviet leaders so close to the abyss in 1941 that they finally relinquished it when the German launched their 1942 offensive.”

Stalin’s Order Number 227 suggests that Manstein was incorrect on Soviet withdrawal during the summer of 1942. Though Stalin, like Hitler, held a similar belief in holding on to as much territory as possible, on the idea of assuming a defensive posture even with the resources to attack Stalin eventually yielded to the advice of his military leaders. During the spring and early summer of 1943 Stalin listened to those who advocated during the early summer of 1943 abiding by a temporary defensive policy long enough for the Red Army to strengthen itself to assume a more offensive posture much later on when strategic opportunities (e.g. after Citadel) presented themselves.

423 Manstein, 275.
Whereas Hitler never reconciled his limited understanding of military operations to accommodate his generals’ views on how best to manage the many crises that erupted throughout and particularly later in the war, Stalin, as time went on, had the state of mind to seek out and take seriously the advice of his senior military leaders.

It should be also remembered, however, that neither military commander was able to work in total isolation of his General Staff; the demands of war was well beyond the power of either leader to singularly control, no matter how absolute his power was. The senior military leaders of both sides undoubtedly shared a large measure of responsibility for the initiation, conduct and outcome of the war. The fact remains, however, that Hitler and Stalin were the driving forces behind the war. Both provided its ideological basis and its strategic direction. Each had a hand in all major operational decisions, but it was Adolf Hitler and his General Staff leadership that took Germany and Europe into the greatest catastrophe of modern times. But as this thesis has labored to show, it was Stalin’s willingness to collaborate with his General Staff to incorporate the principles of operational art into the highest levels of military planning that provided one of the preliminary conditions for Soviet victory.
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Appendix 1

The First Smolensk Counter Offensive (16-23 July 1941)

Western Front

Red Army Forces

Chief of the General Staff: Marshal Georgi S. Zhukov
Commander of the Western Main Direction: Marshal of the Soviet Union Semen K. Timoshenko
Commander of Operational Grouping: General Alexei Eremenko
People's Commissariat for Internal Affairs (NKVD) Political Officer: Commissar Lev Mekhlis

Total Armies (Operational Groups): 5

Estimated Total Soviet Troop Strength: 270,000

Operational Groupings assigned for Counter Offensive

24th Army (Major-General Stepan A. Kalinin)

Troop Strength: 50,000 (approx.)

- 89th Rifle Division (53rd Rifle Corps)
- 91st Rifle Division (53rd Rifle Corps)
- 166th Rifle Division (53rd Rifle Corps)

28th Army (Major-General Vladimir I. Kachalov)

Troop Strength: 50,000

- 145th Rifle Division
- 149th Rifle Division
- 176th Rifle Division
- 104th Tank Division

29th Army (Lieutenant-General Ivan I. Maslennikov, Deputy Peoples Commissar - NKVD)

Troop Strength: 45,000 (+10,000 Calvary)

- 243rd Rifle Division
- 252nd Rifle Division
- 1st Motorized Rifle Regiment NKVD
- 50th Cavalry Division (Colonel Issa A. Pliev)
- 53rd Calvary Division (Brigade Commander Kondrat S. Melnik)
Appendix 1 (continued)

30th Army (Major-General Vasily A. Khomenko)

Troop Strength: 65,000

- 242nd Rifle Division
- 250th Rifle Division
- 251st Rifle Division

Group ‘Yartsevo’ (Major-General Konstantin K. Rokossovskii)

Troop Strength: 50,000

- 38th Rifle Division (44th Rifle Corps)
- 64th Rifle Division (44th Rifle Corps)
- 108th Rifle Division (44th Rifle Corps)
- 14th Tank Division
- 18th Tank Division
- 101st Tank Division
- 107th Tank Division
Appendix 2

Army Group Center

German Wehrmacht

Commander of Army Group Center: Field Marshal Fedor von Bock
Commander of Fourth Panzer Army: Field Marshal Günther von Kluge

Total Panzer Groups: 2
Total Panzer Divisions: 9
Total Motorized Divisions: 7
Total Motorized Brigades: 1
Total Cavalry Divisions: 1
Total Army Groups: 2
Total Infantry Divisions: 34
Group Reserves: 3 (including Rear Area Command)

Fourth Panzer Army (Colonel-General Erich Hoepner)

Second Panzer Group (Colonel-General Heinz Guderian)

XXIV Motorized Corps (General of Panzer Troops Leo Freiherr Geyr von Schweppenburg)

- 4th Panzer Division
- 3rd Panzer Division
- 10th Motorized Division
- 1st Cavalry Division

XXXXVII Motorized Corps (General of Panzer Troops Joachim Lemelsen)

- 18th Panzer Division
- 17th Panzer Division
- 29th Motorized Division

XXXXVI Motorized Corps

- Waffen-SS ‘Das Reich’ Motorized Division
- 10th Panzer Division
Appendix 2 (continued)

Third Panzer Group (Colonel-General Hermann Hoth)

LVII Motorized Corps (General of Panzer Troops Adolf Kuntzen)

- 19th Panzer Division
- ½ 14th Motorized Division

XXXIX Motorized Corps (General of Panzer Troops Rudolf Schmidt)

- 7th Panzer Division
- 12th Panzer Division
- 20th Panzer Division
- 18th Motorized Division
- 20th Motorized Division
- ½ 14th Motorized Division
- 900th Motorized Brigade “Lehr”

XXIII Army Corps (General of Infantry Albrecht Schubert)

- 86th Infantry Division
- 110th Infantry Division
- 206th Infantry Division

Second Army Group (Field Marshal Maximilian Reichsfreiherr von Weichs)

XII Army Corps (General of Infantry Walter Schroth)

- 31st Infantry Division
- 34th Infantry Division

IX Corps (General of Infantry Hermann Geyer)

- 137th Infantry Division
- 263rd Infantry Division
- 292nd Infantry Division

VII Corps (General of Artillery Wilhelm Fahrmbacher)

- 7th Infantry Division
- 23rd Infantry Division
- 258th Infantry Division
- 268th Infantry Division
Appendix 2 (continued)

XIII Army Corps (General of Infantry Hans Felber)
- 17th Infantry Division
- 78th Infantry Division

XXXV Corps - Headquarters (General of Artillery Rudolf Kämpf)
- 45th Infantry Division
- 293rd Infantry Division

LIII Corps Army Corps (General of Infantry Karl Weisenberger)
- 52nd Infantry Division
- 167th Infantry Division
- 255th Infantry Division
- 267th Infantry Division

Ninth Army (Colonel-General Adolf Strauss)

V Corps (Colonel-General Richard Ruoff)
- 5th Infantry Division
- 35th Infantry Division

VI Corps (General of Engineers Otto-Wilhelm Förster)
- 6th Infantry Division
- 26th Infantry Division

VIII Corps (Colonel-General Walter Heitz)
- 8th Infantry Division
- 28th Infantry Division
- 161st Infantry Division

XX Army Corps
- 129th Infantry Division
- 256th Infantry Division
Appendix 2 (continued)

Rear Area Command Center

- 87th Infantry Division
- 162nd Infantry Division
- 221st Security Division
- 252nd Infantry Division
- 286th Security Division
- 403rd Security Division

Army Group Reserves

- 102nd Infantry Division
- 131st Infantry Division
- 134th Infantry Division

OKH Reserves

- 15th Infantry Division
- 112th Infantry Division
- 197th Infantry Division
- 260th Infantry Division
- 96th Infantry Division (XXXXIII Corps)
- 106th (XXXXIII Corps)
- L Army Corps
Appendix 3

Wehrmacht

German Sixth Army

Commanding Officer: General Friedrich Wilhelm Ernst Paulus
Chief of Staff: Lieutenant-General Arthur Schmidt
Chief of Operations: Colonel Hans Elchlepp
Quartermaster: Major Werner von Kunowski
Chief of Intelligence: Lieutenant-Colonel Niemeyer
Chief Adjutant: Colonel Wilhelm Adam
Chief of Artillery: Major-General Ulrich Vassoll
Chief of Signal: Colonel Hans-Günter van Hooven
Chief of Engineering Service: Colonel Max Edler von Stiotta
Chief of Medical Service: General Doctor Prof. Otto Rinoldi
Chief Liaison Officer: Lieutenant-Colonel Coelestin von Zitzewitz

German Troop Strength: 250,000

Total Armies: 1
Total Air Fleets: 1
Army Corps: 5
Infantry Divisions: 14
Motorized Infantry Divisions: 3
Panzer Divisions: 3
Jäger Divisions: 1
Flak Divisions: 1
Artillery Regiments: 4
Artillery Battalions: 4
Heavy Artillery Battalions: 3
Mortar Regiments: 2
Nebelwefer Regiments: 2

IV Corps (General der Pioniere Erwin Jaenecke)

- 29th Motorized Infantry Division
- 297th Infantry Division
- 371st Infantry Division

VIII Corps (General der Artillerie Walter Heitz)

- 76th Infantry Division
- 113th Infantry Division
Appendix 3 (continued)

XI Corps (General der Infanterie Karl Strecker)
- 44th Infantry Division
- 376th Infantry Division
- 384th Infantry Division

XIV Corps (General der Panzertruppen Hans Hube)
- 3rd Motorized Infantry Division
- 60th Motorized Infantry Division
- 16th Panzer Division

LI Corps (General of Artillerie Walther von Seydlitz-Kurzbach)
- 71st Infantry Division
- 79th Infantry Division
- 94th Infantry Division
- 100th Jäger Infantry Division
- 295th Infantry Division
- 305th Infantry Division
- 389th Infantry Division
- 14th Panzer Division
- 24th Panzer Division

Fourth Panzer Group
- LVI Panzer Corps (General Johannes Block)
- XLVI Panzer Corps (General Walter Fries)
- VIII Army Corps (General Walter Hartmann)

Luftwaffe Air Support

VIII Fliegerkorps (General der Flieger Martin Fiebig)

Luftflotte 4 (General Field Marshal Wolfram Freiherr von Richthofen)
- 10th, 11th, 12th, 13th, 14th, 21st, 31st, 32nd, 41st, 121st and 122nd Aufklärungsgruppen (Aerial Reconnaissance Groups)
- Nachtschlachtgruppe (Night Reconnaissance Group)
- 4th, 7th, 9th, and 12th Close Range Reconnaissance Group
- 3rd, 4th, 52nd, and 53rd Jagdgeschwader (Fighter Wing)
- 1st Zerstörergeschwader (Heavy Fighter Wing)
- 1st Schlachtgeschwader (Ground Attack or Close Air Support Wing)
- 1st, 2nd, and 77th Sturzkampfgeschwader (Dive-Bomber Wing)
Appendix 3 (continued)

- 4th, 26th, 51st, 55th, 76th, and 100th Kampfgeschwader (Bomber Wing)
- Transportgruppen KGrzbV 700, KGrzbV 900, I./KGrzbV 1 and II./KGrzbV 1 (Transport Groups)

Total Serviceable Aircraft: 1,600
Appendix 4

Royal Romanian Army

Army Group Antonescu

Armies: 2
Corps: 6
Infantry Divisions: 15
Cavalry Divisions: 4
Armored Divisions: 3

Third Romanian Army
(General Petre Dumitrescu)

Troop Strength: 152,492

I Corps (Brigade-General Teodor Ionescu)
• 7th Infantry Division
• 11th Infantry Division

II Corps (Brigade-General Nicolae Dascalescu)
• 9th Infantry Division
• 14th Infantry Division

IV Corps (Brigade-General Constantin Sanatescu)
• 1st Infantry Division
• 13th Infantry Division

V Corps (Brigade-General Aurelian Son)
• 5th Infantry Division
• 6th Infantry Division

Reserves
• 1st Romanian Armored Division
• 7th Cavalry Division
• 15 Cavalry Division

Allied Support (German)
• 14th Panzer Divisions (XXXXVIII Corps)
• 22nd Panzer Division (XXXXVIII Corps)
Appendix 4 (continued)

Fourth Romanian Army
(General Constantin Constantinescu-Claps)

Troop Strength: 75,580

VI Corps (Brigade-General Corneliu Dragalina)

- 1st Infantry Division
- 2nd Infantry Division
- 4th Infantry Division
- 18th Infantry Division

VII Corps (Brigade-General Florea Mitranescu)

- 5th Cavalry Division
- 8th Cavalry Division

Allied Support (German)

- 20th Infantry Division (IV Corps)
- 297th Infantry Division (IV Corps)
- 371st Infantry Division (IV Corps)

Air Support

Forţele Aeriene Regale ale României (Royal Romanian Air Force, FARR)

1st Romanian Air Corps (Major-General Elimian Ionescu)

- 7th and 8th Fighter Groups
- 1st, 3rd and 5th Bomber Groups
- 6th Fighter-Bomber Group
- Long Range Recon (DO-17M) and the 112th Liaison Squadrons (Fleet 10G)
Appendix 5

Operation Uranus

Red Army Forces

Southwestern Front

Commanding Officer: Nikolai F. Vatutin
Chief of Staff: Gregori D. Stelmakh
Political Officer: Alexei S. Zheltov

Unit Strength: 398,100

Total Armies: 3
Total Air Armies: 2
Mechanized Corps: 1
Tanks Corps: 2
Cavalry Corps: 2
Rifle Divisions: 18
Cavalry Divisions: 6
Rifle Brigades: 2
Tank Brigades: 1
Artillery Regiments: 8

1st Guards Army (General D.D. Lelyushenko)

- 1st, 153rd, 197th, 203rd, 266th, 278th Rifle Divisions
- 1st Guards Mechanized Corps (Front Reserve)

5th Tank Army (General Pavel L. Romanenko)

- 14th, 47th, and 50th Guards Rifle Divisions
- 119th, 159th, 346th Rifle Divisions
- 1st and 26th Tank Corps
- 8th Cavalry Corps

21st Army (Major-General Ivan M. Christyakov)

- 63rd, 76th, 96th, 277th, 293rd, 333rd Rifle Divisions
- 4th Tank Corps
- 3rd Guards Cavalry Corps
Appendix 5 (continued)

2nd Air Army (Colonel K. Smirnov)

Total Aircraft: 300+

- 205th, 206th, 207th Fighter Divisions
- 208th Night Bomber Aviation Division
- 223rd Short-Range Aviation Division
- 225th, 226th, 227th Attack Aviation Divisions
- 50th Reconnaissance Aviation Regiments
- 878th Composite Aviation Regiment
- 324th Reconnaissance Aviation Squadron

17th Air Army (Maj. Gen. S.A. Krasovsky)

Fighter Aircraft: 82
Ground Attack Aircraft: 40
Bombers: 0
Night Bombers: 79
Reconnaissance: 0

- 282nd and 288th Fighter Divisions
- 208th, 267th, 282nd, 637th Ground Attack Air Divisions
- 221st Bomber Aviation Division
- 262nd Night Bomber Aviation Division
- 282nd Composite Aviation Regiment
- 371st Light Bomber Aviation Regiment
- 10th Air Reconnaissance Squadron
- 34th and 45th Corrective Aviation Squadron
Appendix 6

Don Front

Commanding Officer: Konstantin K. Rokossovskii
Chief of Staff: Mikhail S. Malinin
Political Officer: Aleksey I. Kirichenko

Unit Strength: 307,500

Total Armies: 3
Total Air Armies: 1
Tank Corps: 1
Rifle Divisions: 24
Tank Brigades: 6
Artillery Regiments: 52

65th Army (Composite) (Lieutenant-General Pavel I. Batov)
- 4th, 27th, 40th Guards Rifle Divisions
- 23rd, 24th, 252nd, 258th, 304th, 321st Rifle Divisions

24th Army (Composite) (General Ivan V. Galanin)
- 16th Tank Corps
- 107th, 109th, 164th Tank Brigades
- 15th Motorized Rifle Brigade
- 49th Guards Rifle Division
- 84th, 120th, 173rd, 233rd, 260th, 273rd Rifle Divisions

66th Army (Major-General A.S. Zhadow)
- 64th, 99th, 116th, 226th, 299th, 343rd, Rifle Divisions
- 58th Tank Brigade

16th Air Army (Major-General S.I. Rudenko)

Fighter Aircraft: 114
Ground Attack Aircraft: 105
Bombers: 0
Night Bombers: 93
Reconnaissance: 3
Appendix 6 (continued)

- 220th and 283rd Fighter Divisions
- 228th and 291st Ground Attack Air Divisions
- 271st Night Bomber Regiment
- 372nd and 714th Light Bomber Air Regiments
- 325th Air Reconnaissance Squadron
Appendix 7

Stalingrad Front

Commanding Officer: Andrei I. Eremenko
Chief of Staff: Ivan S. Varennikov
Political Officer: Nikita S. Khrushchev

Unit Strength: 429,200

Total Armies: 5
Total Air Armies: 1
Mechanized Corps: 1
Tank Corps: 1
Rifle Divisions: 24
Cavalry Divisions: 2
Rifle Brigades: 17
Tank Brigades: 8
Artillery Regiments: 67

62nd Army (Composite) (Lieutenant-General Vasily I. Chuikov)
- 13th, 37th, 39th Guards Rifle Divisions
- 45th, 95th, 112th, 138th, 193rd Rifle Divisions
- 10th NKVD Division
- 42nd, 115th, 124th, 149th, 160th Special Brigades
- 92nd Marine Infantry Brigade
- 84th, 137th, 189th Tank Brigades

64th Army (Composite) (Major-General Mikhail S. Shumilov)
- 36th Guards Rifle Division
- 29th, 38th, 157th, 204th Rifle Divisions
- 154th Marine Infantry Brigade
- 66th, 93rd, 96th, 97th Special Brigades
- 13th and 56th Tank brigades

57th Army (Composite) (Major-General Fedor I. Tolbukhin)
- 169th and 422nd Rifle Divisions
- 143rd Special Brigade
- 90th and 235th Tank Brigades
- 13th Mechanized Corps (T.I. Tanashchishin)
Appendix 7 (continued)

51st Army (Major-General Nikolai I. Trufanov)

- 15th Guards Rifle Division
- 38th Special Brigade
- 254th Tank Brigade
- 125th Separate Tank Brigade
- 4th Mechanized Corps (Vasily T. Volsky)
- 4th Cavalry Corps (Timofei T. Shapkin)

28th Army (Composite) (Lieutenant-General Vasily F. Gerasimenko)

- 34th Guards Rifle Division
- 248th Rifle Division
- 52nd, 152nd, 159th Special Brigades
- 6th Guards Tank Brigade

8th Air Army (General T.T. Khryukin)

Fighter Aircraft: 284
Ground Attack Aircraft: 273
Bombers: 65
Night Bombers: 122
Reconnaissance: 7

- 268th and 287th Fighter Divisions
- 206th, 226th, 289th Ground Attack Air Divisions
- 270th Bomber Division
- 272nd Night Bomber Regiment
- 8th Air Reconnaissance Regiment
- 23rd, 282nd, 633rd, 655th, 932nd Ground Attack Air Regiments
Map 1.*

Smolensk Counter Offensive
Disposition of Forces
28 July 1941

Fourth Panzer Army

Third Panzer Group (Hoth)

Second Panzer Group (Guderian)

Western Front

* Map not to scale
Map 2.*

Southwestern Front (Vatutin)

Don Front (Rokossovskii)

Stalingrad Front (Eremenko)

Army Group B

1st Guards Army
Veshchenskaia

5th Tank Army

21st Army

24th Army

65th Army

66th Army

3rd Romanian Army (Dumitrescu)

6th Army (Paulus)

4th Panzer Group (Hoepner)

4th Romanian Army (Constantinescu-Claps)

Stalingrad

Kotelinovski

Golubinski

VI Corps

Sodovoya

VII Corps

IV Corps

62nd Army

57th Army

4th Army (Constantinescu-Claps)

Nizhnye Chernovski

Chir River

2nd Romanian Army

Chir River

1st Guards Army

Veshchenskaia

5th Tank Army

21st Army

65th Army

24th Army

66th Army

3rd Romanian Army (Dumitrescu)

6th Army (Paulus)

4th Panzer Group (Hoepner)

4th Romanian Army (Constantinescu-Claps)

Stalingrad

Kotelinovski

Golubinski

VI Corps

Sodovoya

VII Corps

IV Corps

62nd Army

57th Army

4th Army (Constantinescu-Claps)

Nizhnye Chernovski

Chir River

*Map not to scale.