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Foreword

This is the second volume of C. J. Dick's comparative critique of the differing approaches employed by the Allied powers as they conducted military operations in western and eastern Europe against the Wehrmacht of Hitler's Germany during the summer of 1944. Unlike the first volume, which focuses on how the Western Allies conducted warfare strategically and operationally, this volume analyzes the Soviet approach to land warfare and finds it markedly different and far more effective.

Titled *From Defeat to Victory*, this volume examines how the Soviet Union's Red Army conducted military operations in eastern Europe from late June through September 1944. Rising from the ashes of embarrassing and costly defeats in 1941 and 1942, the Red Army seized the strategic initiative in late 1942, consolidated its successes in 1943, and embarked on strategic offensives in 1944 that broke the Wehrmacht's back and paved the way to total victory in 1945. How, Dick asks, did this transformation occur, and what features marked its success? The answer, he maintains, can be found in the series of major strategic offensives the Red Army conducted during this period. His examination of these offensives, set against the backdrop of doctrinal and institutional changes that took place in the Red Army during 1942 and 1943, provides the hallmarks of this answer. In short, despite the imposing difficulties it faced in the first two years of the war, the Red Army ultimately learned how to wage war at the operational level; this, in turn, generated strategic victory.

Juxtaposed against each other, these two volumes provide a valid basis for comparing the Allied armies' differing approaches during the war as a whole. To this end, Dick demonstrates how different historical experiences, not the least involving the type and scale of warfare, led East and West down different conceptual paths. His analysis concludes that the Soviet path was better suited to the nature of the Second World War on land. In short, the Soviets' rigor in theoretical analysis, coupled with skillful exploitation of greater and more traumatic and costly experience, led them to evolve superior operational concepts and techniques, as a comparative analysis of methods and results clearly shows.

Setting aside cultural and political differences between the Western Allies and the Soviet Union, Dick argues that the Soviet articulation, acceptance,

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and practice of “operational art” distinguished the Red Army’s performance in the summer of 1944 from that of the armies of its Western Allies. From the standpoint of military art, this conditioned the Red Army’s comparative success.

Looking forward, despite the West’s and, in particular, the US Army’s flirtation with the concept of operational art in the 1980s, Dick treats that flirtation as transitory and warns that if Western countries and their leaders fail to acknowledge and understand the importance of the operational level today and in the future, it will be difficult if not impossible for them to wage war successfully. With that conclusion, I find it exceedingly difficult to disagree.

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Carlisle, PA



Acknowledgments

I found writing this book much more difficult than I had expected when I blithely embarked upon the project. There were many times when I stared glumly at my computer, bereft of ideas, or gazed at the little birds industriously building their nests in my garden fence and wished I too could be out in the sun, indeed, anywhere except at my desk. That the project came to fruition is due in significant part to my beloved wife, Heather. She tolerated my spells of irritability or abstraction, demonstrating extraordinary forbearance in the face of periodic neglect. She encouraged me when I seemed despondent and disinclined to work, offering helpful suggestions to make some passages read more mellifluously. But her finest hour came with the proofreading. Her patience, attention to detail, and constructive ideas have combined to make this study more readable and accurate than it would have been if it had been left to me.

The ideas and opinions contained in this work owe much to my reading but more to innumerable discussions over the course of staff rides and battlefield tours, in the wake of lectures, or over a glass of wine or beer. I cannot begin to list all those who, during thirty or so years of study, made a contribution. I can, however, single out for special thanks the five people who read my drafts, made suggestions, and gave me insights. I worked with and came to know each of them when I was with the Soviet (later, Conflict) Studies Research Centre. All are deeply knowledgeable about military history and, critical for my purposes, about the central theme of my study—operational art. Four were soldiers who thought deeply about their profession and spent much of their careers, whether during their military service or after, educating officers in staff colleges and through their writings. In Britain, they are Major Generals Mungo Melvin and John Sutherell. In the United States, they are Colonels David Glantz and Les Grau, both soldiers turned academics. My lone civilian, Professor Jake Kipp, has spent a distinguished career in academe, much of it with David and Les, studying and writing about the same themes. I owe David a double debt. He provided me with indispensable material from his unparalleled collection of Soviet articles and General Staff documents.

Of course, writing a book is but one stage in a journey. It has to be published. I am grateful to Michael Briggs, the editor in chief at the University

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My thanks to you all.



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Abbreviations, Acronyms, and Selected Foreign Words

AFV	armored fighting vehicle
CCS	Combined Chiefs of Staff
CIA	Central Intelligence Agency (US)
EU	European Union
ISIS	Islamic State of Iraq and Syria (Islamist self-proclaimed state)
MSU	marshal of the Soviet Union
NATO	North Atlantic Treaty Organization
NKVD	Soviet secret police
OKW	Oberkommando der Wehrmacht (German High Command)
POL	petrol, oil, and lubricants
PU-36	Soviet Field Regulations 1936
PU-44	Soviet Field Regulations 1944
<i>Rasputitsa</i>	period of roadlessness due to spring thaw and rains and fall rains
RSHC	reserves of the Supreme High Command
SAU	Soviet self-propelled assault gun
SHAEF	Supreme Headquarters, Allied Expeditionary Forces
<i>Stavka</i>	Soviet Supreme High Command
TO&E	table of organization and equipment





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Introduction

As in the first volume, my intention in volume 2 is not to tell the comprehensive story of a campaign. Rather, it is to provide enough material to support my analysis of operations to see whether they were carried out in accordance with military theory and the extent to which that theory provided a good guide to action or required modification. My methodology is also much the same as in volume 1, although it is necessarily less informed by staff rides. I was involved in only one staff ride dealing with the operations analyzed here.¹ An inability to do personal terrain studies was also a disadvantage.

In another way, however, my task was made easier by the nature of much serious Soviet military writing, which differs from most Western material. Western military history, whether official or academic, tends to be largely narrative in form, designed to tell the reader what happened and sometimes why it happened. Such popular accounts were common in the Soviet Union too, but there is a considerable body of work produced by the army, or under its auspices, in which the main purpose was didactic and analytical—for example, studies that seek to answer such questions as the following: What correlation of forces and what ratio of force to space would ensure a breakthrough in different circumstances? What kinds of weaponry in what mix were required for various tasks? What factors determined the tempo of operations, and how did the rate of advance affect casualty rates and logistic sustainability? As the bibliography attests, whole books were written about individual themes, often in immense detail. For instance, A. I. Radzievskiy's *The Breakthrough* and *Tank Shock* examined, respectively, combined armies conducting penetration operations and tank armies in the exploitation. M. M. Kir'yan's *The Fronts Attacked* studied both problems at *front* (army group) level. V. A. Matsulenko wrote detailed studies about concealment and deception and about the conduct of operational encirclements. F. D. Sverdlov dissected an important link between the tactical and operational levels in *The Forward Detachment in Battle*, while V. Ye. Savkin addressed issues affecting the tempo of an offensive. These are just a few examples of the many thousands of books and articles, the product of exhaustive trawling through the archives, by senior officers turned academics. They were not writing for a general readership but to provide a “scientific” base for doctrine writers and teaching materials for students at military academies studying the tactical

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level of war and those at the General Staff Academy studying the operational level. Such works as these, so different from anything found in the West, constitute the sources for much of volume 2, with German and German-based works being used to check the accuracy of some Soviet assertions.² This source material imparts a different tone from that evident in volume 1.

In this volume, dealing with the trials, tribulations, and triumphs of the Red Army, I adopted a more broad-brush approach to the description of operations. Even attempting to cover only the most significant operations in the same detail as those in the west would have required an inordinate amount of space; their scale was simply too vast. For instance, the five-week-long Belorussian Operation alone was conceived and executed on a greater geographic scale than the entire eight-week campaign starting with the Normandy breakout and lasting until mid-September: it covered an area roughly 550 by 600 km (340 by 370 miles), compared with the Allied 350 by 450–500 km (215 by 280–310 miles), and it involved 2.3 million men compared with 1.5 million in the west. There were also too many operations to attempt a comprehensive survey. During the summer of 1944, there were eight strategic operations involving more than one *front* and many more single-*front* operations. I have confined myself to the three biggest, symbiotically linked, and most important and successful ones that together achieved decisive results. They best illustrate my theme of the evolution of operational art. But while recognizing these successes, I also acknowledge that several other operations fell short, sometimes far short, of their assigned goals. The German army was still a formidable opponent, and many Soviet generals lacked the experience, the education, and the ability fully to master evolving concepts and techniques in a timely manner, or in some cases at all.

For the same reason, my analysis of generalship does not cover every Soviet operational-level commander. To accomplish this for the Western Allies in the summer of 1944, I had to examine the achievements of only seven generals; to do the same for the Soviets in their three strategic operations would have necessitated considering fifty-eight. For these reasons, the judgments passed on the Red Army tend to concentrate less on the performance of individual commanders than on the development of the higher-level theory and practice of warfare.

Before becoming immersed in volume 2, readers unfamiliar with the Soviet military lexicon may wish to look at the section titled “An Essential Guide to Soviet Military Terms and Organizations.” There is much that is unfamiliar in the West, and this specialized military vocabulary, so essential to an understanding of the Red Army’s concepts and practice, is necessarily frequently in evidence throughout this volume.

Chapter 1 sets out the background to and context for the determinative summer campaign of 1944. It opens with a review of the evolution of Soviet

prewar doctrine, concentrating on the theory outlined in Field Regulations 1936. This doctrine was, in many respects, conceptually more advanced than that evolving in Germany in the late 1930s. However, this promising foundation was fatally undermined by egregious errors on the part of Stalin, especially his massive prewar purge of the officer corps and the related military disasters of 1941–1942. Catastrophic losses of men, materiel, and territory were endured. Nevertheless, the government's political authority and the war economy were restored, even in the midst of destruction. Enabled by these preconditions and the Germans' strategic mistakes, the Red Army accomplished a renaissance—a remarkable act of renewal while still engaged in a life-or-death struggle with more than 80 percent of Germany's strength (without even including other Axis contingents). Utilizing a growing output of weaponry, a huge reserve of manpower, and the experience gained in the first period of the war, the Soviets built on the solid prewar doctrinal base to evolve methods that stabilized the strategic situation and then turned the tide in the second period. From midsummer 1943, the strategic initiative was uncontestedly in Soviet hands. The Red Army had demonstrated that it was a learning organization, although it had certainly paid a very heavy price for its education.

Chapter 2 describes and chapter 3 analyzes the three most significant strategic offensives of the summer 1944 campaign. Together, they display Soviet operational art in maturity. I start by outlining the *Stavka's* (Supreme High Command's) strategic decision for the campaign. There were to be three carefully sequenced strategic offensive operations, each of which would destroy an army group. The cumulative strategic effect would be the evisceration of the German *Army of the East* and the consequent reconquest of territory of strategic significance. Chapter 2 outlines the salient features and evolution of the Belorussian, Lvov-Sandomir, and Yassi-Kishinev Operations. For each one, the problem, the ground, and the enemy's strength and deployment are briefly examined, followed by the operational ideas and plans designed to achieve an annihilating and thus decisive victory. Then the development of each operation is outlined and broken down, as was the Soviet wont, into two basic phases: the breakthrough, and the subsequent exploitation designed to accomplish the destruction of the enemy as the primary aim, with the seizure of territory as an important consequence.

Common themes emerge. Each operation had to overcome well-prepared positional defenses. In each, one or more major German groupings were selected for encirclement and destruction, the result of which would be the collapse of a strategically significant formation and consequent penetration into the strategic depth. Axes were chosen to this end, and carefully calculated superiorities were built up to achieve the aim within a desirable time frame. Surprise, of one sort or another, was an essential ingredient, and *maskirovka*

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plans were hatched and implemented to achieve it, especially by using deception to entice scarce German reserves away from the main effort. When the offensives opened, weight of fire and numbers, driven ruthlessly forward with little regard for losses, created a momentum that made timely enemy reactions difficult and created openings for operational maneuver that would make whatever the enemy did ineffectual. Once the defense had been collapsed and the Germans had been driven into a purely (and increasingly belated) reactive posture, new operational-strategic possibilities opened up. The High Command was able to expand the scope of its aims and develop the concept of operations accordingly. Exploitation forces penetrated deep into the enemy rear with the intention of seizing strategically vital ground before it could be adequately defended. Then, after a few weeks, the offensives died away as a result of logistic overstretch. The appendix to the chapter describes the Red Army's logistic system as it had evolved by 1944, highlighting the characteristics that made it well suited to maneuver warfare, as well as its limitations.

In chapter 3 I analyze the ideas, means, and methods by which victory was achieved. Mirroring Soviet methodology, there is a strong bias toward the statistical analysis of all aspects of combat to which all operations were routinely subjected. A key ingredient of success was the evolution of doctrine. Field Regulations 1936 had been advanced for its time but contained flaws and issues that were imperfectly understood or glossed over. The 1944 version shows how much had been learned through exhaustive and penetrating analysis of recent wartime experience. Nevertheless, problems remained, both in breaking through the defense and then in seamlessly transitioning to operational maneuver to decisive effect. The nature of these difficulties and the ways in which they were overcome, despite frequent and inevitable mistakes, are studied. The growing Soviet mastery of operational art becomes obvious. It is clearly revealed in the analysis of such indicators as rates and depth of advance and their effect on casualty rates. Appended to the chapter is a short précis of a Soviet description of the planning process for a *front* offensive operation. The chapter concludes with a brief overview of the climactic Vistula-Oder offensive of January–February 1945 to show just how completely and rapidly the Red Army had digested the lessons of recent operations and implemented changes in doctrine and practice.

Chapter 4 essays some conclusions applicable to both Allied and Soviet campaigns. I begin with a look at the interaction between the western and eastern theatres to determine the extent of cooperation between them and the impact the actions, attitudes, and prejudices entertained by each had on the other. I also consider in more depth one of the threads running through volume 1: the problems and pitfalls of conducting operations as a coalition. One of the great advantages enjoyed by the Red Army was that it did not

need seriously to consult and compromise with allies in the formulation and execution of operational plans. Whereas Eisenhower could not lightly consign either America's or his principal ally's army to a manifestly secondary role, the Soviet High Command was unconstrained both in choosing main and secondary axes and in sequencing operations to achieve maximum effect. Whether the Western militaries would have managed better without alliance constraints is a matter for conjecture. What is clear is that their doctrines were less advanced and their adherence to the principles to which they subscribed (outlined in the first chapter of volume 1) was intermittent.

Another interesting and related contrast between the Allies and the Soviets was their different attitudes toward intelligence, surprise, and deception. Thanks to their mastery of the air and especially to Ultra, the Allies had superior higher-level intelligence. They used it to achieve a triumph in strategic deception, ensuring that the German preparation for and reaction to not only the initial Normandy landings but also the buildup over the following six or seven weeks were inadequate to defeat or even to contain the invasion. But they were less sure-footed at the operational level. Despite often priceless insights into German command decisions and the state of the *Army of the West*, Allied attempts at operational deception were limited, and their conduct of operations was often excessively cautious, apparently placing avoidance of risk above the prospects of the results that could be achieved from bold decisions. The Soviets were more consistent in fully exploiting these force multipliers at the operational level. Wrong-footing the Germans and ensuring the maldeployment of their operational reserves often made the difference between major and more qualified success.

Chapter 4 also provides a relatively detailed comparison of the conduct of operations in the west and the east. It rapidly becomes clear that the difference in doctrinal preparedness and the difference between armies more historically attuned to small-wars thinking and the Red Army, with its emphasis on the clash of army groups, did much to shape their approaches to operational art. To the Soviets, operational art was of central importance, whereas to the British and Americans, it was little more than tactics writ large—"grand tactics" in the former's parlance. As a result, Allied preoccupations with seizing ground of tactical significance and solving tactical problems, with minimizing casualty levels, and with avoiding confusion and loss of direction often drove planners to think in terms of deliberate, tightly controlled, phased attacks of limited scope. The consequence of such measured, risk-averse attacks was a low tempo in the advance. Soviet operational ideas tended to be on a larger scale with deeper objectives. Moreover, the principal aim was almost always the destruction of key enemy groupings rather than the seizure of ground (which would, in fact, fall as a consequence of the enemy's destruction). For the Red Army, an essential condition for opera-

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tional success was a high rate of advance, which it sought to achieve as early as possible. It was seen as a force multiplier, keeping the enemy continually off balance and struggling to find the necessary forces and time to restore the integrity of his defense. To achieve a high rate of advance, the Soviets were prepared to suffer heavy initial casualties and to accept risks, a certain degree of chaos, and the loss of some control over the battle. As long as each subordinate commander constantly bore in mind his superior's intent, especially the designated main effort, and worked toward achieving it, the absence of close and continuous direction would not result in excessive dissipation of effort.

On both fronts, most operations had to begin with the penetration of a more or less well-prepared defended line, and the Germans were very capable and determined defenders. This was usually a very difficult challenge. Interestingly, the methods used became increasingly similar as common experience drove all armies to comparable conclusions, although the scale of Soviet efforts, combined with a lack of concern for casualties not possible in the armies of the democracies, gave them more consistent success. The major difference came after the breakthrough. US and British armies and army groups generally deployed only small reserves and relied on ad hoc decision making in the exploitation phase. Moreover, their tendency toward caution often gave the enemy priceless time to restore some integrity to his defense. Of the Allied senior commanders, only George S. Patton was consistently bold, and he was considered dangerously rash by his bosses. Red Army higher formations on key axes invariably possessed strong, armor-heavy mobile groups at each level to develop tactical into operational success and then operational into strategic success. Operational maneuver in the enemy's depth was seen to be the decisive period of every operation, and it had to be conducted audaciously to keep the enemy in a permanently—indeed, increasingly—reactive posture. One factor was common to both fronts: logistic exhaustion was a frequent cause of operational culmination. However, the Soviets were better able to prolong an operation on the most decisive axis by starving secondary axes of resources; their higher command was not inhibited from doing so by political considerations.

The revolution in military affairs that started around 1917 and gathered pace between the two world wars changed the nature of warfare. As this study shows, some armies adjusted more quickly and completely than others and consequently proved more formidable opponents. Since the 1980s, far more profound technological developments have taken place, and they continue to do so at an accelerating pace. These are constantly changing the nature of fighting. But they are arguably not as far-reaching as the socioeconomic and political upheavals developing in the twenty-first century. Globalization and the information revolution are exercising their influence

far beyond the battlefield. “The first, the most far-reaching act of judgment that the statesman and commander have to make is to establish . . . the kind of war upon which they are embarking.”³ Many times since 1945, political leaders and soldiers alike have failed to demonstrate the understanding and prudence that Clausewitz called for, and their armies and countries have suffered as a result. Have they now learned the limits of political and military intelligence? Have they acknowledged the weakness of even the strongest-seeming alliance when conflict erupts? Above all, have they considered the psychological and political nature and appeal of the new revolutionary impulse, most particularly the manifestation that is spreading outward from Iraq and Syria through much of Africa and into South and Central Asia? Arguably, this poses a more fundamental threat to Western interests than traditional ethnic and nationalist tensions, including the recrudescence of Russian expansionism. Which of today’s governments and armies within liberal democracies are evolving concepts and doctrine that will be adequate to cope with tomorrow’s problems in an environment in which the utility and political effectiveness of military force are increasingly questioned? The final chapter does not attempt to provide the answers. But it does suggest that certain aspects of conflict are unchanging and that Western powers are in danger of overlooking some of the lessons of history and harboring dangerous delusions as a result. It does not presume to tell contemporary military and civilian leaders what to think, but it does highlight the fact that historical perspective can teach them how to think.



An Essential Guide to Soviet Military Terms and Organizations

The Soviets were always very precise in their use of military semantics, and their meanings have often been obscured or lost in translation. Moreover, many Soviet terms have different or alternative meanings from those with which Western readers are familiar, and the latter naturally fit such terms and, indeed, concepts into the context they already know. It is thus necessary to explain some of the vocabulary used in this volume.¹ This section also outlines some unit and formation organizational structures.²

Army. Usually subordinated to a *front* [q.v.], this operational-level grouping had no fixed composition but was tailored to its mission. An army was much smaller than its Western equivalent, more akin to a corps in size. However, armies attacking or even defending on important axes would be heavily reinforced. There were several types:

Air armies were operational-level groupings created, with one exception, to conduct joint operations and subordinated for that purpose to *fronts* [q.v.]. (For the conduct of counter-air operations, they came directly under the command of the air force.) They comprised fighter, bomber, ground attack, and reconnaissance divisions and separate regiments. Seventeen such air armies were formed during the war. The Eighteenth Air Army (formed in 1944) comprised long-range aviation and was employed for deep strike missions in support of theatre and *front* offensives. An air army generally comprised two to three fighter, one ground attack, and one to two bomber divisions, about 500 aircraft; after reinforcement from the *Reserve of the Supreme High Command (RSHC)* [q.v.], the inventory rose to 750 to 800 aircraft or, on a main axis, 1,100 to 1,200 aircraft.

Combined-arms armies were major field forces and, from early 1943, usually comprised three to four rifle corps, an army artillery brigade, one to three tank brigades, and several separate tank and assault gun units for close infantry support. When on a main axis, there would be additional artillery and armor support, and sometimes they would be augmented by a tank or mechanized *corps* [q.v.]. There were fifty-five such armies at the end of 1943.

Shock armies were initially conceived to execute the most exacting, breakthrough missions. They usually had more armor and artillery than other

combined-arms armies. Five were created during the war (included in the combined-arms army total).

Tank armies were major field forces, the first being formed in January 1943³ and generally comprising two or three tank and mechanized corps; a separate tank or assault gun brigade; two regiments each of heavy mortars, self-propelled artillery, and antitank guns; light air defense; and often a howitzer regiment as well as a multiple rocket launcher battalion. Their strength, which varied greatly, was always tailored to their mission. In 1944 they typically started at around 48,000 men, 550 to 770 tanks and assault guns, and 650 to 750 guns and mortars.⁴ Their role, acting as *mobile groups* [q.v.] of *fronts*, was usually to exploit breakthroughs to complete operational-level missions and, in a number of cases, operational-strategic missions. Five were formed in 1943 and a sixth in January 1944.

Artillery offensive. Mandated from January 1942, the doctrine of the artillery offensive ensured that attacking infantry and armor would receive artillery support throughout the attack rather than merely at the outset. This would be delivered in three phases: preparation (preliminary bombardment); support (beginning when the assault troops crossed the line of departure, support consisted of the delivery of preplanned fire, concentrations, and/or a rolling barrage through the enemy's tactical depth); and accompaniment (unplanned support delivered on demand to help tank and rifle troops continue their penetration, increasingly from fire units moving forward to accompany the advance).⁵

Attack from the line of march. During fluid, rapidly developing situations, winning the battle for time was often the key to success. Forestalling the enemy's deployment and getting in the first blow or beating the enemy to vital ground could mean the difference between victory and defeat. For this reason, the Red Army emphasized attacking from the line of march by units and formations. The commander would make his decision from a map appreciation and whatever intelligence was available, updating or amending his decision, as necessary, during the approach to combat. His subordinate subunits, units, or formations would flow straight from march order (organized according to the sequence in which they would deploy) into prebattle and then battle formation, hitting the enemy on the move without pausing in an assembly area or forming-up place.

Battle. Battles were fought by tactical formations (corps and divisions) and units (regiments and brigades). They were supposed to be initiated solely in accordance with the demands of the operational plans, with an aim and at a time and place where success would represent a step toward operational success.

Brigade. In late 1941 many rifle brigades were formed in place of full divisions in what proved to be a temporary reorganization. Operational-level artillery formations were also divided into brigades. The tank brigade was the basic building block of the mechanized and tank *corps* [q.v.]. Toward the end of 1941 it was slimmed to ten heavy, sixteen medium (T-34), and twenty light tanks and a small motor rifle battalion. In mid-1942 the heavy tanks were relegated to infantry support regiments, and the tank element comprised thirty-two mediums and twenty-three lights. The next year saw the final structure, with sixty-five mediums. Mechanized brigades had only thirty-nine medium tanks but three motor rifle battalions. In addition to those making up the mobile corps, there were 229 separate tank brigades and smaller regiments by 1943. These, containing 40 percent of the tank inventory, were dedicated to close infantry support tasks.

Cavalry-mechanized group. Cavalry-mechanized groups were operational-tactical or operational-level exploitation forces employed mainly to penetrate marshy and wooded or mountainous and wooded terrain where other mobile groups would face considerable, even apparently insuperable, difficulties. They consisted of a combination of cavalry and tank-mechanized corps. Their irruption into the enemy flank or rear by moving through terrain considered by the enemy to be impassable to any significant grouping frequently surprised the enemy and achieved success out of proportion to their strength.

Close infantry support tanks and SAUs. Close infantry support tanks and SAUs [q.v.] were used to accompany the rifle troops into the attack, destroying by direct fire any weapons that threatened to pin down the infantry and destroy the momentum of the attack. Often heavily armored and carrying very powerful guns, such armor was found mainly in the separate tank and SAU regiments and brigades, which numbered many hundreds by 1944.

Corps. Corps were tactical, not operational-level formations. From the reorganizations of 1942 onward, they were small by Western standards, roughly equivalent to largish divisions.

Artillery corps were formed in the *RSHC* [q.v.]; by late 1943 there were six breakthrough artillery corps found there. Each held twenty to twenty-five artillery and heavy mortar brigades organized in divisions and separate brigades—at least 496 guns, 216 mortars, and 108 multiple rocket launchers per corps. By August 1944, another four had been formed.

Cavalry corps had a primary mission of developing tactical into operational success. By 1944 they sometimes operated independently but were usually teamed with a mechanized or tank corps in a *cavalry-mechanized group* [q.v.] for exploitation over difficult terrain. Each of the ten cavalry

corps in existence in 1944 comprised three cavalry divisions with two to four tank and assault gun regiments, mortar and antitank regiments, and light air defense and rocket launcher battalions. Each corps had around 19,000 men, 40 medium tanks and assault guns, 168 guns and heavy mortars, and 8 multiple rocket launchers.

Mechanized corps were formed to carry out exploitation, most often in army- or *front-level mobile groups* [q.v.], but sometimes independently. Thirteen had been formed by the beginning of 1944, a number that remained constant until the war's end. They consisted of three mechanized brigades and one tank brigade, one or two self-propelled artillery and one towed artillery regiment, regiments of assault guns and heavy mortars, a multiple rocket launcher battalion, and light air defense. Altogether, the corps' 1944 inventory was typically more than 16,400 men, around 250 tanks and assault guns, 250 guns and heavy mortars, 8 multiple rocket launchers, and more than 1,800 motor vehicles.

Rifle corps, the workhorses of the Red Army, suffered a six-month period beginning in December 1941 when they were eclipsed as a level of command. However, they were reformed in the summer of 1942 and numbered 161 by the end of 1943. They were tactical combined-arms formations usually comprising three rifle divisions, two artillery regiments (one self-propelled), a multiple rocket launcher battalion, and several units and subunits of other arms. The component rifle divisions were only 9,000 to 10,000 men strong in theory; in practice, they were routinely only one-third to one-half of establishment, or even less after combat. A rifle corps might well muster around 24,000 men with about 600 to 700 guns and (mostly) mortars, but it would be augmented by major formation artillery and armor and other units if it were acting on the offensive on an important axis.

Tank corps, which numbered twenty-four by the end of 1943, were primarily exploitation formations and were usually part of an army- or *front-level mobile group* [q.v.]. The corps fielded three tank brigades and one motor-rifle brigade, two to three self-propelled artillery regiments, heavy mortar and light air defense regiments, and a multiple rocket launcher battalion. The corps of 1944 averaged around 11,000 men, almost 260 tanks and assault guns, 160 guns and heavy mortars, 8 multiple rocket launchers, and 1,300 to 1,500 motor vehicles.

Deep operation (battle). Deep operations or (at the tactical level) battles involved the simultaneous fire suppression of the enemy's defense throughout its depth and the penetration of the *tactical zone of defense* [q.v.] to permit the committal of an exploitation echelon to develop tactical success into operational success, thereafter continuing the advance until the objective of the operation is achieved.

Echelon. The operational formation, or configuration, of a major or minor formation in the offensive was divided into attack and exploitation echelons and reserves (combined arms, which were not always formed; antitank; engineer; and so forth).

The *first echelon* achieved the basic mission of the operation—the breakthrough. Its task was to destroy the enemy’s corresponding first echelon (the immediate or “near” mission) and to develop the attack into the enemy’s depth (the subsequent or “distant” mission). It was highly desirable that the first echelon penetrate to the entire tactical depth of at least a hasty defense (i.e., to the rear boundaries of forward enemy divisions) before additional forces would have to be committed to maintain momentum. Such a success by the first echelon would enable the committal of an exploitation force into a clean breach.

The *second echelon* was defined as follows in the Soviet *Dictionary of Basic Military Terms*:

The part of an operational or combat formation of troops which is not directly participating in an engagement (battle) at a given moment, but which is intended to build up the force of a blow during an offensive . . . and to replace troops of the first echelon in the event that the latter sustains heavy losses. The existence of a second echelon creates favorable conditions for building up strength, carrying out a maneuver, or rapidly transferring effort from one sector to another. . . . In contrast to a combined arms reserve, combat missions for a second echelon are assigned at the same time as those for the first echelon.

Thus the second echelon, or even a third echelon if the defense was dense and deep, was tasked with augmenting the efforts of the first. However, a second echelon was not always required—for example, it would not be necessary against a weak or overextended defense. The second echelon was formed at the same time as the first, and because its committal was preplanned, it could be deployed rapidly, with only last-minute refinements to the plan. It was employed to develop the first echelon’s success on the main axis, increasing the weight of the attack without a pause and loss of tempo in the advance; to widen and consolidate bridgeheads; to breach enemy depth positions; to cover open flanks; to defeat counterattacking groupings, either by transitioning to defense or, preferably, by destroying them in *meeting engagements (battles)* [q.v.] through flank and/or rear attacks; or to destroy bypassed groupings that threatened the development of the operation or unduly restricted deployment. Only when the commander had made an error in his operational calculations would the second echelon replace the first—that is, only when things were going wrong. Ideally, a second echelon would be committed not through the wreckage of the first but to its flank or through a

gap in its deployment (i.e., after the frontage of the attack had widened as a result of the breaching of the defender's forward defenses). Always, the basic principle was to use the second echelon to exploit success, not to redeem failure. This could necessitate radical, last-minute revisions of plans for commitment in an unexpected sector.⁶

The *exploitation echelon* (usually an army- or *front-level mobile group* [q.v.]) was the means by which the main forces of an army and *front* could transfer their actions into the depth of the enemy defense, imparting a maneuver character to offensive operations from the outset. Thus it was desirable to commit mobile groups virtually from the beginning of the operation to accelerate its development into the depth of the defense. Accordingly, a mobile group might have to complete the breakthrough of the tactical zone of defense itself, but ideally, it would be committed through a clean breach. Its role was the conversion of tactical into operational success (army level) or operational into strategic success (*front* level). By operating in the enemy's depth, ahead of and separated from the main forces, exploitation elements crumbled the defense from within. By attacking the command and control and logistic support of the enemy's first echelon, and by engaging his operational reserves and seizing depth defense lines before they could be manned, they could help precipitate the collapse of the defense and accelerate the advance of the main forces. Thus, if exploitation elements could be committed early—ideally, on the first or second day of operations—they could, through their actions, make the deployment of second echelons superfluous. Their missions, in combination with air assault forces, *forward detachments* [q.v.], and neighboring exploitation forces, could include the encirclement of enemy groupings, the destruction of enemy operational reserves moving forward, and the seizure of key objectives or of favorable lines from which further operations could be mounted.

Fortified region. Strong in artillery and machine guns and weak in riflemen, the fortified region was used as an economy of force minor formation for purely defensive tasks such as the holding of passive sectors or the flank of a penetration.

Forward battalion. Comprising a rifle battalion reinforced by close infantry support tanks or SAUs [q.v.] and with considerable artillery support, a forward battalion was used to conduct *reconnaissance by battle* [q.v.] to determine the character of the defense, its strength, and specific locations of strongpoints and weapons.

Forward detachment. A forward detachment was a unit required to act independently in advance of the main body. In the offensive, forward de-

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tachments were committed as early as possible through gaps created in the enemy's combat formation or to a flank to penetrate rapidly into the tactical or even operational depth. Pushed 15 to 20 km (9 to 12 miles), and eventually 40 to 50 km (25 to 30 miles), ahead of combined-arms or mobile formations, they were tasked with seizing and holding important lines or objectives such as major road junctions, mountain passes, or bridgeheads over a water obstacle, pending the arrival of the main forces. As their role became more important and their separation from the main body grew greater, forward detachments increased in size. Typically, in 1943 a forward detachment consisted of a tank brigade with an engineer company; by mid-1944, a tank-mechanized corps' forward detachment would be augmented by an SAU regiment, an antiaircraft regiment, a howitzer battalion, some antitank guns, and, importantly, a forward air controller. Combined-arms formations also began to form forward detachments, often based on a motorized rifle regiment reinforced by tanks or SAUs.

Front. A *front* was a major formation, the equivalent of a Western army group. *Fronts* varied greatly in size, according to their intended role; they could be similar to a smallish army. A *front* was initially seen as fulfilling strategic missions. Increasingly, however, strategic missions were seen to require groups of two, three, or even four *fronts* coordinated by one or more representatives of the Supreme High Command. Thus, the *front* became an operational-strategic entity that comprised, depending on the importance of its mission, from three to four and up to eight or nine combined arms, possibly one to three tank and one to two air armies; usually some separate tank, mechanized, cavalry, and artillery corps; and many other minor formations and units of all types. At the start of 1943, thirteen *front* headquarters were in existence; the number decreased to eleven a year later and then to ten as the length of the battlefront shrank with the westward advance of the Red Army.

Guards. Units and formations that distinguished themselves through their heroism and high combat effectiveness were granted the honorific *Guards*. Such organizations were strengthened with additional materiel of the latest types and more manpower, and their personnel were better paid.

Maskirovka. *Maskirovka* is a form of combat support, its purpose being to conceal the disposition and activities of friendly troops and mislead the enemy with regard to the grouping and intentions of those troops in order to achieve surprise. *Maskirovka* is a single, all-embracing concept that includes concealment and camouflage, deception and disinformation, counterreconnaissance and security. As there is no synonym in English, the Russian word is used. *Maskirovka* was a mandatory element of any Soviet plan.

Meeting engagement (battle). This is a clash between opposing sides when they are simultaneously attempting to accomplish their assigned missions through offensive action. A meeting engagement (operational level) or battle (tactical level) may occur during the course of a march (maneuver) or during the course of an offensive when attacking and counterattacking forces clash. Such an encounter is characterized by obscurity of the situation and abrupt changes therein; rapid movement to contact and deployment (i.e., swift changes in march, approach march, and combat formations) by both sides; the rapid buildup of efforts from the depth; the presence of open flanks and perhaps gaps in deployment and maneuver to find and exploit such weak spots; the dynamic nature of the encounter resulting from an intense struggle to win the battle for time and seize and hold the initiative; and a decisive outcome, with the defeated side being outflanked or penetrated, lacking succor or prepared positions to fall back on, and thus liable to be overwhelmed.

Mission (task). The combat mission assigned to a unit or formation, major or minor, was a specific task to be achieved by a specified time to further the operational aim. In the offensive, it was most commonly the annihilation or rout of an enemy grouping within a designated zone to a prescribed depth, or it could be the seizure of a particular terrain objective or line. The mission was usually subdivided into near (immediate) and distant (subsequent) tasks or, often in the case of mobile forces, into a near task and a direction of further advance.⁷

Mobile group. The mobile group was an exploitation *echelon* [q.v.], an element of an army or *front* operational formation intended for committal on the main axis to develop tactical into operational or strategic success. At army level, a mobile group usually comprised a tank or mechanized corps; in a *front*, it was a tank army or *cavalry-mechanized group* [q.v.]. More than one mobile group could be formed in a *front*.

Mobile obstacle detachment. Major and minor formations created mobile obstacle detachments from engineer units or subunits for hasty minefield laying and the creation of other obstacles and demolitions during the course of operations to check threatened or developing armored counterattacks. These economy of force groups could operate independently but usually did so in cooperation with elements of the first or second echelon or an antitank (especially) or combined-arms reserve. The mobile obstacle detachment was a valuable resource during the dynamic and unpredictable circumstances of the *meeting operation (battle)* [q.v.], and the last-minute creation of an obstacle backed by antitank elements could achieve surprise in the defense.

Operation. An operation is the aggregate of *battles* [q.v.] and other maneuvers coordinated with regard to aim, time, and space and conducted according to a unified plan by a major formation (army or *front*) to attain an operational or operational-strategic goal. An operation, especially at the level of a *front* or group of *fronts*, required the complex interworking of a number of diverse elements that had to be brought together at the right time and place in successive stages to produce success. Because of their complexity, while operations were the products of directives from higher commanders, their executors were necessarily allowed much initiative. This, and not mere scale, distinguished an operation from a battle in which a tactical formation executed a simple battle order within strictly defined parameters. Thus, elevation from tactical to operational command required broader and longer perspectives, a different way of thinking, and acceptance of much greater responsibilities.

Operational formation. The operational formation of a *front* or army refers to its organization and echeloning, created in accordance with the concept of the operations. It reflected the requirements for implementing the most effective method of achieving the utter defeat of the enemy. Once the Supreme High Command had allocated the required strength, the *front(s)* then organized these forces into one, two, or possibly even three *echelons* [q.v.]; one to four mobile groups and/or cavalry-mechanized groups for developing success; a combined-arms and one or two antitank and specialist (e.g., engineer) reserves; one to two mobile obstacle detachments; artillery and air defense groups; air groupings; and possibly air assault groupings.

Reconnaissance by battle. When information about important facets of the enemy's defense could not be gathered by other means, designated sub-units of assault formations known as forward battalions would, with heavy fire support, attack to force the enemy to reveal his dispositions and system of fire. Such attacks would be mounted throughout the intended assault sector, and beyond it as well to conceal intended axes. The reconnaissance, mounted immediately prior to the main attack, would be used to refine both the attacker's intelligence picture and consequently the fire plan.

Regiment. The rifle regiment was the basic infantry unit, but by 1944, it rarely attained anywhere near the authorized strength of around 2,000 infantrymen. Separate tank and SAU regiments made up the majority of *close infantry support* [q.v.] armored units. There was a confusing variety of such units, but most common were medium tank regiments with establishments of thirty-five to forty-one T-34s, or heavy regiments with seventeen KV-1 or IS-2 tanks, each having a company of submachine gunners as well. Increasingly,

assault gun units took over the role of close infantry support. By early 1944, regiments were becoming standardized at twenty-one SU-76/SU-85/SU or ISU-152 and a submachine gun company.

Reserve. Reserves (whether combined arms, antitank, or specialist) did not receive a specific mission when the operation was planned. They were used to increase the offensive effort; replace elements of an attack echelon if necessary; carry out unforeseen missions that arose during the course of the operation, such as defending flanks or repelling counterattacks; and enlarge or reinforce bridgeheads or other captured areas. Thus, unlike the second or exploitation echelons, they could not be assigned tasks beforehand. They were created to cope, without disruption to Soviet plans, with enemy attempts to wrest back the initiative; they were a hedge against Clausewitzian “friction.” Often, if a second echelon were formed, there would be no combined-arms reserve; if there was a combined-arms reserve, it would usually be relatively small. In contrast, if the operation was likely to develop in a highly fluid, unpredictable fashion, a combined-arms reserve could be formed instead of a second echelon, as pre-tasking would be impossible; in that event, such a reserve could be similar in size to a second echelon.

Reserves of the Supreme High Command (RSHC). Initially, these forces were freshly raised formations that were used to replace recently destroyed ones and create fresh defenses in depth. As the Red Army recovered from the disasters of 1941–1942 and then expanded, the RSHC played an increasing role in strategic offensives. By 1943, these were no longer newly created formations but ones withdrawn as an economy of force measure or after an operation for organizational and equipment refurbishment and enhancement and extensive education and training. For instance, the preparation of reserves for the summer-autumn campaign of 1944 began in the winter of 1943. All told, offensive groupings in that campaign were augmented from the RSHC by eight combined-arms and two shock armies and by two tank and two air armies. The process of regeneration and reassignment was, of course, continuous as campaigns progressed. For the final campaigns in 1945, the reserve provided 501,000 men, almost 6,900 guns and mortars, 520 tanks and assault guns, and 464 combat aircraft.⁸ The reserve artillery was particularly significant in devastating the enemy’s tactical zone of defense and neutralizing his system of fire in support of breakthroughs. Artillery divisions consisting of 356 guns and heavy mortars were formed, as were multiple rocket launcher divisions with a salvo of 3,456 rockets (329 tons). Then artillery breakthrough corps were formed by merging two artillery divisions and one rocket launcher division. By the end of 1943, the reserve artillery had six corps, twenty-six divisions, and seven rocket launcher divisions. More

were added during 1944, and by the beginning of 1945, fully 35 percent of all guns and heavy mortars were in RSHC artillery units and formations. These assets were provided to *fronts* for the most important operations. In the same way, 54 to 80 percent of an air army's aircraft in such operations came from the reserve.

SAU. Self-propelled assault guns with a limited traverse mounted on tank chassis, SAUs were akin to the German StuGs. They were often well armored and generally carried large-caliber guns. They were used as tank destroyers and, most commonly, for close infantry support missions. By 1944, they made up around 40 percent of the Red Army's inventory of armor.

Shock grouping. In the offensive, the shock grouping delivered the main blow. Its strength was supposed to be sufficient to penetrate rapidly through the tactical zone of defense, creating a breach into which a *mobile group* [q.v.] could be committed for exploitation.

Stavka. Created on 23 June 1941, the *Stavka* was the highest organ of strategic leadership in the armed forces. It was headed by Stalin, and its membership consisted of his principal advisers—initially, V. M. Molotov (Stalin's deputy) and the professional soldiers S. K. Timoshenko, S. M. Budenniy, K. E. Voroshilov, B. M. Shaposhnikov, and G. K. Zhukov.

Strategic operation. The term was used to describe an aggregate of several simultaneous and successive operations coordinated in terms of aim, mission, place, and timing by major and minor formations and carried out according to a single *Stavka* concept and plan to achieve a strategic aim. Before the war, it was assumed that a *front* would conduct such operations, whether defensive or offensive. However, the events of 1941 made it clear that a group of *fronts* would normally be required. The aim of strategic offensive operations was usually the destruction of a significant enemy grouping and the capture of a politically, economically, and strategically important area.⁹

Tactical and operational zones of defense. By 1944, the Red Army held the initiative, and the Germans increasingly had to rely on a well-developed positional defense to offset growing Soviet strength. This, the Soviets believed, was generally organized into a tactical zone of defense, 10 to 15 km (6 to 9 miles) deep but increasing to 20 km (12 miles) in places, and a depth defense zone. Where possible, both zones consisted of continuous trench systems with well-developed obstacle and fire plans. The tactical zone of defense was divided into outpost and main defense belts; usually about 80 percent of the enemy's strength was deployed in the tactical zone. The depth

defense zone consisted of corps reserve positions and provided prepared and partially manned defenses on which the defenders could fall back if the tactical zone could not be held or retaken by counterattacks, the preferred option. The operational zone also comprised two belts, though much more sketchily prepared; there, army and army group reserves (where such existed) could be found. The total depth of the defense was approximately 60 to 100 km (35 to 60 miles).¹⁰



CHAPTER ONE

Soviet Doctrine and Praxis Prior to 1944

THE EVOLUTION OF PREWAR SOVIET DOCTRINE

Like British and American doctrine, the Red Army's was profoundly influenced by the First World War.¹ However, the Russian experience of that war was somewhat dissimilar from that of the Western Allies. Because of the great length of the Russo-German and Austro-Hungarian front—more than twice that in the west—the ratio of forces to space was much lower; consequently, there was no stalemate. It was always possible to penetrate the enemy's front and generate some operational maneuver, although the limited mobility of armies attempting to exploit on foot, with horse-drawn artillery and transport, meant that the defender, enjoying the superior operational-level mobility afforded by even Russia's underdeveloped rail net, was always able to restore stability to his defense, albeit at some cost in ground. For the Russians, the war was followed immediately by a civil war. Spread over a huge arc from St. Petersburg through southern Ukraine to the Urals and beyond, the relatively small armies involved fought a war of movement (in which the mobility of cavalry proved important). This, and the subsequent war with Poland, was the most formative experience for the Red Army and, combined with its putative purpose of spreading revolution, accounts for its stress on offensive maneuver rather than positional warfare.

The 1920s and early 1930s saw an impressive flowering of military theory in the young Red Army. New concepts were propounded by such analysts as G. S. Isserson, A. K. Kolenkovskiy, B. M. Shaposhnikov, Ye. A. Shilovskiy, A. A. Svechin, V. K. Triandafillov, M. N. Tukhachevskiy, Ye. P. Uborevich, N. Ye. Varfolomeyev, and A. I. Yegorov.² Their start point was the new reality, born of the vastly increased spatial and temporal scale of warfare in the era of mass armies, that wars between major powers could no longer be won in one or two decisive battles or even in a single campaign. Nor was the mere accumulation of tactical victories sufficient to bring about strategic success at any sort of reasonable cost. Thus was born the theory of success through the conduct of a series of interrelated strategic offensive operations, each one of which represented a step toward the ultimate strategic goal. The execution of these would lie in the realm of operational art, a new concept in military theory expounded first by A. A. Svechin in the early 1920s. In essence, he

saw it as the critical connecting link between strategy and tactics. Strategy pursues goals, and the achievement of its major objectives requires the solution of battlefield problems. Tactics is the business of solving these, but it is essential to solve them in the fastest and most economical way that builds cumulatively and inexorably toward the achievement of the strategic aim; in doing so, given that resources will always be limited, it is necessary to distinguish between the essential and the desirable and to eschew the irrelevant. This is the realm of operational art: the structuring of tactical actions—some simultaneous, most sequential—so that their sum is greater than the individual parts. The aggregate of tactical steps leads to operational successes by armies. And the aggregate of a number of both simultaneous and successive army operations executed within the framework of a *front* strategic offensive operation would be designed to destroy a significant enemy grouping and consequently seize a politically or economically important area. Such an operation would mark a decisive point on the way to the strategic goal. The unifying factor that would give coherence and purpose to the myriad tactical and operational actions was the strategic objective and the senior commander's concept for its attainment.

Strategic aims can be achieved only through accumulated operational successes, bearing in mind that those aims may need prudent reassessment in the light of operational limitations. It is true that operational success depends in turn on tactical victories. There is a dialectical relationship between these two levels as well, but operational art is dominant: correct answers at the operational level create the conditions in which tactical successes can be achieved, and individual tactical battles are not crucial; an operation as a whole can succeed despite some tactical reverses, but the failure of an operation can imperil the strategic goal. And to insure against the consequences of tactical failure, the Red Army was to be a mass army as well as a mechanized one. This went against the grain of "progressive" theory in the West. Many visionaries of future war, such as J. F. C. Fuller, B. H. L. Hart, Charles de Gaulle, and, in the USSR, A. I. Verkhovskiy, favored the idea that the development of tanks made mass armies obsolete. This was a reaction against the attritional struggles between infantry hordes that had characterized the First World War. A small mechanized army would outmaneuver huge, lumbering, old-fashioned forces and deal them hard blows wherever weakness was found; "mobility," wrote Fuller, "and not numbers, is the line [along which] the remodeling of the army should proceed." Tukhachevskiy succinctly demolished this argument by pointing out that a competent but very large mechanized force would beat a small professional one any time.³

Field Regulations 1936 (Provisional)

The theoretical work of the 1920s and early 1930s culminated in *Vremeniĭ Poleyoy Ustav RKKA, 1936*—Provisional Field Regulations of the Workers' and Peasants' Red Army, 1936 (hereafter, PU-36). In the 1920s, taking a realistic view of the weakness of the infant Soviet Union, especially its "peasant rear," Svechin had been a proponent of the strategic defensive. This was no longer seen as appropriate. In a period of heightening threat, a cadre, or territorial, army was no longer an adequate basis for defense. To meet the growing capitalist threat, the whole of the economy and society had to be speedily and forcibly industrialized and militarized to provide the tools of modern warfare.⁴ These tools would be used to equip a large active army, grown from 562,000 in the early 1930s to over 1.5 million in 1938. With the access of confidence that growing strength brought in its train and a more or less synthetic ideological fervor, there was a commitment to implement an offensive strategy. It was possible that the USSR would be attacked first, but strong covering forces would absorb the blow and the fully mobilized Red Army would then swiftly carry the war into the enemy's territory and accomplish the downfall of his capitalist regime. PU-36 provided the Red Army's official doctrine for this offensive-counteroffensive. It was conceived as a guide for the conduct of operations in a period of revolution in military affairs (a Soviet concept later expropriated by the West). It was in many ways more conceptually advanced than the contemporaneous German *Truppenführung*, itself far more progressive than its British and American counterparts. While much of the content of PU-36 was tactical in nature, the key ideas lay in the realm of operational art. This was seen to be the critical level in war. Though too visionary or simplistic in places and found wanting in some of its details, the basic principles and concepts of the manual were to stand the test of war when properly applied. The Soviet military would, however, undergo terrible vicissitudes before so doing.

The new doctrine was uncompromising in asserting the aim in war. It made it clear that the Red Army, as befitted a force intended to spread revolution at the point of the bayonet, was to carry any war into the enemy's territory from the outset. The second paragraph reads:

The combat actions of the Red Army will always be directed towards annihilation. The attainment of decisive victory and total destruction of the enemy is the fundamental purpose in Soviet warfare. The sole means to achieve this is battle with the object of (a) destroying enemy personnel and materiel, and (b) crushing his morale and ability to resist. Every battle—offensive or defensive—has the aim of inflicting damage . . . but only a decisive offensive on the main direction concluding with irresistible pursuit can achieve complete destruction of the enemy.

Thus, the primary aim of operational maneuver was the destruction of enemy forces rather than the conquest of territory. Maritime and, later, air forces always saw that the key to victory lay in the destruction of the enemy. As with the sea and the air, what mattered, in the Soviet view, was command of the environment. For the army too, capturing this or that area was much less important in the greater scheme of things than destroying the enemy's ability to resist anywhere. Once his resistance was broken, strategically important objectives and whole regions would fall as a useful by-product of annihilating his major groupings.

Most of the basic principles outlined in chapter 1 of PU-36 were familiar to Western officers: concentration on the main effort and economy of force on secondary sectors, as the breakthrough is a challenging task requiring considerable superiority; the need for all-arms cooperation and synergistic actions on different sectors; the importance of morale and commanders' responsibility for maintaining it; the need for (and difficulty of) continuous, effective command and control; the need for flexibility, based not least on the appropriate exercise of initiative by subordinates who understand the higher commander's intent;⁵ and the importance of a sound logistic basis for plans. The importance of surprise would also be recognized by Westerners, though perhaps not the degree of stress placed on it and its corollary in paragraph 6: "Surprise paralyzes. Therefore all combat actions must be undertaken with maximum secrecy and speed." In other words, surprise is not merely something to be worked for at the start of an operation; as paragraph 111 makes plain, it should be sought throughout the operation's execution by exploiting the mobility of modern weapons systems. Surprising maneuver and momentum and unexpected weapons and methods are guarantees of success in battle, a prescient thought that the Red Army was soon going to relearn the hard way.

One key concept in PU-36 would, however, be unfamiliar to and indeed rejected by conventional thinking in the Anglo-American armies: deep battle at the tactical level—and even more so, deep operations.⁶ Paragraph 4 goes beyond the statement that tanks should be used *en masse*—itself a controversial idea:

Mechanized formations, comprising tanks, SP [self-propelled] artillery and infantry in transporters can perform independent missions separated from other arms of service as well as in cooperation with them. . . . Their maneuver and strikes must have air support. . . . Parachute-assault units are effective means for disrupting the enemy's command and control and rear [logistics]. In cooperation with the forces attacking on the line of contact they can play a decisive role in the total defeat of the enemy on a given axis.

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Paragraph 9 adds: “Modern combat materiel makes it possible simultaneously to destroy the enemy throughout his tactical depth. Capabilities are growing for rapid regrouping, surprise outflanking maneuvers and seizures of enemy rear areas and cutting his withdrawal routes. During the course of an attack the enemy must be encircled and utterly destroyed.” The theme is reiterated in paragraph 112 and is, indeed, a constant refrain throughout the manual. This concept of deep battle, and later of deep operations, was a rejection of the linear-attritional model that dominated military thinking elsewhere. It envisaged an absence of continuous fronts. Offensives would no longer consist of the forcing of each successive position but rather of fluid combat actions in which mobile troops would develop tactical success into operational success. Mobile and airborne units and formations would shift the centre of gravity of combat into the enemy’s rear areas and use maneuver to break up the enemy’s organization; destroy his cohesion, command and control, and logistic support systems; and encircle his formations in order to shatter them. The enemy’s destruction would be completed, according to paragraphs 197–205, by a vigorous exploitation and pursuit. This would be initiated at the lowest levels on individual sectors as soon as signs of enemy weakening were detected, whether or not he was holding firm elsewhere. Pursuit could be terminated only on the orders of the High Command.

One consequence of the Soviet stress on maneuver, deep battle and operations, and the eclipse of positional warfare was that front lines would be replaced by an area of battle in which forces would become intermingled, present open flanks, and lack safe rear areas. In this fluid environment where the situation was subject to rapid, unexpected, and possibly radical change, the typical forms of combat would become the meeting engagement and, at lower levels, the meeting battle, the subject of a whole chapter in PU-36. Paragraphs 140–143 describe this and explain the tactical consequences:

Meeting battles develop straight from the line of march against an [also] advancing enemy. . . . The meeting battle is characterized by rapid deployment from march order into battle formation and by immediate attack on the enemy wherever he is found. Preempting the enemy in deployment, opening fire and going into the attack is of decisive importance in a meeting encounter. Commanders at every level are therefore required to act with daring and determination to seize the initiative and through decisive action impose their will on the enemy. In embarking on a meeting battle no-one must wait for full clarification of the situation. Information from reconnaissance will never be complete and when the enemy is mobile will soon become outdated. In the meeting battle, inadequate information on enemy actions will be the norm. Thus whoever delays or waits for the situation to be clarified will himself be revealed to the enemy and will lose

the initiative. In a meeting battle the decision on the choice of the main axis may be determined by the terrain that lends itself to the delivery of a shattering blow. The basic maneuver in a meeting battle must be aimed at disrupting enemy columns and decisive actions by all arms, coordinated in aim, time and place, to destroy him in detail . . . the aim in a meeting battle should be the encirclement and annihilation of the enemy.

All in all, this envisioned a very demanding operational environment. It was not one in which traditional, hidebound generals, used to coping with slowly evolving situations that could be dealt with “by the book,” would achieve success. Operational-level generalship, Soviet sources would repeatedly insist, demanded “creativity,” the ability to deal in abstractions and find original solutions to problems. Senior commanders required agile minds that allowed them to cope with rapid and confusing changes and the fog of war and still seize fleeting opportunities and assemble various tactical events and maneuvers into a coherent whole that would lead to the achievement of the strategic aim.

This Soviet perception of the nature of future operations had tactical consequences. PU-36 and other doctrinal writings emphasized the importance of achieving the optimal mix in all-arms groupings and arranging them in the correct order of march when entering the combat zone. There would be no time for regrouping when transitioning from the march into combat. Nor would there be time to make clever appreciations of the situation and issue detailed orders to implement a sophisticated plan. Only speedy reactions would result in preemption of the enemy's deployment and seizure of the initiative. Hence the Soviet preference at the tactical level for simple, easily understood, and rapidly implemented battle drills. This approach (easily implemented even by tired and frightened officers and men) stood a good chance of surprising the enemy, preempting his reactions, and winning the battle for time.⁷ When Tukhachevskiy demanded that his officers display initiative, he was not suggesting that they act idiosyncratically, in ways that would confuse their superiors and comrades as much as the enemy; creativity was for the operational level. He wanted his officers to select the most appropriate battle drill, tailor it to the immediate situation without time-wasting reference to higher headquarters, and implement it quickly. Moreover, if doctrine were being fully implemented, the enemy would be entering battle at a disadvantage. Reconnaissance forces, forward detachments, or advance guards would have beaten the enemy to favorable ground (for instance, dominating features that provided observation and a pivot and concealment for maneuver). Air interdiction would have disrupted his columns. Airborne assaults and raids would have interfered with his command and control and logistic systems and delayed his reserves.

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Airpower would play a key role in this Soviet conception of modern war, but only as a tactical adjunct to the ground forces. PU-36 contains no separate chapter or even sections on the subject. In the spirit of a combined-arms approach to battle, only 13.5 percent of air assets (mainly long-range aviation) were under the direct control of the High Command; 86.5 percent was divided, almost equally, between *front* and army commands, and the latter could attach elements to individual corps. At each level, PU-36 stresses the use of airpower en masse, concentrated on the most important missions. Most importantly, fighters would keep the enemy off the back of the Soviet ground forces; much space is devoted to the subject of air defense. A second priority was reconnaissance, also covered at length. Both bomber and ground attack aviation would support the advance mainly by striking targets beyond the effective reach of artillery. They would provide particularly critical support during the struggle in the enemy's depth. They would disrupt enemy command and control by attacking headquarters. They would strike the enemy's reserves and artillery, preventing the former from intervening in the battle in a timely fashion and silencing the latter and then preventing its extrication from combat as the advance gathered pace. They would harass the enemy when he started to withdraw. Transport aircraft would insert parachute assault troops to seize critical features and disrupt logistic support and command and control. There was, in other words, a clear recognition that the air arm provided a flexible source of firepower that could be quickly maneuvered from one area to another on the battlefield. It could also give substance to the demand for simultaneous attacks throughout the depth of the enemy's deployment. What is missing from PU-36 is serious attention to the tasks that most concerned independent air forces in the West. There is no mention of strategic bombing, even as an aspiration. Offensive counter-air and interdiction missions are mentioned only in passing references. Thus, paragraph 7 states: "Air formations, apart from independent missions, act in close operational-tactical coordination with combined arms teams. They are used against columns, assembly areas, against bridges, against enemy aircraft on their bases as well as for the protection of friendly troops."

The Red Army was organized in a coherent response to the demands of theory. Shock armies like those postulated by Triandafillov were to be formed in wartime to accomplish the breakthrough; these would comprise three to four rifle corps with twelve to fifteen rifle divisions and infantry close support tanks, one to two mechanized or cavalry corps, ten to twelve artillery regiments, and three to four air divisions. In 1931 the first mechanized corps was formed to conduct exploitation; this was a large formation with two mechanized brigades and one rifle brigade—in all, six tank and five infantry and machine gun battalions, three artillery and mortar battalions, reconnaissance and engineer battalions, and a total of 490 "fast" tanks designed for

deep penetration. By 1936, there were already four mechanized corps and six separate brigades available to form mobile groups (quite apart from the dozens of separate tank units intended for close infantry support). In 1932 the first airborne brigade was formed, and by 1935, when German officers observed and were impressed by their employment in the Kiev maneuvers, there were three. Five years later, there were five corps, each with three brigades.

Doctrinal Confusion

The Red Army was plunged into a low period even before the German invasion, a situation that lasted throughout what the Soviets called the first period of the Great Patriotic War (1941 to the end of 1942).⁸ Almost as the ink was drying on PU-36, its advanced concepts fell into desuetude. The primary reason was the “repression” of 1937–1938, the Great Purge of so-called enemies of the people, those who did not or might not share Stalin’s outlook and could challenge his establishment of a dictatorship. The executed and imprisoned included the 3 intellectual and competent marshals, headed by Tukhachevskiy; 14 of the 16 army commanders; 60 of 67 corps commanders; 130 of 199 division commanders; and another 35,000 junior officers.⁹ This virtual annihilation of the senior leadership of the Red Army at a stroke removed those capable of refining and implementing its demanding operational theory. Those who remained were, for the most part, incompetent toadies of Stalin and those who, whatever their potential, would be promoted too far and too fast to be able to cope with the German onslaught in 1941. The body of military theory so carefully crafted and refined became discredited with the downfall of its creators. No one wanted to acknowledge any potential link with the “enemies of the people.” Moreover, military conservatives, uncomfortable with the progressive ideas promulgated in PU-36, felt vindicated in their politically desirable, career-enhancing repudiation of them by the experience of the Spanish Civil War and the abysmal showing of the Red Army’s mechanized formations in the 1939 invasions of Poland and Finland. There were various reasons for this poor performance—obsolescent equipment, inadequate planning and staff work as a consequence of the purge, and the replacement of Tukhachevskiy’s attempts to foster initiative with a well-founded fear of failure and therefore of taking responsibility—but faulty doctrine was not one of them.

In November 1939 the Main Military Council of the Red Army ordered the disbandment of the new mechanized corps and the formation instead of fifteen motorized divisions, thirty-two separate tank brigades, and ten regiments that could be expanded into brigades in wartime. Deep operations were discredited; operations would revert to being the pedestrian business

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they had been before the revolution in military affairs. Armor remained important in Soviet thinking, but it was not to be used to operate separately from the main forces, thrusting into the enemy's deep rear. The Red Army was returning to linear warfare. For ambitious but inexperienced new senior officers, military theory was reduced to regurgitating the mostly banal observations on war of I. V. Stalin.

No sooner was the restructuring complete than the Germans' 1940 blitzkrieg in the west provoked another rethink. The defeat of Poland the previous year had caused little stir, but the utter destruction in less than two months of the forces of France, regarded as Europe's premier military power, compelled attention. The Wehrmacht seemed to have appropriated Tukhachevskiy's concepts with singular success. In July the decision was reached to reconstitute eight mechanized corps and two tank divisions. Each corps would comprise two tank divisions and one motor-rifle division—each with around 36,000 men and 1,031 tanks (including 546 of the new KVs and T-34s), 268 armored cars, and 358 artillery pieces. In February 1941 the formation of the new corps was nearing completion when the decision was made to form twenty additional mobile corps over the next year. Cadre formations were duly formed. In fact, what was happening to the mobile forces was a microcosm of what was happening to the whole Red Army. Responding to the perceived growing fascist threat, the army was massively increased as the Soviet Union "crept up to war" while trying not to provoke Germany (see table 1.1).

By the end of 1942, the expansion, reorganization, and reequipping of the Red Army was meant to be complete. Of course, the German assault on the USSR was launched in the middle of this process. When the blow fell on 22 June 1941, very few of the Soviet mobile corps were approaching their authorized inventory; on average, they held only 50 percent of their authorized tank strength, and only 18.2 percent of these tanks were modern types. There were also deficiencies in other areas: 39 percent in trucks, 44 percent in prime movers, 60 percent in artillery, and 17 percent in motorcycles. Only the first nine mechanized corps were even approaching an adequate level of tactical competence, having conducted command post exercises and field training at brigade level. The infantry, the bedrock of the army, was undergoing an expansion just as radical, not only increasing the number of divisions but also bringing existing ones up to their wartime establishment. Plainly, any army in the throes of such radical change was going to be weakened, but the Red Army's position was particularly acute. Organizational structures were merely a surface manifestation of the Red Army's ills. It was still in a doctrinal limbo, with the cream of its officer corps either killed or in labor camps; most of those remaining in senior and even middle-ranking positions suffered from a deficit of professional education, training and experience,

Table 1.1: Expansion of the Red Army, 1939–1941

Formation	1 September 1939	1 December 1940	1 June 1941
Rifle divisions	96	152	196
Rifle brigades	5	5	3
Motor-rifle divisions	1	About 10	31
Cavalry divisions	30	26	13
Tank divisions	4 corps	About 18	61
Fortified regions	? (21 in the west)	? (21 in the west)	120 (41 in the west)
Airborne brigades	6	5	16
Manpower	1,520,000	4,207,000	5,000,000

Source: David M. Glantz, *The Military Strategy of the Soviet Union: A History* (London: Frank Cass, 1992), 92.

or competence. Moreover, there had been no deep study of German methods and therefore too few deductions relevant to the way the Soviet Union should wage war, especially defensive war, other than the need for full mobilization in this especially threatening military period.

FROM DISASTER TO SUCCESS: THE COURSE OF THE WAR, 1941–1943

The First Period: June 1941–November 1942

By 1941, the Soviets had opted for the strategic defensive—a concept strongly repudiated when Svechin had argued in its favor ten years before.¹⁰ The initial defense would be conducted by a first strategic echelon of 171 rifle divisions, though most of them were understrength. A covering force of 57 divisions was deployed within 100 km (60 miles) or so of the new western frontier; thinly spread (with up to 70 km [45 miles] per division), this first operational echelon could be expected to do little more than determine the enemy's choice of axes while inflicting a slight delay and loss of momentum. The 114 divisions of the second operational echelon and reserves, with most of the 20 mechanized corps in the west, were deployed in depth as far back as the rivers Dnepr and Western Dvina (up to 600 km [370 miles] from the border). These formations, organized into three *fronts* and a separate army (later a *front*), were supposed to wear down, disrupt, and halt the enemy offensive forward of the Dnepr and initiate the counteroffensive that would drive him out of the country. The decisive element in this counteroffensive would be the second strategic echelon of five armies. This, however, was still completing its deployment two weeks into the war, when the enemy was already on or over the stop line.