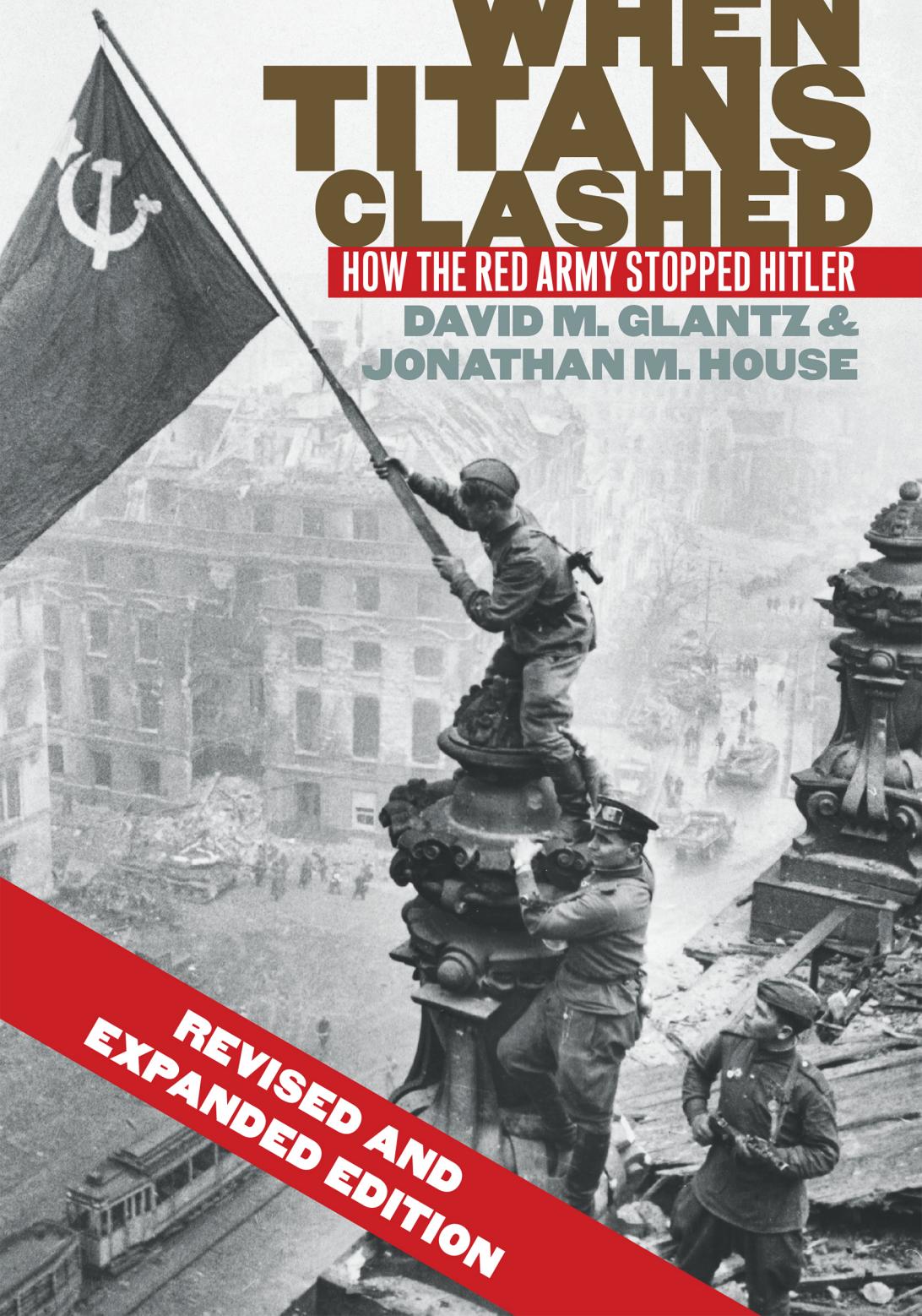


WHEN TITANS CLASHED

HOW THE RED ARMY STOPPED HITLER

DAVID M. GLANTZ &
JONATHAN M. HOUSE

REVISED AND
EXPANDED EDITION



When Titans Clashed

MODERN WAR STUDIES

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When Titans Clashed

How the Red Army Stopped Hitler

REVISED AND EXPANDED EDITION

David M. Glantz
Jonathan M. House

University Press of Kansas



*This revised edition is dedicated to Professor Theodore Wilson,
who made the original project possible*

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Published by the University Press of Kansas (Lawrence, Kansas 66045), which was organized by the Kansas Board of Regents and is operated and funded by Emporia State University, Fort Hays State University, Kansas State University, Pittsburg State University, the University of Kansas, and Wichita State University

Library of Congress Cataloging-in-Publication Data

Glantz, David M.

When titans clashed: how the Red Army stopped Hitler / David M. Glantz, Jonathan M. House. — Revised and expanded edition.

pages cm.—(Modern war studies)

Includes bibliographical references and index.

ISBN 978-0-7006-2120-0 (cloth: alk. paper)

ISBN 978-0-7006-2121-7 (pbk.: alk. paper)

ISBN 978-0-7006-2152-1 (ebook)

1. Soviet Union. Raboche-Krestianskaia Krasnaia Armiiia—History—World War, 1939–1945.
2. World War, 1939–1945—Campaigns—Eastern Front. I. House, Jonathan M. (Jonathan Mallory), 1950-. II. Title.

D764.G557 2015

940.54'217—dc23

2015020379

British Library Cataloguing-in-Publication Data is available.

Printed in the United States of America

10 9 8 7 6 5 4 3 2 1

The paper used in this publication is recycled and contains 30 percent postconsumer waste. It is acid free and meets the minimum requirements of the American National Standard for Permanence of Paper for Printed Library Materials Z39.48-1992.

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“Under the banner of Lenin, forward to victory!”

“The Motherland calls!”

Chiefs of the Red Army

Marshal of the Soviet Union G. K. Zhukov

General of the Army N. F. Vatutin

Marshal of the Soviet Union I. S. Konev and Lieutenant General
M. V. Zakharov

Marshal of the Soviet Union R. Ia. Malinovsky

Marshal of the Soviet Union K. K. Rokossovsky

General of the Army I. Kh. Bagramian

General of the Army I. D. Cherniakhovsky

Lieutenant General P. A. Rotmistrov and his staff

Surviving Soviet *front* commanders at war's end

Colonel M. T. Leonov and his brigade staff

Soviet *Shturmovik* aircraft in action

Red Army “*Katiusha*” multiple-rocket launchers firing during
the Battle of Kursk

Soviet T-34 tanks in the attack

Attacking Soviet infantry

Soviet infantry assault

Soviet tanks and infantry assault a village

Soviet tank column enters a city

Soviet tank and infantry assault

Soviet tank assault with infantry onboard tanks

Soviet forces crossing the Dnepr

Soviet attack on a German column

A defeated German soldier

German prisoners of war in the streets of Moscow

“Glory to the Red Army!”

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Preface to the Revised and Expanded Edition

When the first edition of this book was published in 1995, the authors gratefully benefited from the modest first wave of archival materials released by the Russian Federation, which increased our knowledge of the war twofold and enabled us to add substantial Russian context and detail to what had previously been a largely German perspective on the war. Thanks to those initial releases, the book's first edition restored a modicum of truth and accuracy to the Soviet side of the war by identifying battles forgotten or concealed for political reasons and by adding more candid detail to the description of battles already well known. Likewise, a clearer understanding of what the Red Army actually achieved tempered the obvious German bias so evident in the historiography on the war during the Cold War years. However, despite those beneficial releases, yawning gaps still existed in the historical record of the war in 1995, the most vexing of which was the paucity of accurate numbers quantifying the scope and ferocity of the struggle. Now, most of those gaps have been filled, and the missing numbers are becoming readily available.

With this passage of time, the amount of archival materials available to flesh out an accurate description of the war, particularly from the Soviet perspective, has increased more than a hundredfold. Up to 60 percent of the war's content remained largely conjecture in 1995, but by 2015, this figure had decreased to roughly 10 percent. As a result, clarity is replacing opacity and truth is steadily winning out.

Readers have the right to know what is new and different about this edition. First and foremost, this edition exploits the massive amount of previously unavailable archival documents related to the war that the Ministry of Defense of the Russian Federation has released since 1995. These documents include many, if not most, of the wartime directives, orders, and reports prepared by the Soviet State Defense Committee (GKO); the *Stavka* (headquarters of the Supreme High Command); the Red Army and Navy General Staffs; the People's Commissariat of Defense (NKO) and its many subordinate directorates; the Red Army's operating *fronts*, armies, and in some cases corps, divisions, and brigades; and the People's Commissariat of Internal Affairs (NKVD) and its subordinate directorates for border guards,

as well as operational and convoy and installation security troops. The twenty-six tables in the book's second edition (versus the five in the 1995 edition) attest to the magnitude of new statistical evidence describing the scale of Soviet participation in the war.

Among other things, the new edition broadens the definition of available manpower on both sides, including such overlooked groups as NKVD troops, Axis satellite armies, and dissident forces that the Germans recruited in the non-Russian portions of the USSR. It rejects traditional efforts by German generals to hold Adolf Hitler solely responsible for all German errors and atrocities. And it includes recent scholarship on German security actions and exploitation of the occupied rear areas.

Aside from official Russian releases of archival materials, cooperative programs between the Russian and U.S. armies in the early 1990s resulted in the release of extensive Red Army and Navy General Staff multivolume collections (*Sborniki*) of war experience materials, organized topically and functionally. These included detailed and candid studies, formerly classified, of wartime military operations (such as Moscow, Belorussia, Berlin, and the battle for the Dnepr River) and subject areas related to the actual conduct of warfare (offense, defense, river crossings, amphibious and airborne operations, and so forth). Supplementing these materials were numerous dissertations on military subjects prepared by graduates of the Voroshilov Academy of the General Staff and a wide array of textbooks on wartime military operations used in education by the Frunze Academy.

Above and beyond official sources, since 1995 a new generation of civilian Russian military historians have emerged, scholars who have accomplished extensive research of their own and written often refreshingly candid studies of the war as a whole, together with its component military operations. As evidenced by the new bibliography, these too have become fodder for this book's second edition.

If military operations provide the backbone and skeleton of the German and Soviet war efforts, equally vital political, economic, and social issues provide rationale and context for those operations and, at the same time, reflect what took place on the battlefield. For example, a more thorough understanding of what the Red Army hoped to achieve militarily now provides keener insights into what Joseph Stalin hoped to achieve politically during and after the war. Likewise, revelations concerning the human and economic costs of the war generate better understanding of the conflict's impact on Germany and the Soviet Union socially and economically, while also underscoring its ferocity in terms of human misbehavior and resultant atrocities. Closely associated with these themes are tragedies and crimes resulting from extreme Nazi racial theories and the excesses of Communist totalitarianism (for instance, the Holocaust, Katyn, and Baba Iar).

The collapse of the German Democratic Republic disclosed many German military documents that were previously thought lost in the destruction of the war. This treasure trove provided the raw data for a magisterial German official history of the war, as well as numerous monographs by Western scholars on aspects ranging from the number of tanks present at Kursk to the internal workings of the German war economy. This second edition includes the key findings of this new generation of Western historians, resulting in a more balanced account that seeks to reflect the major issues confronting both sides in the conflict.

Despite the flood of new archival materials, this edition strives to mine this information economically by keeping the book relatively short. As a result, we have deliberately condensed the hundredfold increase in information into a roughly 15 percent increase in the book's size. We do so in the hope that this fresh exposition, together with a more extensive bibliography, will encourage readers to use this book as a launching pad for further study of the war.

One note about unit designations: with regard to major German and Axis headquarters, we have followed the military convention that numerical designations should be spelled out, as with First Panzer Army or Third Romanian Army. However, Soviet fronts (equivalent to army groups) and field armies, especially the all-important tank armies, were often smaller than their German equivalents. Moreover, we wished to avoid confusion between the opposing army headquarters. As a result, we have used numerical equivalents when identifying Red Army field headquarters, such as 4th Ukrainian Front, 2nd Shock Army, or 6th Guards Tank Army. By the same token, we have used the German form of roman numerals to designate Axis corps (XXXX Motorized Corps), while again using ordinal numbers for their Soviet equivalents (3rd Cavalry Corps).

*David M. Glantz
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Acknowledgments

The authors owe a special debt to the historians who struggled for decades to unearth the truths of the German-Soviet conflict, among them a host of Russian military historians who have had to contend not just with the usual difficulties of historical research but also with stifling and rigid constraints, first those of ideology under the Soviet Union and then those of virulent nationalism under the Russian Federation. This work and others like it are testaments to their doggedness and skill, seeking the truth despite formidable obstacles. Among Western military historians, early scholars such as Malcolm MacIntosh and John Erickson marked the way for others to follow. Their contributions have stood the test of time. Earl F. Ziemke, Albert Seaton, and others who have worked primarily with German archival materials also demand recognition, as do numerous German and Soviet veterans who wrote memoirs about a war against a shadowy enemy.

The first edition of this book was an effort to capture the Soviet version of the war and provide it in a brief format for the Western public. Since then, however, increased access to both German and Soviet archives has spawned an entirely new generation of historians, both in the West and in the former Soviet Union. This current edition is therefore an attempt to summarize this new historiography, to provide a more balanced explanation for the war's outcome while retaining the original orientation toward Soviet sources. Indeed, by addressing some of the faulty explanations for German failure, this account more clearly demonstrates the reasons for and magnitude of Soviet success.

Above all, the authors acknowledge the millions of Soviet, German, and other soldiers who fought, suffered, and died in this titanic and brutal struggle. Their sacrifice demands that this story be retold and restudied with each generation.

Finally, heartfelt thanks go to the able editors of the University Press of Kansas and to Mary Ann Glantz, who were instrumental in shaping the first edition into a usable form. Likewise, Darin Grauberger and George F. McCleary, Jr. prepared superb maps for the first edition. For the revised edition, our mutual friend and colleague Christopher Gabel reviewed the entire manuscript; others, including Jacob Kipp, John Kuehn, Dennis Giangreco, and Bruce Menning, greatly improved the final product by their review of various portions of the draft.



Map 1. Theater of Operations



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PRELUDE

1918–1941

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CHAPTER ONE

The Red Army, 1918–1939

RUSSIAN CIVIL WAR, 1918–1921

One of the ironies of Russian history is that, having seized power in Petrograd by undermining military discipline and civil authority, the Bolsheviks had to create their own strong armed forces in order to survive. The shock troops of the October 1917 revolution were militant soldiers and sailors, but even with the addition of the armed workers of the Red Guard, these forces were inadequate to face the threats to the infant Soviet state.

From every direction, foreign enemies and so-called White Russian forces menaced the new government. With the Imperial Russian Army exhausted by three years of world war and wracked by mutiny and desertion, nothing stood between the new government and the victorious German Army. In March 1918, the Germans dictated an armistice and then roamed at will over western Russia. Even after the Western Allies defeated the Germans in November, German troops supported the breakaway Baltic states of Latvia, Lithuania, and Estonia as well as a separatist movement in the Ukraine. Once the Bolshevik government signed the armistice with Germany, its former allies also intervened in an effort to reverse the revolution and bring Russia back into the world war. To support the White cause, American and British soldiers landed at Arkhangel'sk and Murmansk in the north, and additional British and French forces operated in Odessa, Crimea, and the Caucasus. In Siberia, the highly effective Czech Army, composed of former Russian prisoners of war (POWs) who had enlisted to fight against Austria-Hungary, dominated the transcontinental railway line in support of the Whites. Japanese, American, and other troops spread westward to Irkutsk in Siberia from the Pacific port of Vladivostok.

The result was the Russian Civil War of 1918–1921, a formative experience for both the Soviet state and its Red Army. During 1918 and 1919, V. I. Lenin and his commissar for military affairs, L. D. Trotsky, used the railroad lines to shuttle their limited reserves from place to place, staving off defeat time after time. This became known as echelon war, in which large forces were shifted on internal lines by railroad train (*echelon*) to reinforce successively threatened fronts. Some infantry divisions shifted between fronts as many as five times in the course of the war. This experience gave

all participants an abiding sense of the need for strategic reserves and forces arrayed in great depth.¹

Necessity forced Lenin to declare “War Communism,” a system of forced requisitions and political repression. To create an effective military force, the new government had to conscript men of all social backgrounds and accept the services of thousands of former Imperial officers. In turn, the need to ensure the political loyalty of these “military experts” led to the institution of a political commissar for each unit who had to approve all decisions of the nominal commander.

Ultimately, the new government triumphed. In early 1920, the Czech commander in Siberia turned over to the Soviets the self-appointed White Russian leader, Admiral A. V. Kolchak, in return for unrestricted passage out of the country. Later that same year, the Red Army repulsed a Polish invasion in support of the Ukrainian separatists but was itself halted by “the miracle along the Vistula [River]” just short of Warsaw. For years thereafter, the leaders of the Red Army engaged in bitter recriminations concerning the responsibility for this defeat. Despite the Polish setback, by 17 November 1920 the Reds drove the last White Russians out of the Crimea. Foreign armies also withdrew. After a few actions in Turkestan and the Far East, the war was over.

In the process, the first generation of Soviet military commanders developed a unique view of warfare. In the West, the trench stalemate of World War I dominated most military experience, albeit reformers sought various solutions to that stalemate. The Eastern Front, being longer and less well fortified, had never been as rigid as the trenches in France. More importantly, the Russian Civil War was characterized by vast distances defended by relatively small armies. Soviet commanders tried to integrate all tactical operations into an overall campaign plan, aiming for objectives deep in the enemy’s rear. The two keys to victory proved to be concentration of superior forces to overwhelm the enemy at a particular point, followed by rapid maneuvers such as flank attacks, penetrations, and encirclements to destroy the thinly spread enemy. Such maneuvers required a highly mobile offensive force, which in the Civil War consisted of armored railroad trains and cars together with horse cavalry. The elite of the Red Army, Marshal S. M. Budenny’s 1st Cavalry Army, produced a generation of officers who believed passionately in the value of mobility and maneuver and soon embraced mechanized forces as the weapon of choice.²

RISE OF THE DEEP OPERATION, 1922–1937

In the immediate postwar era, the chaotic state of the Soviet economy precluded the expense of a large standing army, and by 1925, the Red Army had

been reduced to 562,000 men—one-tenth of its peak wartime strength. Cavalry and some rifle divisions near the borders remained at reduced size; the majority of other divisions retained only a fraction of their required strength. These divisions relied upon reservists drawn from particular territorial regions. The system adopted in 1924–1925, a combination of regular cadre formations and territorial militia forces, was supposed to produce almost 140 divisions in wartime, but its peacetime capability was extremely limited.³

In an era of retrenchment, one of the few sources of funds and equipment for weapons experimentation was the secret Soviet-German military collaboration. The two former enemies shared both a fear of Poland and a need to circumvent the restrictions placed on them by the Western Allies after World War I. The Treaty of Versailles (1919) not only restricted the German Army (*Reichswehr*) to 100,000 long-term soldiers but also forbade Germany to possess tanks, poison gas, aircraft, and other advanced weapons. For a decade after 1921, therefore, the Germans provided funds and technical assistance to produce and test such weapons within the Soviet Union. Both sides gained the opportunity to test equipment they could not otherwise have possessed, although the actual number of weapons involved was relatively small.⁴

Soviet-German cooperation included exchanging observers for military maneuvers, but in retrospect, the two armies developed their military doctrine and theories almost independently. The Red Army began to educate its officers during the 1920s, but it also used its experience of maneuver in the Civil War as a means for reviewing all concepts of waging war. The former tsarist officer A. A. Svechin led the strategic debate, while M. V. Frunze attempted to formulate a uniform military doctrine appropriate for a socialist state.⁵

Meanwhile, the brilliant Civil War commander Mikhail N. Tukhachevsky and the military theorist Vladimir K. Triandafillov developed a strategic theory of successive operations based on the Soviet military failure against Poland in 1920 and the failed German offensives in France during 1918. Put simply, they believed that modern armies were too large and resilient to be defeated in one cataclysmic battle. Instead, the attacker would have to fight a series of offensive battles, each followed by a rapid exploitation into the enemy rear and then another battle when the defender reorganized his forces.⁶

To place these battles in a common strategic context, Soviet soldiers began to think of a new level of warfare, connecting the tactics of individual battles with the strategy of an entire war. This intermediate level became known as Operational Art (*operativnaia iskusstva*). Operational Art is the realm of senior commanders who plan and coordinate operations of large formations within the context of an entire campaign; that is, a series of actions culminating in the achievement of a strategic objective. In 1927, Svechin summarized this structure as follows: “Tactics makes the steps from which operational leaps are assembled, strategy points out the path.”⁷

During the late 1920s and early 1930s, Soviet theorists perfected the tactical concept of Deep Battle (*glubokii boi*). They planned to use new technology, especially tanks and aircraft, to penetrate the elaborate defense systems of the world war. First mentioned in the *Field Regulations of 1929*, Deep Battle found full expression in the *Instructions on Deep Battle* published six years later.

By 1936, technological change led, in turn, to the larger concept of the Deep Operation (*glubokaia operatsiia*). Instead of planning to penetrate the enemy in a single deep battle, Tukhachevsky and others projected penetrations and exploitations to an operational depth of 100 kilometers (62 miles) or more. The essence of such a deep operation was to use modern weapons at one blow to neutralize all of the enemy's defenses to the maximum possible depth and then exploit so rapidly that the defender could not reorganize his units. This meant simultaneous operations at various points, all carefully coordinated. As A. I. Egorov wrote, "The principal and basic task of military art is to prevent the formation of a firm front [by the defender], imparting a destructive striking force and a rapid tempo to operations."⁸

Initially, Tukhachevsky and the other theorists intended to use the weapons of the Russian Civil War—infantry, artillery, and cavalry supplemented by armored cars. In that form, Tukhachevsky's tactics would differ little from those of other armies. During and immediately after World War I, most Western theorists viewed the tank as an infantry-support weapon to help penetrate prepared defenses. Yet, Soviet theory evolved rapidly, and by the early 1930s, Red theorists included the entire spectrum of mechanized forces functioning as a sophisticated combined-arms team. Infantry, led by tanks and supported by artillery and engineers, would penetrate the enemy's defenses while other artillery and aircraft struck deeper into the enemy's rear, to be followed by large, independent airborne and armored formations. Tanks would therefore be organized into three echelons: some tanks would lead the infantry penetration, others would conduct short-range exploitations of the resulting breakthrough, and still others, operating in large combined-arms mechanized formations, would pursue and encircle the beaten enemy.⁹ These concepts, which appeared in print as early as 1929, were codified in the Red Army's *Provisional Field Service Regulations of 1936 (PU-36)*.

The idea of a deep, mechanized operation was not unique for its time. Military theories in all major armies evolved in the same general direction, using varying degrees of mechanization to penetrate enemy defenses and thereby avoid the stalemate of trench warfare. What was unprecedented about the Soviet concept was the official sanction it received from the Soviet dictator, Joseph Stalin. Stalin dedicated a large proportion of his first five-year economic development plan to providing the industrial capacity and production needed to implement that concept. Given the shortcomings of

Russian industry during the world war and the belief that the Communist revolution remained vulnerable to capitalist attack, Stalin gave a high priority to the development of his munitions industry.

The effort bore fruit in a surprisingly short time. Despite the relative poverty of the Soviet economy, the Japanese invasion of Manchuria in 1931 helped justify a high priority for weapons production. With the exception of a few experimental vehicles, the Soviet Union did not produce its first domestic tank, the MS-1, based on the American designs of Walter Christie, until 1929. Four years later, Russian factories were turning out 3,000 tanks and other armored vehicles per year. Similarly rapid growth occurred in aircraft, artillery, and other armaments.¹⁰

This official support was the basis for a steady growth in mechanized force structure. The first experimental tank regiment took shape in Moscow in 1927, using sixty foreign-built tanks.¹¹ Three years later, in May 1930, the first experimental mechanized brigade appeared, composed of armored, motorized infantry, artillery, and reconnaissance units.¹²

The development of the Deep Operation called for larger mechanized formations to penetrate enemy defenses and exploit rapidly. On 9 March 1932, a special commission of the People's Commissariat of Defense (NKO) recommended creation of armored forces at every level of command. Each rifle (infantry) division of 12,500 men (18,000 in wartime) would include a battalion of 57 light tanks, and each cavalry division would have a mechanized regiment of 64 light tanks. Every rifle corps was supposed to have a tank brigade in its general reserve, and a separate mechanized corps, acting as the mobile group first developed during the Civil War era, would conduct deep exploitations. Each of these corps, composed of one rifle and two tank brigades, was slightly larger than a Western division and integrated the different combined arms—tank, motorized infantry, artillery, engineers, and antiaircraft guns.

The Soviets formed their first two mechanized corps in the fall of 1932, three years before Germany created its first panzer divisions. Over the next several years, the number and complexity of armored, mechanized, and airborne formations grew steadily. The airborne forces were elite units, composed largely of dedicated Communists who had learned to parachute in the *Komsomol* (Leninist Youth) organization. Large-scale exercises tested the theory of combined mechanized and airborne offensives. At the same time, the rest of the Red Army gradually shifted to a regular structure, eliminating the mixed territorial cadre system. By June 1938, the Red Army was a full-time force of 1.5 million men. In response to the growing German menace, the army conducted a rolling, gradual mobilization, reaching 2.3 million men in 170 under-strength rifle divisions by 1 December 1939, 4.5 million in 161 rifle divisions by 1 February 1940, and 5 million in 196 rifle divisions by June 1941.¹³

The Soviet development of mechanization was not perfect. Just as in pre-war Germany, the majority of Soviet tanks were lightly armored, relying on speed for protection. The Soviets were so far ahead of their Western counterparts that much of the Soviet weaponry produced in the early and mid-1930s was obsolescent and worn out by the time war came in 1941. Because the average Soviet soldier had little experience with motor vehicles, the equipment proved difficult to maintain in the field. Radio communications, essential for battlefield maneuver, were notoriously unreliable. In 1935, the Red Army reduced the authorized size of a mechanized corps because it had proven too large and unwieldy to maneuver. Moreover, the emphasis upon mechanized attacks meant that the Red Army neglected planning and training for the defensive, at least at the operational level. Left undisturbed, the Soviet *tankisti* (tank crews) would have required several more years to work out such issues.

Despite these deficiencies, in the mid-1930s the Soviet Union led the world in the production, planning, and fielding of mechanized forces. It was well ahead of its German counterparts in both theoretical concepts and practical experience of armored warfare. In Germany, Heinz Guderian and other armored theorists received only limited support from civilian and military leaders. Adolf Hitler used panzers as part of his diplomatic bluff against other powers, but he gave priority of production to the *Luftwaffe* (the German Air Force); a significant portion of tanks actually produced were assigned to infantry-support rather than combined-arms duty. At the same time, the German Army as a whole went through many growing pains after fifteen years of restrictions under the Treaty of Versailles. Large, operational-level employment of panzer forces was still an experiment even in the 1940 campaign.¹⁴ In short, had the Germans and Soviets fought during the mid-1930s the Red Army would have had a considerable advantage.

AN ARMY IN DISARRAY, 1938–1939

By 1939, that advantage had disappeared, due largely to a purge of the officer corps. This was a constant phenomenon of the new Soviet state; in the decade between the mid-1920s and the mid-1930s, the government discharged some 47,000 officers, many of them with prior service in the Imperial Army. Three thousand of these officers were convicted of various alleged crimes.¹⁵ Beginning in 1934, however, Stalin systematically purged all aspects of Soviet society, turning to the army in 1937.

The motivation for this purge is still much debated, with some arguing that Stalin genuinely feared military treason and others focusing on the army as an institution that might limit his power.¹⁶ In addition, the Soviet dictator had always been uncomfortable with innovative theorists such as Tukhachevsky.

Like Hitler, he valued loyalty, orthodoxy, and intellectual subservience. Stalin's unimaginative crony, Defense Commissar Kliment E. Voroshilov, encouraged this prejudice because of his own resentment against the young cavalry expert. Voroshilov eagerly repeated rumors of a military conspiracy centered on Tukhachevsky, whose past service under the exiled Trotsky and extended visit to Germany provided some reason for suspicion. On 27 May 1937, Marshal Tukhachevsky and a number of colleagues were arrested.¹⁷

In contrast to the purges of civil society, the accused underwent hasty, secret trials, suggesting that they were not willing to confess to their alleged crimes. One officer committed suicide rather than serve on the board that tried Tukhachevsky, but other senior leaders cooperated. On 12 June 1937, Voroshilov announced the execution of the marshal, the commanders of two military districts, and six other high-ranking colleagues. For the next four years, right up to the German invasion, Soviet officers disappeared with alarming frequency, with many officers executed and others sent to the labor camps in Siberia. In addition to the heads of nine staff directorates in Moscow, the victims included the commanders of all sixteen military districts, 90 percent of the deputy commanders, chiefs of staff, and staff section heads of such districts, 80 percent of corps and division commanders, and 91 percent of regimental commanders, deputies, and chiefs of staff.

The final toll included 2 successive heads of the Red Air Force, 15 admirals, and 3 of the 5 marshals of the Soviet Union. In all, 14 of the 16 field army commanders, 136 of 199 division commanders, and 50 percent of all regimental commanders were also disgraced and imprisoned or executed. Out of an estimated total of 75,000 to 80,000 military officers, at least 34,000 and perhaps as many as 54,700 endured dismissal during the purges. Political commissars and security officers of the People's Commissariat of Internal Affairs (NKVD) also suffered heavily.¹⁸ The purges were still ongoing when war engulfed the Soviet Union in 1941, with some of the purged, such as future Marshal of the Soviet Union K. A. Meretskov, literally released as war began in order to occupy key positions in the Red Army as it fought for its life.¹⁹

Few, if any, of the commanders convicted had committed identifiable crimes. The only consistent criterion appeared to be elimination of all senior leaders who did not owe their careers to Stalin and might therefore challenge his authority. Of those imprisoned, 11,500 eventually gained reinstatement. Perhaps the most famous former prisoner was Konstantin K. Rokossovsky, who ended the war as a marshal of the Soviet Union commanding a *front* (army group).

An entire generation of commanders, government administrators, and factory managers was decimated. Younger men, often lacking combat experience or training for their positions, found themselves thrust into high command. In 1938, for example, S. S. Biriuzov, who was a major at the time,

reported to 30th Irkutsk Rifle Division after completing staff officer training. He found the commander, political commissar, and all but one primary staff officer had been arrested. This left him as the division commander, a position that called for an officer at least three ranks higher and with ten more years of experience than he possessed.²⁰

As part of this replacement process, stars fell on the Voroshilov General Staff Academy class of 1938. One-half of this class graduated ahead of schedule in 1937, including such future luminaries as A. M. Vasilevsky, A. I. Antonov, and M. V. Zakharov, all of whom were thrust precipitously into senior command and staff positions.²¹ Despite such promotions, the purges plus the gradual expansion of the Red Army left the force chronically short of commanders at every level. Most of the newly promoted men were not combat veterans, and the threat of arrest and execution made intelligent but inexperienced officers hesitant to deviate from textbook norms and guidelines in battle. Moreover, the turbulence in command resulted in neglect of training and maintenance. Because the concept of the Deep Operation was associated with Tukhachevsky, his execution gave mechanized organizations and doctrine a poor reputation. The Red Army recalled and destroyed many of Tukhachevsky's theoretical writings.²²

Nonetheless, this controversy did not mean a change in the essentially offensive attitudes and posture of the Soviet forces. In theory, Marxists spoke of future wars in which the Red Army would advance into central and western Europe and thereby trigger proletarian revolts in other countries. More practically, Moscow's leaders expected an attack by the capitalists, and they therefore planned to defend their territory by immediate counterattacks.²³

The Spanish Civil War (1936–1939), that great dress rehearsal for World War II, further hampered Soviet military development. A limited number of Soviet tanks and tankers participated on the Republican side, just as the Germans and Italians provided equipment and men to support Francisco Franco. Yet, the Soviet tanks were too lightly armored, and their improvised crews often could not communicate with the Spanish-speaking infantry they supported. In battle, the tanks tended to outrun the accompanying foot soldiers, allowing the Fascist defenders to destroy those tanks with relative ease. D. G. Pavlov, chief of armored forces and one of the most senior Soviet officers to serve in Spain, returned home with an extremely pessimistic attitude. He concluded that the new mechanized formations were too large and clumsy to control, too vulnerable to artillery fire, and unlikely to penetrate prepared enemy defenses in order to conduct deep operations. In short, armor could not attack independently but had to be integrated with the other combined arms.²⁴

In fairness, other armies also had difficulties with mechanization during the later 1930s. Except for France, all nations produced tanks that were

inadequately armored and tended to use these tanks as independent cavalry-reconnaissance units rather than in close cooperation with the other combat arms.²⁵ In the Soviet case, however, the weaknesses described by Pavlov only added to the fires of suspicion started by the Great Purges.

In July 1939, a special commission reviewed the entire question of armored force organization. The commission was chaired by another of Stalin's cronies, Assistant Defense Commissar G. I. Kulik, and included such surviving heroes of the Russian Civil War as Marshals Budenny and S. K. Timoshenko. Few experienced armor officers or advocates of Tukhachevsky's ideas were allowed to participate in the commission. In August, the commission reached a compromise that directed the removal of the motorized infantry elements from tank corps (the name given to mechanized corps in 1938) and tank brigades, reducing such units to an infantry-support role. The Kulik Commission did recommend the creation of four new motorized divisions that closely resembled the German panzer divisions of the day and could be used either independently for limited penetrations or as part of a larger cavalry-mechanized group for deeper, *front*-level exploitations. Although the Commissariat of Defense formally abolished the tank corps, in practice two of them survived. Acting on the Kulik Commission's recommendation, on 15 November Commissar of Defense Voroshilov mandated reorganizing the Red Army into a force of 170 rifle divisions, including 3 motorized divisions, 10 mechanized divisions, 16 mountain rifle divisions, and 141 rifle divisions manned in peacetime at a strength of 12,000, 6,000, or 3,000 men each, plus 36 tank brigades of various types and 4 light tank regiments.²⁶ Thus, Soviet mechanized concepts and the Red Army's force structure had regressed to a far more primitive stage than that of 1936.²⁷

LAKE KHASAN AND KHALKHIN-GOL

The last portion of the Red Army to feel the brunt of the Great Purges was in Siberia and the Far East, where distance from Moscow combined with an external threat to limit the disorganizing effects of Stalin's bloodbath. The Japanese seizure of Manchuria in 1931 and eastern China in 1937 brought Moscow and Tokyo into an undeclared conflict that flared twice in the late 1930s. The Soviet government reacted strongly to these challenges in a successful, if costly, effort to deter Japan from open warfare.

During July and August 1938, the two powers repeatedly clashed over possession of a narrow spit of land at Lake Khasan, 112 kilometers (70 miles) southwest of Vladivostok. On 11 August, the hard-pressed Japanese asked for an armistice, eventually withdrawing after suffering 650 killed and 2,500 wounded. Although the Soviets won the engagement, their frontal attacks

and poor combined-arms coordination cost them 960 dead, missing, or mortally wounded and 3,279 wounded or sick.²⁸

Undeterred, the Japanese chose a remote area on the Khalkhin-Gol, the river between Outer Mongolia (a Soviet ally) and the Japanese satellite state of Manchukuo (Manchuria), to again test the Soviet will. In May 1939, the Japanese occupied the village of Nomonhan, hoping to challenge the Soviets in an area where poor roads would restrict the size of forces that the defenders could bring to bear. After an initial encounter, however, command of the Soviet forces at Khalkhin-Gol went to Corps Commander Georgii Konstantinovich Zhukov, one of Tukhachevsky's most brilliant disciples. Undetected by the Japanese and despite the remote location of Nomonhan, Zhukov amassed 57,000 men, 498 tanks, and 385 armored cars organized into three rifle divisions, two tank brigades, three armored car brigades, one machine-gun brigade, and an airborne brigade. Meanwhile, the Red Air Force reinforced the area with veterans of the Spanish Civil War, who achieved lopsided victories over the Japanese pilots. At 0545 hours on Sunday, 20 August 1939, Zhukov struck. After an initial aerial bombardment, a recently mobilized territorial division attacked but became bogged down in front of the Japanese defenses. At the same time, however, Soviet mobile troops moved around both flanks and encircled most of the defending Japanese troops. The Japanese attempted to break out on 27 August but failed. On 15 September, the Japanese signed an agreement in Moscow to end the undeclared war. This brief operation cost the Soviets 9,703 killed, missing, or died of wounds and 15,952 wounded or sick; the Japanese lost 61,000 killed, wounded, or captured.²⁹

Khalkhin-Gol had two significant results. First, the Japanese government decided that it had seriously underestimated the Soviets, which led Tokyo to look elsewhere for new spheres of influence. This contributed ultimately to the conflict with the United States, but it also secured the Soviet back door throughout World War II as Japan refrained from joining Hitler's attack. Second, Zhukov began his meteoric rise, taking with him many of his subordinates who later became prominent wartime commanders. For example, Zhukov's chief of staff at Khalkhin-Gol, S. I. Bogdanov, later commanded 2nd Guards Tank Army, one of the elite exploitation formations that defeated Germany.

On a limited scale, Khalkhin-Gol demonstrated the viability of the Soviet theory and force structure, but it was the one bright spot in an otherwise dismal picture. One week after Zhukov's victory, the German Army invaded Poland, beginning the campaign that brought Germany and the Soviet Union into direct confrontation in eastern Europe. The Red Army was woefully unprepared for the challenge.

CHAPTER TWO

Armed Truce, 1939–1941

MOLOTOV-RIBBENTROP PACT

Conflict between Germany and the Soviet Union seemed inevitable from the moment that Adolf Hitler came to power in 1933. Hitler had gained office in part by depicting himself and his political party as the only bulwark against the spread of international Communism. In addition to the ideological rivalry between National Socialism and Marxist Communism, the two states were natural geopolitical competitors. The Russian history of constant invasion from the west motivated any government in Moscow to seek buffer territories in central and eastern Europe. Similarly, German power politics and Nazi ideology regarded German economic and political exploitation of the same region as an inevitable part of national resurgence and economic security.

The secret German-Soviet military cooperation ended by mutual consent within months of Hitler's accession to power. The two regimes fought by proxy in the Spanish Civil War, sending "volunteers" and equipment to help the opposing sides. Russian bombers even sank a German warship off the coast of Spain in 1938, and Soviet ships escorted supply vessels against unidentified Fascist submarines in the Mediterranean. Meanwhile, Moscow condemned each successive German demand for more territory in central Europe.

Yet, Stalin was reluctant to fight Hitler without allies. In the late 1930s, the Soviet economy was just beginning to recover from previous conflicts and purges. Moreover, Stalin had no desire to fight a war that would weaken the young socialist state while eliminating the German threat to the capitalist West. M. M. Litvinov, the Soviet commissar for foreign affairs, campaigned vainly for collective security in response to German aggression. The 1938 Munich crisis over Czechoslovakia convinced Stalin that Britain and France were unlikely to take effective action against Hitler and would willingly sacrifice the Soviet Union if the opportunity arose. Although Moscow conducted a partial mobilization of its armed forces to intimidate Berlin and impress its potential allies, the Soviets were not even invited to the Munich conference.¹ Then, when Hitler violated the Munich agreement by occupying the remainder of Czechoslovakia in March 1939, the British response again

excluded Moscow. Neville Chamberlain's guarantee of Poland's 1921 borders was intended to deter Hitler, but it also excluded Stalin's claims to Polish territory that had once belonged to Imperial Russia.

After lengthy diplomatic negotiations, British and French military representatives finally arrived in Moscow in August 1939, ostensibly to discuss plans for combined action against Germany. Both the junior rank of these representatives and the limited military forces that Great Britain would pledge confirmed Soviet skepticism about the seriousness of the negotiations. The talks ultimately foundered on the question of troop transit rights through Poland. The chief Soviet negotiator, Marshal Voroshilov, naturally insisted that Red Army forces be allowed to enter Poland to join in a combined response to further German aggression in the region. It is unclear whether this was a sincere Soviet proposal or a test of Western resolve. In either event, the Polish strongman, Colonel Joseph Beck, opposed such passage rights, suspecting his former enemy of territorial ambitions. King Carol II of Romania was equally opposed to Soviet passage across his territory.

By this time, Stalin had concluded that he would gain more by compromising with Hitler than he could expect from his divided and hesitant Western partners. He may also have feared a German-British combination against the Soviet Union, a recurring nightmare of the Soviet leadership. In any event, on 3 May 1939 V. M. Molotov replaced Litvinov as foreign affairs commissar. This was a clear signal that Moscow was willing to depart from its previous anti-German policies of collective security. Over the ensuing months, the two enemies negotiated a trade and finance agreement. The Germans were initially suspicious of Soviet overtures, which occurred while Moscow was still negotiating with the British and French representatives. As the Polish crisis intensified, however, Hitler sought a free hand to dispose of Poland quickly, and Stalin did not wish to enter a premature war without reliable allies. On 20 August 1939, Hitler sent Stalin a message asking that the Soviet leadership receive the German foreign minister, Joachim von Ribbentrop, not later than 23 August. Ribbentrop flew to Moscow and quickly finalized a nonaggression agreement that was announced to a stunned continent on 24 August.²

The Molotov-Ribbentrop Pact publicly promised friendship and mutual nonaggression but secretly divided eastern Europe into spheres of influence. Initially, the terms of this division were rather vague, but in general, Germany would occupy western and central Poland. In return, the Soviet Union would have the dominant position in the Baltic States and would control Poland east of the San and Bug Rivers. Neither side expected the agreement to last indefinitely. Moreover, the pact did not prevent Germany's ally Japan from challenging the Soviet Union in Asia, as described in chapter 1. Still, Berlin and Moscow were freed of their immediate concerns about two-front

conflicts and could focus on digesting their allotted spoils. Although divining Stalin's intentions is always a risky proposition, he apparently expected that if Hitler became involved in a confrontation with the West over Poland, the result would be a prolonged stalemate that would give the Soviet Union years to improve its defenses and recover from the purges. He could hardly have anticipated Germany's swift victories in the west.

POLAND AND THE BALTIC STATES

The rapid German conquest of Poland in September 1939 was an unpleasant shock to Moscow. Soviet analysts had expected the Poles to resist for months, but the Polish collapse was evident within the first two weeks of the war. Stalin nonetheless hesitated, refusing to commit himself to war until German success was assured.³

Only then did the Soviet government scramble to assemble its own forces, both to assert its claims to eastern Poland and to protect itself against German treachery. On 5 September 1939, Moscow began to recall more reservists to active duty and soon thereafter implemented universal conscription.⁴ This partial mobilization disrupted Soviet industry by taking 1 million skilled workers away from the factories on short notice; the result was a significant production shortfall in 1940. Meanwhile, the Ukrainian and Belorussian Military Districts, the peacetime administrative headquarters along the Polish frontier, were placed on a wartime footing as *fronts* or army groups.

On 14 September, Molotov notified the Germans that the Red Army would occupy its designated area of Poland earlier than anticipated, and three days later, Soviet troops crossed the border. Because of their hasty mobilization, most army units had not yet reached their assembly areas. Instead, each *front* formed a mobile group comprising two cavalry and one tank corps.⁵ Each mobile group was expected to penetrate the weak Polish border defenses and move rapidly to the new western boundary of the Soviet sphere.

Even these selected units were hamstrung by improvised logistics, especially fuel shortages. For example, A. I. Eremenko experienced repeated difficulties as commander of the Belorussian Front's 6th Cavalry Corps. His forward detachment, consisting of a tank regiment and a motorized rifle battalion, penetrated almost 100 kilometers (62 miles) on the first day. Thereafter, however, Eremenko had to siphon fuel from one-third of his vehicles to keep the other two-thirds moving. By the time he encountered the Germans at Bialystok, Eremenko had to obtain an emergency fuel resupply by airlift.⁶

Such logistical difficulties were compounded by the resistance of the dying Polish state. According to official Russian figures, the Red Army suffered 1,475 dead and missing in action and 3,858 wounded and sick during these

operations, and a few skirmishes also developed between the Soviets and the Germans.⁷ Soviet leaders later insisted that the ethnic Ukrainians and Belorussians of eastern Poland had welcomed them with open arms. By the end of October, people's meetings in the region supposedly requested union with the corresponding republics of the USSR, and the new territory was absorbed into that state. Some of the populace of eastern Poland undoubtedly did prefer Soviet to Polish or German control, but the Polish military leadership did not share such sentiments. During the spring of 1940, a total of 15,131 captured Polish officers, cadets, and sergeants were executed and buried in mass graves in Katyn Forest and other sites inside the Soviet Union. Although Moscow later blamed the Germans, this massacre was actually performed on Stalin's orders by the NKVD.⁸

Eager to implement the Molotov-Ribbentrop Pact, Stalin next occupied the Baltic States. Between 28 September and 10 October 1939, Moscow forced Estonia, Latvia, and Lithuania to sign mutual assistance agreements. The three governments reluctantly agreed to permit Soviet naval, air, and coast artillery bases on their territories and to support each other in case of attack. In return, Moscow transferred the city of Vilnius from Polish to Lithuanian control.⁹

Preoccupied with preparations to fight Britain and France, Germany was in no position to support the Baltic countries even if it had been willing to void the Molotov-Ribbentrop Pact. However, the Baltic national governments continued their traditional economic ties with Germany and attempted to improve their defenses against Moscow. Numerous minor incidents occurred between the local populace and the occupiers.

Even this limited Baltic independence did not survive for long. On 14 June 1940, Stalin issued an ultimatum to the Lithuanian government. He demanded the dismissal and prosecution of two anti-Soviet ministers accused of "provocative actions" against the Soviet garrisons, as well as full occupation of major Lithuanian cities by the Red Army. Twenty-four hours later, the Soviet Union occupied Lithuania and issued similar ultimatums to Latvia and Estonia. Local Communists formed governments that immediately requested admittance as republics in the Soviet Union. The national armed forces were dissolved, and most of their leaders were imprisoned in Siberia. By August 1940, the USSR had absorbed all three republics, and the main Soviet naval base in the Baltic was transferred to the ice-free port of Tallinn in Estonia.¹⁰

In June 1940, Moscow moved to fulfill the remaining terms of the secret Molotov-Ribbentrop accords. Concerned by Britain's efforts to increase its influence in the Balkans, Stalin pressured the Romanian government to surrender the oil-rich region of Bessarabia to the Soviet Union. When the Romanians refused, Stalin formed the Southern Front under Zhukov from the Kiev Special Military District. Between 28 and 30 June, the Southern

Front's 9th Army, commanded by Major General I. V. Boldin and assisted by airborne assaults on key objectives, invaded Bessarabia and forcibly incorporated the territory into the Soviet Union.¹¹ At the time, Stalin had apparently not yet realized that the recent German victory in France had freed Hitler to look eastward, and the Soviet occupation, though within the limits of the Molotov-Ribbentrop Pact, greatly irritated the Germans.¹²

FIRST FINNISH WAR, 1939–1940

These annexations occurred only after a frustrating conflict with Finland in 1939–1940. From the Soviet point of view, the presence of Finland on the doorstep of Leningrad was an open invitation for German or British attack on that city, and Stalin's policies made this a self-fulfilling prophecy. In October 1939, the Soviet government had asked Finland for a number of concessions, including the strategic islands of Koivisto and Hogland on the water approach to Leningrad, border adjustments in the far north, and cession of land on the Karelian Isthmus. The latter was a swampy area some 58 kilometers (30 miles) wide between the Gulf of Finland and Lake Ladoga on the most direct route from Finland to Leningrad. Finland had built a number of pillboxes on the isthmus, forming the so-called Mannerheim Line, named for the Finnish military commander and hero of the Russian Civil War Carl Gustaf Mannerheim. The Soviet demand meant abandoning even these limited defenses. In addition to such outright territorial changes, Moscow also wanted a thirty-year lease on the Hango peninsula in southwestern Finland. In return, the Soviets offered undeveloped land north of Lake Ladoga.

From 14 October to 3 November 1939, Finnish representatives attempted to bargain in Moscow, offering to surrender one of the islands and part of the disputed border regions. Ultimately, Molotov broke off the negotiations when the Finns refused to lease Hango. On 26 November, the Soviets created a border incident and demanded that Finnish troops pull back 24 kilometers (15 miles) from the frontier. Two days later, Moscow abrogated its nonaggression treaty with Helsinki, and it broke diplomatic relations on 29 November. The Soviets began hostilities the next day.¹³

In anticipation of this attack, the Finnish government had gradually mobilized its forces to the equivalent of fourteen divisions, of which six were dedicated to the Mannerheim Line. This line consisted of a lightly defended forward area along the border followed by two belts of field fortifications, barbed wire, and minefields. These defenses were tied in with the various rivers and other water obstacles in the isthmus. Only in the center of the isthmus, where no river existed for a 32-kilometer (20-mile) stretch around the town of Summa, did the Finns have significant concrete pillboxes and gun

The Soviet-Finnish War, 1939-1940



Map 2. The Soviet-Finnish War

emplacements. Finnish defenses were far thinner in the rest of the country, relying on the remote and almost impassable terrain to limit the size of any invasion force. The entire Finnish Army, although well trained for Arctic warfare, was short of heavy weapons and equipment. For instance, a Finnish infantry division had 3,000 fewer troops and less than one-third the artillery authorized to its Soviet counterpart. The country possessed well under 100 armored vehicles, many of them obsolescent, and 270 largely obsolete aircraft.¹⁴ Unlike the Soviets, the Finns lacked a major industrial base to support prolonged warfare, and their geographic isolation made it difficult to import munitions in large quantities.

Despite these weaknesses, the Finnish Armed Forces were at least prepared for a winter war, whereas their opponents were rushed into an ill-prepared offensive. Just as in the Polish campaign in September, Stalin ordered the Red Army to invade Finland after a painfully short preparation period. In order to do so, divisions from the Ukrainian Military District, where the climate was mild by Russian standards, were abruptly redeployed to conduct a winter campaign in near-Arctic latitudes. This haste meant that few, if any, Soviet units had time for reconnaissance and terrain analysis. The Red Army had no detailed information about the Mannerheim Line and advanced blindly. Staff officers recommended focusing all efforts on the Karelian Peninsula, but Stalin directed a simultaneous attack all along the frontier. Yet, north of Leningrad there were few if any communications links. Soviet commanders operated on a logistical shoestring, with only a single railway line to supply all their forces. Finally, only the troops already assigned to Leningrad received any political training to motivate them for the fight against the Finns; the new arrivals had no idea what the conflict was about.¹⁵

Like the Finns, the Leningrad Military District forces, commanded by Army Commander 2nd Rank Kirill A. Meretskov, concentrated their main effort in the Karelian Isthmus. V. F. Iakovlev's 7th Army, with about 200,000 men, 1,000 tanks, and 700 aircraft, deployed two corps (five divisions and two tank brigades) in the first attack echelon, three divisions in second echelon, and one rifle division and one tank corps in reserve to reinforce or exploit the anticipated breakthrough.¹⁶ Although their efforts north of Lake Ladoga were more modest, the Soviets still outnumbered the Finns in soldiers and equipment. The 8th Army deployed five rifle divisions just north of the lake, and an additional five divisions spread out along the Finnish border as far as Murmansk in the north. Perhaps the greatest threat was posed by 9th Army, whose three divisions were aimed at the narrow waist of Finland near the town of Suomussalmi. If the threat succeeded, these forces could reach the Gulf of Bothnia and cut the country in two.¹⁷

The initial assault on 30 November was hurried and amateurish. After a brief bombardment, 7th Army pushed across the border, driving back the

weak Finnish covering forces but showing little understanding of the terrain or the problems of coordinating infantry, artillery, and armor. To correct this, on 9 December G. S. Isserson, one of the foremost theorists in the Red Army, became chief of staff of 7th Army. Unfortunately, Isserson attempted to micromanage the entire operation instead of using his subordinate staff officers, contributing to the lack of coordination.¹⁸ Meanwhile, Moscow recognized the puppet Finnish Democratic Government established in the border village of Terjoki and apparently planned to annex the entire country through this facade of legality. By 12 December, 7th Army had come up against the first defensive belt of the Mannerheim Line, protecting the town of Viipuri (Vyborg). Four days later, Iakovlev launched his main attack, concentrating on the fortified area of Summa in the mistaken belief that this was the weakest point. Even had they achieved a breakthrough, Iakovlev's reserve units were not concentrated to exploit it.

Despite suicidal bravery on the part of the troops, everything possible went wrong. The Soviet attacks became stereotyped and predictable. Every afternoon at about 1500 hours, the artillery would fire for thirty minutes at the general area of the Finnish positions, without specific targets. When weather permitted, the Red Air Force joined the attack, but its efforts were scattered across the entire front, lacking in direction, and generally ineffectual. Soviet engineers had difficulty breaching the antitank obstacles in front of Summa, and Soviet tanks became entangled in those obstacles. Most of the tanks were too lightly armored to face Finnish antitank weapons, and just as in Spain, they became separated from their protecting infantry. When Iakovlev switched to night attacks later in the month, the Finnish commanders responded with massed machine-gun fire and searchlights. By 20 December, Moscow was forced to cancel the offensive in the isthmus. The Soviet troops were more effective on the defensive, quickly halting a four-division Finnish counterattack launched on 23 December, but their defeat was apparent.¹⁹

Soviet attacks farther north were equally ineffective. In the extreme north, 104th Rifle Division achieved a modest success against limited resistance, but this was more than offset by the dismal Soviet performance at Suomussalmi. On 7 December 1939, 44th Rifle Division (from Kiev) attacked from the east, and 163rd Rifle Division struck from the north. The 44th reached Suomussalmi two days later, but the inhabitants burned the town to deny shelter to the invaders. Heavy snow and abnormally cold weather confined 44th Division to the single hard-surfaced road leading from the border to the town. The Soviet vehicles could not maneuver in the adjacent forests, where the ski-mounted defenders were quite at home. As a result, this Ukrainian division was strung out and vulnerable, an ideal target for the Finnish 9th Infantry Division, which had several battalions equipped with

skis. A Finnish counterattack on 11 December drove 44th Division out of the town. The Finns established road obstacles that broke the division into small unsupported fragments. They then conducted hit-and-run attacks that gradually destroyed the isolated Soviet units. Virtually the entire 44th Division was destroyed, its personnel killed or captured. When 163rd Rifle Division attempted to close the pincers by attacking from the north, it, too, was cut off. The survivors retreated eastward across a frozen lake, leaving most of their guns, tanks, and trucks behind. Both divisions ceased to exist as organized units.²⁰

The first response from Moscow, in typical Stalinist style, was to seek scapegoats. L. Z. Mekhlis, a senior political commissar who had been instrumental in the later stages of the Great Purges, arrived in 9th Army to investigate the disaster at Suomussalmi. On his orders, the commander of 44th Division was shot out of hand and dozens of senior officers were replaced.²¹ Such measures were unlikely to encourage initiative on the part of other commanders.

More generally, the Red Army completely overhauled its command structure and tactics before renewing the offensive. One of the surviving senior leaders of the Civil War, S. K. Timoshenko, became commander of the Northwestern Front to control operations against the Mannerheim Line. The 7th Army received a new commander, Meretskov (demoted from command of the entire operation), and two additional rifle divisions. More importantly, 7th Army was assigned a much narrower frontage on which to attack, with a new 13th Army moved in next to it, on the eastern side of the isthmus. The Red Army's senior staff officer for mechanized operations, D. G. Pavlov, assembled a small mobile group composed of a rifle corps, a cavalry corps, and a tank brigade. His mission was to advance across the ice around the southwestern end of the Finnish defenses to seize Viipuri. The entire Soviet force received intensive training in winter operations and conducted elaborate exercises on penetrating fixed fortifications. Special assault groups were organized, each consisting of a rifle platoon, a machine-gun platoon, three tanks, snipers, engineers, and dedicated artillery. A few new KV-1 heavy tanks were brought in, and the Red artillery was reinforced and reorganized. All of these preparations had to be completed under severe time constraints in order to renew the offensive while winter weather still kept the ground frozen and permitted close air support. In early February, reconnaissance units began limited attacks to locate the main Finnish defenses. Then, on 12 February 1940, the Red Army launched an offensive unlike any of its previous efforts. The artillery fire was not only heavier but also far more accurate, stunning the Finnish defenders with repeated direct hits on their bunkers. The infantry advanced in a dispersed formation behind an artillery barrage that moved forward slowly, denying the Finns the easy targets of previous

battles. Where possible, the Soviet assault detachments outflanked enemy positions to attack from the side and rear.

After two and a half days of ferocious fighting, the Soviet 50th Rifle Corps broke into the first defensive line in the critical Summa sector. Three tank brigades began to widen the penetration, and the outnumbered Finns had to fall back to their second defensive line, covering the city of Viipuri. Mannerheim had to replace the exhausted Finnish commander on the isthmus. A major snowstorm on 21 February halted operations for three days, but Timoshenko used this time to replace his leading rifle divisions with fresh troops from second echelon. On 24 February, Pavlov's mobile group moved across the ice to seize the island of Koivisto and prepared to continue its advance around the Finnish southern flank.

Beginning on 28 February, twelve Soviet divisions and five tank brigades attacked the second defensive belt. After four days of fighting, the attackers entered the suburbs of Viipuri, while Pavlov's mobile group attacked southwest of the city, cutting off the main road to Helsinki. In desperation, the defenders counterattacked Pavlov's forces and flooded the countryside around Viipuri. The Soviet infantry and engineers waded through chest-deep, ice-cold water to continue clearing the city, which was largely deserted.

The Finns could do no more, and on 9 March, General Erik Heinrichs, the commander of Finnish forces in the isthmus, admitted that his troops were at the end of their endurance. An armistice took effect on 13 March. Moscow failed to achieve outright annexation of Finland but gained far more territory than it had originally demanded.

The cost was out of all proportion to the gains, however. In human terms, the Red Army suffered 131,476 men killed or missing and another 264,908 wounded or sick, plus the loss of 653 tanks.²² The Finns lost 22,830 killed or missing, 43,557 wounded, and 50 tanks destroyed or captured. The League of Nations expelled the Soviet Union for aggression, further isolating it diplomatically and militarily. The Finnish war's effects on the Soviet-German relationship were equally severe. The bumbling, hesitant Soviet military performance undoubtedly encouraged Hitler and his commanders to believe that Moscow was incapable of defending itself; Finnish warnings that the Red Army had markedly improved by February went unheeded.²³ At the same time, the belated British and French efforts to reinforce the Finns by invading Scandinavia contributed to Hitler's decision to invade Norway in April 1940. This, in turn, put German troops uncomfortably close to Soviet territory in the far north.

In general, Soviet actions in the Baltic States and Romania irritated and disturbed the German government, even if they were within the letter of the Molotov-Ribbentrop Pact.

REFORMS OF 1940

The failures in Finland led to a searching reexamination and reform effort within the Soviet Armed Forces.²⁴ The government's first actions contributed greatly to the authority and prestige of its professional officers. Moscow reintroduced conventional general officer ranks, which had been suppressed for years; numerous senior officers received awards and promotions. Meanwhile, the hated political commissars, who had regained their veto power as co-commanders during the Great Purges, were again reduced to a subordinate position, restoring that unity of command that had often been lacking in the Finnish campaign. In October 1940, a draconian new code of military justice gave commanders much of the authority that tsarist officers had once enjoyed.

The senior leadership of the Red Army paid for its errors, real and imagined. Stalin decided that Voroshilov's performance had been inadequate during both the Finnish war and the struggle with Japan. In May 1940, Marshal of the Soviet Union Semion K. Timoshenko became defense commissar, with Voroshilov relegated to the honorary titles of deputy chairman of the Council of Ministers and chairman of the USSR Defense Committee. General (Marshal of the Soviet Union in 1940) Boris M. Shaposhnikov, the scholarly ex-tsarist chief of staff who had warned in vain about the Finnish defenses, also lost his post temporarily, being replaced by the rehabilitated Meretskov, who himself was promoted to army general on 4 June 1940.²⁵

Voroshilov's dismissal paved the way for a revival of Soviet mechanized forces. The German successes in conquering France and the Low Countries contrasted sharply with the negative Soviet experience of large-scale operations in Finland, alarming the Soviet high command.²⁶ The new chief of the Main Armored Directorate, Lieutenant General Iakov N. Fedorenko, persuaded Timoshenko and Stalin to reverse the Kulik Commission's decision on abolishing large mechanized formations. After months of discussion, on 6 July 1940 the Council of Ministers approved the creation of eight new mechanized corps.²⁷ These formations were much larger than previous so-called corps, each one consisting of two tank divisions and one motorized rifle division, ultimately having an authorized total of 1,107 tanks and more than 36,000 troops. On 12 February 1941, the War Commissariat decided to activate twenty-one additional mechanized corps for a total of twenty-nine. Additional separate tank and motorized rifle divisions were also authorized.²⁸

While Marshal Budenny headed a commission to review the tactical lessons of Finland, Timoshenko toured the country conducting a series of major training exercises and winnowing out inadequate commanders. The successful leaders of Khalkhin-Gol and the second Finnish offensive moved into command positions throughout the army. Zhukov, the victor at Khalkhin-Gol,

succeeded Timoshenko as commander of the critical Kiev Special Military District and then, in January 1941, replaced Meretskov as chief of the General Staff. A division commander in Finland, Colonel General M. P. Kirponos, was promoted in June 1940 to command the Leningrad Military District and in February 1941 the Kiev Special Military District. When the war came in June, he demonstrated more courage than skill in that position. Meretskov went from command of 7th Army in the Karelian Isthmus to chief of the General Staff until Zhukov replaced him. In the long run, such command changes would have benefited the Red Army, but the immediate effect of such wholesale shifts was to prolong the inefficiency and personnel turbulence begun by the Great Purges. Thus, the General Staff had three different chiefs—Shaposhnikov, Meretskov, and Zhukov—in eight months. By June 1941, some 75 percent of all officers had been in their current positions for less than one year.²⁹

At the end of December 1940, a group of senior Red Army and Air Force commanders assembled in Moscow for a conference and war game.³⁰ A series of frank discussions illuminated the conceptual disunity of the officer corps. Lieutenant General Prokofii L. Romanenko, commander of 1st Mechanized Corps and a veteran of both Spain and Finland, criticized even Zhukov's views as too timid and, in essence, called for a return to Tukhachevsky's operational concepts. Romanenko argued that the rapid German victory in France was possible only because the Germans had assembled an entire mobile army, including mechanized and airborne corps supported by artillery and air elements. When it came time to discuss the structure to implement mechanized concepts, Stalin intervened to support Kulik and the other conservative officers. As a result, the newly formed mechanized corps remained the largest mobile formations in the Red Army. Even these corps did not receive the logistical priority necessary to complete their equipment and training.³¹

The Moscow conference also brought yet another painful round of personnel shifts. In a map exercise and war game at the end of the conference, Zhukov as commander of the "Blue" (enemy) side defeated the "Red" (Soviet) side in one of the two games. (In light of later events, one should note that the exercise scenario began some two weeks after a German attack; the staff officers simply assumed that the Red Army would repel the initial invasion and instead took up events after this initial repulse.³²) After the exercise, Stalin unexpectedly summoned the participants to the Kremlin for an immediate review. Caught off-guard, Chief of Staff Meretskov stumbled through his briefing. Stalin, who was probably looking for an excuse, immediately fired Meretskov and replaced him with Zhukov. In the ensuing days, commanders from military district down to division level were again reshuffled in an apparent attempt to place some experienced officers in Siberia in case of a two-front war with Japan and Germany. Thus, Red Army officers began

1941 with another reminder of the precarious nature of their positions and even of their personal survival.³³

SOVIET PREPARATIONS FOR WAR

Since 1935, Soviet war planning had focused on the twin threats posed by Germany and Japan. Strategic plans developed in November 1938 under the auspices of the chief of the General Staff, Shaposhnikov, considered both threats but identified the western theater of war as the priority. The Pripyat' Marshes posed a particular problem to planners, since these marshes divided the theater in half, north to south.³⁴ The question was whether German planners would focus their main effort north of the Pripyat' into Belorussia or south of the marshes into the Ukraine.³⁵

In 1938, Shaposhnikov's plan postulated defense along both variants. After the partition of Poland the following year, the General Staff revised its strategic plans in accord with the increasing German threat. Developed by Major General Aleksandr M. Vasilevsky, deputy chief of the General Staff Operations Directorate, the July 1940 plan postulated a probable German thrust into Belorussia along the Minsk-Smolensk axis, one of the few well-developed roads in the region. Mobilization schedules were adjusted to fit this plan. When Meretskov became chief of the General Staff, he supervised another reevaluation. With Stalin taking an active role, the October 1940 war plan shifted the strategic emphasis from the northwestern to the southwestern axis, probably because of Stalin's concern for the vital food supplies of the Ukraine. He was also influenced by a "Kiev faction" formed around Zhukov, then commander of the Kiev Special Military District. This shift in strategic focus required yet another adjustment of mobilization plans, and eventually, it resulted in the assignment of eight mechanized corps south of the marshes.

The January 1941 Moscow war game was intended to validate the October plan. To Stalin's consternation, however, both the defensive and the counteroffensive scenarios indicated that the General Staff had overestimated Soviet defensive capabilities and underestimated German offensive potential.³⁶ In the months after the war game, the General Staff again revised its mobilization plans and probably held new war games to develop a more effective defense against the ever-increasing threat of German attack. Fragmentary evidence exists that this frenetic planning focused on hitherto neglected defensive themes, but little of this seems to have been implemented in the field forces, which remained oriented on a vigorous counteroffensive.

Stalin and Soviet diplomats continued to act as if peace reigned supreme and all was well with the German-Soviet partnership. Still, by April 1941 Soviet intelligence had detected German offensive preparations, including

the infiltration of sabotage agents into the newly acquired territories.³⁷ As a precaution, literally hedging his bets on future peace, in April Stalin directed implementation of a “special threatening period of war” (*osoboe ugrozhaemyi voennyi period*), which featured special readiness procedures to be carried out only when war was imminent. This meant that partial mobilization would be expanded even as diplomats continued to seek the maintenance of peace. This dichotomy between Stalin’s frantic desire for peace (at least in the short run) and his desire to implement prudent defensive measures created confusion and paved the way for the catastrophic defeat of the Red Army. Thus, the Soviets partially mobilized while prohibiting their most ready forces in the border areas from undertaking measures vital for their survival.

In the last three months of peace, the Soviets accelerated the process of “creeping up to war,” a process that had been continuous since 1937. Between 26 April and 10 May, the Trans-Baikal, Ural, and Siberian Military Districts and the Far Eastern Front all dispatched forces to the border military districts in the West, replacing those units with newly generated local divisions. On 13 May, the General Staff ordered twenty-eight rifle divisions and the headquarters of four field armies (the 16th, 19th, 21st, and 22nd) to move from the interior to border districts, and three more armies (the 20th, 24th, and 28th) to begin assembling in several regions, with all movement to be completed by 10 July.³⁸ But when the German invasion began on 22 June, only 20th Army had assembled west of Moscow, and the 24th and 28th Armies had yet to move. Finally, during late May and early June the General Staff called up a further 800,000 reservists to fill out a hundred cadre divisions and numerous fortified regions, although many of these individuals were still en route when the Germans attacked.³⁹

Despite these precautions, the Soviet Union was not ready for war in June 1941, nor did it intend to launch a preventive war (see chapter 3). Although the General Staff had expended more than three years in developing defensive plans while intelligence agencies collected sufficient information to give clear warning, Soviet forces were poorly arrayed, trained, and equipped, and the Soviet political leadership was paralyzed by its fixation on maintaining peace, at least until 1942. Hope clouded reality, and both the Red Army and the Soviet peoples would pay the price.

DECISION

For the triumphant Germans, the temptation to attack the Soviet Union grew steadily in the summer of 1940. In addition to the basic ideological antipathy between the two partners, Stalin’s activities in the Baltic States and the

Balkans irritated the German leadership even though these activities were within the letter of the Molotov-Ribbentrop agreement.

Moreover, Germany was increasingly dependent on raw materials provided by the Soviets, and Berlin was running a serious trade deficit with its eastern neighbor. At the time, Stalin was more than willing to trade raw materials and food for German technology, but the Germans could not expect this relationship to continue indefinitely. Having become accustomed to controlling the economy of both their own nation and the occupied territories, German leaders were irritated by their inability to dictate the terms of their trade with the Soviets. They believed they could extract more resources by occupying European Russia, although these plans implied starvation for the local population. Hitler in particular believed that he needed these resources to match the potential military production of a developing British-American alliance.⁴⁰

Thus, for economic as well as political and ideological reasons a German attack on the Soviet Union was almost inevitable. This did not mean, however, that the German dictator had a rigid timetable or master plan for such an attack; throughout his career, Hitler followed his instinct to exploit perceived opportunities as those opportunities arose.

After the fall of France in June 1940, Hitler and many of his subordinates expected Great Britain to make peace. When London failed to fulfill this expectation, Hitler apparently concluded that the only thing motivating the British to continue fighting was the prospect, however remote, of the Soviet Union and/or the United States entering the war against Germany. In Hitler's mind, this was one more reason to strike quickly and eliminate any threat of Soviet intervention. On 21 July 1940, Field Marshal Walther von Brauchitsch, the German Army commander in chief, urged Hitler to act. Ten days later, even before the *Luftwaffe*'s failure in the Battle of Britain, Hitler directed the start of planning for an attack eastward.⁴¹

CHAPTER THREE

Opposing Armies, 1941

THE GERMAN ARMY: STRENGTHS

By all appearances, the German Army of 1941 was at the height of its power. Traditionally, the Prussian and, later, German officer corps had prided itself on offensive maneuver warfare, or *Bewegungskrieg*, using speed of movement to offset the risks of attacking even when outnumbered. Since Napoleon defeated the Prussian Army in 1806, the Prussians had relied upon a unity of training and thought that allowed junior officers to exercise their initiative because they understood their commanders' intentions and knew how their peers in adjacent units would react to the same situation. After World War I, General Hans von Seeckt presided over an exhaustive series of studies that produced a coherent doctrine of combining the different combat arms to achieve rapid penetration of the enemy's defenses, followed by exploitation to disrupt his organization.¹

During the later 1930s, this doctrinal unity was disrupted by disagreements concerning the correct employment of armor. Ewald von Kleist's 1940 panzer group, which had so impressed Soviet commanders, was in fact an experiment in this regard, with traditional commanders waiting to subordinate the mechanized units to infantry headquarters in the event of failure.² The success of this experiment vindicated those German officers who believed in mechanized warfare.

The panzer or armored division had become the key organization to implement this offensive doctrine. In order to satisfy Hitler's desire to create more such units for the Russian invasion, the number of tanks in both existing and newly formed armored divisions declined during the winter of 1940–1941. The 1941 panzer divisions had only two to three tank battalions each, with an authorized strength of 150 to 202 tanks per division. In practice, the average number of operational tanks was probably 150 per division. Moreover, despite the manifest weaknesses of the lightly armed and armored Panzer I and Panzer II vehicles, Germany did not have enough newer vehicles to eliminate these earlier models from combat units. In addition to these tanks, the division contained five infantry battalions, four mounted in trucks and one in a combination of motorcycles and other vehicles. Very few of these infantrymen—often only one company in the motorcycle battalion—

actually had armored personnel carriers, and it is therefore unsurprising that the majority of casualties fell among the infantry. The only exceptions in this regard were the 1st and 10th Panzer Divisions, with two and one battalions, respectively, mounted in half-tracks. The typical panzer division also included armored reconnaissance and engineer battalions and three artillery battalions equipped with 105mm howitzers towed behind trucks or tractors. These elements, together with communications, antitank, and antiaircraft units, on paper totaled roughly 17,000 men. Motorized infantry divisions were smaller, generally having only one oversized tank battalion, seven motorized infantry battalions, and three or four artillery battalions.³

Typically, a German motorized corps (relabelled in 1943 as a panzer corps) consisted of three mobile divisions, either two panzer and one motorized or the reverse, plus one or more infantry divisions to secure the flanks and line of communications. In turn, two to four motorized corps formed a panzer group, an organization that was still so unusual that it did not receive the designation "panzer army" until late in 1941. In most instances, this redesignation occurred when conventional infantry corps became attached to panzer groups.

Infantry divisions had generally retained the triangular structure imposed on Germany by the Versailles Treaty. The core of such a division was composed of three infantry regiments, each with three infantry battalions and small supporting elements of artillery, engineers, antitank, and reconnaissance. The typical division also had one battalion of 150mm howitzers and three battalions of 105mm howitzers, plus a motorized antitank battalion and various supporting elements. Many of the divisions created late in the mobilization process had significant shortages of vehicles and equipment, however.⁴

The battles of 1939–1940 had rarely forced the Germans to defend against a deliberate attack; therefore, the German defensive doctrine remained largely that of 1918. This remarkably effective doctrine relied upon infantry units that created elaborate defenses in depth, with the bulk of forces held in reserve rather than placed in the front line. When the enemy attacked, the forward elements were allowed to fall back while preparing rapid counter-attacks to eject the intruder. This doctrine rested on three assumptions, all of which were invalidated in Russia: that sufficient German infantry would be available to establish a defense in depth, that the main enemy attack would be by dismounted infantry, and that German commanders would have the freedom to select their own positions and conduct a flexible defense as the local situation required. The primary antitank weapon remained the 37mm antitank gun that had already proved inadequate against French and British heavy tanks. In most German units, only the artillery battalions and the famous 88mm antiaircraft guns, the latter controlled by the *Luftwaffe*, were effective against such tanks.⁵

THE GERMAN ARMY: LIMITATIONS

The German Army, *Luftwaffe*, and *Waffen* (Combat) SS, with their recent combat experience and flexible, decentralized command structure, had enormous advantages over their Soviet counterparts in 1941. Yet, if the Germans failed to achieve the kind of rapid victory they expected, they would suffer from severe disadvantages in a prolonged attritional conflict.

First and foremost, of course, was the fact that Germany had a population of less than half than that of the Soviet Union: approximately 80 million versus 165 million in 1939 figures.⁶ These mere numbers actually understate the differences in available pools of trained soldiers and leaders.

The 1919 Versailles Treaty had deliberately limited the defeated German Army to 100,000 officers and men, all enlisted for periods of twelve or more years. Although the Germans may have evaded this restriction in minor ways, most all of the young men who came of age between 1920 and 1934, the so-called white years, went unconscribed and untrained. Even when Germany officially resumed conscription in 1935, shortages of barracks and weapons limited the number of soldiers trained each year. For these same reasons, volunteers from the white years received only eight weeks of basic training. Thus, although the combined Wehrmacht and *Waffen* SS numbers totaled approximately 7 million in 1941 (of which about 3 million were in the East), there were virtually no reserves. To create the final twenty divisions for Operation Barbarossa, three classes of conscripts, including youths who would normally have been drafted in 1942, completed their individual training in May 1941, only a month before the invasion. Beyond those divisions, no more than 321,000 men on active duty were available as trained replacements. This pool was exhausted within the first few months of the Soviet war, after which there were no additional replacements until the following year. By contrast, in addition to the 5 million Soviet servicemen on duty when the Germans attacked, there were 14 million trained reservists.⁷

It would be easy to dismiss such problems by observing that the Red Army's reservists were too old in both chronological age and date of training to be a match for their German counterparts. Yet because of the Versailles limitations, much the same was true of the German manpower pool. The 100,000-man army may have been very well trained, but it was insufficient as a cadre for the expanded German Army and Air Force. Transferred policemen and Austrian officers, the Hitler Youth's older graduates, and previous campaigns had helped expand the leadership pool, but the Third Reich was too young for these sources to supply sufficient noncommissioned officers, company-grade officers, and battalion commanders for the vastly expanded Wehrmacht. The principal source for mature and experienced leaders at this level was the cadre of middle-aged men who had performed such functions

in the previous world war. In January 1941, there were still half a million veterans of World War I serving in German field units, and in the training base at home, some staff officers were seventy years old.⁸ Even the German senior officers were rather old for field command; in 1941, the average field army commander was fifty-eight years old and the typical corps commander was fifty-five. By contrast, the Red Army was such a young organization that the average age of army and *front* commanders in 1941 was only forty-four.⁹

The same veterans who provided leadership in German companies and battalions were also the critical technicians and middle managers who gave German industry its technological edge. In addition to raw materials and fuel, the German economy was severely restricted by its labor supply. Beginning with the 1938 annexation of Austria, therefore, the German government had followed a pendulum approach to manpower, repeatedly mobilizing such men for military operations and then demobilizing at least some of them to return to industry. This process of robbing Peter to pay Paul reached its ultimate expression on 21 May 1941. In response to complaints from industrial leaders, the German Armed Forces High Command (*Oberkommando der Wehrmacht*, or OKW) operations staff issued an order indicating that it would retain skilled workers on active duty only for the period 1 June to 30 September 1941—in other words, the German military expected to defeat the Soviets and begin demobilization in less than four months.¹⁰

By June 1941, German industry was already dependent on 3 million foreign workers from the occupied territories; the labor shortages became more acute with each new draft of conscripts for the army. As in the previous two years, Hitler was banking on a quick victory rather than preparing for a prolonged struggle. He was already looking beyond the 1941 campaign, planning to create new mechanized and air formations for follow-on operations in North Africa and Asia Minor.¹¹

In addition to shortages in skilled manpower, German industry was also handicapped by shortages in raw materials and by Adolf Hitler's desire, as a politician, to have both guns and butter and keep his population happy with consumer goods.¹² All these factors, plus the fact that the Germans had not expected the Polish invasion to start a world war, meant that German industry was never able to fully equip the armed forces. First priority went to the *Luftwaffe*, but even that legendary air force was primarily a tactical instrument with very few four-engine bombers or other long-range, strategic aircraft. The *Waffen SS* and other supposedly elite units took second priority on production, although they were still limited in size in 1941. This meant that the German Army could never achieve its goal of being a fully mechanized or even motorized force. Beyond the thirty-four panzer and motorized divisions, most of the German Army in the East was equipped much as it had been in the previous war, with infantry moving on foot and artillery and

supplies being drawn by draft animals. At least 600,000 and perhaps as many as 750,000 horses were involved in the initial invasion force. In preparing for the 1941 invasion, the Germans requisitioned horses and 15,000 peasant carts from occupied Poland. Supplying fodder was a major logistical concern, especially to feed the heavy European draft horses needed to move the artillery through the mud and snow. Like German locomotives, these horses proved to be ill suited for survival in the harsh environment of Russia, especially in the wintertime.¹³

Even these figures conceal the various expedients that the Germans used to field their forces. Large numbers of captured Czech tanks and guns and French trucks equipped some of the newer units formed during 1940–1941. For example, the 6th, 7th, 8th, 12th, 19th, and 20th Panzer Divisions were equipped primarily with Czech 38t model tanks.¹⁴ Likewise, 3rd Motorized and 11th and 20th Panzer Divisions had many French trucks, which were not designed for the long-distance driving necessary to execute *blitzkrieg* maneuvers.¹⁵ Furthermore, Germany was unable to provide more than token amounts of modern equipment to equip the satellite armies that increasingly guarded its flanks as it penetrated the Soviet Union. As a result, such satellite forces were unprepared to fight the kind of high-intensity, mobile warfare that dominated the conflict.

The Germans had made up vehicle shortages by requisitioning commercial trucks from occupied western and central Europe, but without the appropriate spare parts, manuals, and tools, such vehicles broke down at an alarming rate. Even units equipped with German-made vehicles lacked the maintenance capacity for an extended campaign. Tanks and other armored vehicles are complex devices that, in contrast to ordinary automobiles, require extensive maintenance and suffer frequent mechanical failures. The fact that German tank designs underwent a never-ending series of modifications meant that each tank battalion and company often had a variety of models with noninterchangeable parts. By one reckoning, Germany entered the Soviet Union with more than 2,000 types of vehicles, 170 kinds of artillery, 73 variants in tanks, and 52 models of antiaircraft guns.¹⁶ Spare parts and trained maintenance personnel were always in scarce supply, with many major repairs requiring (at least during the first half of the war) that vehicles be returned to the factory in Germany. Even the relatively short distances in the 1939 Polish campaign had posed such a strain on German armor that an entire motorized corps became immobilized for maintenance overhaul by the end of that campaign; the distances involved in European Russia were far greater than those in Poland.¹⁷ Moreover, some of the units that attacked the Soviet Union in June 1941, especially those in Army Group South, had already participated in the Balkan campaign that spring, after Stalin encouraged an anti-German coup in Yugoslavia. Such units had time to repair their

equipment between the two operations, but their supply of parts and tank treads must have been depleted even before they entered the vast Russian plain.

In short, the Wehrmacht was the model of the Western military focused on winning a rapid and decisive war based on offensive maneuver. It had to win a quick victory or none at all.

OPERATION BARBAROSSA

To achieve this quick victory, the Germans planned to destroy the bulk of Soviet forces in a series of encirclements near the new Soviet-Polish frontier, denying the Red Army any opportunity to retreat and reorganize. In light of later recriminations concerning the objectives of the campaign, it is worth reviewing the original plan drafted by the German Army High Command (*Oberkommando des Heeres*, or OKH [also known as the Army General Staff], as opposed to the joint forces staff, or OKW) and modified by Hitler.¹⁸ Although contingency planning began in the summer of 1940, Directive No. 21, “*Fall* [Case or Operation] Barbarossa,” was not issued until 18 December. The focus of this directive was clearly to destroy the Red Army rather than to seize any specific terrain or achieve a particular political objective:

The mass of the [Red] army stationed in Western Russia [meaning west of the Western Dvina and Dnepr Rivers] is to be destroyed in bold operations involving deep penetrations by armored spearheads, and the withdrawal of elements capable of combat into the extensive Russian land spaces is to be prevented.

By means of rapid pursuit a line is then to be reached from beyond which the Russian [*sic*] air force will no longer be capable of attacking the German home territories.¹⁹

In a conference two weeks earlier, Hitler had remarked that, in comparison to the goal of destroying the Soviet armed forces, “Moscow [is] of no great importance.”²⁰ Consequently, paraphrasing the Führer, the (central) army group aiming toward Moscow was to be made strong enough to be able to pivot northward with substantial forces. A decision on whether or not to advance on Moscow or to an area east of Moscow could not be made until after the destruction of the enemy trapped in the anticipated northern and southern pockets. The cardinal point was that the Soviets could not be permitted to establish a rear defensive position.²¹

The expectation that, when attacked, the USSR would collapse was due in part to a misconception that was common among German officials and

officers. In addition to discounting the capabilities of the Red Army, they assumed that, because they personally loathed Communism, the peoples of the USSR also hated the Soviet regime and would abandon that regime once the Germans invaded. Although there was certainly massive discontent within the Soviet Union, this German attitude fatally underestimated both Stalin's control over the people and the Soviet capability to generate replacement units as rapidly as their first-line troops were destroyed. It was only later in 1941, when neither the Red Army nor the Soviet government showed signs of quitting, that the Germans began to focus on Moscow as a means of knocking their opponents out of the war before winter.

To destroy the Red Army, Hitler massed the equivalent of 152 German divisions, including 19 panzer and 14 motorized infantry (among them 3 SS motorized divisions and 3 motorized brigades or regiments), in the East (see Table 3-1 for summary orders of battle and Tables A and B in the Appendix for the comparative composition and strength of Soviet and Axis forces).

In terms of equipment, the German forces included an estimated 3,350 tanks, 600,000 vehicles, 600,000 horses, 7,146 artillery pieces, and 2,770 aircraft. These units were seconded by Finnish forces in the north and Romanian forces in the south, plus a few token units from other satellites such as Hungary and Slovakia.²² Overall control of the eastern theater of war lay with the army's OKH, whereas the OKW supervised all other theaters. The invasion force comprised just over 3 million Germans and more than 650,000 allied troops. The German plan divided these forces into the Army of Norway in the far north and three army groups—North, Center, and South—from the Baltic to the Black Sea. A numbered German air fleet supported each of these four commands. Field Marshal Fedor von Bock commanded Army Group Center, making the main effort that included two of the four panzer groups (Second and Third). These two panzer groups were supposed to meet at Minsk to create the first major encirclement of the campaign. Thus, the mass of German offensive power was located north of the Pripyat' Marshes, the nearly impassable ground that divided the theater into northern and southern regions. Heavy rains in the spring of 1941 had made these marshes especially treacherous.

The vast distances involved in European Russia far exceeded anything that the German supply and maintenance system had faced in previous campaigns and posed a huge drain on the limited German petroleum supply. This was especially true because all of European Russia contained only 64,375 kilometers (40,000 miles) of all-weather paved roads.

On 12 and 15 November 1940, the army quartermaster general, Major General Edouard Wagner, presented his logistical calculations to General Franz Halder, the Chief of the General Staff. In hindsight, these calculations were remarkably accurate. Wagner estimated that the army had sufficient fuel

Table 3-1. General Order of Battle of Opposing Forces, June 1941

AXIS	SOVIET
Army of Norway (Col. Gen. Nikolaus von Falkenhorst)	Northern Front (Col. Gen. M. M. Popov) 7th Army 14th Army 23rd Army 1st and 10th Mechanized Corps
Finnish Army	
Army Group North (Field Marshal Wilhelm von Leeb) Sixteenth Army Eighteenth Army Fourth Panzer Group (three panzer, two motorized divisions)	Northwestern Front (Col. Gen. F. I. Kuznetsov) 8th Army 11th Army 27th Army (400 km east) 3rd and 12th Mechanized Corps 5th Airborne Corps
Army Group Center (Field Marshal Fedor von Bock) Fourth Army Ninth Army Second Panzer Group (five panzer, two motorized divisions) Third Panzer Group (three panzer, three motorized divisions)	Western Front (Army Gen. D. G. Pavlov) 3rd Army 4th Army 10th Army 13th Army (HQ only) 6th, 11th, 13th, 14th, 17th, and 20th Mechanized Corps 4th Airborne Corps
Army Group South (Field Marshal Gerd von Rundstedt) Sixth Army Eleventh Army Seventeenth Army First Panzer Group (six panzer, two motorized divisions) Romanian Third Army Romanian Fourth Army	Southwestern Front (Col. Gen. M. P. Kirponos) 5th Army 6th Army 12th Army 26th Army 4th, 8th, 9th, 15th, 16th, 19th, 22nd, and 24th Mechanized Corps 1st Airborne Corps
	Southern Front (formed 25 June) (Army Gen. I. V. Tiulenev) 9th Army 18th Army 2nd and 18th Mechanized Corps 3rd Airborne Corps
	Stavka Reserve (still deploying) 16th, 19th, 20th, 21st, 22nd, and 24th Armies 5th, 7th, 21st, 25th, and 26th Mechanized Corps

Sources: Horst Boog, Jurgen Förster, Joachim Hoffmann, Ernst Klink, Rolf-Dieter Müller, and Gerd R. Ueberschär, *Germany and the Second World War*, vol. IV, *The Attack on the Soviet Union* (Oxford: Clarendon Press, 1999), 222–224, and a truncation from *Boevoi sostav Sovetskoi Armii, Chast' 1 (iiun'-dekabr' 1941 goda)* [The combat composition of the Soviet Army, pt. 1 (June–December 1941)] (Moscow: Voroshilov Academy of the General Staff, 1963), 7–14.

Note: Numerous mobile and infantry units were held in army group or OKH reserve. Each army group also had three rear area security divisions. Romanian forces came under German operational control after they reoccupied Soviet-held Romanian territory.

to advance to a maximum depth of only 500 to 800 kilometers (300 to 500 miles), with enough food and ammunition for a twenty-day operation.²³ After that, Wagner concluded, the army would have to pause for several weeks for resupply, and it would be dependent on the captured Soviet rail network to support a deeper penetration. The entire Soviet Union had only about 82,000 kilometers (51,000 miles) of railroad, all of it on a wider gauge than that in Germany and eastern Europe. Wagner correctly anticipated that the invaders would not capture significant amounts of Soviet rolling stock. Therefore, Germany would have to use prisoner and local labor to re-lay the track before European-gauge trains could resupply the German Army.²⁴ While such construction went on, there would be a growing gap in communications between railheads and advancing combat forces. In this regard, it is worth noting that the territory directly west of Moscow, where Halder wished to make the main effort, offered far fewer opportunities for living off the land than Hitler's preferred objectives in the south. Halder concluded that successful logistics would require an emphasis on motor transport and leadership to bridge the gap between railhead and fighting front. Yet, as already described, the German Army was critically short of motor vehicles in combat units and had deficiencies even in petroleum products. Moreover, the logisticians calculated that the maximum effective range of truck transportation was 300 kilometers (180 miles) round-trip; beyond that, the fuel trucks would consume more than they moved.²⁵

In early December, Halder's deputy, *Oberquartiermeister* I Friedrich Paulus, conducted a war game to test the emerging plans for the campaign. Unlike some other planners, Paulus assumed that the Soviets could generate as many as forty new divisions while redeploying other formations from Siberia. In combination with the expansive terrain of European Russia, this meant that, as they moved deeper into the USSR, the invaders would find it difficult to maintain a combat power advantage over the defenders. Still, the general atmosphere of German optimism discouraged Paulus from pressing his concerns with the senior leadership.²⁶

To some extent, German planners hoped that the lack of roads and railroads would actually work to their advantage, making it impossible for the mass of Soviet troops to retreat eastward before they were surrounded. Later events proved that the German intelligence analysts had overestimated the degree to which the Red Army was concentrated in the forward areas. This was due partly to German ignorance about their opponents and partly to deliberate Soviet deception measures designed to deter attack by portraying greater strength forward than was the actual case. In particular, these analysts were totally unaware of the reserve group of armies being formed east of the Dnepr River and of the new mechanized corps.²⁷

The Germans' general ignorance of their tasks extended even to the maps they used, most of which did not reflect the population growth and increasing

urbanization of the European USSR. Despite the differences in alphabets, German commanders soon learned to use captured Soviet maps because they were so much more accurate than their own.²⁸

In a 1 December briefing, the OKH (Army General Staff) presented its operations concept to implement the loosely worded German strategy. The army chief of staff, Halder, attempted to convince Hitler that the operational objective of the campaign should be Moscow, the political hub of the Soviet Union; the ultimate goal would be to control the area west of a line running roughly from Archangel (Arkhangel'sk in Russian) to the Volga River. Confident that the Germans could conquer anything they wished, Hitler neither accepted nor rejected these goals. Instead, he emphasized destroying the Red Army before it could retreat and then seizing economic targets on the northern and southern flanks, such as the agricultural center of the Ukraine and the industrialized areas along the Baltic Sea coast. Beyond the initial frontier battles, the projected advances of the three German army groups led in diverging directions, toward Leningrad (Army Group North), Moscow (Army Group Center), and Kiev (Army Group South). Both Hitler and the army planners assumed that the German Army was so strong that Army Group Center, making the main effort, could be diverted periodically to assist in encirclements on the flanks.²⁹

Thus, from its inception Operation Barbarossa contained the danger of dissipating the German combat power in a vain effort to seize everything simultaneously. The German leaders had not clearly defined the desired end state, and their proposed way of achieving that end state—mechanized battles of encirclement—soon exceeded their logistical means.

THE RED ARMY OF 1941

The Red Army was in serious disarray. Although its strategy was now defensive, its doctrinal concepts and force deployments continued to reflect the offensive, deep operational theory of M. N. Tukhachevsky and V. K. Triandafillov. Unlike the Germans, the Soviets, while emphasizing the importance of the counteroffensive or counterblow (*kontrudar*), had included development of at least rudimentary defensive concepts and procedures. Their basic concept was that fortified frontier regions would delay the attacker and force him to deploy, allowing the main army to counterattack. Unfortunately, the Soviets had stripped the prewar defenses of the old Polish-Soviet frontier of land mines, barbed wire, and guns in order to build twenty new fortified regions in the territories occupied in 1939, the so-called special military districts. These new regions were far from complete in 1941.³⁰

Many of the same logistical problems that plagued German planners also

limited the Soviet defenders. Despite consistent efforts throughout the interwar period, the railway network in the western USSR, like its 1914 predecessor in Imperial Russia, was inadequate for a rapid mobilization and projection of forces from the interior to the border. The only solution that Soviet staff officers could develop was to concentrate forces and supplies near the border prior to hostilities, a process that was still ongoing when the war began. This railroad restriction goes far to explain the apparently aggressive and even foolhardy forward deployment of Red Army and Air Force elements in 1941.

The purges had produced a severe shortage of trained commanders and staff officers able to implement official concepts. The army had a sprinkling of qualified leaders from the Japanese and Finnish campaigns, but it lacked both the experience and the self-confidence of the Wehrmacht officer corps. In contrast to the German belief in subordinate initiative, Red Army leaders had learned that any show of independent judgment was hazardous to their personal health. Some, such as Zhukov, were willing to accept these risks and be justified by their results, but many other officers preferred to apply textbook solutions without regard to the local situation or the terrain. In addition, to avoid the fatal error of losing territory, on both the offensive and the defense, Soviet forces were often distributed evenly across the front instead of being concentrated in areas where they would be most needed.

The lack of qualified leaders contributed to the petty tyranny and thievery that were common in the ranks of the Red Army. Moreover, the government's emphasis on Marxist doctrine exacerbated class divisions between "proletarians" and peasants. Added to the personnel turbulence caused by continuous expansion and mobilization, these problems significantly degraded morale and cohesion in many units as early as the Finnish conflict.³¹

Despite being unprepared for war, the Soviet forces were, for various reasons, concentrated well forward, perilously close to the new frontier with Germany. In addition to the railroad limitations on rapid force projection, Moscow's determination to defend every inch of Soviet territory mandated such concentrations. Moreover, based on the experience of 1914, Soviet military theorists expected a period of at least two weeks before major operations began. This theory did not allow for the absence of warning when Germany attacked Poland, Denmark, and Norway. By the spring of 1941, the German forces had closed up along the frontier, completely eliminating the need for a mobilization period such as that in 1914. In effect, the Red Army had lost any time to respond to a warning of enemy attack.³² Despite these problems, beginning in April 1941 Stalin hedged his bets against the likelihood of war by taking a series of precautionary measures that ultimately produced the forces that prevented Germany from achieving its goal of rapid victory (see the discussion on "Soviet Planning" later in this chapter).

One of the scenarios that Stalin feared most in 1941 was a German provocation, a seizure of some small salient of Soviet territory instead of an all-out invasion. This concern reinforced the tendency to plan a continuous, frontal defense along the border rather than the type of fluid maneuver battle that had made the Red Army so effective during the Civil War. Despite belated efforts in the spring of 1941, the new border defenses were far from complete when the Germans attacked, and the divisions assigned to occupy those positions were scattered in garrisons throughout the border area. Forward rifle forces had garrisons as much as 80 kilometers (50 miles) away from the frontier. To avoid any provocation to the Germans, the actual border was thinly manned by NKVD security troops, and on 22 June, the forward Soviet defenses were in many instances overrun before they could be manned.

The Soviet defenders shared many of the logistical problems of their opponents but had the inestimable advantage of fighting on familiar terrain and retreating toward their supply bases. Long before the hardships of the Russian winter arrived, the Soviet soldier would exhibit his ability to continue living and fighting with far fewer supplies than other soldiers would require. As the battle rolled eastward across European Russia, the Soviet supply lines became steadily shorter and easier to support, whereas the Germans were faced with ever-lengthening lines of communications and the problems of dealing with millions of prisoners and captured civilians. One qualification to this generalization, of course, is that most of the Soviet Union's essential war industry was located west of Moscow. Although the Soviets relocated hundreds of factories east of the Urals, they could not do the same for key mineral sources. This inevitably disrupted wartime production during 1941. In addition, the rapid German advance overran forward Soviet supply depots before their contents could be evacuated or distributed to the troops.³³

Although the Red Army was large (see Table 3-1) and its force structure appeared formidable on paper, it was also cumbersome and, as indicated by its performance from 1938 to 1940, plagued by serious problems at every level of command.

First and foremost, the army had no equivalent to the panzer group that could accomplish a large-scale, independent penetration of the enemy's rear echelons. As described in chapter 2, the Soviet mechanized corps had a rigid and unwieldy structure that contrasted unfavorably with the flexible German motorized (later panzer) corps. Each Soviet mechanized corps was centered on two tank divisions, each authorized 10,940 men and 375 tanks that were organized in two tank regiments; one truck-mounted infantry regiment; and battalions of reconnaissance, antitank, antiaircraft, engineer, and signal troops.³⁴ Such divisions were unbalanced, having far more tanks than other combat arms elements, although to compensate for this, the mechanized

corps also included a motorized infantry division and various support units, for an authorized total of 36,080 men.³⁵

Most of the available Soviet mechanized corps were scattered in garrison, with the divisions of a corps often separated by up to 100 kilometers. In addition, a number of rifle army headquarters controlled some of these mechanized corps, supposedly to provide local counterattacks in support of the army's rifle corps. Other corps were designated to take part in major counterthrusts under *front* control. Thus, the mechanized units were not concentrated either physically or organizationally, making it difficult to mass them for army or higher counterstrokes. Although they were supposed to engage in independent deep operations, their dispersal and poor logistical structure made such operations almost impossible.

The actual strength of these corps varied widely. Some had a considerable amount of equipment; the 3rd Mechanized Corps in Lithuania possessed 669 tanks, of which 101 were the new KV-1 heavy and T-34 medium designs (see the later discussion). Stronger still, the 4th Mechanized Corps, stationed at L'vov and assigned to the Southwestern Front's 6th Army, had as many as 979 tanks, 414 of which were KV and T-34 models.³⁶ Other corps, especially those farther away from the frontier, were considerably weaker.³⁷ In the Western Front's 4th Army, for example, 14th Mechanized Corps had only 528 aging T-26 light tanks, 6 BTs, and 10 T-37/38/40 medium and heavy tanks instead of its authorized complement of 1,031 medium and heavy tanks.³⁸ The Southwestern Front's 19th Mechanized Corps had fewer than 70 percent of its authorized leaders and only 450 tanks, of which just 7 were modern, the remainder being light T-26s and T-37s.³⁹ Moreover, this corps was expected to use requisitioned civilian trucks for most of its wheeled transportation. When war broke out, 150 of the trucks on hand were inoperable, and the motorized rifle regiments in the two tank divisions had to march 120 miles on foot to do battle, slowing the movement of the available tanks.⁴⁰ The paucity of new machines (1,861 KVs and T-34s, or about 6 percent of the authorized requirement) was such that even full-strength mechanized corps included a hodgepodge of different vehicles.⁴¹ This situation plus a chronic shortage of repair parts complicated maintenance to an enormous extent. In addition, Soviet formations remained notoriously weak in radio communications, logistical support, and driver training, making coordinated maneuver under the chaotic conditions of the surprise German invasion almost impossible.

Soviet infantry organization was superficially similar to that of the Germans. Each rifle division was authorized 14,483 men organized into three rifle regiments of three battalions each, plus two artillery regiments and supporting services. Three rifle divisions formed a rifle corps, with two or three rifle corps and one mechanized corps generally composing a field army. In practice, however, the Red Army was woefully understrength, with most divisions

numbering 8,000 or less even before the German attack; such divisions had significant shortages in machine guns, 120mm mortars, and antiaircraft guns, not to mention ammunition.⁴² In late May 1941, the Soviet government attempted to remedy the personnel shortage by calling up 800,000 additional reservists and accelerating the graduation of various military schools. These additional personnel were just joining their units when the attack came.

On paper, a 1941 field army was supposed to have three rifle corps, each with five divisions, plus a mechanized corps and several separate artillery and engineer regiments. In practice, many of these armies had only six to ten divisions in two rifle corps with an incomplete mechanized corps and little maintenance or fire support.

The logistical support base for these field armies was even weaker.⁴³ The General Staff was responsible for “rear services” of this type, but it failed to establish an effective organization in the newly acquired regions. This meant not only that the forward units received poor support but also that there was no mechanism to evacuate the existing supplies before the Germans overran the area.

In the short-term struggle that Hitler and the OKH planned, Germany had clear qualitative and even quantitative advantages over the Soviet Union. But if the first onslaught failed to knock out the Communist regime, that regime had the potential to overwhelm the invaders. In addition to the significant Soviet forces that could be transferred from Siberia and the Far East to Europe, the 1941 Red Army was just beginning to field a new generation of tanks (T-34 medium and KV-1 heavy) that were markedly superior to all current and projected German vehicles. These new tanks were virtually unknown to the invaders. At the time, many German armored units were equipped with Panzer III and Panzer IV medium tanks, dependable second-generation vehicles that easily outclassed lightly armored tanks such as the Soviet T-26 and T-37. In 1941, the Germans were gradually rearming all Panzer IIIs with a medium-velocity 50mm gun; the Panzer IVs retained a low-velocity 75mm gun. Neither of these weapons had sufficient momentum to penetrate the thick frontal armor of the newest Soviet tanks. The same was true for the German 37mm and captured French 47mm antitank guns that equipped most of the invading infantry divisions. However, German troop units did have an advantage in the form of large-caliber antitank rifles. Although such weapons could not defeat the newer Soviet tanks, they could penetrate lightly armored carriers and obsolescent Soviet tanks.⁴⁴

Compared to the German tanks, the T-34 was heavier (26.5 tons to the Panzer IV's 25), faster (31 miles, or 50 kilometers, per hour to the Panzer IV's 24 miles, or 38 kilometers), and better armed, carrying a 76.2mm high-velocity gun. The 47.5-ton KV-1 tank, equipped with the same gun, was invulnerable to almost any German weapon except the famous 88mm

dual-purpose guns belonging to the *Luftwaffe*. However, few Soviet tanks had radios, without which command and control was difficult, if not impossible. Considering the puny antitank weapons available to most German infantry units, the new Soviet tanks were a nightmare waiting to strike. Most of the available T-34s and KV-1s were distributed among five mechanized corps near the border, with over half going to 4th Mechanized Corps in the Kiev Special Military District and 6th Mechanized Corps in the Western Special Military District. The remainder, about a hundred each, went to 3rd, 8th, and 15th Mechanized Corps. The paucity of new tanks in the remaining mechanized corps, combined with various training and logistical problems, severely reduced the combat power of such units.⁴⁵ Where the Germans encountered them in significant numbers, however, the new tanks caused understandable consternation.

AIR FORCES

The strengths and weaknesses of the German and Soviet air forces largely paralleled that of their ground forces. Just as on the ground, the Germans had a great superiority in experience in the air, although they had lost some of their seasoned pilots and aircrews in the Battle of Britain. The 2,770 *Luftwaffe* aircraft deployed to support Operation Barbarossa represented 65 percent of Germany's first-line strength. To avoid telegraphing German intentions, many of these aircraft had remained in the West, conducting air attacks on Britain, until a few weeks before the eastern offensive. The Messerschmitt Bf-109f fighter was a superb design, but the other German aircraft were rapidly approaching obsolescence, and few of them were capable of deep attacks against the enemy's industry and infrastructure. In particular, the famous Ju-87 Stuka dive-bomber was so slow (approximately 195 miles, or 314 kilometers, per hour) that it could survive only in an environment where the enemy air force was helpless. The initial German air attacks gained sufficient air superiority to permit the Stuka to operate, but this situation could not continue indefinitely. The primary German bombers, the Dornier-17 and Ju-88, had already proved inadequate in both range and bomb load during the Battle of Britain, and the Ju-52 transport, although a remarkably durable and versatile aircraft, was similarly restricted in range and carrying capacity.

German industry had not replaced all the losses of the Battle of Britain; Germany actually had 200 fewer bombers in 1941 than in the previous spring. Similarly, the airborne invasion of Crete in May 1941 had devastated German parachute formations and air transport units; 146 Ju-52s had been shot down, with another 150 seriously damaged.⁴⁶ With such shortages and operating out of improvised forward airfields, the German pilots would be

hard-pressed to provide effective air superiority or offensive air strikes over the vast expanse of European Russia. The *Luftwaffe* was basically a tactical force, suitable for supporting a short-term ground offensive but not for conducting a deep and sustained air campaign.

The Red Air Force (*Voenno-vozdushnye sily*, or VVS) suffered from many of the same problems as the Red Army, and it posed only a limited immediate threat to the *Luftwaffe*.⁴⁷ Although its 10,743 aircraft (9,099 operable), of which 10,266 (8,696 operable) were combat models, made it the largest air force in the world, much of this equipment was obsolescent and suffering from prolonged use.⁴⁸ The Great Purges had struck aircraft manufacturers and designers as well as aviation commanders, ending the Soviet lead in aeronautics. At least one designer was shot for sabotage when an experimental aircraft crashed, and other engineers were put to work in prison design shops.

Despite such limitations, some newer aircraft—such as the swift MiG-1 and MiG-3 fighters and the excellent Il-2 *Sturmovik* ground attack airplane—were equal or superior to their German counterparts. These aircraft were just entering service in 1941, and many units had a mixture of old and new equipment. A massive increase in the size of the air force combined with the purges to dilute the number of trained leaders, pilots, administrators, and mechanics, so that 25 percent of VVS regiments existed only on paper. In an atmosphere where a plane crash would result in the commander's arrest for sabotage, VVS leaders were very cautious about allowing their pilots to train on the new aircraft or fly at night. Pilots in the Baltic Special Military District averaged only 15.5 flight hours in the first three months of 1941; their counterparts in Kiev averaged 4 hours. Only 932 of 2,800 pilots had completed transition training to their new aircraft by 22 June.⁴⁹ Many soldiers and airmen were so unfamiliar with the new designs that they fired on their own aircraft when the war began.

The VVS also suffered from a host of other problems, many arising from overexpansion. There were severe shortages of ordnance and spare parts. The movement of the Soviet frontier had led to the construction of numerous new air bases, but many of these were poorly equipped in terms of supplies or revetments; the best-prepared airfields were also the farthest to the west and therefore the first to fall to the enemy. Air regiments had little practice in dispersing aircraft, displacing between bases, or coordinating bombers with fighter escorts.

Soviet air units were divided between a number of different commands: some air divisions supported specific ground armies, or *fronts*; others were directly subordinate to the General Staff; and still others were dedicated to the regional air defense of the homeland. In the context of the chaotic opening campaign, where tenuous communications and chains of command

evaporated, such divisions made it difficult to bring coordinated airpower to bear at key points. Few Soviet aircraft had radios in 1941.

The leadership troubles of the Red Air Force resulted in very rigid tactics both in Spain in the 1930s and during the opening battles of 1941. Soviet bombers stubbornly bombed at an altitude of 2,400 meters (8,000 feet), too high to ensure accurate results but low enough for German fighters to locate and attack them. Individual fighter pilots displayed great bravery by repeatedly ramming German aircraft, but their combat tactics were too defensive to be effective against their dogfighting opponents.

SOVIET PLANNING

Despite the weaknesses of the Red Army and Air Force, Soviet military planners believed that they would halt any German offensive short of the Dnepr River line and then shift rapidly to a strategic counteroffensive.

In July 1940, Chief of Staff Shaposhnikov had approved General Vasilevsky's war plan. This plan assumed an attack by Germany, supported by Italy, Finland, Romania, and possibly Hungary and Japan. The total enemy force would be 270 divisions, of which 233 would be massed along the Soviet Union's new western borders. Vasilevsky assumed that the main German effort—10 panzer and 123 infantry divisions—would be focused north of the Pripyat' Marshes, with objectives in the direction of Minsk, Moscow, and Leningrad. He therefore planned to put the bulk of Red Army forces in the same region.⁵⁰

As defense commissar, Timoshenko rejected this plan, probably because he anticipated Stalin's objections to it. When Meretskov became chief of staff in August 1940, he had Vasilevsky and the rest of the General Staff formulate a new plan. This second draft provided for two variants, concentrating the bulk of Soviet forces either north or south of the Pripyat' Marshes, depending on the political situation. Stalin reviewed this plan on 5 October. He did not openly reject the northern option but remarked, with considerable foresight, that Hitler's most likely goals were the grain of the Ukraine and the coal and other minerals of the Donbas region. The General Staff therefore presented a new plan, approved on 14 October 1940, that shifted the basic orientation of forces to the southwest. With minor modifications, this draft became the basis for Defense Plan 41 (DP-41) and its associated Mobilization Plan 41 (MP-41).

DP-41 called for 171 divisions to be arrayed in three successive belts or operational echelons along the new frontier.⁵¹ The first echelon was intended as a covering force, and each of its 57 rifle divisions had up to 70 kilometers (44 miles) of frontier to defend. The next two echelons contained much

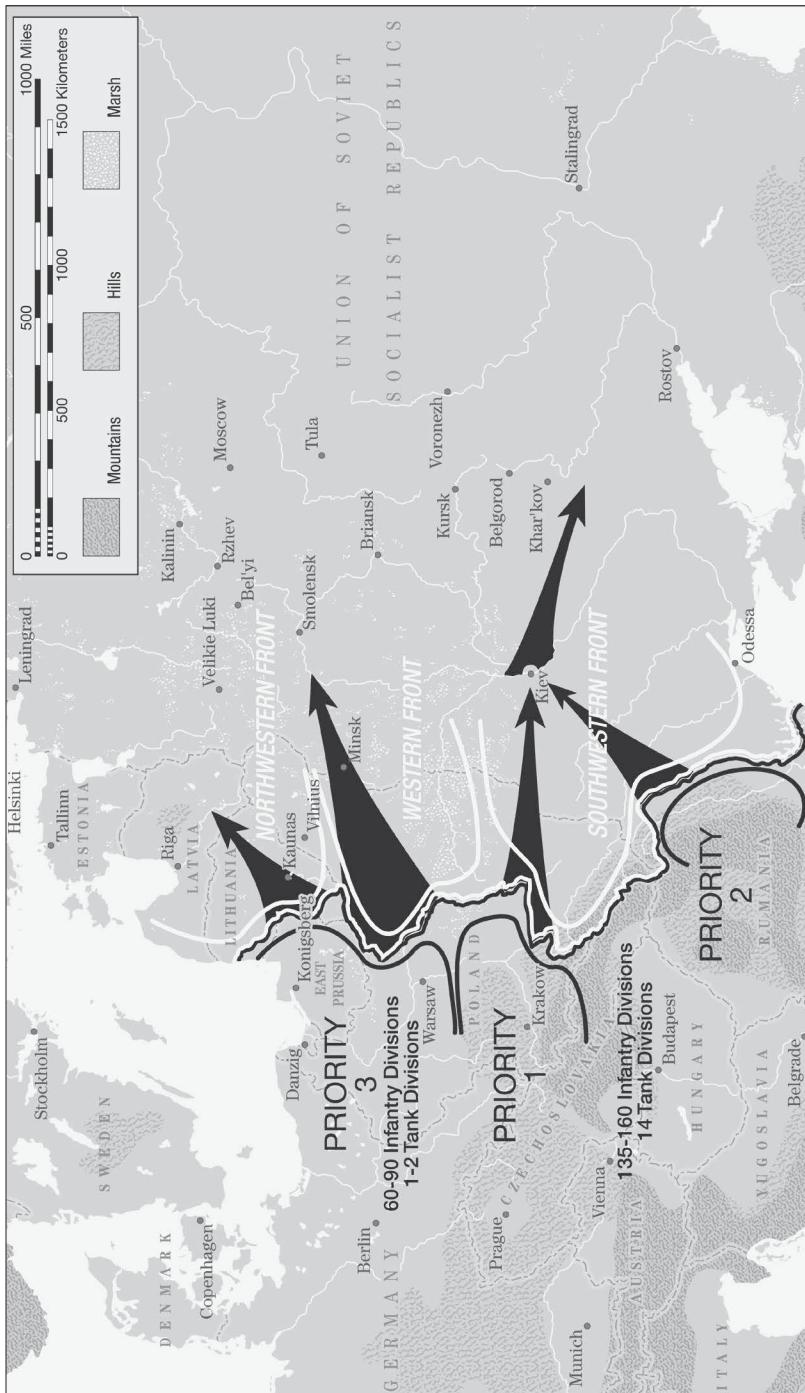
greater concentrations of troops, with 52 and 62 rifle divisions, respectively, and most of the 20 mechanized corps in European Russia. These formations belonged in peacetime to the various military districts of the western Soviet Union; in the event of war, these districts would transform into five army group, or *front*, headquarters. Because the *fronts* were based on peacetime administrative borders, they did not correspond directly to the three German army groups. Thus, for example, the Leningrad Military District became the Northern Front, with defense responsibilities both northward toward Finland and (unexpectedly) westward toward German Army Group North.

Behind the five forward *fronts* with their three defensive belts, a separate group of five field armies was in the process of forming a second strategic echelon (see the discussion that follows on the covert mobilization Stalin began in April 1941). This future reserve *front* began concentrating along the line of the Dnepr and Western Dvina Rivers in June 1941 but was woefully incomplete when the war began. As a practical matter, the scarcity of rails and roads meant that these armies could not easily support the forward *fronts*. This structure was typical of the Soviet principle of echeloning forces in great depths; it was virtually invisible to German intelligence prior to the start of hostilities. These reserve armies, as well as significant elements of forward units, had only begun to deploy in late April. Thus, just as the German attack caught the Soviets in transition to new organizations, leaders, equipment, and doctrine, it also found them shifting troop concentrations.

The Soviet defenders had fundamentally misestimated the situation, both by concentrating their forces so far forward and by expecting the main enemy thrust to come south of the Pripyat' Marshes. During the 1960s when it was fashionable to blame Stalin for all the mistakes of the war, various memoirs alleged that the dictator had overruled his military advisers in this regard. Yet in the long run, Stalin was correct to insist that Hitler was interested in economic resources. His commanders apparently agreed with his troop dispositions, if only because they expected to use their forces in the southwest to counterattack into the flank of any German invasion in the north. Even Zhukov did not attempt to change this basic concept when he became chief of the General Staff in February 1941. Thus, the Red Army was off-balance, concentrated in the southwest while the main German mechanized forces advanced in the north.⁵²

THE QUESTION OF A PREEMPTIVE SOVIET STRIKE

Beginning in 1985, a Soviet defector named Vladimir Bogdanovich Rezun, writing under the pseudonym Victor Suvorov, published a series of studies offering a completely different interpretation of the events of 1941. According



Map 3. Threat Assessment and Deployment Plan, October 1940

to Suvorov, Stalin planned an offensive war, taking advantage of Adolf Hitler's anticipated defeat of other Western powers to implement the long-deferred proletarian revolution predicted by Karl Marx. Suvorov cited a variety of arguments in support of this thesis, including a speech by Stalin urging Red officers to prepare for offensive operations, as well as the presence in the Soviet force structure of offensively oriented units such as the airborne and mechanized corps. Supposedly, the Barbarossa offensive succeeded in large measure because it caught the Soviets in the process of reconfiguring their army for a surprise attack on Germany. The title of the book containing this thesis was *Icebreaker*, because Soviet leaders allegedly encouraged and manipulated Hitler as an icebreaker to weaken European capitalism. Such an argument obviously appealed to anti-Communist conspiracy theorists; German apologists also found it useful because Suvorov's argument converted Hitler's aggression into a justifiable case of preemptive attack.⁵³

There is no question that Soviet dogma had long spoken of "liberating" capitalist Europe by an offensive that would inspire the workers to revolt against their masters. In all probability, Stalin intended to enter the war at some future date when Germany was so overstretched that a Marxist revolution appeared possible.⁵⁴ It is equally true, as described earlier, that the Red Army had a theoretical and organizational bias in favor of offensive action, if only to ensure that future wars were fought on foreign soil rather than that of the Soviet Union. This bias may have made Stalin and his generals overconfident until Zhukov recognized the imminent German threat in May (see below).⁵⁵ Having said this, there is little convincing evidence that either the Germans or the Soviets thought the latter could initiate such a conflict in 1941. On the contrary, as this chapter has documented, both sides were acutely aware of the weakness and unpreparedness of the Red Army and VVS. If anything, the German success against France and Britain caught Stalin by surprise, forcing him to confront his ideological foe long before he had expected Hitler to defeat the West. Moreover, the Germans had been preparing their invasion since mid-1940, long before there were any indicators of Soviet preparations to attack.

The one smoking gun to which Suvorov could point was a handwritten proposal (*predlozhenie*) that Stalin received on or soon after 15 May 1941.⁵⁶ Zhukov wrote this proposal, entitled "Report on the Plan of Strategic Deployment of Armed Forces of the Soviet Union to the Chairman of the Council of People's Commissars," and he convinced Timoshenko to cosign the document. Zhukov argued for conducting a preemptive offensive, most likely in mid-July 1941, not to achieve Marxist political aims but as a spoiling attack to disrupt the looming invasion threat. This half-completed plan reflected the prevailing expectation that the principal German attack would come south of the Pripyat' Marshes. Zhukov therefore proposed to use 152

divisions to destroy the estimated 100 German divisions assembling in Poland. The Southwestern Front would attack across southern Poland to separate Germany from its southern allies while the Western Front grappled with the main German force and captured Warsaw.

Given the many problems that the Red Army was experiencing at the time, such an attack would have been a desperate gamble. Zhukov, at least, must have recognized that the continuing inadequacies of the Soviet rail network would make any sustained power projection almost impossible; this reinforces the impression that his proposal was a hasty improvisation rather than a well-conceived surprise attack.⁵⁷ It is possible, as some observers have argued, that Stalin did not realize the full extent of the Red Army's unpreparedness, but he must have been aware of the shortages of fuel, ammunition, and other supplies in the forward area. As a practical matter, therefore, despite its forward concentration the Red Army never really prepared to mount an offensive. Regardless of his long-term intentions, Stalin was correct to ignore Zhukov's proposal.⁵⁸ Taken in context, this proposal and Stalin's dismissal of it tend to refute rather than support the icebreaker thesis. Yet even if the thesis was severely flawed, it is likely that Zhukov's proposal was incorporated into the Soviet War Plan DP-41 as an answering blow (*otvetnyi udar*) or counterstroke, principally in the southwestern theater of military operations.

INDICATIONS AND WARNING

There remains the puzzling question of how the 1941 German attack achieved such overwhelming political and military surprise. In retrospect, there were ample indications of impending hostilities.⁵⁹ Communist railway workers in Sweden, resistance fighters in Poland, and numerous other agents reported the massive buildup of forces in the East. Border troops noted the movement of munitions, construction of forward airfields, and piles of boats and pontoons at river crossings. German high-altitude reconnaissance aircraft overflowed Soviet territory on more than 300 occasions, prompting repeated diplomatic protests but little defensive action. German intelligence (*Abwehr*) agents and German-backed Ukrainian guerrillas infested the western Soviet Union in the spring of 1941. Beginning on 16 June, the German embassy in Moscow evacuated all nonessential personnel, and by 21 June, no German merchant ship remained in Soviet-controlled ports.

At first glance, it is easy to accept the standard interpretation that Stalin's obstinate blindness was responsible for the debacle. He is often cited as a classic example of a leader who ignored evidence of an opponent's *capability* to attack because he doubted the *intention* to attack. Certainly, Stalin was

guilty of wishful thinking, of hoping to defer war for at least another year in order to complete the reorganization of his armed forces. He worked at a fever pitch throughout the spring of 1941, trying to improve the Soviet Union's defensive posture and delaying the inevitable confrontation. All the while, he hedged his strategic bets by ordering and conducting covert mobilization measures.

There were numerous additional reasons for Stalin's reluctance to believe in an immediate German offensive. To begin with, the Soviets feared that Germany's other enemies, especially Great Britain and the Polish resistance, were generating misleading information in order to involve Moscow in the war. Similarly, Soviet leaders were concerned that excessive troop concentrations or preparedness in their forward areas might provoke Hitler, either by accident or as a pretext for some limited German action such as the seizure of border lands and demands for more economic aid. Thus, as late as 16 June, Stalin famously and obscenely described a Soviet source reporting an imminent German attack as a disinformation agent.⁶⁰ The Soviet dictator was not, after all, the first European leader to misunderstand Hitler, to believe him to be "too rational" to provoke a new conflict in the East before he had defeated Britain in the West. Hitler's own logic for the 1941 attack—that he had to knock the Soviet Union out of the war to eliminate Britain's last hope of assistance—was incredibly convoluted.

This Soviet desire to avoid provoking, or being provoked by, a rational German opponent goes far to explain the repeated orders forbidding Soviet troops to fire even at border violators and reconnaissance aircraft. It also helps explain the Soviets' scrupulous compliance with existing economic agreements with Germany. Stalin apparently hoped that by providing Hitler with scarce materials that were vital to the German war economy, he would remove one incentive for immediate hostilities. Consequently, in the eighteen months prior to the German invasion the Soviet Union shipped 2 million tons of petroleum products, 140,000 tons of manganese, 26,000 tons of chromium, and a host of other supplies to Germany.⁶¹ Unfortunately for the Soviets, as noted in chapter 2, the German economic planners believed they could extract more such materials by occupying the territory. The last freight trains rumbled westward across the border only hours before the German attack.

There were also institutional reasons for the failure of Soviet intelligence to predict Hitler's plan. The Great Purges had decimated Soviet intelligence operations as well as the military command structure, virtually eliminating any capability for strategic analysis and warning. Only the military intelligence service, the GRU (*Glavnoe Razvedyvatel'noe Upravlenie*), remained essentially intact, and the GRU chief in 1940–1941, Lieutenant General Filipp I. Golikov, was a line officer rather than a career analyst. Between his lack of experience and Stalin's tendency to shoot the messenger, Golikov

apparently succumbed to German deception efforts. He duly reported indications of German preparations, but he labeled all such reports as doubtful and emphasized indications of continued German restraint. Other intelligence officials were so afraid of provoking Stalin that their reports were even more slanted against the likelihood of war.⁶²

German deception operations also contributed to Soviet hesitation. First, the planned invasion of Britain, Operation Sea Lion, continued as a cover story for Operation Barbarossa. The German OKW confidentially “informed” its Soviet counterpart that the troop buildup in the East was actually a deception aimed at British intelligence and that Germany needed to practice for Sea Lion in a region beyond the range of British bombers and reconnaissance aircraft. In a June 1941 newspaper article, Propaganda Minister Joseph Goebbels leaked disinformation that an invasion of Britain was imminent. Goebbels then ostentatiously had the newspaper withdrawn from circulation and put himself in simulated disgrace for his “mistake.”

Hitler directed that the German troop concentration be portrayed as a defensive precaution against possible Soviet attack, again encouraging the Soviets to avoid any threatening troop movements. A number of other German deceptions suggested impending operations from Sweden to Gibraltar. Then in May 1941, the German Foreign Ministry and OKW encouraged rumors that Berlin might demand changes in Soviet policy or economic aid. This encouraged many Soviet commanders to believe that any attack would be preceded by a German ultimatum or other diplomatic warning. Meanwhile, the Germans continued to negotiate until the last moment.⁶³

The German invasion of Yugoslavia and Greece during April and May 1941 also helped conceal Operation Barbarossa. This invasion not only provided a plausible explanation for much of the German buildup in the East but also caused a series of delays in the attack on Russia itself. Thus, intelligence agents who correctly reported the original target date of 15 May 1941 were discredited when that date passed without incident. By late June, so many warnings had proved false that they no longer had a strong impact on Stalin and his advisers.

Viewed in this context, the Soviet strategic surprise is much more comprehensible. Among a myriad of conflicting signals and deliberate deceptions, identifying an imminent threat was difficult at best. Late on the evening of 21 June, Stalin approved a confused warning message to his commanders.⁶⁴ Unfortunately for the defenders, the archaic communications system failed to notify many headquarters prior to the first German attacks. Only the naval bases and the Odessa Military District were sufficiently remote to react in time, before German bombers appeared overhead.

Some commanders risked Stalin’s displeasure by taking their own precautions. General Kirponos of the Kiev Special Military District, soon to become

the Southwestern Front, maintained close liaison with NKVD border guards and alerted his units when the Germans assembled at the border. Such initiative was the exception rather than the rule.

In retrospect, the most serious Soviet failure was neither strategic nor tactical surprise but institutional surprise. In June 1941, the Red Army and Air Force were in transition, changing their organization, leadership, equipment, training, troop dispositions, and defensive plans. Had Hitler attacked four years earlier or even one year later, the Soviet Armed Forces would have been more than a match for the Wehrmacht. Whether by coincidence or instinct, however, the German dictator struck at a time when his own armed forces were still close to their peak and his archenemy was most vulnerable. It was this institutional surprise that was most responsible for the catastrophic Soviet defeats of 1941.

THE TWO DICTATORS

Adolf Hitler and Joseph Stalin bear primary responsibility both for the war itself and for numerous errors of judgment once the conflict began, making decisions that killed millions. This has made it convenient for those generals who survived the war to use the two dictators as universal alibis for every defeat, every mistake in the war. The reality was more nuanced.

After his initial misreading of his opponent, Stalin kept his nerve and eventually learned how to orchestrate the instruments of power to defend the Soviet Union; his cold-blooded insistence on near-continuous offensive operations in the face of the Barbarossa invasion and his patience in waiting for the correct moment to launch what turned out to be a decisive counteroffensive at Moscow contributed markedly to the survival of his regime. As for Hitler, he was to some extent trapped by the myth of the *Führer*, the all-knowing leader. His previous diplomatic and military successes had encouraged not only the dictator but also his generals to believe that he had an almost infallible judgment. Living up to this image compelled him to supervise and sometimes interfere in matters that the General Staff officers had always considered their private area of expertise. Numerous memoirs and histories have focused on this interference, making it the central narrative of strategic decisions. Yet, in 1941–1942, when the Germans were still relatively successful, Hitler inserted himself only intermittently. Even when he issued a military pronouncement, he did not necessarily enforce that edict if his generals provided a logical explanation for their preferred course of action. Halder and the field commanders continued to circumvent the dictator's desires, often without penalty or punishment. Moreover, Hitler was a gifted amateur, and his "professional" subordinates were by no means infallible. It

was only after the fact, when these generals sought to avoid their own share of responsibility, that the German dictator's "interference" assumed the stature of a major handicap to the conduct of the campaign. Men such as Halder who had initially supported Barbarossa suddenly remembered their misgivings that Hitler had supposedly overruled.

As the war dragged on and Germany lost the initiative, the two heads of state traded leadership styles. Hitler became increasingly intolerant of what he considered subordinate errors and disobedience that seemed to allow victory to elude him; eventually, he introduced the *Führungssoffizier* (leadership officer), a sort of Nazi commissar to ensure the ideological loyalty of those subordinates. Beginning in 1942, by contrast, Stalin came to trust first a small group and eventually a much larger number of professional officers, giving them the same confidence and subordinate initiative that had characterized the German officer corps at its best.

CONCLUSIONS

For the Soviets, the 1930s was a decade of alternating hope and frustration. Faced by growing political and military threats from Germany and Japan, as well as by the Western powers' apathy about collective security, the Soviet Union felt isolated on the international stage. Diplomatically, Moscow promoted global disarmament; internally, it introduced forced collectivization and industrialization, and it modernized and expanded its military establishment. The Soviet formulation of advanced strategic, operational, and tactical fighting concepts in the early 1930s was accompanied after 1935 by a steady expansion of its armed forces, an expansion that continued unabated until June 1941. This gradual peacetime mobilization made the Soviet armed forces the largest in the world.

Size did not equate to capability, however. What the Soviets would call "internal contradictions" negated the progress of Soviet arms and undermined the Soviet state's ability to counter external threats. Foremost among these contradictions was Stalin's paranoia, which impelled him to stifle original thought within the military and inexorably bend the military to his will. The bloodletting that ensued tore the brain from the Red Army after 1937, smashed its morale, stifled any spark of original thought, and left a magnificent yet hollow military establishment, ripe for catastrophic defeat.

Less apparent was the political contradiction inherent in the nature of the Soviet state. Communist absolutism placed a premium on the role of force in international politics and encouraged its military leaders to study war in scientific fashion to formulate advanced military concepts in the service of the state. Yet, the abject obedience required of the officer corps to the party and

state conditioned passive acceptance by that officer corps of the bloodletting that ensued. Just as political leaders such as N. I. Bukharin confessed to false crimes against the state for the “greater good,” so military leaders also served or perished at Stalin’s whim.

These contradictions undermined the Red Army’s ability to serve the state effectively and condemned to failure any attempts at reform. In the end, only unprecedented crisis and abject defeat would impel successful change. It is to the credit of the emasculated officer corps that, when this defeat came, the surviving officers had a sufficient legacy from the enlightened days of the early 1930s to allow them to overcome institutional constraints and lead the Red Army to victory.

This victory came against an enemy that also suffered from internal contradictions. Despite the brilliant successes of 1939–1941, the German Armed Forces were an extremely brittle instrument that lacked the trained manpower and weaponry to conduct a sustained campaign over the vast expanses of European Russia. Both Hitler and his generals were so confident that they began this campaign with poorly defined strategic goals, employing the limited combat power of their mobile ground and air units in a diffuse, unfocused manner without the logistical capability to support their units into the depths of the Soviet Union. If the Wehrmacht failed to destroy its opponents completely in the first series of encirclement battles, those opponents had sufficient resources and territory to recover, absorb the German onslaught, and strike back with increasing skill and power.

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FIRST PERIOD OF WAR

June 1941–November 1942

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CHAPTER FOUR

The German Onslaught

Enemy aviation has complete air dominance; during the day Minsk was subjected to many bombardments in waves numbered from 8 to 50 airplanes. There are large fires and destruction in the city. *Front* headquarters and *Front* air forces building were severely damaged by direct bomb hits.

Operational Report No. 5, Western Front Headquarters, 24 June 1941¹

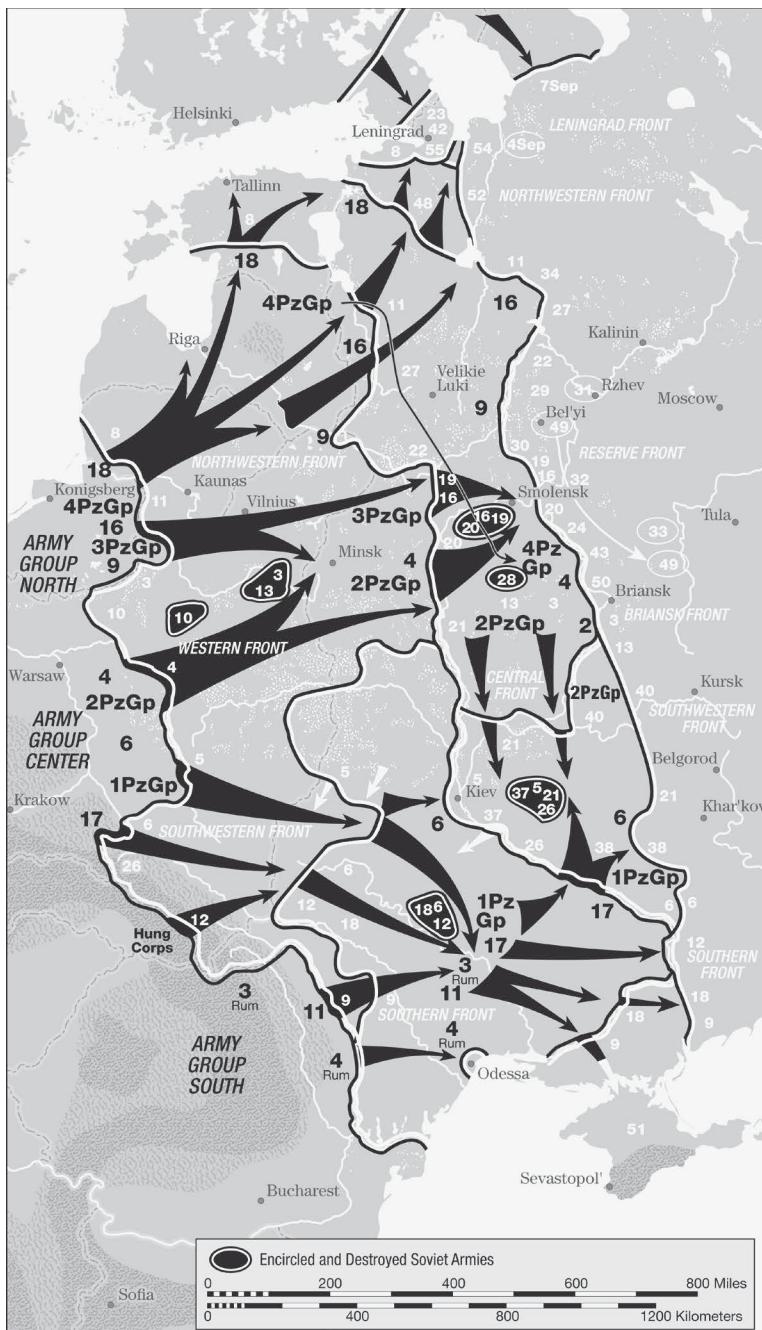
CONFUSION

Shortly after 0300 hours on the morning of 22 June 1941, 30 handpicked *Luftwaffe* bomber crews crossed the Soviet frontier at high altitude. In groups of 3, these bombers struck 10 major Soviet air bases precisely at 0315 hours, the time when a brief artillery bombardment signaled the start of the ground war. As soon as the sun rose, the *Luftwaffe* followed up this attack with a force of 500 bombers, 270 dive-bombers, and 480 fighters to hit 66 Soviet airfields in the forward areas.² The Red Air Force lost over 1,200 aircraft in the first morning of the war. During the next few days, despite great gallantry from the surviving VVS pilots, the *Luftwaffe* had undisputed air supremacy, and all Soviet troop and rail movements received relentless attention.

The initial ground advance encountered only limited resistance in most areas. Some border posts were overrun almost before the NKVD guards could assemble, whereas in other areas, these troops and the men of the local fortified regions fought to their last rounds, delaying the Germans for a few hours while the Red Army hurried to its defensive positions. Bypassed by the four advancing German panzer groups, only the citadel of Brest, on the eastern bank of the Western Bug River, and the fortress at Peremyshl', southwest of L'vov, managed to hold out to month's end.³

Except for a high-frequency radio network operated by the NKVD, Soviet long-distance communications were dependent on the civilian telephone and telegraph networks of the Commissariat of Communications. These communications collapsed under German attacks and the volume of initial reports.⁴

Organization and command differentiate armies from mobs, but for the Red Army, both organization and command dissolved rapidly. Even before the first air strikes, Brandenburger special operations troops in Red Army



Map 4. Summer–Fall Campaign (1), 22 June–30 September 1941

uniforms had parachuted or infiltrated into the Soviet rear areas. They set about cutting telephone lines, seizing key bridges, and spreading alarm and confusion. In the area of the main German effort, north of the Pripyat' Marshes, the panzer and motorized divisions of Army Group Center's Third and Second Panzer Groups thrust rapidly eastward along the flanks of Soviet defenses around the Bialystok "bulge." The headquarters of Lieutenant General A. A. Korobkov's 4th Army, which defended the southern portion of the bulge, was unable to establish communications with headquarters above and below it in the hierarchy. On 4th Army's northern flank, two other army headquarters belonging to the Western Front, Lieutenant General K. D. Golubev's 10th and Lieutenant General V. I. Kuznetsov's 3rd Armies, were in tenuous radio communications with their *front* commander, but they were hardly more functional as command elements. On the first day of the war, Lieutenant General I. V. Boldin, Western Front chief of operations, flew through a swarm of German planes to 10th Army headquarters outside Bialystok. The headquarters consisted of two tents in a small wood alongside an airstrip, where the army commander, Golubev, attempted to counter the Germans despite shattered telephone networks, constant radio jamming, and total confusion. On 23 June, Golubev tried in vain to launch a counterstroke toward Grodno with his few available forces, in accordance with prewar plans.⁵ Within days, 10th Army ceased to exist except as fugitives seeking to break out of German encirclements.⁶

Besides the sheer force and speed of the German advance, the greatest difficulty the defenders experienced was the lack of detailed information about the situation at the front. The reality was far worse than anyone in Moscow believed, resulting in a series of impossible orders to counterattack with units that no longer existed. On the evening of 22 June, Stalin and Defense Commissar Timoshenko issued Directive No. 3 for a general counteroffensive against the Germans, and in the next several days, they stubbornly insisted that the *fronts* implement this directive. In many cases, subordinate commanders passed on these orders even though they knew the true situation simply because those subordinates feared retribution for disobedience. After several days, the enormity of the initial defeat became obvious to all. Even then, however, the General Staff in Moscow was hard-pressed to get accurate, timely reports from the front. Staff officers patrolled the forward area and reported back each evening. On numerous occasions, the staff called local Communist Party chiefs in various villages and collectives to determine the extent of the German advance.⁷

THE FIRST STRIKES

North of the Pripyat' Marshes, the initial German thrusts succeeded rapidly, although they did encounter delays from disjointed but stubborn Soviet defenses. Led by Fourth Panzer Group, Army Group North's Eighteenth and Sixteenth Armies swept rapidly through Lithuania and into Latvia. On 24 June, Major General E. N. Soliankin maneuvered 51 KV-1 and KV-2 heavy tanks of his 2nd Tank Division, 3rd Mechanized Corps, to intercept 6th Panzer Division at Raseiniai on the Dubysa River. This halted the 6th for two days even though the Soviet tanks had run out of gas and become immobile pillboxes on the river's western bank. Only after the Germans finally destroyed the iron monsters with 88mm guns and satchel charges did they learn that many could not fire because they had not been bore-sighted. Their orders simply required them to ram the German tanks.⁸

Meanwhile, the VVS commander in Leningrad, Major General Aleksandr A. Novikov, got permission to strike against German 5th Air Fleet, which had relocated to Finnish airfields to harass the northern defenders. On 25 June, Novikov launched 263 bombers and 224 fighters against the startled Germans, but poor intelligence limited the effect of this aerial counterattack.⁹ Such Soviet successes were fleeting. In a matter of days, Fourth Panzer Group's XXXXI Motorized Corps bypassed the tank divisions of 3rd and 12th Mechanized Corps, whose attempted counterstrokes were defeated by the lack of coordination, fuel, and ammunition more than by enemy action. Virtually all of the Soviet mechanized corps lost 90 percent of their tanks during the first week of the war.¹⁰

Fourth Panzer Group's other spearhead, LVI Motorized Corps under Colonel General Erich von Manstein, also encountered disorganized opposition, seizing several intact bridges over the Western Dvina River at Daugavpils. Despite the suicidal gallantry of Soviet bomber crews, these bridges remained in operation, although the Germans had to pause here for seven days (26 June to 2 July) to allow their infantry forces to catch up.¹¹ As a precursor of problems to come, because of the impressive advance by Army Group North a gap began to form between its Sixteenth Army and Ninth Army on Army Group Center's left wing.

In Army Group Center, Third Panzer Group pressed eastward along the vulnerable boundary line between the Northwestern and Western Fronts, outflanking the latter's 3rd Army and reaching Vilnius by the evening of 23 June. The Western Front commander, Lieutenant General Dmitrii G. Pavlov, was badly rattled by this advance, but on 24 June, he attempted to organize a counterstroke under the direction of his operations officer, Major General I. V. Boldin. Boldin assumed command of 6th and 11th Mechanized Corps and 6th Cavalry Corps; he ordered an attack northward, toward Grodno, to

prevent an encirclement of exposed Soviet units around Bialystok. Without effective communications, air cover, logistical support, or sufficient modern tanks, this effort was doomed from the start. Soviet commanders encountered the doctrinal German response to a mechanized advance; the leading German units gave ground quickly, luring the enemy tanks into a line of antitank guns that always followed immediately behind the spearhead. By the end of 25 June, 6th Cavalry Corps had suffered more than 50 percent casualties (mostly from air attacks), and 6th Mechanized Corps' 4th Tank Division was out of ammunition. After Boldin's force was encircled and virtually destroyed, its remnants reached Slonim with only three tanks, twelve armored carriers, and forty trucks.¹²

Boldin's diversion allowed many units to escape from the Bialystok area eastward toward Minsk, but the relief was only temporary. With Third Panzer Group advancing toward Minsk on the north flank of the Soviet Western Front and Second Panzer Group advancing parallel to it to the south, Pavlov had to pull back. On the night of 25–26 June, he attempted a general disengagement to withdraw behind the Shchara River at Slonim. Not all units received the order to withdraw, and most were unable to break contact. Pavlov's *front* had already lost much of its fuel and motor transportation, so the troops withdrew on foot under constant German air attack. En route, leading German elements ambushed the headquarters of Lieutenant General F. N. Remezov's 13th Army, which was deploying forward into the *front*'s second echelon; the Germans captured various classified reports.¹³ With numerous bridges over the Shchara River destroyed, 10th Army got only a few of its subordinate units across.

On 26 June, a panicked Pavlov signaled Moscow that "up to 1,000 tanks [of Third Panzer Group] are enveloping Minsk from the northwest; there is no way to oppose them."¹⁴ A final effort near Slutsk by elements of 20th Mechanized and 4th Airborne Corps failed to halt the Germans.¹⁵ By the end of June, Second and Third Panzer Groups had closed their pincers around a huge pocket west of Minsk containing most of 10th, 3rd, and 13th Armies. The Western Front had virtually ceased to exist as an organized force; given the paranoid atmosphere of the Stalinist state, it is not surprising that Pavlov was executed soon thereafter.¹⁶ His immediate successor, Lieutenant General Andrei I. Eremenko, had no time to organize the defense of the Berezina River east of Minsk, and the German armored spearheads pushed across that river toward the Dnepr in early July.¹⁷

Even in this first incredible encirclement, where the Germans killed or swallowed up over 417,000 Soviet soldiers, there were flaws in the German victory.¹⁸ The invaders found it difficult to assemble sufficient forces to seal off the encircled Soviets, allowing large numbers of soldiers to escape, albeit without their heavy equipment. Hitler was afraid that the panzer groups

would advance too far, so he ordered that they pause while the infantry arrived to eliminate the encirclement. This was precisely the kind of conservative hesitation that would allow the Red Army time to reorganize. General Halder was reduced to hoping that Heinz Guderian, commander of Second Panzer Group, would continue the advance on his own initiative. Just as he had done in France the previous year, Guderian interpreted permission for reconnaissance to push forward. Halder also noticed that the Soviet troops generally fought to the death and that German intelligence had misidentified numerous large enemy units. All this boded ill for the future.¹⁹

To improve control of this and subsequent pockets, on 4 July OKH subordinated Second and Third Panzer Groups to the headquarters of Field Marshal Günther von Kluge's Fourth Army. In return, Kluge gave up all but two of his infantry corps to Second Army. The resulting "Fourth Panzer Army" appeared to provide unity, but in fact the panzer group commanders continued to ignore unwelcome instructions from Kluge or Halder.²⁰

COUNTERSTROKES IN THE SOUTHWEST

The Southwestern Front commander, Colonel General Mikhail P. Kirponos, was a good division commander who had been promoted to a position three levels above his experience. Still, he had a number of advantages that delayed the Germans south of the Pripyat' Marshes. First, the Western Bug River ran along much of the common border in this area, hampering the initial attack and giving the NKVD and Red Army troops precious minutes to react. More importantly, as remarked in chapter 3, Kirponos had kept in close contact with the border guards in the days prior to the invasion while moving his forces smoothly through the various stages of alert. Because of the prewar Soviet expectation that any German attack would focus on the Ukraine, the Southwestern Front was blessed with a wealth of units, including eight mechanized corps, to counter General von Kleist's First Panzer Group. On paper, these Soviet units outnumbered the Germans at 3,800 versus 800 tanks. Despite the fact that none of these mechanized corps was fully equipped, trained, or supported, they gave a better account of themselves than did their counterparts in the Western Front.²¹

Once across the Western Bug, the leading divisions of First Panzer Group, III Motorized Corps' 13th and 14th Panzer in the north and XXXVIII Motorized Corps' 11th Panzer in the south, followed closely by Sixth Army's infantry divisions, lunged eastward through the forward positions of the Soviet 5th Army, pinning down its four first-line rifle divisions. Kirponos received Directive No. 3 on the night of 22 June, but his units were still assembling from garrisons as much as 400 kilometers (250 miles) away,

and they had to move forward under German air interdiction. Thus, Kirponos was forced to commit his forces piecemeal, often in hasty attacks from the march that struck the flanks of the German penetration.

Not only did the different mechanized formations report to different army- or *front*-level commanders, they also found it difficult to coordinate tanks, artillery, and dismounted infantry in time and space. Soviet commanders lacked effective reconnaissance units to scout the approach routes or to investigate false, panicky reports of German panzers and parachutists throughout the forward region. In the meantime, the German penetration between 5th and 6th Armies went unreported for hours. To solve these and other problems, late on 22 June Stalin dispatched General Zhukov to coordinate Kirponos's counterstroke, a plan that strikingly resembled key elements of the proposal the chief of the General Staff had submitted to Stalin on 15 May.²²

On 23 June, 10th and 37th Tank Divisions of Major General I. I. Karpezzo's 15th Mechanized Corps, moving northward from the Brody region south of the German penetration, attacked the enemy's right flank. They were attempting to relieve 124th Rifle Division at Miliatin, just east of the Bug River, where 11th Panzer Division had torn defenses apart. The "motorized" division (212th) of this corps had fallen behind for lack of trucks, a common problem throughout this period. The infantry troops were overburdened carrying their crew-served weapons and had to reassemble after each *Luftwaffe* strafing attack. German air strikes also slowed the advance of the two tank divisions, and the German 297th Infantry Division, which was following 11th Panzer, had sufficient warning to establish a strong antitank defense on its open southern flank. The sixty-nine T-34 tanks assigned to the two Soviet tank divisions were never concentrated.²³ Although a few T-34s gave the Germans a momentary fright, German antitank guns firing at point-blank range, supplemented by 88mm guns, broke up the attack. By evening, 11th Panzer Division had resumed its eastward advance, leaving the 297th to hold off the Soviets.

The next day, 24 June, Lieutenant General M. I. Potapov's 5th Army attempted a more elaborate counterattack against the northern flank of the German advance at Voinitsa, west of Lutsk. Despite poor coordination with supporting infantry and artillery, 22nd Mechanized Corps' 19th Tank and 215th Mechanized Divisions halted and bloodied the German 14th Panzer and 298th Infantry Divisions.²⁴ The 22nd's commander, Major General S. M. Kondrusev, died in the first fighting. After thirty-six hours of confused struggle, on 25 June, 14th Panzer, now supported by 13th Panzer, outflanked the Soviets and raced eastward to the Styr' River. This forced Potapov to abort his attack and withdraw to avoid being outflanked.

Thus, by 26 June Colonel General von Kleist's First Panzer Group had crossed the Styr' River, captured Lutsk, beaten off two threats to its flanks,

and positioned itself for pursuit through Rovno and the old Stalin Defense Line (of 1939) to Kiev, the industrial and political center of the Ukraine. By this time, however, Kirponos had been able to assemble three fresh mechanized corps, the 8th, 9th, and 19th. Unfortunately for the defenders, the three rifle corps in the *front's* reserve, which were slated to join the counteroffensive, had still not reached the front, leaving four incomplete mechanized corps to attack unsupported. As before, Potapov's 5th Army attempted to coordinate the northern flank attacks, this time by Major General K. K. Rokossovsky's 9th and Major General N. K. Feklenko's 19th Mechanized Corps. Both corps lacked transport for their motorized rifle divisions, which could not accompany the attack. On the southern flank, Kirponos's chief of armored troops, Major General R. N. Morgunov, was to coordinate the 8th and the already-weakened 15th Mechanized Corps. Both flanks received air support, but in this as in many other cases, the Soviet staff officers proved too inexperienced to coordinate support for the attacking tankers.

On 26 June, the 8th Mechanized Corps pushed the German 57th Infantry Division back 10 kilometers.²⁵ That night, 8th Corps received orders to press forward to Dubno, directly into the center of German strength. A mobile group built around Colonel I. V. Vasil'ev's 34th Tank Division attempted this push on 27 June and even cut 11th Panzer Division's communications, but German air, artillery, and armor (the newly arrived 16th Panzer Division) surrounded and severely mauled the divided corps. The remnants of 8th Mechanized Corps managed to break out and escape eastward on 1 July. Attacking northward farther to the west, the divisions of the neighboring 15th Mechanized Corps were again stymied by air attacks and swamps, accomplishing little. On 15th Mechanized Corps' northern flank, 19th and 9th Mechanized Corps had also attempted to advance on 26 June, but they ran directly into the attacking 13th and 11th Panzer Divisions, which knocked them back to Rovno.²⁶

General Rokossovsky, commander of 9th Mechanized Corps, had only a limited view of the battlefield, but it was obvious to him that the counteroffensive order was unrealistic. He dutifully attempted to attack on 27 June but lost contact with 19th Mechanized Corps and suffered significant losses among his obsolete T-26 and BT light tanks. When ordered to renew the attack the next day, he chose instead to take up defensive positions and ambush the leading task force of 13th Panzer Division advancing on Rovno. For perhaps the first time in the war, the German Army encountered the massed fire of Soviet artillery and suffered severe losses. After two days of escalating German air and ground attacks, Rokossovsky was ordered to fall back.²⁷

The fierce, if unsuccessful, Soviet counterstroke and the subsequent fight for Rovno delayed Army Group South for at least a week, helping to create the situation that ultimately tempted Hitler to redirect part of Army Group

Center away from Moscow in order to defeat the Soviet 5th Army and secure the Ukraine. The southwestern border battles also demonstrated that German armor was not invincible, and they gave future commanders such as Rokossovsky their first expensive but useful lessons in mechanized warfare.²⁸

Even after the Soviet mechanized corps lost the border battles, German Army Group South, especially First Panzer Group, encountered significant resistance. During the first two weeks of the war, First Panzer Group had a hundred tanks destroyed or irreparably damaged. Not until the end of the first week of July did III Motorized Corps, commanded by General of Cavalry Eberhard von Mackensen, break through the old Soviet border defenses and begin its exploitation toward Kiev.²⁹ Even then, the panzers formed a thin wedge, with active Soviet resistance both north and south of the spearhead. Although Mackensen's panzers came within striking distance of Kiev on 10 July, they were unable to exploit the opportunity to capture the city. The German Sixth Army, which should have reinforced First Panzer Group at the point of this wedge, had to divert much of its force to protect the northern flank along the Pripyat' Marshes, from which Potapov's 5th Army continued to launch raids against the invaders. Farther south, Seventeenth Army faced a major Soviet concentration (6th and 12th Armies) that threatened the southern flank of Kleist's thrust toward Kiev. As a result, on Hitler's orders Kleist halted his advance just short of Kiev and swung his armor southward to clear the threat to his flank.

Despite all of these handicaps, in conjunction with the German Eleventh Army and Romanian forces advancing into southwestern Ukraine, by 16 August Army Group South had encircled two Soviet armies and part of a third (the 6th, 12th, and 18th) near Uman', 185 kilometers (115 miles) south of Kiev.³⁰ At the end of the month, the invaders were besieging Odessa, closing in on Kiev, and clearing defenders from the western bank of the southern Dnepr. Still, ammunition shortages prevented the Germans from completely destroying their opponents in the southern Ukraine.³¹

HEARTS AND MINDS

The German plan for quick victory was based in part on the assumption that large portions of the Soviet population would welcome liberation from Stalinism. This assumption appeared justified in the first euphoria of the German onslaught. Most Lithuanians, Latvians, and Estonians, as well as significant numbers of Ukrainians and other subject nationalities, were at least cooperative, if not enthusiastic, about the change of regimes. Regardless of their nationality, many older residents of European Russia remembered the stern but bearable German occupation of 1917–1919, and they were inclined

to wait on events rather than abandon their homes to become refugees or guerrillas. Taking no chances, the Moscow government uprooted a sizable number of people from the former Baltic States, together with a half million ethnic Germans of the Volga-German Autonomous Soviet Republic, and shipped them farther east.

From the very start, however, German occupation policies appeared deliberately intended to alienate the populace. Prior to the invasion, OKW issued three orders based on the flimsy excuse that Moscow had not signed the Geneva and Hague accords on the law of war. The “Commissar Order” declared that Soviet political officers were not prisoners of war and should be shot out of hand. A second order specified that in the event that a German soldier committed offenses against civilians or prisoners, disciplinary action was optional, at the discretion of the unit commander. A third instruction directed the execution of any civilians “attacking” German soldiers.³²

In their memoirs, several senior officers claimed that they had refused to publish these orders and had protested them to their superiors. Such officers later insisted that the Wehrmacht never implemented such policies and that atrocities were largely the work of the SS, genocidal *Einsatzkommando* units, and other Nazi Party occupation forces who followed the army.³³

The *Einsatzkommando* forces certainly have many crimes to their shame, but this argument of the “clean Wehrmacht” has little basis in fact. Felix Römer has calculated that reports of the execution of political officers exist for all thirteen field armies, all forty-four army corps, and more than 90 percent of frontline divisions. At most, some units avoided the moral challenge of executing the captives by turning them over to police units.³⁴ Although senior commanders might grumble about the effects these orders had on discipline, they did not necessarily oppose them on principle. Erich von Manstein, for instance, was apparently so influenced by traditional anti-Semitism that he readily accepted the myth that Jews were almost always Communists who would pose a rear area security threat; he therefore actively cooperated with Jewish roundups in his area of operations.³⁵ In Norway, Colonel General Nikolaus von Falkenhorst, commander of German troops on the northern flank, signed a troop information leaflet that predicted Soviet chemical and biological warfare and warned the troops to “watch out in particular for priests, commissars, and Jews.”³⁶

The younger company-grade officers and the rank and file had come of age under the Nazi regime, and consciously or unconsciously, they reflected Nazi attitudes. One analysis of three divisions in 1941 indicates that 29 percent of the officers were Nazi Party members and that these officers, who had a higher education and social status than their peers, set the tone of their units.³⁷

A large portion of the Wehrmacht regarded the Soviet peoples as bumbling and potentially treacherous subhumans. In itself, this is by no means

a unique psychological failing. Soldiers may feel the need to dehumanize or demonize their opponents in order to overcome their natural reluctance to kill, and atrocities have all too frequently ensued. In dealing with Soviet prisoners and civilians, however, the German troops engaged in atrocities almost from the first day of the war. Long before Nazi Party units arrived in a given region, the first troops to enter a town often executed several people in an attempt to deter any resistance. Local commanders interpreted the various criminal instructions such as the Commissar Order to mean the execution of anyone identified as a Communist Party member or anyone who appeared to be Jewish. The troops frequently shot people out of hand, even when ordered to turn them over to security services for interrogation. Other prisoners were forced to clear land mines or engage in similar actions considered too dangerous for German troops. Moreover, some troops looted villages of food and other valuables before Nazi economic officials arrived to impose the official food requisitions. When cold weather set in, the troops seized warm clothing and shelter from the populace.³⁸

Behind the forward units came various organizations assigned to control and exploit the captive population. Each German army group had three divisions to provide rear area security. Typical of these was 221st Security Division in Army Group Center, a ragtag collection of reserve officers and older men with two regiments of troops and few heavy weapons or vehicles to patrol its sector.³⁹ Most of the soldiers in this division had only three months of training and limited combat capacity. These troops not only shared the usual racial attitudes of younger German soldiers but also felt compelled to cooperate with other, better-equipped German units in order to get assistance in securing their sectors. Thus, on 27 June 1941, elements of 221st Division watched without protest when the 309th Reserve Police Battalion murdered more than 2,000 Jews at Bialystok. Worse was to follow.

Elsewhere, *Einsatzkommando* and other German units encouraged the local Slavic nationalities to attack Jews. Perhaps as many as one-half million Jewish people were killed outright during the 1941 German advance.⁴⁰ Such actions soon became official policy in an effort to terrorize the populace into submission. Instead, Jewish and Slavic residents came to realize that submission would not even delay their deaths. As early as 1 July, Bock, as commander of Army Group Center, became concerned about partisans along his supply lines; he soon diverted regular units to assist the rear area security divisions.⁴¹

The unspeakable genocide of European Jews has justifiably attracted worldwide outrage. What is often overlooked in the horror of this crime is the related brutality of German policies toward the non-Jewish, Slavic population of the Soviet Union. The sheer scale of these crimes makes it difficult to arrive at accurate estimates of their human cost. Almost 3 million Russians,

Belorussians, and Ukrainians were enslaved as laborers in Germany under conditions that frequently resulted in death or permanent injury. In addition, at least 3.3 million Soviet prisoners of war died in German hands through starvation, disease, and exposure, especially during the first year of the invasion. This represented 58 percent of the total number of Soviet soldiers captured by the Germans.⁴² Regardless of which organization had custody at the time of death, those prisoners were the moral responsibility of the German Army that captured them. In fact, in 1941 that army made so little provision for the huge mass of prisoners that many of those who survived the act of surrender died in a matter of months for lack of food and shelter. Once winter approached, the poorly equipped German soldiers often deprived their prisoners of coats and boots.

Paradoxically, Germany's need for laborers actually improved the lot of the prisoners and detainees in late 1941. As potential slave laborers, the hapless prisoners finally had value to their captors. Even then, the racist attitude of the German soldiers caused additional suffering en route to Germany. Several commanders attempted to march their prisoners on foot across the newly conquered territories to avoid "infecting" German railroad cars with such "subhumans." Small wonder, then, that German industry received little help from slave labor until 1942 and that forced-labor productivity never approached that of the German workers.⁴³

For the populace that remained in the occupied territories, German policies of systematic expropriation of food and raw materials condemned the inhabitants to slow death. Countless civilians starved in Leningrad and the occupied territories. By some accounts, the Romanian occupation of the southwestern Soviet Union was even harsher.

In the face of such barbaric treatment, even those Soviet citizens who actively collaborated were unlikely to feel any loyalty to the occupiers. In 1941, there were relatively few effective guerrilla units in the German rear, except for a small number of NKVD "destruction battalions" and groups of bypassed Red Army soldiers.⁴⁴ As the war progressed, however, partly due to German treatment of the population and also because of strenuous efforts by the NKVD and Red Army to organize partisan bands, the guerrilla threat to the German occupiers in Russia became second only to that of Yugoslavia. In turn, the bitter struggle of partisan warfare called forth even greater brutality on the part of the Germans and their allies in a vain effort to eradicate the unseen foe. All this being said, from the very start the Red Army and Soviet peoples responded in kind.

German racial brutality also reinforced the nationalistic resistance of the Red Army itself. The Soviet regime publicized stories of the invaders' atrocities, contributing to fanatical Soviet defensive efforts. Each bitterly contested

encirclement cost the Germans further delays and losses, adding to the physical challenges of penetrating a vast territory and repeatedly stopping the momentum of *blitzkrieg*.⁴⁵

SMOLENSK—ENCIRCLEMENT AND COUNTEROFFENSIVE

On 3 July, General Halder, the head of OKH, noted in his diary that “the objective to shatter the bulk of the Russian Army this [western] side of the Dvina and Dnepr [Rivers] has been accomplished . . . east of [these rivers] we would encounter nothing more than partial forces. . . . It is thus probably no overstatement to say that the Russian Campaign has been won in the space of two weeks.”⁴⁶ Hitler’s basic assumption when planning Operation Barbarossa was seemingly fulfilled.

In this astonishingly brief period, German forces had destroyed the three forward field armies of the Western Front and severely mauled those of the Northwestern and Southwestern Fronts. The invaders stood on the Western Dvina and Dnepr Rivers, ready to resume their exploitation once supplies and infantry support had caught up to the victorious panzer groups. Many German commanders must have felt, with Halder, that the war was won, whereas the struggle had only begun. Within days, these commanders as well as their troops would be shocked to encounter thousands of fresh Red forces on the rivers’ eastern banks not only defending positions but also counterattacking, often with suicidal audacity.

The steps by which the Red Army recovered from the surprise attack and prepared for the next series of defensive battles are described in the next chapter. For the moment, it is sufficient to note that by 4 July, the Dvina and Dnepr Rivers were guarded not just by the remnants of the Western Front’s 4th and 13th Armies but also by five half-formed armies of Marshal Budenny’s Group of Reserve Armies that had begun assembling in late May.⁴⁷ On 1 July, Stalin had placed Timoshenko, whom even the Germans respected, in command of the Western Front and transferred four of the reserve armies—the 20th, 21st, and 22th, plus the 19th, just transferred from the Kiev region—to that command. The fifth such army, Lieutenant General M. F. Lukin’s 16th, consisting of only two rifle divisions and a mechanized corps, defended Smolensk, the next major city on the road from Minsk to Moscow. This re-subordination sacrificed the original concept of using these armies as a strategic counteroffensive force. To restore the lost depth while other armies were mobilizing, the first two Soviet armies that were mobilized in wartime, the 24th and 28th, concentrated around Viaz’ma and Spas-Demensk, east of Smolensk, covering the approaches to Moscow. Meanwhile, the 29th through

33rd Armies, scratch forces hastily formed around a nucleus of NKVD border guards and Communist Party volunteers and led by NKVD generals, deployed even farther to the east.⁴⁸

All these formations had shortages in tanks, communications, antitank weapons, and antiaircraft guns. Senior commanders changed positions on a daily basis, and their staffs lacked experience in coordinating the different arms and services. The new Red units had little opportunity to prepare for battle and often arrived piecemeal after long deployments by rail and dirt roads, resulting in uneven performance.⁴⁹ Still, the Germans had no knowledge of the existence of such forces until they bumped into them. The result was a series of poorly coordinated but intense struggles around Smolensk, culminating in three major Soviet counteroffensives between July and September 1941. Although the unprepared Soviet units suffered heavily in the process, these counteroffensives halted German Army Group Center in its tracks for the first time in the entire war.

All this was in the future when, acting on the *Stavka's* orders, Timoshenko ordered Lieutenant General P. A. Kurochkin's 20th Army to slow the German advance to the Dnepr beginning on 6 July. During the ensuing offensive, Kurochkin's 5th and 7th Mechanized Corps, supported by two rifle corps, sacrificed themselves by launching frontal attacks against 7th and 17th Panzer Divisions near Lepel' and Senno. With insufficient reconnaissance or infantry-armor cooperation, the obsolescent tanks of these two corps were easy prey for the standard German antitank screen. In all, 832 tanks were lost in this battle, after which the remnants withdrew in some disorder.⁵⁰ The real struggle began farther south, on 10–11 July, when Guderian's Second Panzer Group crossed the Dnepr to begin the next phase of operations. Guderian's immediate opponent was 13th Army, which had just escaped from the Minsk pocket. This army included only four weak rifle divisions without armor, presenting little resistance. By 13 July, Guderian's XXXXVI Panzer Corps had passed north of Mogilev, and XXIV Panzer Corps crossed farther to the south, encircling 13th Army's 61st Rifle and 20th Mechanized Corps at Mogilev. The encircled corps continued to resist until 26 July, but that resistance did not halt the German exploitation.⁵¹

At the same time, Timoshenko was preparing to launch a coordinated counteroffensive aimed at cutting off the spearheads of Second Panzer Group. Unfortunately for the Soviets, however, their aging marshal produced an overly centralized plan that did not allow for the problems of his green formations. Before the Red Army units could concentrate to attack, the continued German advance had almost preempted Timoshenko's concept.⁵² The legacy was what the Germans derisively termed the "Timoshenko offensive."

Timoshenko's attack was to coincide with similar actions against the other two German army groups. On 10 July, Zhukov sent a stinging critique to the

Northwestern Front headquarters, galvanizing it into action. Five days later, the Soviet 11th and 48th Armies struck Army Group North near Sol'tsy, east of Pskov. During this attack, the 10th Mechanized Corps encircled most of 8th Panzer Division; although the division eventually broke out of this encirclement, it lost almost half its armored force—seventy tanks—in the process. Army Group North had to pause for almost three weeks to reorganize before resuming the advance on Leningrad. Meanwhile in the Ukraine, Potapov's 5th Army, supported by the remaining armor in that region, struck First Panzer Group near Korosten', west of Kiev.⁵³

Although the Soviets had some success on the flanks, their inexperienced command and control prevented exploitation. The so-called Timoshenko offensive west of Smolensk also had a brief success. It began on 13 July, when the twenty divisions of Colonel General F. I. Kuznetsov's 21st Army, supported by the remnants of 3rd Army, attacked toward Bobruisk on the southern flank of Guderian's advance, seeking to drive a wedge between the panzers and the German Second Army marching to catch up with them. This poorly coordinated action nonetheless succeeded, and the Soviet troops crossed the Dnepr and advanced as much as 80 kilometers (50 miles) on 13–15 July before the Second Army's LIII Corps halted them; three Red cavalry divisions raided even farther into the German rear. Army Group Center had to commit its reserve XXXXIII Corps to protect Guderian's flank. By 20 July, however, the Germans had erased Kuznetsov's temporary advances.⁵⁴

Farther north, Lieutenant General Ivan Stepanovich Konev, later a senior Soviet commander, experienced rough handling in his first encounter with the Germans. Konev's 19th Army counterattacked literally as it dismounted from railroad trains on 11–13 July, making a vain effort to retake the Vitebsk salient from the Germans. Colonel General Hermann Hoth's Third Panzer Group easily deflected Konev's efforts, and 19th Army had almost dissolved by 13 July. In fact, this success tempted Hoth to folly. He dispatched LVII Panzer Corps northward, away from the developing encirclement at Smolensk. Although the leading battle group of 19th Panzer Division reached Velikie Luki, 320 kilometers (200 miles) northwest of Smolensk, on 20 July, the 19th had to turn back because the other division of this corps, 14th Motorized, was so worn down that it risked being encircled by elements of the Soviet 22nd Army.⁵⁵

Because of the failure of most of these counterattacks, the coordinated nature of Timoshenko's effort went unnoticed by Hitler and the OKH, as well as by postwar historians. Still, at Moscow's insistence all three Soviet *front* commanders sought new opportunities to implement the plan. This was most apparent in the south, where Kirponos struck repeatedly against the Germans near Korosten' but to no avail.

In the center, Guderian refused to be distracted by the Timoshenko counterattack, although it briefly tied up most of his forces. Instead of

turning northward to link up with Hoth's panzer group, Second Panzer Group raced toward the heights of El'nia (or Yelnia, in German sources), some 82 kilometers (51 miles) east-southeast of Smolensk. True to his philosophy of deep exploitation, Guderian wanted El'nia as a launchpad for a future advance on Moscow. On the evening of 19 July, the 10th Panzer Division of XXXVI Motorized Corps took the heights but ran out of fuel and almost ran out of ammunition.⁵⁶ The panzer spearheads had reached the logistical limit of their initial advance.

Exploiting these German problems, Timoshenko filled the gap in his defenses east of Smolensk in an effort to prevent the encirclement of 16th and 20th Armies or further German exploitation to the east. Rokossovsky, who had been reassigned to the Western Front headquarters after the border battles in the southwest, was sent to hold the river crossing around Iartsevo on the Vop' River against Third Panzer Group. He assembled a motley collection of shattered units and stragglers around the cadres of 38th Rifle and 101st Tank Divisions, the latter reduced to only forty obsolete tanks.⁵⁷ Despite constant *Luftwaffe* airstrikes, Rokossovsky's scratch force halted 7th Panzer Division from 18 to 23 July and then joined a general counteroffensive the next day.⁵⁸

As a result, although they claimed to link up by 27 July, Guderian and Hoth never did close the Smolensk encirclement entirely; up to 20,000 Red soldiers managed to escape eastward across the Dnepr River, together with some of their equipment. By this time, the combination of battle and normal wear and tear had severely reduced the combat strength of German forces, in particular the panzer-grenadiers in the panzer and motorized divisions defending the outer encirclement line east of Smolensk, who were not structured for strenuous defensive operations. Similar attrition took a serious toll of the tank strength of the panzer groups and divisions. The 18th Panzer Division had only twelve operational tanks by the time it forced 16th Army out of Smolensk on 23 July, and the tank strength of Guderian's Second Panzer Group fell from 953 on 22 June to 286 on 29 July.⁵⁹

Moreover, in contrast to previous encirclements, the surrounded Red Army units maintained their organization and continued to resist for more than a week. Timoshenko put General Kurochkin in charge of the surrounded elements of 16th, 19th, and 20th Armies to organize this defense.⁶⁰ The following infantry of the German Fourth and Ninth Armies did not arrive until late in July, delayed by prolonged resistance in the previous pocket at Minsk. Meanwhile, the German panzer and motorized divisions, always short of infantry, experienced severe pressure both from Kurochkin's forces within the pocket and from other Red forces east of Smolensk. The long German flank south and west of El'nia was especially vulnerable.

The rapid advance of Guderian's panzers to El'nia, together with the German deployment of Second Army against 21st Army, prompted the *Stavka* to shore up its defenses on the Western Front's left wing. Accordingly, on 23 July, it split the Western Front in two, leaving Timoshenko in command of the armies defending opposite Smolensk and El'nia and assigning 13th and 21st Armies to a new Central Front commanded by Colonel General Fedor I. Kuznetsov. Kuznetsov's mission was to protect the Western Front's left flank and prevent German forces from penetrating southward across the Sozh River toward Gomel' and the Kiev region.

Beginning on 23 July, operational groups from the newly deployed 29th, 30th, 28th, and 24th Armies attacked the positions of Army Group Center's overstretched panzer and motorized divisions east of Smolensk, from Belyi in the north through Iartsevo to Roslavl' in the south. This hastily conducted series of attacks, planned by Zhukov, was the first genuine counteroffensive the *Stavka* orchestrated during the war. Anchored on the defenses of Rokossovsky's Iartsevo Group of Forces, Groups Maslennikov, Khomenko, Kalinin, and Kachalov, named for the commanders of the Western Front's four fresh armies, struck concentrically to penetrate and envelop the defenses of Army Group Center, relieve Kurochkin's three encircled armies, recapture the city of Smolensk, and if possible destroy German forces in the Smolensk and El'nia regions. Although uncoordinated with respect to their timing, these attacks placed immense pressure on the invaders and caused frightful casualties on both sides. They ultimately failed because of poor and often nonexistent coordination between infantry, armor, and artillery; weak fire support; and an almost total lack of logistical support.⁶¹

For the moment, the panzer spearheads held their loose encirclement but only at a further cost to their dwindling combat power.⁶² At Smolensk, for the first time in the war, Army Group Center's panzer and motorized divisions had to conduct an organized defense, a task for which they were neither structured nor accustomed. The commander of 18th Panzer Division remarked poignantly that the Germans needed to reduce their casualties "if we do not intend to win ourselves to death."⁶³

CHAPTER FIVE

Soviet Response

The German invasion forced the Soviet regime to do far more than redeploy its armies. During the first weeks of the war, Moscow made fundamental changes in its command and control, unit organization, and military industrial plant. In the crisis, the Soviets temporarily modified or abandoned many of their prewar concepts, making the first of numerous painful but effective adjustments to the reality of modern war.

COMMAND AND CONTROL

During the first six weeks, the nomenclature and organization of the Soviet Union's national command structure underwent frequent changes, most of which had little practical effect on the day-to-day conduct of the war.¹ On 23 June, the War Commissariat's wartime staff, equivalent to a national security council, was activated as the Main Command Headquarters (*Stavka Glavnogo Komandovaniia*); War Commissar Timoshenko was the designated chair of this council, which also included Stalin, Foreign Affairs Commis- sar V. M. Molotov, and the most senior commanders such as Zhukov and Budenny. After a bewildering series of changes in name and membership, the council emerged on 8 August as the Supreme High Command (*Stavka Verkhovnogo Glavnokomandovaniia*, or *Stavka VGK*), with Stalin as titular commander in chief. In practice, the term *Stavka* was used loosely to de- scribe both the Supreme High Command council itself and the General Staff that served that council. In theory, the State Committee for Defense (*Gosudarstvennyi Komitet Oborony*, or GKO) was the highest body, overseeing the *Stavka VGK* as well as the General Staff. The various special staff directorates—artillery, armor, engineer, and so forth—of the People's Commissariat of Defense (NKO) provided technical expertise and staff supervision under GKO control. A separate Air Force Command (*Komanduiushchii VVS Krasnoi Armii*) sorted out the wreckage of the Red Air Force.²

During the first few days of the war, there was no strong central control, although contrary to later criticisms Stalin did not have a breakdown. Instead, he conferred constantly with his subordinates, making as many as twenty significant decisions on 22 June alone.³ However, he did not personally

broadcast to the nation until 3 July, when he called for guerrilla resistance and for the destruction or evacuation of anything useful to the invader. Already in this speech, Stalin began to stress Russian nationalism instead of loyalty to the Soviet state, an emphasis that the regime continued throughout the war.

The problem lay not in the ability to make decisions but rather in assembling information and communicating the resulting decisions. Stalin's military advisers fanned out from the capital as soon as the war began, in a frantic attempt to learn what was happening and establish some control of the situation. Timoshenko, Zhukov, Vasilevsky, Budenny, and others traveled extensively, visiting numerous headquarters. By August, a rough system evolved in which the ailing Boris Shaposhnikov served (until his health gave way in the spring of 1942) as chief of the Red Army General Staff in Moscow and the other senior commanders who enjoyed Stalin's trust acted as theater commanders or troubleshooters. These latter men, soon designated as "representatives of the *Stavka*," frequently changed location to provide emphasis to crisis areas.

Part of the new system was the creation on 10 July of three theater-level, multi-front commands known as Main Commands of Directions (*Glavnye Komandovaniia Napravlenii*).⁴ Originally, these new headquarters were headed by Marshal Voroshilov (Northwestern Direction, including the Baltic and Northern Fleets), Marshal Timoshenko (Western Direction), and Marshal Budenny (Southwestern Direction, including the Black Sea Fleet.) The political officers, or "members of the council," for these directions were three future leaders of the Communist Party, A. A. Zhdanov, N. A. Bulganin, and N. S. Khrushchev, respectively. In practice, Stalin and the *Stavka* frequently bypassed the three directions to give orders directly to subordinate front, fleet, and army headquarters. In fact, this layer of command proved to be superfluous and ineffective, and it was eliminated during 1942, to be replaced by designated *Stavka* representatives.

In the best Stalinist tradition, the initial defeats brought renewed authority to the political commissars, who assumed coequal status with force commanders and chiefs of staff. Many career officers were released from prison to fight the invaders, and others took their places in a general atmosphere of suspicion.⁵ General Pavlov was not the only commander to face summary execution. The Stalinist state simply made no allowance for either the fortunes of war or the psychology of fear; it did not screen potential combat soldiers in any way but blamed all failure on deliberate treason. Many soldiers who escaped from German encirclement returned to Soviet lines only to be disarmed, arrested, and harshly interrogated by NKVD "rear security" units looking for sabotage. On 16 July, the GKO restored the military authority of commissars and so-called political officers, and the following day, the

government revived the Special Section (*Osobyi otdel*, or OO) to root out traitors and spies.⁶ In addition, Moscow mobilized 95,000 members of the Communist Party and its youth organization (*Komsomol*) at the end of June; some of these went into specially formed militia shock units, and others were expected to reinforce the dedication of the surviving Red Army units.⁷

This renewal of party influence and terror was unnecessary, since most soldiers were doing their utmost without such threats. The moving force behind this party influence was the sinister Lev Z. Mekhlis, who became head of the army's Main Political Directorate on 23 June.⁸ Voroshilov, Zhukov, and most of the career military officers despised Mekhlis for his role in the Great Purges and resisted any effort by political commissars to meddle in the higher conduct of the war. Ultimately, Mekhlis lost influence in 1942 but continued to meddle.

Many of the initial Soviet defeats were the direct results of the inexperience of the surviving Red officers. Field commanders lacked the practical experience and confidence to adjust to a rapidly changing tactical situation. Instead, they tended to apply stereotyped solutions, such as distributing their subordinate units evenly according to textbook diagrams without regard to the actual terrain. The result was forces that were not focused on the most likely avenues of German advance and that attacked and defended in such a stylized, predictable manner that the experienced Germans often found it easy to counter or avoid such blows.⁹ To help solve this problem by educating their subordinates, more experienced commanders at the division, army, and *front* levels felt compelled to include the most basic of information about tactical techniques in their orders or directives. The result was ever-longer and more detailed orders, a trend that would endure to war's end.

Headquarters at every level lacked trained staff officers to coordinate maneuver, fire support, and logistics. The border battles in the Ukraine were typical, with field army headquarters that proved incapable of coordinating simultaneous attacks by multiple mechanized units and unable to direct the few available aircraft to provide support to the ground units. There were exceptions, of course, but the overall performance of the Red Army hierarchy was so poor that it contributed to the confusion caused by the surprise attack. Small wonder that both German and Western military observers concluded that the Red Army was on the verge of disintegration.

Soviet staffs also lacked effective communications to control their subordinates and report the situation to their superiors. Even the military district headquarters, which upon mobilization became *front* commands, were short of long-range radio equipment and skilled operators. Existing Soviet codes were so cumbersome that commanders often transmitted their messages unencrypted, providing ample tactical intelligence for the German radio-intercept units.

In other words, the Red Army had too many headquarters and layers of command for the available trained staff officers and communications. Moreover, the initial defeats caused the average strength of divisions, corps, and field armies to decline so catastrophically that the remnants no longer needed the elaborate hierarchy of headquarters that remained. Newly formed units were equally short of specialized units, such as tanks, antitank weapons, engineers, and antiaircraft guns. All this suggested that the organizational structure of the Red Army required a drastic simplification.

REORGANIZATION

It is a tribute to the wisdom and daring of the senior Red Army leaders that they were able to conceive of and execute such a reorganization at a time when the German advance placed them in a state of perpetual crisis. By going back to simpler organizations, the Red Army leaders temporarily abandoned their prewar concepts but saved the force, which they gradually rebuilt over the next two years.

Stavka Circular 01, dated 15 July 1941, began this reorganization and truncation of the prewar force structure.¹⁰ Field commanders received instructions to eliminate the corps level of command, evolving to a smaller field army that had only five or six rifle divisions plus two or three tank brigades, one or two light cavalry divisions, and several attached artillery regiments. By the end of the year, only six of the sixty-two rifle corps remained. This allowed the more experienced army commanders and staffs to have direct control over rifle divisions. Those divisions were also simplified, giving up many of the specialized antitank, antiaircraft, armor, engineer, and field artillery units included in peacetime division establishments. Such equipment was in desperately short supply; the new system centralized all specialized assets so that army commanders could allocate them to support the subordinate units with the most important missions. In the process, the authorized strength of a rifle division declined from 14,500 to just under 11,000 soldiers. The authorized number of artillery pieces in this division was reduced to twenty-four, and the number of trucks dropped by 64 percent. The actual strength of most divisions was much lower, and as time passed, many of these weakened units were formed or redesignated as separate brigades rather than divisions. In the fall of 1941 and early 1942, the *Stavka* activated about 170 rifle brigades in lieu of additional rifle divisions. These demidivisions of 4,400 men, consisting of three rifle plus various support battalions subordinate directly to the brigade headquarters, were significantly easier for inexperienced commanders to control.

The 15 July circular also abolished the mechanized corps, which seemed especially superfluous given the current shortage of skilled commanders and

modern tanks. Most of the thirty-one motorized rifle divisions in these corps were redesignated as the normal rifle divisions that they in fact were. The surviving tank divisions remained on the books at a reduced authorization of 180 to 215 tanks each. Some of the original, higher-numbered reserve tank divisions that had not yet seen combat were split to produce more armored units of this new pattern.¹¹ In reality, tanks were so scarce in the summer and fall of 1941 that the largest new armored organizations formed during this period were tank brigades, 120 of which were mandated on 13 August, although only 79 were formed by December. These brigades nominally had 93 tanks (7 KV heavy, 22 T-34 medium, and 64 T-60 light), but new tank brigades organized in September fielded 67 tanks and those in December 46 tanks, still with minimal maintenance and other support.¹² The NKO also formed numerous separate tank battalions fielding 29 tanks each.¹³ For the moment, therefore, the Red Army abandoned its previous concept of large, independent mechanized units, placing all the surviving tanks in an infantry-support role.

The same circular also directed a major expansion of cavalry units, creating 30 new light cavalry divisions of 3,447 horsemen each. Later in the year, the total rose to 82 such divisions, but because of high losses, the divisions were integrated into cavalry corps in December 1941.¹⁴ Apparently, Civil War veterans such as Budenny were attempting to recover the mobility of that era without regard for the vulnerability of horses on the battlefield. German accounts ridiculed cavalry units as hopeless anachronisms, even though the Germans still had several such formations in 1941. Given the shortage of transport of all types, the Soviet commanders felt that they had no choice. During the winter of 1941–1942, when mechanized units were immobilized by cold and snow, the horse cavalry divisions, along with newly created ski battalions and brigades, proved effective in the long-range, rear area-disruption role that Stalin and Budenny had envisaged. Cavalry was vulnerable on the battlefield but still conferred some relative mobility between battles.

Just as independent operations for mechanized forces were sacrificed, so the Red Air Force abolished its Strategic Long-Range Aviation command temporarily. The original structure of sixty to sixty-four aircraft per tactical air regiment proved too difficult to control, so these regiments were restructured with only thirty planes each.¹⁵

Organization was easier to fix than tactical judgment. Soviet commanders from Stalin down displayed a strange mixture of astuteness and clumsiness well into 1942. Most of the great changes in Soviet operational and tactical concepts and practice did not occur until 1942–1943, but during the crisis of 1941, the *Stavka* took the first steps. Many of the instructions issued at that time seem absurdly simple, underlining the inexperience and lack of initiative of the commanders to whom they were addressed. On 28 July, an “Artillery Defense Order” directed the creation of integrated antitank regions

along the most likely avenues of German mechanized advance.¹⁶ Commanders were forbidden to distribute the available guns evenly across their defensive front. In August, the *Stavka* criticized commanders who had established a thinly spread defense without depth or antitank plans. Creating such depth was difficult with so many units short of troops, guns, and experience, but the basic emphasis on countering known German tactics was a sound approach.

Whether attacking or defending, many Soviet officers tended to maneuver their units like rigid blocks, making direct frontal assaults against the strongest German concentrations. This would be poor tactics at any time, but it was especially foolhardy when the Red Army was so shorthanded and underequipped. The December 1941 Soviet counteroffensive at Moscow suffered from such frontal attacks, exasperating Zhukov. On 9 December, he issued a directive that forbade frontal assaults and instructed commanders to seek open flanks to penetrate into the German rear areas. Such tactics were entirely appropriate under the conditions of December (see chapter 6), but they would not necessarily have worked against the Germans during their first triumphant advances.

FORCE GENERATION

The abolition of mechanized corps retroactively corrected a glaring error in German intelligence estimates about the Red Army. Prior to the invasion, the Germans had a fairly accurate assessment of the total strength of the active Red Army, but they had almost no knowledge of the mechanized corps. German intelligence analysts apparently believed that their enemy was still at the 1939 stage, when large mechanized units were dissolved in favor of an infantry-support role. Prior to 22 June, the Germans had identified only three of the ten mechanized corps in the forward military districts.¹⁷ The appearance of these corps against the First Panzer Group in late June was almost as great a surprise as the first encounters with KV-1 and T-34 tanks.

Yet, the greatest German intelligence error lay in underestimating the Soviet ability to reconstitute shattered units and create new forces from scratch. Together with the attrition caused in German ranks by incessant Soviet counterattacks and counterstrokes, the Red Army's ability to create new armies and divisions as quickly as the Germans smashed existing ones was a principal cause of the failure of Barbarossa.

For much of the 1920s and 1930s, the Red Army had emphasized the idea of cadre and mobilization forces, formations that had very few active-duty soldiers in peacetime but would fill up with reservists and volunteers in case of war. The Red Army had neglected this concept in the later 1930s, gradually mobilizing most of its existing units to full strength. Still, prewar



Map 5. Soviet Dispositions on 31 July 1941 and Reinforcements to 31 December 1941

Soviet estimates suggested that the army would have to replace all its formations every four to eight months during heavy combat. The 1938 Universal Military Service Law had extended the reserve service obligation age to fifty and created a network of schools to train those reservists. These 14 million trained reservists gave the Red Army a resiliency and a depth that were largely invisible to outside observers.

From the moment the war began, the War Commissariat began a process that produced new rifle armies in groups or “waves” over a period of months, which more than compensated for the number of existing armies the Germans destroyed (see Map 5 and Tables C, D, and E in the Appendix). These included fifty-seven Soviet armies formed to compensate for the twenty armies destroyed or disbanded in 1941.

The General Staff dealt with current operations, and, within guidance provided by the *Stavka*, the War Commissariat and the military districts were responsible for force generation. Those districts outside the active war zone began cloning existing active-duty units to provide the cadres that gradually filled with reservists and conscripts. A total of 5.3 million reservists were called to the colors by the end of June, with successive mobilizations later. As a result, 13 new field armies appeared in late June and July, 19 in August, 5 in September, 7 in October, 11 in November, and 2 in December. This mobilization system was resilient enough to replace the 20 armies the Germans destroyed in 1941 and generate 11 new numbered armies and 10 reserve armies during the first half of 1942.¹⁸ In later waves, surviving headquarters staffs often provided the experienced nuclei for new formations.

By 31 December 1941, the Soviet mobilization system had produced 285 rifle divisions, 12 re-formed tank divisions, 88 cavalry divisions, 174 rifle brigades, and 93 tank brigades from the mobilization base. These were supplemented by 97 existing divisions moved from the interior and Far East to the West, including 27 from the Far East, Trans-Baikal, and Central Asian regions and 70 from elsewhere.¹⁹ About 25 of these new divisions were militia composed of “people’s volunteers,” militant urban workers who, in some cases, lacked the physical stamina and military training necessary to be effective soldiers. Another 20 divisions came from the NKVD’s security troops, and the navy provided 17 naval infantry brigades and several smaller rifle brigades. Whereas prewar German estimates had postulated an enemy of approximately 300 divisions, by 31 December the Soviets had fielded roughly 800 division-sized formations, including 483 rifle divisions. This allowed the Red Army to lose more than 4 million soldiers and 229 division equivalents in battle and still continue the struggle.²⁰

Of course, the prewar and mobilization divisions were not interchangeable. For all their shortcomings, the divisions lost in the first weeks of battle were far better trained and equipped than their successors. The later units

lacked almost everything except rifles and political officers. Perhaps most importantly, they had little time to train as units, to practice procedures so that soldiers and subordinate units knew their roles in combat. The cloning of later-deploying active divisions similarly degraded the unit cohesion and performance of those divisions, albeit to a lesser degree. The continued poor performance of Soviet divisions in 1941 and well into 1942 must be weighed against the speed with which they were raised and the total inexperience of their commanders and troops. This performance contributed to the German impression of an inferior enemy that did not realize it had already been defeated.

INDUSTRIAL RELOCATION

The forcible relocation of Soviet heavy industry to avoid capture exacerbated the equipment and ammunition shortages of 1941. In building that industry during the 1930s, the Moscow government had not anticipated a major invasion of Soviet territory, so the majority of the Soviets' manufacturing capacity was located in the western part of the country, especially around Leningrad and the eastern Ukraine. Fortunately for the survival of the regime, the same central planning authority that had created new industry so ruthlessly was able to relocate those factories in the face of the German invasion.²¹ As early as 24 June 1941, the State Defense Committee established the Council for Evacuation to move the affected factories eastward to the Urals and Siberia. The task of coordinating this massive undertaking fell to Lazar M. Kaganovich, who was replaced on 3 July by Nikolai M. Shvernik, with Aleksei N. Kosygin as his deputy. Assisting them was Nikolai A. Voznesensky, head of the Soviet industrial planning agency GOSPLAN. Voznesensky was one of the few senior officials who spoke bluntly to Stalin; on 4 July, he won approval for the first war economic plan. Aleksei Kosygin, a future premier, controlled the actual evacuation.²²

In the centrally directed Soviet economy, however, GOSPLAN had to do more than simply move workers and factories. Raw materials had to be assembled, workers had to be housed and fed, and factories had to be reassembled in towns that tripled in size overnight. Electric plants remained in operation until the last possible moment to facilitate dismantling at old locations, and then they were moved for reassembly at the new sites. All this had to be done while the industry shifted gears to accommodate wartime demand and the loss of skilled labor to the army.²³

The most pressing problem was the need to evacuate the factories, especially in the lower Dnepr River and Donbas regions of the Ukraine. Here, the stubborn delaying tactics of the Southwestern Front paid dividends, not

only by diverting German strength away from Moscow but also by gaining time to disassemble machinery. German reconnaissance aircraft produced puzzling images showing long lines of flatbed railroad cars massed in the region.²⁴ Eight thousand railcars were used to move just one major metallurgy complex from Zaporozh'e in the Donbas to Magnitogorsk in the Urals. The movement had to be accomplished at great speed and despite periodic German air raids on the factories and rail lines.

In the Leningrad area, the German advance was so rapid that only ninety-two plants had moved before the city was surrounded. Plant relocations did not begin in this region until 5 October, but by the end of the year, a former Leningrad tank factory had produced more than 500 KV tanks at Tankograd, an immense factory complex at Cheliabinsk in the Urals.²⁵ By 12 December 1941, 523 firms and 564,248 workers and their family members had been evacuated from the Moscow region in 100,334 railroad cars, a steady stream that ultimately grew to 2 million evacuated Muscovites.²⁶

All this machinery arrived in remote locations on a confused, staggered schedule and with only a portion of the skilled workers. By one accounting, only 270 factories reached their planned destinations intact, with another 110 arriving with only part of their equipment and machinery.²⁷ By the time the trains arrived, bitter winter weather made it almost impossible to pour foundations for any type of structure. Somehow, the machinery was unloaded and reassembled inside hastily constructed, unheated wooden buildings. Work continued even in the subzero night, using electric lights strung in trees and supplemented by bonfires. Some factories were back in production in a matter of weeks; others took more than a year to resume operations.

The Soviets claimed that 1,910 large factories, including 824 related to armaments, were transferred to the Volga River, Siberia, and Central Asia from July through December 1941. Almost 30,000 trains with 1.5 million railcar loads were involved.²⁸ Even allowing for the hyperbole so common in Soviet accounts, this massive relocation and reorganization of heavy industry was an incredible accomplishment of endurance, organization, and improvisation. Because of the relocation, Soviet production took almost a year to reach its full potential. The desperate battles of 1941 had to be fought largely with existing stocks of weapons and ammunition. Still, despite all its tribulations the Soviet Union produced approximately 6,590 tanks in 1941, two-thirds of which were T-34s and KV-1s, as compared to 5,200 tanks for Germany.²⁹ The USSR also produced slightly more than twice the combat aircraft Germany produced, twice the number of guns, and eleven times the number of mortars as Germany (see Table E in the Appendix).³⁰ Some of these new weapons went into battle before they could be painted.

Once it recovered, Soviet industry became steadily more efficient. Unlike German weapons production, which constantly changed the design of tanks

and other weapons to improve battlefield performance, the Soviets generally focused on more efficient production of the same basic weapons. By 1943, standardization and mass production meant that Soviet industry delivered weapons at an average of 60 percent of 1940 costs in terms of labor hours.³¹ Thus, once it survived the initial surprise and chaos, the USSR continued to excel in the skills necessary for prolonged attritional warfare.

SCORCHED EARTH

Despite their best efforts, members of the Council for Evacuation were unable to relocate everything of value. In the case of the Donbas mines, which produced 60 percent of the USSR's coal supply, evacuation was impossible. In situations such as this, the Soviet regime not only had to survive without these resources but also had to ensure that the invaders could not use such factories and mines. The painfully harvested fruits of the Five-Year Plans had to be destroyed or disabled in place.

Much of the Soviet self-destruction focused on transportation and electrical power. Railroad locomotives and locomotive repair shops that could not be moved were frequently sabotaged; this became important in the winter weather, when German-built locomotives lacked sufficient insulation to maintain steam pressure. Soviet troops created a partial breach in the Dnepr River hydroelectric dam, and workers removed or destroyed key components of hydro turbines and steam generators. In the countryside, the extent of the destruction of buildings and crops varied considerably between regions. On the whole, Russia proper had more time to prepare for such destruction and more motivation to implement it than did the western portions of Belorussia and the Ukraine.

It was one thing to order this destruction and another to ensure that it occurred. Fortunately for the Moscow regime, the inhuman nature of the German occupation dissuaded many Soviet citizens who might otherwise have welcomed a change in regime. Soviet propaganda made much of the invaders' atrocities. In the fall of 1941, as the invaders besieged Leningrad and threatened Moscow, the regime's control over its populace slipped temporarily, with instances of looting and defiance of authority.³² Overall, however, resistance to invasion combined with skillful nationalistic propaganda, aimed especially at ethnic Russians, ensured loyalty to the state.

Moscow's success in evacuating or destroying so much of its hard-won industrial development stunned German economic planners, who had counted on using these resources to satisfy both Hitler's production goals and their own domestic consumer demands. Soviet raw materials such as chromium, nickel, and petroleum were vital to German war production, and captured

Soviet factories manned by local workers had promised an easy solution to overcrowding and labor shortages in Germany.

Moreover, the successful evacuation of the Soviet railroad rolling stock forced the Germans to commit 2,500 locomotives and 200,000 railcars to support the troops in the East. This, in turn, meant that (as General Wagner had predicted) the Germans had to convert large portions of the captured rail network to their own, narrower gauge instead of using the existing, broader Russian gauge.³³ Simply shifting the rails on their ties was not difficult, but restoring switches, communications, water towers, and other infrastructure proved very time consuming. Furthermore, even before the invasion the Germans had insufficient railcars to move coal and other materials within the occupied territories of western and central Europe. As a result, industrial production in these territories declined steadily.³⁴ Thus, the Soviet evacuation effort not only preserved industrial potential for future campaigns but also led to an unexpected drain on the economy of German-controlled Europe.

Nonetheless, despite all these efforts a considerable portion of the Soviet industrial plant and harvest fell into German hands. In this respect, the German advance seemed to satisfy Hitler's immediate goals in acquiring additional economic resources.

CHAPTER SIX

To Moscow

OVEREXTENSION

By the end of July 1941, many of the German invaders had belatedly realized the true scope of their enterprise. By this time, it was crystal clear that Hitler's initial assumption regarding how victory would be achieved had proven incorrect. Although Army Group Center had destroyed virtually all Soviet forces west of the Dvina and Dnepr Rivers, the Red Army did not collapse. In fact, along the Dnepr and around Smolensk Red Army resistance stiffened unexpectedly as fresh Soviet armies reached the battlefield. Compounding these shocking developments, yawning gaps appeared between Germany's three army groups as they advanced eastward. Furthermore, the enormous success of their initial advance had carried Wehrmacht forces beyond their fragile logistical structure, compelling OKH to declare a virtual standstill on 30 July so that Army Group Center could rest and refit.

By this time, 720 kilometers (450 miles) forward of the nearest railheads, Third Panzer Group was struggling to fend off repeated Soviet attacks east and northeast of Smolensk as Second Panzer Group's panzers and motorized infantry clung determinedly to their embattled bridgehead over the Desna River at El'nia. Thus, both panzer groups were decisively engaged at a time when Hitler insisted they clear Army Group Center's threatened flanks. Nor could they be released for other missions until follow-on German infantry succeeded in eliminating encircled enemy forces from the Smolensk region.

Unpaved roads made it difficult for wheeled vehicles, let alone marching infantry, to keep pace with the dwindling number of tanks in the spearheads. As early as 16 July, bypassed Soviet troops and embryonic partisan groups began to attack the resupply convoys behind the German spearheads. The infantry started to wear out its boots, and staff officers initiated planning for winter clothing. By 2 August, the three army groups had suffered 179,500 casualties in six weeks but had received only 47,000 replacements.¹

At the same time, Adolf Hitler resisted requests to issue newly produced tanks and major repair assemblies; he was trying to reserve this production for new and reconstituted panzer units after the campaign season ended. During the winter and spring of 1940–1941, a special production effort had focused on ground forces' weapons and ammunition, but that program was

completed in June, clearing the way to shift priorities.² On 14 July, Hitler ordered increased production of submarines and tanks, reducing the priority of ammunition and repair parts for the army in the field.³ The extent of Hitler's involvement in such matters was illustrated by a conference at Army Group Center headquarters on 4 August, when a group of senior commanders pleaded with the dictator to release 350 replacement engines for Panzer IIIs.⁴

The one thing that the Wehrmacht had in abundance was targets. General Franz Halder, who had thought the war won in early July, acknowledged his mistake in a diary entry for 11 August:

The whole situation makes it increasingly plain that we have underestimated the Russian [*sic*] colossus. . . . [Soviet] divisions are not armed and equipped according to our standards, and their tactical leadership is often poor. But there they are, and if we smash a dozen of them, the Russians simply put up another dozen. . . . They are near their own resources, while we are moving farther and farther away from ours. And so our troops, sprawled over an immense front line, without any depth, are subjected to the incessant attacks of the enemy.⁵

Not all German leaders saw the situation so clearly and pessimistically, but many of them sought clearer guidance as to how to bring the war to a quick conclusion. Even Hitler allegedly remarked that, had he known that Heinz Guderian's prewar figures for Soviet tank strength were so accurate, he might not have started the war.⁶ For want of any other method to hasten victory, the dictator and many of his senior commanders chose to emphasize the destruction of bypassed Soviet forces, so that the cadres of those units did not escape, and the elimination of Soviet forces from Army Group Center's flanks. This accorded with the original concept of operations, which had focused on destroying the Red Army rather than seizing terrain. Moreover, Hitler was correct in advocating smaller, shallower encirclements, given the strained logistics and dwindling combat power of the German mechanized forces. Still, younger commanders such as Guderian and Manstein opposed this policy because it slowed their exploitation and allowed the enemy to reconstruct his defenses after each breakthrough. Their urge to exploit tactical successes only increased the strain on German logistics as supply lines stretched continuously, units could not halt to refit, and infantry units needed to seal a given pocket were still involved in reducing previous encirclements.

For Field Marshal von Bock in Army Group Center, in addition to destroying encircled enemy units, the focus was on fending off Red Army forces intent on rescuing their units encircled near Smolensk and defending the El'nia bridgehead, which Guderian's Second Panzer Group had seized as a launching platform toward Moscow. Yet, Hitler remained convinced of the

necessity for clearing Soviet forces from his flanks and capturing Leningrad and Kiev before advancing on Moscow. Prior to doing so, he had to liquidate the more than 100,000 Soviets encircled near Smolensk; move infantry to relieve his armored forces defending east of Smolensk; and eliminate the positions that counterattacking Soviet forces had achieved in late July, especially the seizure of Roslavl' by 28th Army's Group Kachalov. Inexorably, this drew Army Group Center's forces, particularly panzers, to its flanks.

For their part, Stalin and his *Stavka* insisted that the armies of Timoshenko's Western Front, together with those of Zhukov's newly formed Reserve Front, had to recapture Smolensk and El'nia and destroy Army Group Center's forces in both regions. At the same time, F. I. Kuznetsov's Central Front, now reinforced by a new 3rd Army, was to prevent the Germans from penetrating between the Reserve Front at El'nia and the Southwestern Front defending Kiev. Stalin's resolve and the resulting attacks, in turn, increased the pressure on Army Group Center, reinforcing Hitler's interest in pursuing "paths of lesser resistance" on the army group's flanks to gain new successes.

THE SMOLENSK POCKET AND BEYOND: THE FRAMEWORK OF HITLER'S INTENT

Hitler began adjusting his strategy on 19 July when he issued Führer Directive No. 33, which required Army Group South to destroy Soviet forces west of the Dnepr River at and south of Kiev and Army Group North to continue its drive on Leningrad. Army Group Center was to liquidate Soviet forces encircled in the Smolensk region and employ the bulk of its two panzer groups to protect the flanks of the other two army groups. At the same time, Bock was somehow supposed to continue his advance on Moscow with infantry stiffened by one motorized corps. Four days later, the Führer cemented this intent in a supplement to Directive No. 33 that assigned the bulk of Hoth's Third Panzer Group to Army Group North.

During the last week in July, the counterstrokes launched by the Western Front against Army Group Center's armored forces defending the Dukhovshchina and Roslavl' regions prompted Hitler to revisit and further develop his new strategy. Accordingly, on 30 July Führer Directive No. 34 ordered Army Group Center to go on the defensive, withdraw its Third and Second Panzer Groups for a brief rest, and prepare to conduct limited operations against Soviet 21st Army around Gomel' on the army group's right wing. Army Group North was to drive on to Leningrad and employ the reassigned Third Panzer Group to plug the gap in the Staraja Russa and Demiansk regions between it and Army Group Center. Finally, Army Group South was to destroy Red Army forces west of the Dnepr River and create conditions for

First Panzer Group to cross the Dnepr south of Kiev. This directive, together with Second Panzer Group's subsequent operations to clear Soviet forces from Army Group Center's right, led inexorably to Hitler's 12 August supplement to Directive No. 34, which required all three army groups to attack jointly with their inner wings toward Velikie Luki and Gomel'.⁷

Events on the battlefield encouraged Hitler as he refined his strategy. During the first week of August, Bock unleashed Guderian's panzers against the audacious but clumsy attempts by 28th Army's Group Kachalov to capture Smolensk and relieve the encircled 16th and 20th Armies. Beginning on 1 August, in a sudden stroke from the west and north, Guderian tore through Group Kachalov's defenses, encircled and crushed the bulk of Kachalov's troops, and seized Roslavl', capturing over 38,000 Red Army soldiers and forcing the group's survivors (less than 10,000 men) to retreat pell-mell eastward across the Desna River.⁸

Meanwhile, in the Smolensk region Army Group Center's infantry completed reducing 16th and 20th Armies' pocket. Although Bock bagged over 100,000 prisoners, upward of 20,000 Red Army survivors managed to escape eastward over the Dnepr River through a small gap that Hoth's and Guderian's panzers were unable to close.⁹ Army Group Center finally disengaged Third Panzer Group's battle-weary panzers and panzer grenadiers defending east of Dukhovshchina, replacing them with infantry so that the former could rest and refit. Second Panzer Group also relinquished its defenses in the El'nia bridgehead to XX Army Corps. Once in rest areas, the two panzer groups prepared for action on Army Group Center's flanks. Pursuant to Hitler's directive, Bock ordered Guderian to march southward from the Roslavl' region and cross the Sozh River so that he could join the German Second Army in an advance on Gomel'. Once rested from its ordeal east of Smolensk, the bulk of Third Panzer Group was to launch a concerted thrust toward Velikie Luki and Toropets during the second half of August.¹⁰

DUKHOVSHCHINA, EL'NIA, AND BRIANSK

The *Stavka* offered no respite to Army Group Center. Desperate to halt the German advance and regain strategic momentum, on 1 August Stalin organized a new Reserve Front of six armies (the 24th, 31st, 32nd, 33rd, 34th, and 43rd but with the 24th, 31st, 32nd, 33rd, 43rd, and 49th by 11 August) and gave it to his most trusted general, Zhukov.¹¹ Two of these new structures, Major General Konstantin I. Rakutin's and Lieutenant General Pavel Kurochkin's 24th and 43rd Armies, were to support Timoshenko's Western Front by storming El'nia and lunging across the Desna River to recapture Roslavl'. The four remaining armies would occupy defensive positions to the

rear of the Western and Reserve Fronts.¹² Characteristically, the freshly mobilized armies were filled with relatively green conscripts and reservists and had few tanks and artillery pieces.

Nonetheless, 29th, 30th, 19th, and 16th Armies of Timoshenko's *front* and 24th Army of Zhukov's *front* began pounding Army Group Center's defenses east of Smolensk and at El'nia at the end of the first week in August.¹³ This time, the Soviet hammer fell on the infantry of Ninth Army and XX Army Corps rather than on Hoth's and Guderian's armored forces. Suffering heavy losses, in a week of intense fighting in the sector from Belyi southward to Iartsevo, Timoshenko's troops recorded only modest gains, and Zhukov's soldiers so botched their assaults that he had to halt them within forty-eight hours.

Ignoring this heavy fighting to the north, Guderian unleashed his panzers southward across the Sozh River on 8 August.¹⁴ Second Panzer Group's assault pierced the defenses of Central Front's 13th Army, encircling and destroying half of that army in less than a week, and began rolling up the defenses on 21st Army's right wing. After Colonel General Maximilian von Weichs's Second Army joined Guderian's assault on 12 August, the combined force drove steadily southward toward Gomel'. Despite desperate resistance by 21st Army, the two German commanders encircled and destroyed one-third of the defenders and captured Gomel' on 21 August.¹⁵

By mid-August, Stalin and his chief military advisers finally recognized Guderian's and Weichs's advance for what it was—a juggernaut posing a deadly threat to the viability of their entire defense. Accordingly, the *Stavka* directed the Western and Reserve Fronts to mount a new offensive at Dukhovshchina and El'nia to defeat Army Group Center. On 16 August, Moscow also formed a new *front* to contain and defeat Guderian. This Briansk Front, commanded by General Eremenko, consisted of the new 50th and existing 13th Armies, stiffened by a tank division and several tank brigades and reinforced on 25 August by 21st Army and a new 3rd Army.¹⁶ Termed "the Soviet Guderian" because of his reputation for employing armor effectively, Eremenko was expected to be more than a match for his namesake.¹⁷

The struggle pitting Timoshenko's, Zhukov's, and Eremenko's *fronts* against Bock's army group and Guderian's armor began in mid-August, climaxed on 1 September, and culminated by 10 September. During this period of frenetic combat operations, Timoshenko's armies struck the defending infantry of Army Group Center's Ninth Army in the Dukhovshchina and Iartsevo regions on 17 August and again on 1 September; Zhukov's forces attacked German defenses at El'nia continually prior to 21 August and again on 30 August; and Eremenko's troops went into action on 29 August and repeatedly after 2 September.¹⁸

Measured by territory gained and damage inflicted on German forces, Timoshenko and Zhukov achieved the greatest success. Eremenko had none whatsoever. Attacking on 17 and 20 August, the Western Front's 30th and 19th Armies savaged German Ninth Army's V and VIII Army Corps. Repeated assaults by NKVD Major General Vasilii A. Khomenko's 30th Army southwest of Belyi gained ground and inflicted moderate losses before losing steam in late August. From 17 through 24 August, General Konev's 19th Army managed to overwhelm the defenses of Ninth Army's V Army Corps. Konev seized a sizable bridgehead on the western bank of the Vop' River north of Iartsevo, inflicted serious losses on German 161st and 5th Infantry Divisions, and mounted an embarrassing rebuff when 7th Panzer Division counterattacked. This defeat prompted Bock to admit that "the 161st Division is at the end of its tether" and later note that "7th Panzer Division's counterattack in the hard-pressed 161st Division's sector had no success . . . the division has lost a large number of tanks in the process."¹⁹ Timoshenko's second offensive faltered by late August, but the *Stavka* helped him to renew it on 1 September with large-scale attacks by General Rokossovsky's 16th Army, reinforced by about a hundred tanks from the fresh 1st Tank Division. This assault inflicted heavy casualties on two more German divisions (the 28th Infantry and 14th Motorized) but ultimately failed when the Soviet tanks suffered heavy damage from effective German antitank defenses.²⁰ Timoshenko's offensive collapsed after Soviet losses at Iartsevo and a strong armored attack mounted by German XXXX Motorized Corps, which routed Soviet 22nd Army on the Western Front's right wing and propelled German forces through Toropets to Andreapol'. The Western Front's losses undermined its ability to contain a future German offensive; however, the damage it did to Bock's army group would later contribute to the German collapse at the gates of Moscow. For Timoshenko himself, his resolute action at Smolensk prompted the *Stavka* to dispatch him to command the Southwestern Direction when it faced a major crisis in mid-September.

The successes Zhukov's forces achieved at El'nia were deceptively similar to those Timoshenko recorded at Dukhovshchina.²¹ After attacking German defenses at El'nia relentlessly from 8 through 20 August, Zhukov had no choice but to halt the bloodletting once again lest Rakutin's army collapse from utter exhaustion. During the same period, Zhukov's 43rd Army failed embarrassingly in its attempts to cross the Desna and recapture Roslavl'. Displaying his hallmark tenacity, Zhukov insisted 24th Army resume its assaults at El'nia on 30 August. After a week of heavy fighting, Hitler finally permitted Bock to abandon the bridgehead that had already cost XX Corps 23,000 men.²² Although Soviet accounts routinely asserted that Zhukov destroyed Bock's forces defending El'nia, most of the defenders withdrew safely to the

Desna River's western bank. However, like Ninth Army to the north, Fourth Army would not recover from its mauling for the remainder of the year.²³

The Briansk Front's formation and enlargement were a direct response to the southward advance by Guderian's force (Second Panzer Group and Second Army). For most of August, Eremenko was preoccupied with creating defenses along and west of the Desna River to protect the approaches to Briansk with 50th Army while withdrawing the remnants of 13th Army into defensible positions west of the river. All the while, the *Stavka* badgered the *front* commander to halt Guderian. On 22 August, General of Panzer Troops Leo Geyr von Schweppenburg's XXIV Motorized Corps seized Starodub, midway between the Desna and Dnepr Rivers, compounding Eremenko's difficulties by severing communications between his *front*'s left and right wings. In short, if the Briansk Front was unable to recapture Starodub, Guderian's path to the Desna River and Kiev beyond was wide open. Thus, in addition to mounting an offensive against Guderian, Eremenko had to close the Starodub gap with 13th and 21st Armies, a task that proved impossible.²⁴

Validating Eremenko's worst fears, on 25 August Second Panzer Group, with Second Army arrayed to its right, advanced southward with characteristic abandon.²⁵ Over the next three days, XXIV Motorized Corps' 3rd Panzer and 10th Motorized Divisions seized Novgorod-Severskii and Korop on the Desna River and Weichs's infantry approached Chernigov from the north, tearing an irreparable gap in the Briansk Front that Eremenko could not repair. Major General Kuz'ma P. Podlas's newly formed Soviet 40th Army responded belatedly but ferociously, launching local counterattacks that ejected 10th Motorized Division from one of these bridgeheads while encircling and nearly destroying its advance guard.²⁶ Far to the south, First Panzer Group experienced similar pressure as it crossed the Dnepr River to form the prospective southern arm of a pincer at Kiev; one infantry division took 1,025 casualties in three days.²⁷ Even after the invaders renewed their advance, the combination of inadequate supplies, casualties, and poor roads caused the spearheads to dwindle. By the end of the month, Guderian had only eighty-six operational tanks in his spearhead XXIV Motorized Corps, forcing the Army Group Center commander, Bock, to reluctantly assign the 2nd SS (*Das Reich*) Motorized Division, followed on 2 September by the rest of XXXVI Motorized Corps, to sustain Guderian's advance.²⁸ Ceding these mechanized units to Second Panzer Group left the German infantry in the El'nia salient more exposed than ever.

Despite heavy air support provided by the *Stavka*, the offensive Eremenko finally mounted on 1 September faltered immediately, as XXXXVII Motorized Corps easily parried the Soviet attacks.²⁹ In the process, Eremenko's armored force, although formidable on paper, was quickly obliterated as Guderian's spearhead continued its southward march.³⁰

KIEV

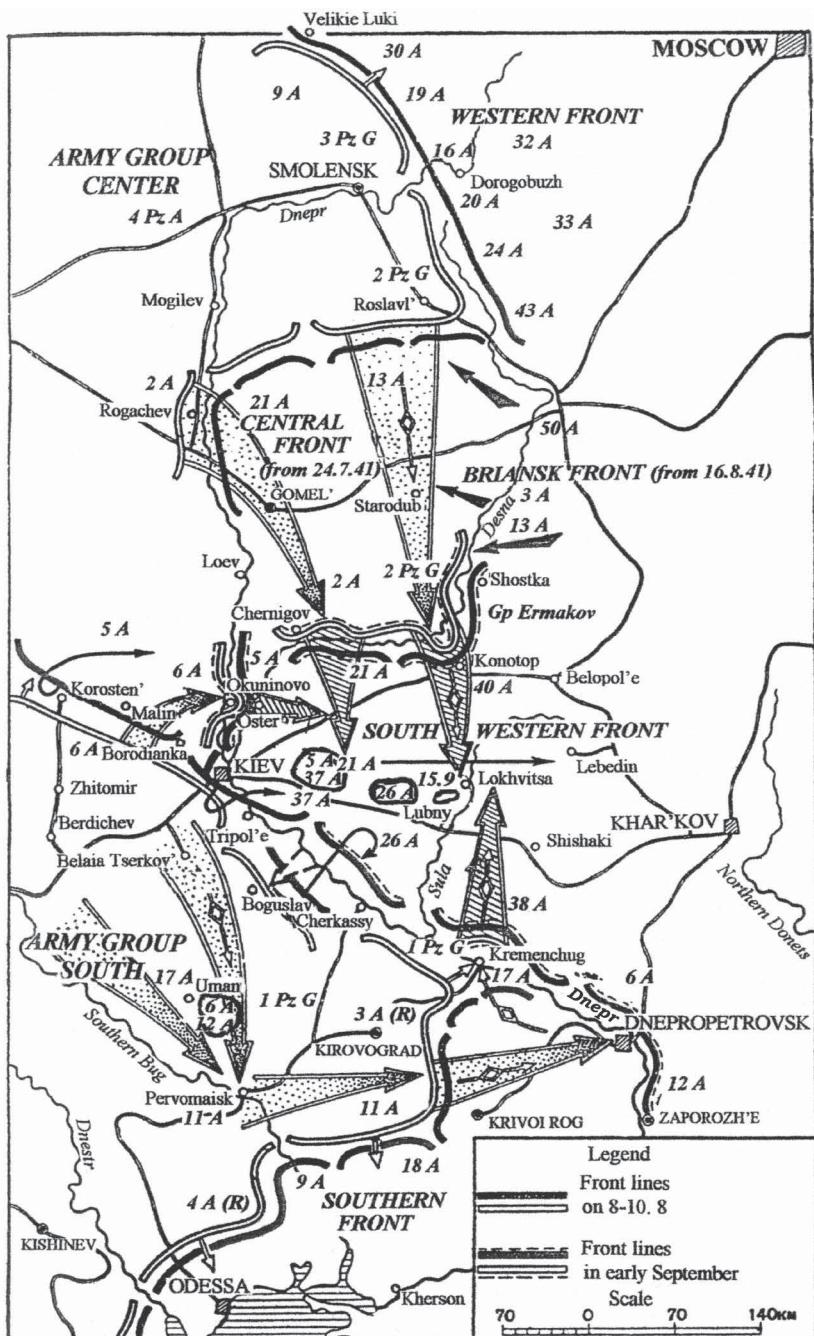
By the end of August, both Hitler and Stalin saw opportunity resulting from the attritional struggles of that month. In consonance with his initial Barbarossa strategy and the need to clear Army Group Center's flanks before marching on Moscow, Hitler resolved to capitalize on Guderian's maneuvers and seek objectives still within reach before winter came. This would give at least the appearance that Germany was victorious, seizing Soviet industry and farmlands while pushing the defenders beyond bomber range of the Romanian oil fields. Guderian's spectacular southward advance provided a unique opportunity to destroy the entire Southwestern Front in the Kiev region by conducting a double envelopment with two panzer groups—Guderian's Second from the north and Kleist's First from the south.

Unfortunately for the defenders, Joseph Stalin remained convinced that the Germans were focused on Moscow, and he prioritized his defenses accordingly. If Hitler was torn by conflicting advice from too many subordinates, the opposite was true of Stalin, whose peacetime purges continued to deter many of his generals from giving unpalatable advice. Zhukov alone had warned him about the dangers of trying to hold Kiev, and he was rewarded by being replaced as chief of staff by Shaposhnikov; at his own request, Zhukov took command of the Reserve Front.

Eremenko's resolute attacks failed to stop Guderian's southward advance. Working together, *Das Reich* and 3rd and 4th Panzer Divisions, all controlled by XXIV Motorized Corps, pushed southward across the Desna River by 7 September, effectively unhinging the Soviet defenses. In a daring thrust, on 10 September the future field marshal Walter Model led his 3rd Panzer Division deep to seize the Soviet supply dump at Romny, 217 kilometers (135 miles) east of Kiev. As a result, Second Panzer Group was overextended and had only a few armored vehicles to push farther south. For example, the two panzer divisions in Geyr's corps fielded 137 tanks on 4 September, after beginning the campaign with 441.³¹ Still, Guderian had achieved his half of the great encirclement.

Having been forbidden to retreat from the developing Kiev pocket, on the 10th Kirponos, the Southwestern Front commander, warned Moscow of the danger and appealed for reinforcements. Shaposhnikov refused. Stalin telephoned Kirponos and reiterated his instruction not to evacuate Kiev without permission.³²

Some 185 kilometers (115 miles) to the south of the Second Panzer Group spearhead at Romny, First Panzer Group was preparing to attack northward out of its bridgehead on the Dnepr River east of Kremenchug. Rain, mud, logistics, and local Red counterattacks all helped delay the Germans until 12 September. The 16th Panzer Division, as the lead element of



Map 6. Kiev Encirclement

Lieutenant General Werner Kempf's XXXXVIII Motorized Corps, initially succeeded but after one day ran out of gas and had to pause for resupply.³³ As Kempf's forces regained momentum, on 15 September the newly appointed commander of the Southwestern Direction, Marshal Timoshenko, tried one more time to save the Soviet forces around Kiev. He sent a staff officer to Kirponos with oral instructions to withdraw; Kirponos understandably asked for confirmation from Moscow, which did not arrive until 18 September.³⁴ By that time, it was too late. Although the encirclement was still tenuous, the two panzer groups had linked up on the evening of 14 September. In the ensuing weeks, the defenders put up savage resistance, and a number of leaders, including Timoshenko and Khrushchev, escaped. Kirponos and his chief of staff, Major General V. I. Tupikov, paid the ultimate price during an attempted breakout. The official German figure of 665,000 prisoners is probably three times the number of actual captives, but that approximates the total Soviet losses in the operation. Four Soviet field armies (the 5th, 37th, 26th, and 21st), consisting of 43 divisions, 452,720 men, and 3,867 guns and mortars, had ceased to exist. The Southwestern Front, like the Western Front before it, had to be re-created using the roughly 15,000 men who escaped encirclement.³⁵ Germany had achieved a colossal operational triumph, but strategic victory still eluded it.

CLEARING THE FLANKS: ARMY GROUPS SOUTH AND NORTH

In the wake of the victory at Kiev, while Second Panzer Group slowly retraced its steps north to prepare for a renewed advance on Moscow, Army Group South exploited to the south and east. First Panzer Group, by now designated a panzer army, entered the industrial basin of the Northern Donets River in late September 1941 and occupied most of the region by 17 October. Once again outrunning their logistical and infantry support, Kleist's panzers raced for the Don River at Rostov and the Caucasus region beyond.³⁶ To the north, Sixth Army captured Khar'kov on 25 October, as Seventeenth Army plugged the gap between it and First Panzer Army.

In the meantime, the logistical problems experienced by the Germans were compounded for their largest allied force in the East, the Romanian Third and Fourth Armies. Romanian land and air units were equipped with a hodgepodge of obsolescent weapons. Their field bakery units, mounted on oxcarts, were even slower than German logistical units. To these problems one must add a serious language barrier, together with a paucity of translators, as well as the fact that most Romanian officers had studied French rather than German military doctrine.³⁷ Despite all these handicaps, the troops of Romanian dictator Ion Antonescu made major efforts to assist Army Group

South. From August until October 1941, the Romanians besieged Odessa. Despite German engineer and siege artillery support, this siege was a bitter struggle that cost Romanian Fourth Army 98,160 casualties in two months, or about 30 percent of that army. Just as the attackers prepared their final assault, the Red Navy evacuated the city by sea, leaving only the fortified port of Sevastopol' in Soviet hands.³⁸ In addition to perseverance, the Romanians matched their allies in their callous mistreatment and murder of civilians and prisoners. Antonescu shared Hitler's mania about Jews and Bolshevism; by one account, 250,000 Jews and 12,000 Roma died when Romania reoccupied Bessarabia.³⁹

On the northern flank, the Finnish Army had proven more effective but less cooperative with the Germans. Once Finland openly attacked the USSR on 25 June, Mannerheim's troops pushed the Soviet 23rd Army back to the pre-1939 borders or to the defensible high ground nearest that border and then stopped, making only limited further attacks toward Leningrad. The Finns even began a partial demobilization after recovering their lost territory.⁴⁰

This left Army Group North to complete the advance on the birthplace of the Russian Revolution. The Soviet leadership had never expected a threat to this city from the west and had no defenses in that direction. As many as 500,000 civilians, many of them women, labored on field fortifications around the city as the invaders rolled through the Baltic countries during July and August. Twenty thousand Soviet troops held the port of Tallinn, Estonia, until 26 August, when the Red Navy evacuated many of them despite massive German air attacks.

Meanwhile, Major General P. P. Sobennikov's Northwestern Front, whose chief of staff was Major General Nikolai Fedorovich Vatutin, one of the rising stars of the Red Army, prepared to counterattack the German Sixteenth Army at Staraia Russa. By this time, Stalin and his advisers had become so realistic that they rejected Vatutin's first plan as overly ambitious; after a delay, Vatutin launched a limited offensive on 12 August.⁴¹ Although unsuccessful and sharply criticized by the *Stavka*, this action delayed the German advance by ten days, after which the more experienced forces of General von Manstein's LVI Motorized Corps outflanked Vatutin and resumed their movement. At the end of August, largely because of the failure at Staraia Russa, Stalin dissolved the Northwestern Direction and placed both the Northwestern Front and the newly created Leningrad Front directly under *Stavka* control. A few days later, he dispatched Zhukov to the beleaguered city. Despite such efforts to improve command and control, the Soviets could not halt the German advance. On 8 September, the 20th Motorized Division reached Schlisselburg on the southern shore of Lake Ladoga, effectively cutting Leningrad off from the rest of the Soviet Union. Two days earlier, Hitler had decided to concentrate on Kiev and Moscow, leaving the northern city to be neutralized by fire.

Führer Directive No. 35 therefore ordered that three motorized corps and VIII *Flieger Korps* (Air Corps) revert to Army Group Center's control. With its remaining two panzer and two motorized divisions, Wilhelm von Leeb's Army Group North was unable to make much progress by ground attacks, despite Stalin's concern that the city might fall. Instead, 240mm siege guns began shelling Leningrad, and the *Luftwaffe* launched a series of heavy bombing raids. On the 12th, German bombs destroyed the main grain warehouse in the city, marking the start of two years of starvation and suffering.⁴²

PREPARING FOR TYPHOON

While the Axis shelled Leningrad and Odessa, the Second, Third, and Fourth Panzer Groups assembled for a renewed offensive, code-named *Taifun* (Typhoon), in the center. Various factors slowed this assembly: the death throes of the Southwestern Front made it difficult to extricate Second Panzer Army, and Leeb in the north continued to use his panzer forces even after receiving the order to return them to Army Group Center. More importantly, ten weeks of maneuver and combat had worn down both the men and the machines of the German mobile formations. One of the more extreme cases was 20th Panzer Division, which had been adjudged poorly trained even before the campaign began. After its diversion northward, by 20 September this division had only forty operational tanks, most of them captured vehicles that burned oil at phenomenal rates. Now, in the absence of railroads, the 20th and its sister formations had to retrace their steps most of the way back to the Smolensk area. Meanwhile, the strain on wheeled transport was so great that salvage teams from rival German units reportedly fought over control of captured Soviet trucks, and even the favored SS *Das Reich* Division had insufficient trucks to move all its infantry.⁴³ German infantry formations were similarly weakened as a result of the intense fighting in the Smolensk region. For instance, 161st Infantry Division had been so severely mangled in the fighting at Dukhovshchina that it remained hors de combat for the rest of the year. Others simply fought on in their weakened state.

To partially compensate for the parlous state of the panzer units, in mid-September Hitler authorized the transfer of 306 tanks (60 Czech 38t's, 150 Panzer IIIIs, and 96 Panzer IVs) from the stocks held for future operations. Fourth Panzer Group also received command of 2nd and 5th Panzer Divisions, refitting in the rear since the Balkan campaign and therefore close to full strength. However, all these vehicles and units had to make their way eastward to the new front lines. On paper, therefore, by 2 October Bock's army group controlled three panzer groups with an unprecedented twenty panzer and eight motorized divisions.⁴⁴ In practice, this assembly had about

the same number of tanks (1,535 in October versus 1,530 in June) and probably less overall combat power, dispersed over a wider attack frontage, than Bock had controlled with two panzer groups on 22 June.⁴⁵

Not only the panzers but also the entire invasion force was running down, having long since exceeded General Wagner's logistical estimate of 500 to 800 kilometers. The German pattern had become irregular, lunging forward a short distance and then pausing to rebuild supplies for further operations. Having begun the campaign with almost 3,000 aircraft, by 6 September the *Luftwaffe* had only 1,005 operational planes, due to a combination of enemy action, lack of spare parts, and mistakes by inexperienced pilots. By 28 September, the Wehrmacht had suffered 522,833 casualties in three months, or 14.38 percent of the initial force.⁴⁶ As always in war, these casualties fell disproportionately on the actual combat units, so that some infantry companies operated at one-third of their authorized strength.

Organizationally, each of the three panzer groups received control over two or three infantry corps, in apparent recognition of the need to protect the flanks of the mechanized advance. In turn, Hermann Hoth's Third Panzer Group in the north and Erich Hoepner's Fourth Panzer Group, now in the center, became subordinate to the Ninth and Fourth Armies, respectively. On Field Marshal Bock's southern wing, however, Heinz Guderian operated directly under the army group and in practice semi-independently; as was the case with Kleist's First Panzer, Guderian's headquarters soon became known unofficially as Second Panzer Army rather than as a panzer group.⁴⁷

The defenders had their own command problems. Colonel General Ivan Stepanovich Konev, a Civil War political officer who had distinguished himself in the battles for Smolensk, assumed command of the Western Front on 13 September from Timoshenko when the latter was transferred to the Southwestern Front.⁴⁸ Western Front consisted of the 22nd, 29th, 30th, 19th, 16th, and 20th Armies, arrayed on a frontage of about 340 kilometers (210 miles) from Lake Seliger in the north to south of Iartsevo. In turn, Konev's appointment set off another round of changes in commanders throughout his *front*, contributing to the climate of confusion and uncertainty. The command structure was further complicated by the presence of Marshal Budenny's Reserve Front, which had two field armies (24th and 43rd) on the front line, just south of Konev's units along the Desna River, and four other armies (31st, 49th, 32nd, and 33rd) in second echelon near Viaz'ma itself, approximately 35 kilometers (22 miles) farther east.⁴⁹

On 20 September, Konev reported German preparations for an offensive, but the *Stavka* did not order a general alert until 27 September. Despite Konev's best efforts to prepare defensive positions, his forces were inadequate to defend the front line in any depth. Each army had five or six rifle divisions on line and only one division in reserve. The divisions in both *fronts*

were a mixture of veteran units worn down during the Smolensk battles and new, poorly trained and equipped volunteer formations. Only 45 of Konev's 479 tanks were new models, and the *front* had severe shortages in trained officers, modern aircraft, and effective antiaircraft and antitank weapons.⁵⁰ The available tanks and other weapons were widely dispersed, and a continued shortage of motor vehicles gave the defenders far less maneuverability than the attackers had.

VIAZ'MA AND BRIANSK

Time was running out for the Germans in late September, with frequent rains and chilly nights the harbingers of approaching winter. Characteristically, Guderian attacked first, on 28 September, sending Kempf's XXXXVIII Motorized Corps on a flank attack at the juncture of the Briansk and Southwestern Fronts, south of Budenny's Reserve Front armies. This first probe drew a sharp local counterattack that, in conjunction with muddy ground, halted Kempf in his tracks and sent 25th Motorized Division into a hasty, if temporary, retreat.⁵¹

Nonetheless, when the main attack began on 2 October the Germans still had superior mobility over Konev and Budenny. After a brief artillery preparation with smokescreens along the front, the Germans launched air strikes that temporarily knocked the Western Front headquarters out of action. The concentration of Germany's dwindling air elements, especially Wolfram von Richthofen's ground assault experts of VIII *Flieger Korps*, was crucial in breaking the poorly trained defenders.⁵² Although the Soviet troops held their forward defenses in most locations, Fourth Panzer Group was able to advance along the weakly defended boundary between the Reserve and Briansk Fronts, enveloping the southern flank of 43rd Army. Similarly, Third Panzer Group penetrated between the 19th and 30th Armies northwest of Viaz'ma. The two armored spearheads pressed forward, linking up at Viaz'ma on 8 October.⁵³

Konev's deputy, Lieutenant General Ivan Vasil'evich Boldin, was in charge of the Western Front counterattack, repeating the role he had performed in June with the same lack of success. Boldin's operational group of three divisions and two tank brigades assailed the flanks of Third Panzer Group on 3–4 October and attempted to cover the withdrawal of other Western Front units on the 6th. The *Stavka* had belatedly authorized this withdrawal once the German breakthroughs were apparent, but the Reserve Front lost communications with the headquarters of the 24th and 43rd Armies, and Konev soon lost contact with Boldin. In the ensuing desperate struggle, most of the 19th, 20th, 24th, and 32nd Armies as well as much of Boldin's operational

group were encircled west of Viaz'ma when Third and Fourth Panzer Groups linked up there. The surviving elements of the Western and Reserve Fronts fell back to the next planned defensive line near Mozhaisk and Kaluga. Lieutenant General M. F. Lukin, commander of the 19th Army, assumed command of the encircled forces. The German Ninth and Fourth Armies had great difficulty containing this pocket in the face of repeated escape efforts. On the night of 12–13 October, at least two rifle divisions broke out to the east through a swampy sector where German armor could not maneuver. Thereafter, Lukin ordered his heavy weapons and vehicles destroyed, and much of the encircled force escaped in small groups.⁵⁴

Meanwhile to the south, Second Panzer Army had penetrated Major General A. M. Gorodniansky's weak 13th Army of the Briansk Front by 2 October, and it pushed on to Orel the following day. Stalin telephoned the *front* commander, Eremenko, to demand an immediate counterattack, but Eremenko had few tanks and no reserves. In a later telephone call, Shaposhnikov insisted on a rigid defense, denying Eremenko the flexibility to maneuver. The resulting German breakthrough was so sudden that streetcars were still running in Orel when 4th Panzer Division rolled into the city.⁵⁵ The German Second Army, just north of Guderian's armor, pushed the bypassed 13th and 50th Armies, together with the Briansk Front's headquarters, into two large pockets. The *front* headquarters lost radio contact with the *Stavka*, which had to relay all messages through other units.⁵⁶

The *Stavka* initially responded too slowly to parry the German spearheads, but it then turned to the Red Air Force. All available Soviet bombers concentrated against the Orel breakthrough. Soviet pilots still bombed from too high an altitude for accuracy, although they did shatter the windows of one building around Guderian's ears.

These twin encirclements were in accordance with Hitler's intent for Operation Typhoon, which was more to destroy remaining Soviet troop strength than to seize Moscow itself. However, Guderian in particular wanted to continue his exploitation northeastward rather than helping to secure the Briansk encirclement. The dictator apparently gave way again, and a 7 October order from Army Group Center allowed the panzer commanders to push on as far as available fuel permitted. At this stage, German higher commanders were so elated that they expected a general Soviet withdrawal eastward, but their haste again left the encirclement poorly secured.⁵⁷

Adverse weather and determined counterattacks finally slowed the Germans. The first snow fell on Army Group Center on the night of 6–7 October. It soon melted but was followed by the rainy *rasputitsa* (time without roads), a period of muddy immobility that afflicts Russia each spring and fall as the seasons change. German mechanized units used scarce fuel at three times the rate they had planned, and every attempt to advance dissolved into

efforts to recover vehicles stuck in the morass. The endless mud of unpaved roads deprived the invaders of their mobility until the ground froze solid for the winter.

Even before the poor weather arrived, however, a disjointed series of Soviet counterblows along the entire *front* helped stabilize the situation. Perhaps the most effective of these strikes fell on a battle group of Guderian's 4th Panzer Division as it approached Mtsensk on 6 October. Here, two Soviet officers who later gained fame as battlefield commanders cooperated to ambush the Germans. Major General Dmitrii Danilovich Leliushenko's 1st Guards Rifle Corps had rushed to the scene to block the advance of Second Panzer Army's XXIV Motorized Corps. Leliushenko's troops included two tank brigades, 4th and 11th, and two airborne brigades, 10th and 201st of 5th Airborne Corps, flown to a nearby airfield. Colonel Mikhail Efimovich Katukov's 4th Tank Brigade, equipped with newly produced T-34s, displayed a tactical ability that the invaders had rarely encountered before. Katukov concealed his armor in the woods while the German advance guard rolled by on one of the few roads. Leliushenko's patchwork collection of conventional and airborne infantrymen established dummy positions and blocked 4th Panzer from the front, after which Katukov ambushed the Germans from the flanks. The undergunned, underarmored Panzer IVs attempted to break out of the ambush by maneuvering around Katukov but were quickly halted by controlled counterattacks. According to one account, 4th Panzer Division's battle group suffered only limited losses, but regardless of scale, this Soviet success had a psychological effect on both sides. The shock to Second Panzer Army was so great that a special investigation ensued. Even Guderian grudgingly acknowledged that his opponents were learning.⁵⁸

Still, it was a near-run race. Following his usual habit, Stalin sent Zhukov from Leningrad to the most threatened sector, making him commander of the Western Front on 10 October. Zhukov had to plead with Stalin to keep his former (and future) rival Konev as his deputy for purposes of continuity and morale in the headquarters. Stalin's troubleshooter found almost no surviving units to defend the road to Moscow. Lukin's vigorous struggle in the Viaz'ma pocket, together with Leliushenko's counterattack, gained just enough time for the Soviets to rebuild a tenuous defense. Even then, Zhukov had to fall back a few kilometers because Third Panzer Group had taken Kalinin in the north while German Ninth Army reached Kaluga in the south, outflanking his new line. This drive also displayed the Germans' tendency to disperse their forces by trying to achieve too many objectives at one time.⁵⁹

In Moscow, the initial response to the disaster was to deny that any breakthrough had occurred and to search for scapegoats. Once the enormity of the danger sank in, Stalin overreacted. On 13 October, he ordered the evacuation of the bulk of Communist Party, *Stavka*, and civil government offices from

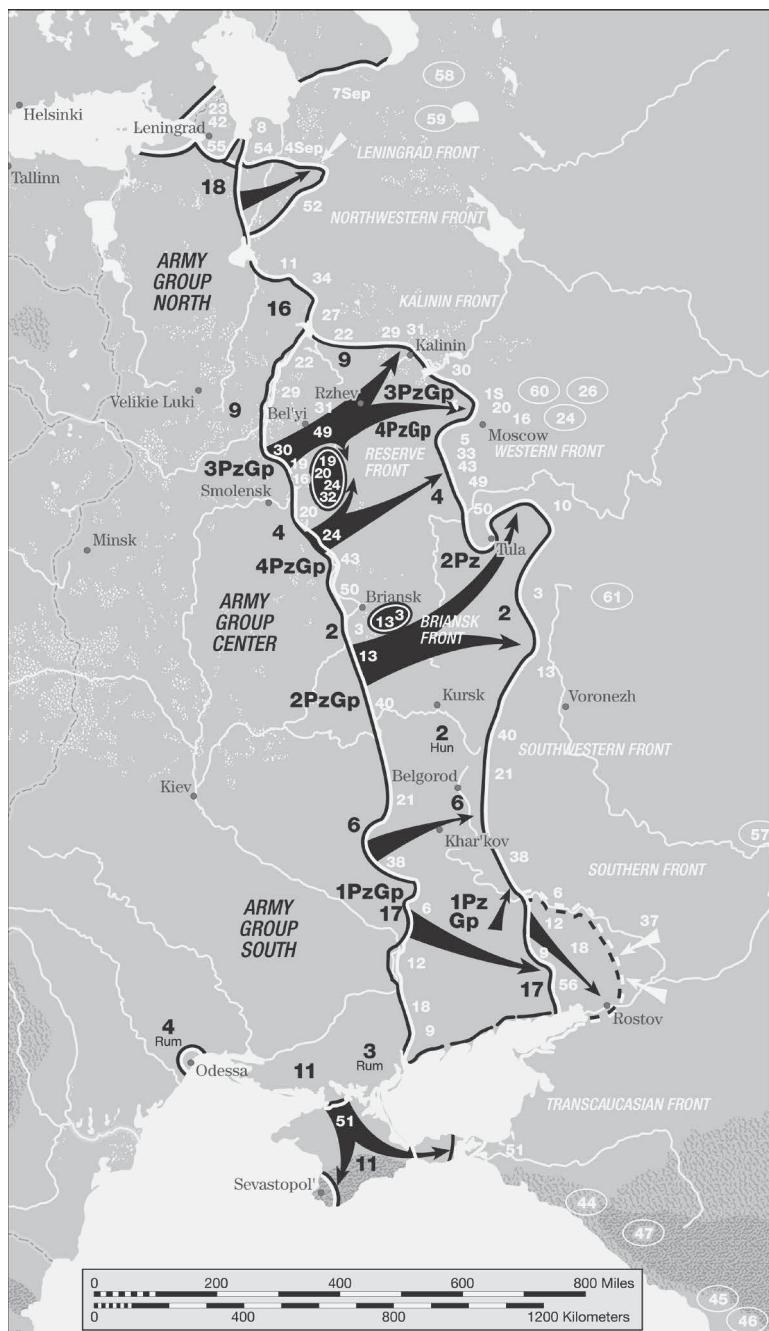
Moscow to Kuibyshev, on the Volga River south of Kazan', leaving only skeleton staffs behind. The news of this evacuation, in combination with repeated German air raids and a variety of wild rumors about the Viaz'ma-Briansk battles, produced a near panic in the capital on 16–17 October. Although much of the population did not waver, a significant number tried to flee, mobbing the available trains for fear of imminent occupation. Only the radio announcement that Stalin himself remained in the city stilled this panic.⁶⁰

TO THE GATES OF MOSCOW

By late October, the Wehrmacht and the Red Army resembled two punch-drunk boxers, staying precariously on their feet but rapidly losing the power to hurt each other decisively. Like prizefighters with swollen eyes, they were unable to see with sufficient clarity to judge their relative endurance. Logistically, however, the defenders had a growing advantage as they fell back toward the center of their rail network, even as the ever-lengthening German supply lines became tenuous at best. The Red Air Force benefited from a modest increase in aircraft deliveries, greater experience in cold-weather operations, and a network of permanent airfields, while the invaders operated out of temporary forward bases.⁶¹ Moreover, the Germans had committed their last reserves, whereas the Soviets husbanded a large inventory of forces for the coming counteroffensive.

In retrospect, the German forces had advanced as far as possible in 1941 and needed to go into winter quarters. At the time, however, the *Stavka* had to face the possibility that, once the first hard frost restored mobility, the invaders would be able to capture or at least encircle Leningrad, Moscow, Rostov, and possibly Stalingrad as well. Even if the Soviet regime could survive such a blow politically, the loss of manpower, transportation hubs, and manufacturing capacity might well prove fatal militarily. This was especially true at a time when the evacuated factories were still being reassembled in the Urals.

Stalin's stubbornness had been a disaster before the German invasion and again during the Kiev encirclement, but that same attribute allowed him to keep his nerve as the German offensive approached. The Soviet dictator chose to deploy his next wave of armies (the Kalinin Front's 22nd, 29th, 31st, and 30th and the Western Front's 16th, 5th, 33rd, 43rd, 49th, and 50th, many still shaken from earlier battles) in new defensive positions covering the approaches to Moscow. These positions stretched from Kalinin southward through Gzhatsk, Mozhaisk, Maloiaroslavets, and Kaluga to the Tula region, with their strongest defenses anchored on the so-called Mozhaisk Defense Line. During November, Stalin also mandated the formation of ten new armies (see Table D in the Appendix).



Map 7. Summer–Fall Campaign (2), 1 October–December 1941

In parallel with Hitler's increasing management of resources, the Soviet dictator doled out a large quantity of tanks and heavy weapons to shore up gaps in his defenses. At the same time, Stalin and the *Stavka* had to provide two divisions to 4th Separate Army in the north, where a limited Soviet counterattack in the Tikhvin region during November prevented the Germans from linking up with the Finns around Lake Ladoga. The commander of this limited success was Kirill Meretskov, who was released from prison to make the attack and then, upon his victory, promoted to command the new Volkhov Front east of the Volkhov River. The rail and road lines to Leningrad remained cut, but the Soviets were able to move supplies into the city and excess population out by way of the ice on Lake Ladoga.⁶²

For virtually all German units, the situation was equally precarious. Only one-third of their motor vehicles were still operational, and divisions were at one-third to one-half strength. Any further advance to the east might succeed on the tactical level but only at a cost of greater strains on logistics. The inadequate number of railroad trains and line-haul trucks brought up fuel and ammunition to continue the offensive, but these vehicles did not have space for warm clothing and construction material, both of which were vital for winter survival regardless of how successful the offensive might be. For all these reasons, on 4 November Field Marshal Gerd von Rundstedt requested that Army Group South be allowed to halt immediately and rebuild for an offensive the next year. Other commanders expressed similar concerns. On 13 November, the principal staff officers of OKH met with the chiefs of staff of the three army groups to discuss how far the army should continue to advance. The conference was held at Orsha, halfway between Minsk and Smolensk. The Orsha conference convinced General Halder that the eastern armies were even weaker than he had feared and that the most they could accomplish in 1941 was to besiege Leningrad and threaten Moscow.⁶³

Even Hitler was becoming reconciled to a longer struggle, and he stopped speaking of destroying the Soviet government or capturing major cities immediately. His comments to this effect were partly rationalizations, but he apparently had a genuine reluctance to become involved in urban fighting after the costly capture of Warsaw in 1939. As early as 30 June, the dictator had warned against allowing panzer forces to enter Moscow without massive infantry support. This reluctance later proved well founded at Stalingrad.⁶⁴

With the German Eighteenth Army halted south of Leningrad and First Panzer Army closing in on Rostov in the far southeast, the obvious format for a final German effort was a double envelopment of Moscow and the Western Front. To that end, Third and Fourth Panzer Groups continued their advance toward Klin and the Volga-Moscow Canal to approach Moscow from the north, while Second Panzer Army thrust from the southwest toward Tula and Kashira to unite with the other panzers somewhere east of Moscow.⁶⁵

In early November, Western Front intelligence analysts identified preparations for this encirclement, and Zhukov badgered Stalin into approving a series of spoiling attacks against the invaders. At the same time, other *front* forces manned the defenses that Muscovite civilians had dug covering the approaches to the capital.⁶⁶ One such attack, by Cavalry Group Belov against Guderian's right flank, caught the German 112th Infantry Division, a unit formed with French equipment, with no antitank weapons that were effective against T-34s. The result was a panicked retreat by most of the division on 17 November, an almost unprecedented event in the German Army.⁶⁷ The previous day, however, 44th Cavalry Division attempted a mounted counter-attack across an open, snow-covered field southwest of Klin. Two thousand cavalrymen and their horses were cut down by the artillery and machine guns of the German 106th Infantry Division, which suffered no casualties.⁶⁸ Horses remained very useful in moving troops between battles, especially in winter, but those animals were obviously too vulnerable to maneuver in a pitched engagement.

By 15 November, the ground had frozen sufficiently for Bock to resume his offensive. The Western Front, reinforced by the Kalinin Front's 30th Army on its northern flank on 17 November, numbered 240,000 combat troops supported by 1,254 guns and mortars, 502 tanks, and 180 to 200 combat aircraft. Zhukov had anchored his defenses on the well-prepared Mozhaisk Line before Moscow, with other forces extending to Kalinin in the north and Tula in the south.⁶⁹ By this time, Bock's Army Group Center numbered roughly 300,000 men supported by perhaps 900 tanks. However, Zhukov could also count on another 169,369 troops assigned to the new 1st Shock, 20th, and 10th Armies, then in the *Stavka*'s Reserve, which brought the correlation of forces in the region to rough parity (see Table F in the Appendix).

In the north, where General Hoth's redesignated Third Panzer Army posed the most immediate threat, a desperate fight developed for control of the highway running from Kalinin through Klin to Moscow.⁷⁰ The initial German assault split Rokossovsky's 16th Army from 30th Army, now commanded by Leliushenko. Zhukov assigned Rokossovsky's deputy commander, Major General F. D. Zakharov, to cover the gap near Klin with two rifle divisions and two rifle brigades. The Germans struggled slowly forward against a fierce resistance that decimated both sides. By late November, both Soviet and German regiments had shrunk to the size of companies with only 150 to 200 riflemen each. Third Panzer Army finally captured Klin on 24 November. Three days later, Soviet counterattacks by 1st Shock Army ejected 7th Panzer Division of that panzer army from its bridgehead over the last major obstacle, the Moscow-Volga Canal, some 35 kilometers (22 miles) from the Kremlin. Fourth Panzer Group's 2nd Panzer Division was even closer, less than 30

kilometers from Moscow. German officers claimed that they could see the spires of the city through their field glasses.⁷¹

Despite categorical orders to hold in place, Rokossovsky's 16th Army had been forced back step by step. In an effort to stem the tide, the *Stavka* began to commit some of its strategic reserves, including 1st Shock and 20th Armies, to hold the Moscow-Volga Canal. Many of these reserves were relatively well trained and equipped, but they had to counterattack almost as soon as they disembarked from the trains that took them forward. By late November, Zhukov's dwindling mobile forces consisted of three tank divisions, three motorized rifle divisions, twelve cavalry divisions, and fourteen separate tank brigades. These units were often understrength and still included numerous obsolete light tanks.⁷²

South of the capital, Second Panzer Army resumed the offensive on 18 November after recovering from the panic on the previous day. Guderian had concentrated most of his remaining tanks into one brigade, commanded by Colonel Heinrich Eberbach of 4th Panzer Division. By mid-November, this brigade had only fifty operational tanks, but it was the spearhead for XXIV Motorized Corps and thus, in effect, for the entire army. Eberbach forced his way forward slowly in an attempt to encircle Tula from the east as a stepping-stone to Moscow. Boldin's 50th Army, defending the outskirts of Tula, launched repeated counterattacks against Guderian's front and flank. With temperatures well below freezing and troops running out of fuel, ammunition, and functioning vehicles, the German advance slowly shuddered to a halt. Guderian repeatedly requested that the offensive be canceled, but no one in OKH had the authority to approve this without Hitler's consent.⁷³

Dogged Soviet defenses did as much to stop the Germans as did bad weather and poor supply lines. The defenders were still largely inexperienced troops, but there were more of them in better positions than ever before. In contrast to the thin defenses at Viaz'ma, most rifle armies now had two or more divisions in second echelon, plus a cavalry reserve in some cases. The laborers of Moscow had given these armies two belts of trenches instead of the hasty foxholes of October. As a result, the typical rifle army had a narrower frontage to defend and could occupy defenses to a depth of 50 kilometers—three times the depth in October. Antitank units, infantry, engineers, and artillery were concentrated along the major avenues the Germans had to use. Thirteen of the Western Front's twenty antitank regiments were allocated to the two most threatened field armies, the 16th in the north and the 49th in the south. From Zhukov down to division commanders, the leaders of the Western Front were now the skilled and experienced survivors of five months of disaster; they were therefore much better prepared to counter German tactics than in any of the earlier battles.⁷⁴

Two examples of this growing Soviet skill proved to be symbolic of the future. With Tula almost encircled and Second Panzer Army still pushing slowly northward toward Moscow in late November, Zhukov again turned to Major General Pavel A. Belov, commander of 2nd Cavalry Corps, to restore the situation at any cost. From the very small reserves available, Stalin and Zhukov allocated half a tank division (112th), two separate tank battalions, some antiaircraft gunners from Moscow, a combat engineer regiment, one of the new "Katiusha" (Katy) multiple-rocket launcher units, and the instructors and students from several military schools. On 26 November, this composite force was redesignated as 1st Guards Cavalry Corps and ordered to attack Guderian's spearhead 17th Panzer Division near Kashira, 80 kilometers (50 miles) northeast of Tula. Given the scarcities of the time, this corps represented one of the first Soviet efforts to revive the prewar concept of a cavalry-mechanized group for deep penetrations over difficult terrain. The German advance guards were so scattered that Belov was able to infiltrate his squadrons forward virtually undetected. On 27 November, he attacked, drove 17th Panzer back, and relieved the pressure around Tula. Thus began the long odyssey of this cavalry corps, which continued its exploitation in the German rear area for the next five months.⁷⁵

The second example of Soviet effectiveness came during the final German effort on 1 December, when Fourth Army attacked due east along the Minsk-Moscow Highway near Naro-Fominsk. This attack had only limited armored support and ran directly into a carefully planned Soviet antitank region. This systematic defense by 1st Guards Motorized Rifle Division became a legend of tenacity. At the same time, local counterattacks by Lieutenant General Mikhail G. Efremov's 33rd Army hit the German thrust in the flanks, effectively halting it on 5 December. While this attack went on, Bock asked that he be either reinforced or permitted to shorten his lines for a winter defense.⁷⁶

Meanwhile, far to the south, on 20 November Mackensen's III Motorized Corps captured Rostov, the key river crossing on the lower Don, despite heavy rains and falling temperatures. The next day, Army Group South issued an incredibly ambitious order, seeking to advance to the Volga River and then capture Maikop, the nearest Soviet oil field in the Caucasus Mountains. In reality, though, the southern advance was far too weak. Strong counterattacks by the Soviet Southern Front forced 1st SS Motorized Division *Leibstandarte Adolf Hitler* to abandon Rostov on 28 November, and Kleist's redesignated First Panzer Army had to withdraw farther at the end of the month.⁷⁷ These failures prompted Hitler to relieve Rundstedt of command of Army Group South, a move that the dictator later softened, placing him on leave and then appointing him commander in the West.

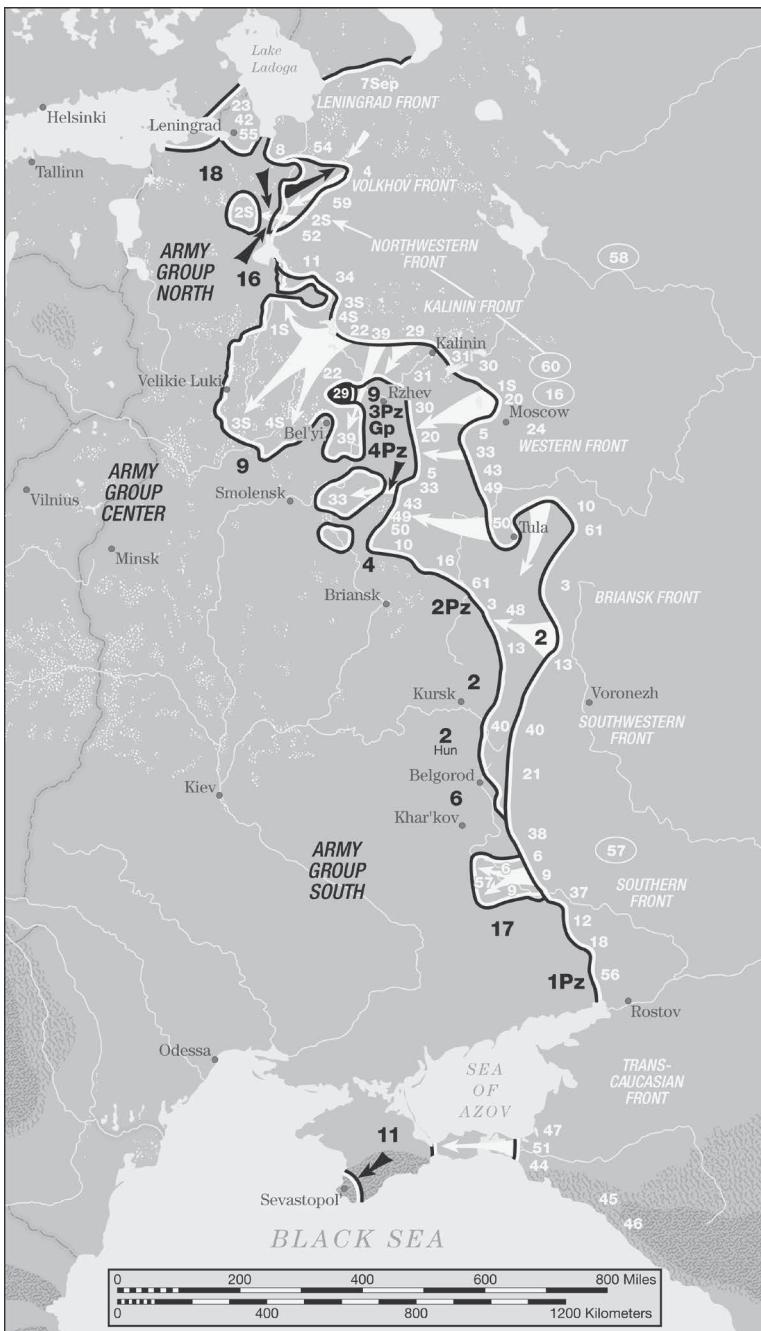
THE DECEMBER COUNTERSTROKE

By Russian standards, the temperatures and snowfall of November 1941 were relatively mild. In early December, however, the snow and cold arrived with a vengeance.⁷⁸ German spearheads were strung out along the few roads, and the *Luftwaffe* operated from improvised forward airstrips. Both vehicle and aircraft engines had to be heated for hours before attempting to start them. By contrast, the Red Air Force had heated hangars at permanent airfields. The Wehrmacht could do no more, and the initiative passed to the Soviets (see Map 8).

The Red Army had barely enough forces to launch a counteroffensive. Soviet historians have claimed that as of 6 December 1941, there were 1,100,000 Soviet troops facing 1,708,000 Germans in Army Group Center, with similar advantages in equipment, such as 7,652 Red guns to 13,500 German pieces, 774 Soviet tanks to 1,170 German, and 1,000 Soviet aircraft to 615 German.⁷⁹ These figures greatly exaggerate effective German strength, but they correctly reflect the Red Army's numbers (see Table G in the Appendix). Most Soviet units were mere skeletons, although the survivors were more experienced than in previous battles. The 108th Tank Division, for example, was down to 15 of 217 authorized tanks, and many rifle divisions had fewer than 3,000 men.

Though the Germans were overextended and poorly equipped for winter, the Soviets succeeded in concentrating their forces at a few critical points on the Western Front's right wing. North of Moscow, the Soviets achieved a 2.5-to-1 superiority over the Germans in personnel and lesser advantages in artillery and mortars; on the left wing around Tula, they attained a 2-to-1 superiority. The Germans may have still had more tanks there, although their readiness rate is impossible to establish. Still, the shock of the Soviet counterattack was increased by faulty German intelligence that estimated Stalin had no more reserves available for the next three months.⁸⁰

The Soviet winter campaign began on 5 December 1941. Driven by necessity, the *Stavka* at first sought only to repel the German pincers threatening Moscow with limited counterattacks. However, when the first attacks achieved success near Moscow, Soviet ambitions soared quickly. Within weeks, the *fronts* and armies from Leningrad to the Black Sea received far more extensive missions, trying to advance all along the front. By early January, an overall concept had emerged that would govern Soviet operations for the remainder of the winter. Yet the hasty formulation and often clumsy execution of this concept meant that the spectacular early gains did not lead to the desired strategic results. The Soviet campaign failed to destroy Army Group Center, but it did prove immensely sobering to the German High Command.⁸¹



Map 8. Winter Campaign, December 1941–April 1942

North of Moscow, the counterattack began at 0300 hours on 5 December, when the temperature was 5 degrees Fahrenheit (-15 degrees Celsius) and the snow was a meter deep. The 29th and 31st Armies of Konev's newly formed Kalinin Front attacked from the northern side of the bulge. The following day, 30th and 1st Shock Armies struck from positions north and south of Dmitrov on the Volga-Moscow Canal.⁸² By noon on 7 December, advancing Soviet units were overrunning the headquarters of LVI Motorized Corps outside Klin. Thereafter, Zhukov sent three additional armies (the 20th, 16th, and 5th) to attack the southern side of the Klin bulge, seeking to encircle all of Third Panzer Army as well as XXXXVI Motorized Corps of the neighboring Fourth Panzer Group.

In 5th Army, Lieutenant General L. A. Govorov concentrated three rifle divisions and several tank brigades for a 14 December attack on a narrow front toward Russa. Into this gap charged Major General L. M. Dovator's 2nd Guards Cavalry Corps, followed by a mobile group consisting of 20th Tank Brigade and 136th Separate Tank Battalion. Although Dovator was killed in action on 20 December, these and similar shock group tactics slowly unhinged German defenses. The Germans frantically moved their few available forces along lateral routes to shore up threatened sectors, and other units tried to withdraw from the trap.⁸³

In the south, a similar pincer movement threatened Second Panzer Army. The 10th Army and Belov's cavalry-mechanized group immediately cut off the lead German elements near the tip of the Venez bulge, and an attack by Boldin's 50th Army at Tula overran one understrength battalion of the *Grossdeutschland* (Great Germany) Regiment. From the first day of the Soviet counterattack, Guderian began withdrawing back to the Don River, southeast of Tula, because of the threat that Belov posed to his supply lines. Soviet ski battalions harassed this withdrawal, but the main Red forces were too weak and immobile to complete the encirclement before the Germans escaped. Renewed attacks on 11 December got nowhere because 50th Army had been severely weakened by the earlier Briansk encirclement and the battles around Tula. The Soviet attacks in the north were also inconclusive, although several rearguard German divisions were cut up. The only major victory was the encirclement and mauling of German XXXIV Army Corps near Elets, on Guderian's southern flank.⁸⁴

These Soviet thrusts brought the crisis in German command circles to a full boil. Hitler had already tried and failed to reverse Rundstedt's evacuation of Rostov at the end of November. On 14 December, the German dictator had agreed in principle to some local withdrawals in Army Group Center, but he wanted to prepare a new defensive line before any significant retreats began. Two days later, on 16 December, the army group commander, Bock, requested authority to withdraw and readjust positions as necessary. Hitler

rejected the efforts of Brauchitsch and Halder to convince him that a general withdrawal was necessary and instead directed that thirteen divisions from other theaters shift to the East while the *Luftwaffe* made a maximum effort to break up the Soviet attacks. Neither of these actions could solve the immediate crisis, and thus on 18 December Bock surrendered command to Field Marshal Günther von Kluge, ostensibly because of ill health. Hitler ordered Kluge to use “fanatical resistance” to stem the tide until reinforcements arrived. The next day, a disgusted dictator accepted Brauchitsch’s resignation and personally assumed command of the army. He told the chief of staff, Halder, that the army should emulate the positive, enthusiastic approach of the *Luftwaffe*, and he forbade any preparation or discussion of rear positions in the event of a Soviet breakthrough. Far from criticizing Hitler’s actions, on 25 December the ambitious Halder sent a message to all senior commanders arguing that Brauchitsch, Bock, and others had indeed been physically ill and that Hitler’s assumption of command actually strengthened the army.⁸⁵

In previous controversies, Heinz Guderian had always been permitted freedom of action, but now, he, too, became a victim of the crisis. Like other commanders at the time, he believed that higher headquarters were out of touch with the situation at the front. Throughout December, he used Hitler’s personal adjutant, Rudolf Schmundt, and other back channels to bypass intermediate headquarters and convey his concerns to Hitler and the OKH. On 14 December, just before being relieved, Brauchitsch had subordinated Second Army to Second Panzer Army and authorized Guderian to withdraw as long as he retained control of Orel. When the general order to stand fast arrived several days later, the panzer general flew to Rastenburg on 20 December to explain his situation to Hitler. Although Guderian’s account of this meeting is naturally biased, he undoubtedly insisted that his forces lacked clothing, equipment, and shelter and therefore had to withdraw to more defensible lines. On Christmas Day, after a final argument with the new army group commander, Kluge, Guderian in turn found himself relieved.⁸⁶

Like Stalin’s cool conduct of the Moscow defense in late November, Hitler’s “stand-fast” order appears in retrospect to have been the correct action, even if issued out of stubbornness rather than rational calculation. The Germans lacked the resources and transportation to build and retreat to a new defensive line. For all its tactical difficulties, defending in place at least allowed the invaders to retain some rudiments of shelter, without which they would not have survived the winter. For once, the professional soldiers were wrong and the “Bavarian corporal” was almost certainly right. Unfortunately for the German Army, the success of this order encouraged Hitler to hold every inch of ground. Although he occasionally relented, this became his first reaction in any defensive situation, regardless of the circumstances, for

the remainder of the war. What Hitler never recognized was that the Soviet counteroffensive of 1941–1942 might well have destroyed Army Group Center had not Stalin tried to do too much too fast.

FROM COUNTERSTROKE TO COUNTEROFFENSIVE

In January 1942, the Soviet leader was incredibly overambitious and optimistic. The contrast between the desperation of November and the success of December encouraged him so much that he attempted to expand the counterattacks near Moscow into a general offensive to encircle all of Army Group Center and much of Army Group North. Stalin became convinced that the Germans were on their last legs, and he attempted to rush into an exploitation without concentrating his forces and eliminating bypassed German units. On 7 January, he ordered a general offensive along the entire front, concentrated primarily against Army Group Center but also targeting German forces at Leningrad, Staraya Russa, Orel, Khar'kov, and the Crimea. Zhukov and other commanders objected that such an offensive would dissipate available forces over too wide a frontage. Their initial success had been due to local concentrations of tank brigades, cavalry divisions, and ski battalions, all of which were losing strength rapidly. As the Soviet troops struggled westward, the supporting Red Air Force had to leave its permanent airfields behind and move to forward airstrips that were as inhospitable as those occupied by the *Luftwaffe*. By biting off more than his forces could chew, Stalin failed to eliminate the German encirclements in front of Moscow and made only limited gains elsewhere.

In the north, the attempt to cut off the German Eighteenth Army around Leningrad never really got off the ground. Southeast of the city, Stalin pressured Meretskov, the Volkhov Front commander, into a premature attack. Meretskov felt that he had no choice even though his troops were dispersed, untrained, and poorly supplied. The head of the Main Artillery Administration had to fly in personally with an airplane full of artillery gun sights because Meretskov's newly produced guns had none. By the end of December, 2nd Shock Army, the designated main effort in the ensuing Liuban' operation, had only one division assembled. Its commander, the NKVD's Lieutenant General G. G. Sokolov, had no more experience than his subordinates, and he was quickly relieved for cause. The 2nd Shock Army renewed its attack on 24 January and made slow progress, but when Meretskov attempted to pass 13th Cavalry Corps through a gap, the Germans contained it and kept 2nd Shock surrounded for the next several months.⁸⁷ In March, Lieutenant General Andrei Andreevich Vlasov, sent from Moscow after a splendid

performance in the counteroffensive there, assumed command of the encircled forces. Throughout months of combat under frightful conditions, 2nd Shock Army tied down German troops, but it could not break out; it simply lacked sufficient weapons and trained leaders. Finally, in June the Germans forced Vlasov to surrender. Bitter about being abandoned in this manner, Vlasov later cooperated with the Germans in forming an anti-Soviet "Russian Liberation Army" of former prisoners. This treasonous activity prompted Soviet historians to virtually erase both him and his army from Soviet accounts of the conflict.⁸⁸

In the Moscow region, Stalin directed the Kalinin and Western Fronts to encircle the German forces by attacks on Viaz'ma from the north, east, and south. The Kalinin Front's forces (the 22nd, 39th, 29th, 31st, and 30th Armies, plus 11th Cavalry Corps), commanded by Konev, were to advance through Rzhev and Sychevka to the Viaz'ma area, while the left wing of Zhukov's Western Front, consisting of the 43rd, 49th, and 50th Armies, plus Cavalry Group Belov, attacked elements of the German Fourth Army around Iukhnov. Zhukov's forces were then to secure Viaz'ma from the southwest and link up with the Kalinin Front. Belov's 1st Guards Cavalry Corps and Colonel S. V. Sokolov's 11th Cavalry Corps, both reinforced with tank brigades, were to exploit into the German rear and again link up west of Viaz'ma. Zhukov's aim was to destroy the Ninth, Fourth, Third Panzer, and Fourth Panzer Armies. The threat to the Germans was indeed real, as a gaping hole existed in German defenses south of Kaluga. Within days after the offensive commenced, Belov had passed through this hole into the German rear near Viaz'ma. Beginning on 18 January, four corps of the German Fourth Army became isolated near Iukhnov, and Kluge and his army commanders shifted their few mobile forces to meet new threats.⁸⁹

To supplement this offensive effort, Colonel General Kurochkin's Northwestern Front tried in vain to defeat the German Sixteenth Army south of Leningrad. Attacking on 7 January, the 11th and 34th Armies succeeded in almost encircling the German II Corps at Demiansk. However, the 3rd and 4th Shock Armies had less success striking from the forests near Ostashkov southwest toward Toropets and Smolensk.⁹⁰ Meanwhile, Colonel General Ia. T. Cherevichenko's Briansk Front attempted to cut off Second Panzer Army with attacks toward Orel and Briansk on the southern flank of Army Group Center.⁹¹ Unfortunately for the Soviets, however, Zhukov's prediction proved to be correct. Stalin's forces lacked both the strength and the skill to carry out this ambitious envelopment.⁹²

Terrain was especially important in the area southwest of Moscow. There were only two paved highways in this area, one running from Minsk through Smolensk and Viaz'ma to Moscow and the other running diagonally southwest

from Moscow through Maloiaroslavets and Iukhnov to Roslavl'. Forces such as Efremov's 33rd Army that moved on or parallel to these roads were much more mobile and better supplied than the armies on their flanks, which tended to fall behind in the offensive. Once they had penetrated the weak German front, Belov's cavalry group and other Soviet formations survived in the enemy rear area for months; the Germans were unable to flush them out until the swamps dried out in late spring.

The Kalinin and Western Fronts began the wider offensive in a phased series of attacks from 7 through 9 January. In the north, on the right wing of Konev's Kalinin Front, Lieutenant General I. I. Maslennikov's 39th Army penetrated German defenses and continued to advance southward with Sokolov's 11th Cavalry Corps in the lead. This cavalry corps almost reached the Smolensk-Moscow highway in late January, but in an audacious February counterattack, the German Ninth Army closed off the penetration between Sokolov and the rest of 39th Army. By 23 January, this counterattack had encircled not only Sokolov but also much of Major General V. I. Shvestsov's neighboring 29th Army. With only two light cavalry divisions, a motorized rifle division, and a few ski battalions, 11th Cavalry Corps was too weak to cut the German lines of communications.

Farther north, deployed on the left wing of Kurochkin's Northwestern Front, 3rd and 4th Shock Armies, the latter now commanded by Eremenko, lunged southward through the snow-covered forests to seize Andreapol' and Toropets and encircle a small German force in Kholm'. This offensive pattered out on the approaches to Velikie Luki, having torn a gaping hole between Army Groups North and Center.⁹³ Simultaneously, on the same front's right wing, cooperating with the two shock armies on the left, 11th and 34th Armies smashed German defenses in the Valdai Hills and Lake Seliger sector and swept south-southwest to the outskirts of Staraia Russa and Demidov. This advance, reinforced by 1st Shock Army and the new 1st and 2nd Guards Rifle Corps, bypassed German pockets at Demiansk, Kholm', and Belyi. The largest of these encirclements, the II Corps at Demiansk with roughly 95,000 men, survived by aerial resupply until General Georg von Küchler, promoted from command of Eighteenth Army to that of Army Group North, relieved Demiansk in late March as part of his attack against the doomed 2nd Shock Army.⁹⁴ In the interim, the *Luftwaffe* delivered an average of 302 tons per day to II Corps, but it lost 265 transport aircraft and consumed huge amounts of scarce fuel.⁹⁵

In the center, the Soviets retook Mozhaisk and Medyn, but their forces were so weak and the weather so poor that the subsequent advance toward Gzhatsk continued at a snail's pace. On 15 January, Hitler directed that Army Group Center hold a line east of Iukhnov and Gzhatsk and north of Rzhev. Under the circumstances, only Efremov's 33rd Army was able to continue its

penetration, reaching the suburbs of Viaz'ma before half of its divisions were isolated by a German counterattack on 23 January.⁹⁶

To the south, for months the Briansk Front pounded in vain at German troops defending around Orel. Beginning on 3 January, the neighboring 40th Army made an initial penetration near Kursk, but the defending German infantry held the shoulders of this penetration until 3rd Panzer Division could assemble and counterattack, eliminating the Soviet gains.⁹⁷

In the far south, the Soviets conducted two operations that they hoped to exploit further in the spring. South of Khar'kov, on 18 January, the combined forces of Lieutenant General Fedor Iakovlevich Kostenko's Southwestern Front and Lieutenant General Rodion Iakovlevich Malinovsky's Southern Front struck at the junction of Army Group South's Sixth and Seventeenth Armies; their goal was to cross the Northern Donets River and envelop Khar'kov from the south. The initial attack by Major General A. M. Gorodniansky's 6th and Lieutenant General D. I. Riabyshev's 57th Army, plus the 1st, 5th, and 6th Cavalry Corps, exploited to a depth of 100 kilometers (62 miles) on a line about the same distance south of Khar'kov. However, the combat power of these units declined rapidly; by 31 January, Kluge's army group was able to contain the offensive, patching together a cordon of small infantry and armored task forces about what became known as the Barvenkovo bridgehead.⁹⁸

Somewhat earlier, on 26 December 1941, the combined forces of the Black Sea Fleet and two armies of the Transcaucasus Front launched an ambitious operation to land on the Kerch' Peninsula at the eastern end of the Crimea. The ultimate purpose was to relieve the besieged port of Sevastopol'. The initial landing was made by Major General A. N. Pervushin's 44th Army and Lieutenant General V. N. Lvov's 51st Army supported by ineffective airborne diversionary raids. This remarkable operation, conducted with little amphibious equipment and in the face of a winter gale, routed the defending Romanian divisions and secured both Kerch' and the neighboring port of Feodosiia. The latter seizure threatened the right flank of the defending German XXXXII Corps, commanded by Lieutenant General Hans, *Graf* von Sponeck. After higher headquarters denied his repeated requests, on 29 December Sponeck unilaterally withdrew the German 46th Division, saving it but allowing the Soviets to complete their lodgment.⁹⁹

With 800 kilometers of the German front aflame, the struggle was reduced to individual unit heroics, complex maneuvers in the snow, and local battles of attrition. The Soviets often held the impenetrable countryside, while the Germans clung to the cities, villages, and key arteries. Try as they might, neither side was able to budge the other until nature permitted the Germans to regain their mobility in the late spring of 1942. Nowhere was this frustrating process more evident than in the Viaz'ma region.

PARACHUTES IN THE SNOW

Given the paucity of mobile armored forces, Stalin threw into the struggle virtually all of his specialized units, including tank brigades, cavalry corps, ski battalions, and most importantly his elite airborne forces. Because of its recruitment and training, the Soviet airborne had a high proportion of motivated Communists. Sheer necessity required these fragile forces to attempt missions hitherto performed by heavy mechanized units.

In early January, Stalin began committing those portions of his five airborne corps that had survived the first few months of war; this included the 4th and 5th Airborne Corps plus surviving elements of other corps. These forces were to assist Soviet units that had already penetrated into the German rear areas. Together, these airborne, cavalry, and other diversionary troops were to interdict German logistical lines. Ultimately, their mission changed to helping encircled Soviet forces survive and regain the safety of friendly lines.

The first airborne drops were in multiregimental strength, intended to assist the advance of 33rd and 43rd Armies. On 3–4 January 1942, two parachute insertions interdicted the roads just west of Medyn; these units linked up with the advancing ground troops in a few days. On the 18th, the 250th Airborne Regiment jumped into the swampy area of the Ugra River bend west of Kaluga. From this relatively inaccessible base of operations, the 250th advanced southwest, and on 30 January, it helped Belov's 1st Guards Cavalry Corps cross the Iukhnov highway despite the patrols and fortified villages that the Germans had established to control the road. Belov had to commit one of his two rifle divisions and two ski battalions to create the penetration. After his cavalry passed through the resulting gap to contact the airborne unit, the defenders closed the gap behind him, separating the cavalry corps from its attached tanks and infantry and most of its artillery.

Thus, by late January the Soviets had achieved several penetrations but had been unable to destroy major German formations. In an effort to regain his momentum and capture Viaz'ma, Zhukov planned a larger parachute operation, committing 10,000 men of 4th Airborne Corps in a series of night drops west of that city.¹⁰⁰ However, the inadequate Soviet logistics common at this stage of the war plagued the airborne operation from its inception. In order to reach the forward airfields near Kaluga, the 4th Airborne Corps first had to conduct a winter river crossing because the key bridge over the Oka River had not been repaired. The corps could only drop over a series of nights because of a shortage of transport aircraft, damaging any chance of surprise. Moreover, the elite parachutists were among the very few units that had been issued white winter camouflage garments, so their appearance near the Kaluga airfields immediately telegraphed the possibility of a parachute

operation. Once the landings began on the night of 27 January, the Germans were able to identify and bomb the airfields involved.

Between 27 January and 1 February, Lieutenant Colonel A. A. Onufriev's 8th Airborne Brigade landed in a scattered pattern southwest of Viaz'ma. Some of these landings were deliberately intended as diversions, but the main drops were plagued by bad weather and poor navigation, with much of the equipment, supplies, and radios being lost in the deep snow. Only 1,300 of the 2,100 men in this brigade rallied to the brigade commander. The result was, at best, a distraction to the Germans, and the landings were canceled before the remaining two brigades of 4th Airborne Corps dropped.

Meanwhile, 1st Guards Cavalry and 11th Cavalry Corps attempted to envelop Viaz'ma from the southwest and north. Briefly on 27 January and for more extended periods during February, Belov's corps plus the 8th Airborne Brigade fought seesaw battles for control of segments of the Smolensk-Moscow highway, but their attempts to cut the critical artery failed. The surviving elements of 5th and 11th Panzer Divisions, a force that was still formidable to the lightly equipped Soviet raiders, protected Viaz'ma and its surrounding roads. Neither Belov's force nor Efremov's encircled 33rd Army had sufficient mass to displace the Germans.

With these two forces in danger of piecemeal defeat and with the overall Soviet seizure of Viaz'ma in jeopardy, in mid-February Zhukov again attempted to break the stalemate by using 4th Airborne Corps. This time, the Soviets selected a landing zone along the Ugra River in the same swampy terrain that 250th Airborne Regiment had found so useful in thwarting German rear area protection. On the night of 17–18 February, 4th Airborne Corps began another series of parachute drops, again hampered by shortages of transport aircraft and fighter cover.¹⁰¹ Of the 7,400 parachutists who took off that week, no more than 70 percent ever reached their assembly points. The corps commander and much of his staff died when a German night fighter shot down their airplane. The chief of staff assumed command, attempting to seize the high ground along the Iukhov highway to facilitate an attack across that road by Boldin's 50th Army. The result was another stalemate. Despite repeated efforts from February through May, the stricken airborne corps lacked the vehicles and heavy weapons to accomplish its mission. Nonetheless, the Germans were unable to break into the swampy Ugra area and eliminate this force. In late June, the remnants of Belov's command, the airborne troops, and 33rd Army broke through German lines near Kirov after a hegira of several hundred kilometers.

The frustrations of 4th Airborne Corps and of 1st Guards Cavalry Corps were symptomatic of the problems that hamstrung the entire Soviet offensive. Despite a remarkable performance, the Red Army lacked the numbers, armor, mobility, fire support, logistics, and communications necessary to

destroy Army Group Center. Regardless, Stalin remained unshakably optimistic and continued to believe that victory was within his grasp until the Moscow counteroffensive expired in April 1942. Elsewhere along the front, the Soviet dictator expended other airborne forces near Demiansk, Rzhev, and in the Crimea, with little success.

If Stalin drew the wrong conclusions from the battles around Moscow, Hitler's perceptions were equally false. The survival of the German forces was due less to the stand-fast order than to the overly ambitious nature of Soviet plans. Similarly, the *Luftwaffe*'s ability to resupply bypassed German strongholds at Kholm', at Demiansk, and south of Viaz'ma gave the German leader an exaggerated confidence in the possibility of aerial resupply. Both of these misconceptions came home to roost a year later at Stalingrad.

CHAPTER SEVEN

Rasputitsa, Spring 1942

Although the winter campaign officially ended on 20 April 1942 and Soviet troops remained behind German lines until June, all chances for success in the Moscow counteroffensive had evaporated by early March. Nonetheless, the Soviets mercilessly pounded the German pockets at Demiansk and Kholm', while paratroopers and ski brigades waged an intense struggle to collapse the Demiansk encirclement from within.¹ Soviet-initiated military operations slowed during the next several months and finally stopped as the *Stavka* prepared for a renewed struggle in the summer.

The spring thaw and *rasputitsa* arrived in the Ukraine in early March 1941 and in the Moscow area about two weeks later, derailing German efforts to encircle and destroy several Soviet armies in a salient between Army Groups North and Center. General von Küchler, commander of Army Group North, relieved Demiansk in April just as the Soviets broke into the pocket. It is therefore appropriate to pause at this point to consider Soviet and German institutional responses to the 1941 experience.

THE WIDER WAR

Throughout the progress of Operation Barbarossa, Great Britain and the United States had feared a Soviet collapse. Even after the United States became a formal belligerent, neither country had the forces ready to provide an effective diversion by invading western Europe. The average Soviet citizen—and indeed many Soviet officials—refused to accept this fact, exaggerating British strength and American industrial mobilization while minimizing the difficulties of an opposed amphibious invasion. As early as July, the Moscow government encouraged public calls for a British “second front” in the West. Stalin, who until 22 June had doubted that Hitler would risk a two-front war, was now impatient for this risk to become a reality. Thus, from the very beginning of the invasion, Soviet public opinion suspected that the Western powers were shirking their responsibility and allowing the Wehrmacht and the Red Army to bleed each other to death. In a conference convened in Moscow at the end of September 1941, the British and Americans promised

1.5 million tons of supplies to the Soviet Union by June of the next year, but little of this could reach the embattled Russians that fall.²

In the spring of 1941, still full of optimism about the coming campaign in the East, Hitler had urged Japan to attack the United States and had guaranteed German support. However, Tokyo did not consult Berlin before launching its attack on Pearl Harbor.³ Washington responded by declaring war on Japan on 8 December, but American participation in the European struggle remained limited. Hard-pressed in the Pacific, the United States was unprepared politically and militarily for a two-front, global war.

Four days after Pearl Harbor, Adolf Hitler solved the American dilemma. In a defiant speech to the Reichstag, he declared war on the United States, even though his defensive alliance with Tokyo did not require such action. Undoubtedly, Hitler regarded this declaration as a mere formality after months of U.S. Navy participation in antisubmarine actions in the North Atlantic as well as American Lend-Lease shipments. He apparently hoped that the Pacific war would distract Washington, reducing its contribution to the struggle with Germany. Still, this declaration proved to be as fatal for Germany as the Barbarossa invasion itself. Within six months, Germany had gone from undisputed mastery of the European continent to a desperate struggle with the two greatest industrial powers on earth. The short-term Axis successes of 1941–1942 were dwarfed by the Soviet and American attacks that Hitler had invited.

RESURGENCE OF SOVIET DOCTRINE

The process of Soviet adjustment to the challenges of war continued during the winter and spring of 1941–1942. In 1941, Soviet commanders had repeatedly failed to concentrate sufficient forces at a critical point. In December, Zhukov ordered the creation within the Western Front of shock groups to focus the few available full-strength units at specific weak points in the German defenses. Thus, for example, 10th Army aimed its efforts at penetrating the enemy cordon south of Moscow; in turn, 1st Guards Cavalry Corps leapfrogged through the resulting breach to exploit on a relatively narrow front. This technique, plus fresh troops from the Soviet eastern military districts, allowed the Moscow counteroffensive to achieve initial success. By January, though, the attackers were dispersed and lacked the mobility to move faster than their opponents during the exploitation. The promising Soviet counteroffensive drove the Germans from the immediate Moscow area but did not achieve the strategic goal set for it by the *Stavka*.

Although Stalin never admitted his failure to mass forces, the Red Army institutionalized such concentrations for future operations. *Stavka* Directive

No. 03, dated 10 January 1942, repeated Zhukov's directive of the previous month.⁴ All *front* and army commanders were required to use shock groups for offensive action, focusing their force on a narrow frontage to achieve overwhelming superiority against a single enemy unit. Ideally, a *front*-level attack would have a width of only 30 kilometers, whereas a rifle army would concentrate on a frontage of 15 kilometers. The equivalent frontages in December 1941 had been 400 and 80 kilometers, respectively. Thus began the slow process of creating overwhelming superiority of forces to achieve initial penetrations at specific points. In conjunction with sophisticated deception plans, this Soviet technique later caused German officers to believe that they were hopelessly outnumbered along the entire front.⁵

In the same document, the *Stavka* also addressed the use of artillery. All future attacks were to be preceded by an artillery offensive, concentrating up to eighty guns and mortars per kilometer of front and then employing those tubes in three successive phases or missions. First, all available guns would concentrate on the enemy's forward defenses. Second, once the infantry and armor moved forward to attack, the artillery would support the advance by concentrating on remaining enemy centers of resistance. Finally, after the initial penetration occurred, the artillery would shift to deeper targets to support the exploitation. The same directive also ordered the Red Air Force to use ground-support aircraft for either preparation or accompanying fighter-bomber support of the penetration. In practice, such air support was difficult to coordinate at this stage in the war.⁶

Using artillery in this manner was a commonsense solution to the problems of the offensive. The very fact that Moscow had to issue such a directive indicates the abysmal ignorance of some junior commanders at the time. Still, the artillery directive resulted in a significant improvement in the concentration and use of artillery. During 1941, an average kilometer of Soviet frontline troops, even on the offensive, was supported by only 7 to 12 gun and mortar tubes. By the summer of 1942, this average had increased to 45 to 65 tubes per kilometer. The Red Army developed far greater densities later in the war, but this 1942 change represented a key step in the rebirth of Soviet tactical skill.

Similarly, Soviet commanders embraced the idea of density and depth in defensive systems. The successful defense of Moscow and Leningrad, in which elaborate, integrated trench systems first appeared, set a precedent in the neglected field of defensive tactics. Antitank defenses, with minefields and antitank guns supporting each other, were established along the most likely avenues of enemy attack. In practice, of course, most commanders lacked the forces necessary to build such defenses until 1943; indeed, during the first two years of the war the Germans could almost always penetrate Soviet defenses. Still, the concept and the first tentative experiments were in

place by the spring of 1942, inflicting a growing cost on the invaders whenever they attacked prepared positions.

To support these doctrinal concepts, the Red Army and especially the *Stavka's* Reserve expanded rapidly. In most cases, however, these "new" formations were actually based on the cadres of existing, experienced headquarters. After 1941, the Red Army almost ceased building divisions from whole cloth. Instead, it expanded brigades and filled out the divisions that had survived the disastrous first six months of war. Successful commanders and their staffs were often promoted to form the next larger type of organization. Moreover, beginning in 1942 the Soviets began a conscious policy of withdrawing depleted units to the rear, to be brought up to strength and recommitted at a later date. As the skill of commanders and the availability of equipment developed, units at all levels grew in size, regaining many of the specialized combat multipliers (engineers, artillery, and so on) that they had lost in the drastic revision of July 1941.⁷

REBIRTH OF SOVIET MECHANIZED FORCES

This growth in the number of units and the complexity of each such unit was especially evident in the Soviet mechanized forces. The brief but heady taste of victory in December 1941 and January 1942 encouraged Stalin to believe that his opponents were vulnerable if the Red Army could mass sufficient armored capacity to launch a renewed offensive in the ensuing summer.

New mechanized forces required new equipment. Despite the enormous dislocation involved in moving its industry eastward, the Soviet Union was already beginning to outproduce German factories. By a phenomenal effort, the factories in the Urals and the Transcaucasus produced 4,500 tanks, 3,000 aircraft, 14,000 guns, and more than 50,000 mortars before active operations resumed in May 1942. Not all of these weapons were of the first quality, of course. In particular, the voracious desire for tanks meant that the Soviet Union cranked out thousands of T-60 and T-70 tanks during 1942, simply because such light vehicles could be built on existing automobile assembly lines. These tanks lacked sufficient armor and armament to fight their German counterparts and were phased out in 1943. Still, despite such design limitations the growing Soviet weapons production eventually helped overwhelm the invaders.⁸

Using this sudden wealth, especially in tanks, was the task of Colonel General Iakov N. Fedorenko, a member of the *Stavka* and chief of the Main Auto-Armored Forces Directorate. For the desperate defensive battles of 1941, the only new mechanized units created in the Red Army had been tank divisions (100 series) that proved ineffective and small tank brigades that lacked

accompanying infantry and often fought in an infantry-support role. During the lull of early 1942, however, Fedorenko sought to return to prewar concepts and organization. To match the German panzer forces, he resurrected the idea of separate (that is, outside the normal army structure or divisional *shtat*, or table of organization), combined-arms mechanized formations.⁹ Beginning in March 1942, he organized tank and later mechanized corps that were actually equivalent in capability to German divisions. The first four tank corps consisted of two tank brigades, one truck-mounted rifle brigade, and very little else, for a total strength of 5,603 men and 100 tanks (20 KV, 40 T-34s, and 40 T-60s). Almost immediately, however, Fedorenko decided to add a third tank brigade plus various combat support elements necessary for sustained operations. By July 1942, a typical tank corps included three tank brigades of 53 tanks each (32 medium and 21 light); one motorized rifle brigade; a motorcycle reconnaissance battalion; battalions of mortars, antiaircraft guns, and multiple-rocket launchers ("guards-mortars"); a combat engineer (sapper) company; and somewhat later a transportation company with two mobile repair teams. The total authorized strength of this organization grew to 7,800 men, 98 T-34 medium tanks, and 70 light tanks. Ultimately, Fedorenko created twenty-eight such tank corps, often built by expanding veteran tank brigades, during 1942.¹⁰

In September of that year, he elaborated on this concept by forming larger, more balanced formations called mechanized corps. The summer battles had revealed a need for a higher proportion of infantry in mobile formations, where riflemen experienced most of the casualties. Although the Commissariat of Defense created different types of mechanized corps, all of them had a nucleus of three mechanized brigades with antitank and antiaircraft artillery regiments, plus battalions of guards-mortars, reconnaissance (armored cars), sappers, medics, and maintenance. Companies of engineer minelayers, refueling trucks, and a field bakery rounded out the unit. The heart of each mechanized brigade comprised three motorized rifle or submachine-gun battalions plus its organic tank regiment of 39 T-34s. In addition to these mechanized brigades, the corps had some combination of two or three tank regiments (again of 39 tanks each) or brigades (53 tanks each). Because of these variations, the strength of early mechanized corps varied between 175 and 224 tanks with up to 266 guns and mortars. In personnel terms, early corps totaled 13,559 soldiers, making them more equal to the panzer divisions. As the war evolved, the mechanized corps grew steadily in size and complexity, acquiring such novelties as self-propelled guns and eventually light observation aircraft, for a total strength of 16,442.¹¹ Even the earliest version of this formation required so many resources that the NKO fielded only eight of them in 1942.

Both tank and mechanized corps were designed to act as the mobile group (the former echelon to exploit success) of a rifle army, making limited

penetrations and encirclements of up to 100 kilometers in depth. To create major disruptions and conduct operational-level maneuvers, however, the Red Army needed a larger combined-arms force equivalent to a panzer corps.

Such an organization was not just an imitation of the Germans; rather, it was a return to the prewar concept of the deep operation. On 25 May 1942, the NKO decided to combine some of the newly created tank corps into the 3rd and 5th Tank Armies. Two additional armies of this type (the 1st and 4th) followed in July, but they were thrown into battle on the approaches to Stalingrad before their organization was complete. The Germans damaged them so severely that they reverted into rifle army headquarters. In any event, the structure of these tank armies was experimental, varying widely due to severe shortages of trucks and other equipment. As a result, this first attempt at tank armies included horse cavalry and rifle divisions whose mobility and level of armor were incompatible with the tank corps. A typical 1942 tank army included two or three tank corps, one cavalry corps, and two to six rifle divisions plus supporting units. Their average strength was 35,000 men, 350 to 500 tanks, and 150 to 200 artillery pieces.¹²

These new tank corps and tank armies debuted during a series of disasters in May and July 1942, as described in the next chapter. Again, however, the Red Army learned from its experience, creating more effective organizations, tactics, and staff officers by the end of the year. During the exploitation after they had surrounded the German Sixth Army at Stalingrad (see chapter 9), a group of mobile corps cooperated in a manner that became the model for future large combined-arms operations. During 1943, Fedorenko elaborated upon this structure and experience, forming new tank armies with more uniform organization, mobility, and armored protection that spearheaded Soviet offensives for the remainder of the war.

OTHER ORGANIZATIONAL CHANGES

In the spring of 1942, the Red Army devoted most of its available resources to forming the mobile forces and rebuilding a few privileged divisions, designated “guards” because of their previous successes.¹³ The average rifle division, though, gained only some additional heavy weapons and the return of a few hundred veterans who had recovered from their wounds or illnesses. When mobile operations began again, the Red Army was still a mixture of understrength veteran units and relatively new, untried formations.

In October 1941, the enormous demand for defensive obstacles had led to the creation of sapper armies, composed primarily of construction specialists plus reservists in their midforties. These units were intended to build fortifications, provide rear area security, and train replacements for engineer

units with the frontline armies. The voracious demand for manpower meant that the NKO frequently dissolved or levied the sapper armies for replacements; nonetheless, five sapper armies provided engineer support to key *fronts* in 1942.¹⁴ The NKO gradually built similar specialized organizations for antitank, artillery, and antiaircraft forces.

The Red Air Force also experimented with more complex organizations that, like their ground counterparts, were often held in centralized reserve. Aleksandr Novikov, the erstwhile air commander in Leningrad, was at the heart of these changes, as deputy head and then (as of 11 April 1942) chief of the VVS. In addition to forming the 1st Air Army as a means of focusing tactical airpower at one point, Novikov also created a staff section to analyze war experience, identifying weaknesses and deriving lessons from the *Luftwaffe*. Unfortunately for the Soviet ground troops, these reforms took time, and as a result, the VVS remained on the defensive and was sometimes virtually absent from the early battles during the summer of 1942.¹⁵

Finally, on 30 May 1942 Stalin gave Panteleimon K. Ponomarenko, the former first secretary of the Belorussian Communist Party, control of a reinvigorated Central Staff of the Partisan Movement. This action reduced previous friction and overlapping efforts between the Red Army, the Communist Party, and the NKVD, each of which had claimed control of the resistance movements. Ponomarenko was wise enough to view the partisan effort as a political movement rather than just an adjunct to the Red Army. The problem, however, was that the government in Moscow wanted to control what was essentially a decentralized movement of people who often resisted centralized direction. Ponomarenko inserted trained radio operators, many of them women, into German rear areas to provide better contact with the various partisan bands. Despite continuing issues with bands that resisted central control, the Central Staff, with parallel partisan staffs at the *front* level, began to bring some order and effectiveness to the guerrilla effort.¹⁶

REBUILDING THE WEHRMACHT

The Barbarossa campaign had proved almost as destructive for the German Army and *Luftwaffe* as for their Red counterparts. The German forces had become seriously overextended even before the Russian winter and the Moscow counteroffensive struck them.

Army Group Center had suffered the most. By January, thinly clad, shell-shocked, and disoriented troops tended to panic at the mere sound of approaching Soviet tanks. Frost, malnutrition, exposure, and battle produced both physical and mental casualties, and the losses in men and matériel far exceeded replacements. At the end of January 1942, Army Group Center was

187,000 troops short of its authorized strength, and it suffered an additional net loss of 40,000 in February. The retreat from Moscow had meant abandoning large amounts of equipment that might otherwise have been repaired or salvaged. On 31 January, Army Group Center's shortages totaled 4,262 antitank guns, 5,890 mortars, and 3,361 larger artillery pieces. The *Luftwaffe* had written off 4,903 aircraft as destroyed during Barbarossa. By the end of March 1942, the sixteen panzer divisions in Russia had only 140 functioning tanks, the equivalent of one such division, between them.¹⁷

Germany had neither the manpower nor the production capacity to make up for these losses. In December 1941, an additional 282,300 conscripts entered the army, but they all needed training, and two-thirds of them had come from the armaments industry. German factories experienced great difficulties in making up for the lost manpower. Italian and French workers were reluctant to work in Germany for fear of Royal Air Force night bombing raids. Forced laborers from Russia were supposed to replace agricultural workers who were shifted to the factories, but due to the general transportation shortage and the abuse that prisoners had suffered at German hands, they were largely unavailable. The weakened survivors who arrived in Germany fell prey to a typhus epidemic and rarely received sufficient rations to work efficiently.¹⁸

This labor shortage, combined with fuel problems, raw material deficiencies, and the continued competition between the armed services, almost brought German production to a standstill during December 1941 and January 1942. On 10 January, Hitler issued a new set of production priorities, subordinating his plans for new mechanized and expeditionary forces to the immediate need to replace equipment for the field armies. This order marked the belated recognition that Germany was engaged in a long attritional conflict. On 21 March, he officially dedicated the entire economy to war requirements.

Dr. Fritz Todt, the competent but self-effacing and pessimistic minister for armaments and munitions, died in an airplane crash on 8 February. He was succeeded by Albert Speer, Hitler's favorite architect and a man of some experience in the problems of production. With the dictator's personal backing, Speer achieved significant increases in efficiency and productivity, but he did so without centralizing or rationalizing German industry. Instead, the new minister profited from previous reforms while setting up a series of coordinating committees. In these committees, the great industrialists of the Reich cooperated grudgingly to share critical materials and increase production. Field Marshal Erhard Milch, the long-suffering state secretary who performed most of Hermann Göring's responsibilities at the Air Ministry, worked closely with Speer in these endeavors. Milch had already begun a series of changes such as recycling to compensate for shortages in raw materials.

In 1942, for example, German industry produced 3,780 more aircraft than in the previous year while using 15,000 fewer tons of aluminum.¹⁹

At about the same time that Speer took over as armaments minister, two other technocrats assumed pivotal positions in the German economy. Food shortages prompted Hitler to promote Herbert Backe to acting minister of food and agriculture. Backe ruthlessly returned to the original “hunger plan” in the East, expecting German troops to live off the land, and he excluded Jews and others from any form of rations. Meanwhile, on 21 March *Gauleiter* Ernst “Fritz” Sauckel became general plenipotentiary for labor mobilization. Sauckel’s systematic exploitation of forced labor and concentration camp inmates achieved results, but it also killed at least 1.1 million people, of whom about 300,000 were Jewish. Between them, these three men doubled food imports to Germany while accelerating an increase in arms production that grew until the fall of 1944.²⁰

These reforms took time, however, and the Wehrmacht never fully reequipped after the disastrous battles around Moscow. Army Group South, which was designated to conduct the main German offensive in 1942, received sufficient equipment and forced transfers to bring its units to between 80 and 85 percent of their authorized equipment levels. During November and December 1941, the OKH gathered several thousand trucks from Germany and the occupied territories of western Europe, but three-quarters of these vehicles broke down before they reached the Russian theater. Although Germany and the West furnished 297,000 replacement animals for the new campaign, this did not replace all the animals lost in the previous year.²¹ With fewer horses, the available artillery and supply columns were also significantly handicapped. The losses in vehicles and horses forced Army Groups Center and North to begin the 1942 campaign with severely curtailed mobility, especially when operating on unpaved roads.

As with the Red Army, elite German units received sufficient men and matériel to bring them close to full strength. The remnants of the *Grossdeutschland* Infantry Regiment, which at one time was reduced to only thirty-three riflemen, withdrew to the rear to rest and refit. By the end of May 1942, the *Grossdeutschland* emerged as a lavishly equipped motorized division with two motorized infantry regiments; an artillery regiment; and battalions of tanks, assault guns, and motorcyclists. The average panzer or motorized division did not fare as well but still regained much of its combat power. *Waffen SS* units continued to expand and acquire more armor. In general, First and Fourth Panzer Armies, the designated spearheads for the coming offensive, regained a measure of their former strength by the time active operations resumed that summer. The typical infantry division did not share in this bounty. In Army Groups North and Center, sixty-nine of the seventy-five infantry divisions were reduced from nine to six battalions of

infantry, with supporting artillery batteries reduced from four guns to three. These divisions also had to make do with fewer vehicles and horses; some reconnaissance units were issued bicycles.²²

The German Army had lost more than soldiers and vehicles: it had suffered a severe blow to its morale. Most of the surviving veterans undoubtedly recognized that they were committed to an open-ended, bitter struggle in an alien land. Desertion and surrender were impossible, since either might lead to torture at the hands of a seemingly inhuman foe. The frontline soldiers increasingly sought assurances that they were fighting in a just and necessary cause. In response, their officers turned to the official Nazi propaganda line of racial and ideological struggle. On 15 July 1942, OKW regularized this process by directing the assignment of an education or indoctrination officer to all intelligence staffs. As they became even more accustomed to speaking in ideological terms, the German junior officers and soldiers were also more inclined to commit atrocities against the Slavic *Untermenschen* (subhumans). Indeed, the more the Soviets resisted, the more frustrated the invaders became and the more they turned to war crimes, so that by the end of 1941, many troops executed people based solely on suspicions. Paradoxically, the Soviet-German struggle led the Soviets to de-emphasize ideology in favor of nationalism, even as it prompted the German Army to embrace a Soviet-style system of political officers and indoctrination.²³

SPRING PLANS

With the coming of the spring thaw, both sides planned for the summer campaign. There was no doubt that Germany would renew its offensive, and Stalin was equally anxious to resume a fight that in his mind had almost yielded victory in the winter counteroffensive. His advisers, especially Shaposhnikov and Vasilevsky, argued strongly that the Soviets should absorb the renewed German offensive before launching a major strike of their own. Zhukov saw the wisdom of these arguments, but he was so pugnacious that he probably encouraged Stalin's desire for an offensive "on the forehand," without waiting for the Germans to strike.²⁴

The final outcome of this debate was almost incoherent. Stalin agreed to remain on the strategic defensive, but an elaborate German deception plan, code-named Operation Kremlin, portrayed Germany's intent to strike on the Moscow axis.²⁵ Stalin clearly believed this deception and expected the Germans to strike for his political capital, even though, as a Marxist, he should have been more concerned with economic resources. Consequently, the Soviet dictator held most of his strategic reserves, supervised by Zhukov, in the Moscow region.

Hitler instead decided to concentrate in the south, seeking to control the economic resources of the Volga River and the Caucasus oil fields. This, in turn, would give the Wehrmacht another opportunity to destroy the Red Army by encirclement battles. Initially, though, the Germans barely considered the industrial city of Stalingrad as one of a number of places where the Soviets might stand and fight. Only later did the city acquire a symbolic value for both sides, diverting German efforts away from the main drive to the Caucasus.

At the same time, Stalin compounded the problem by encouraging his subordinates to submit plans for limited counteroffensive actions, cutting off German units in the snarled line of contact that had developed during the winter. Zhukov and other commanders objected to such plans, correctly fearing that this would dissipate their troop strength without decisive results. The dictator nonetheless remained incurably optimistic about the relative strength and resilience of Soviet versus German troops.

In mid-March, Marshal Timoshenko and the staff of the Southwestern Direction, including Nikita Khrushchev as his political officer and the able Colonel General Ivan Khristoforovich Bagramian as chief of staff, proposed two offensives against German Army Group South as a means to disrupt the invaders' supposed preparations to advance on Moscow. In reality, the Soviet troops involved were woefully underequipped and somewhat inexperienced, but Timoshenko sought to satisfy Stalin's wishes for a new offensive. In the first instance, Timoshenko planned a pincer movement against German positions around Khar'kov. The Southwestern Front's right wing would attack from bridgeheads over the Northern Donets River east of Khar'kov as its left wing broke out of the larger Barvenkovo bridgehead over the same river south of Khar'kov, a bridgehead that the Soviets had secured during the winter offensive. These pincers, supported by the Southern Front, would encircle most of the German Fourth Panzer and Sixth Armies and then push westward to the Dnepr River.

At first, Stalin considered using the Briansk Front to reinforce this offensive, but he decided to withhold that *front* so that its forces were ready to contain the anticipated German offensive on Moscow. As a result, the *Stavka* restricted Timoshenko's effort to a single thrust by the Southwestern and Southern Fronts, while the Briansk Front made its own, smaller offensive farther north. This was the origin of the second battle for Khar'kov, the first trial of the new Soviet armored units, as described in chapter 8.²⁶ Stalin planned a second thrust against German forces in the Crimea, breaking out of the Kerch' Peninsula to relieve the Soviet garrison at Sevastopol'; a German attack preempted this plan.

In the north, the *Stavka* also launched three local counterattacks, the first to extend 7th Separate Army's front west of the Svir' River and two others to

protect the Murmansk railroad, the lifeline for shipping Allied Lend-Lease equipment to the rest of the front. Finnish and German troops had failed to cut this railroad during 1941, due in part to a 10 October order in which Hitler had halted the attacks because he and his advisers believed the Soviets were on the verge of collapse. As winter lingered in the Arctic, the Soviet Karelian Front achieved some success against isolated German units. Because of the difficulties of terrain, weather, and resupply, the forces involved on both sides were far smaller than in the epic struggles to the south.

Although 7th Army's attack along the Svir' River faltered by the end of April, in the far north, southwest of Murmansk, the Soviet 26th Army attacked the German XIX Mountain Corps on 28 April 1942. Two ski brigades and 10th Guards Rifle Division struck German 6th Mountain Division, and 12th Naval Infantry Brigade simultaneously landed to attack the German left flank. The attackers suffered heavily because they were dispersed and uncoordinated, but the Germans were likewise too weak to exploit their defensive success. Farther south, opposite the waist of central Finland, the Soviet 14th Army attacked the German-Finnish III Corps beginning on 23 April. A ski brigade and another guards rifle division moved in a vast arc, seeking to cut off the defenders' supply line from the north. Again, the Soviet forces were too weak and overextended to complete the job. By 7 May, these two units were encircled and virtually destroyed, just as the spring thaw brought immobility back to the region.²⁷

In anticipation of the summer campaign, the *Stavka*, as it had done throughout 1941, mobilized fresh armies as a safety net in case its plans went awry. Some of these, mobilized even before the end of the winter campaign, were designated to reinforce existing *fronts*; others were to strengthen planned offensive operations or defend should those offensives fail. The third and most numerous type was numbered reserve armies, whose function was to serve as mobilization bases for new armies and sometimes as the new armies themselves. These included a total of forty-four combined-arms, five tank, and fifteen air armies. Finally, as the 1942 campaign developed the NKO began fielding new-model tank armies and guards armies with especially strong complements of troops and supporting arms to replace the seventeen armies destroyed by the advancing Germans or disbanded (in the Appendix, see Tables H and I for Soviet armies mobilized or redesignated and armies destroyed in 1942).

CHAPTER EIGHT

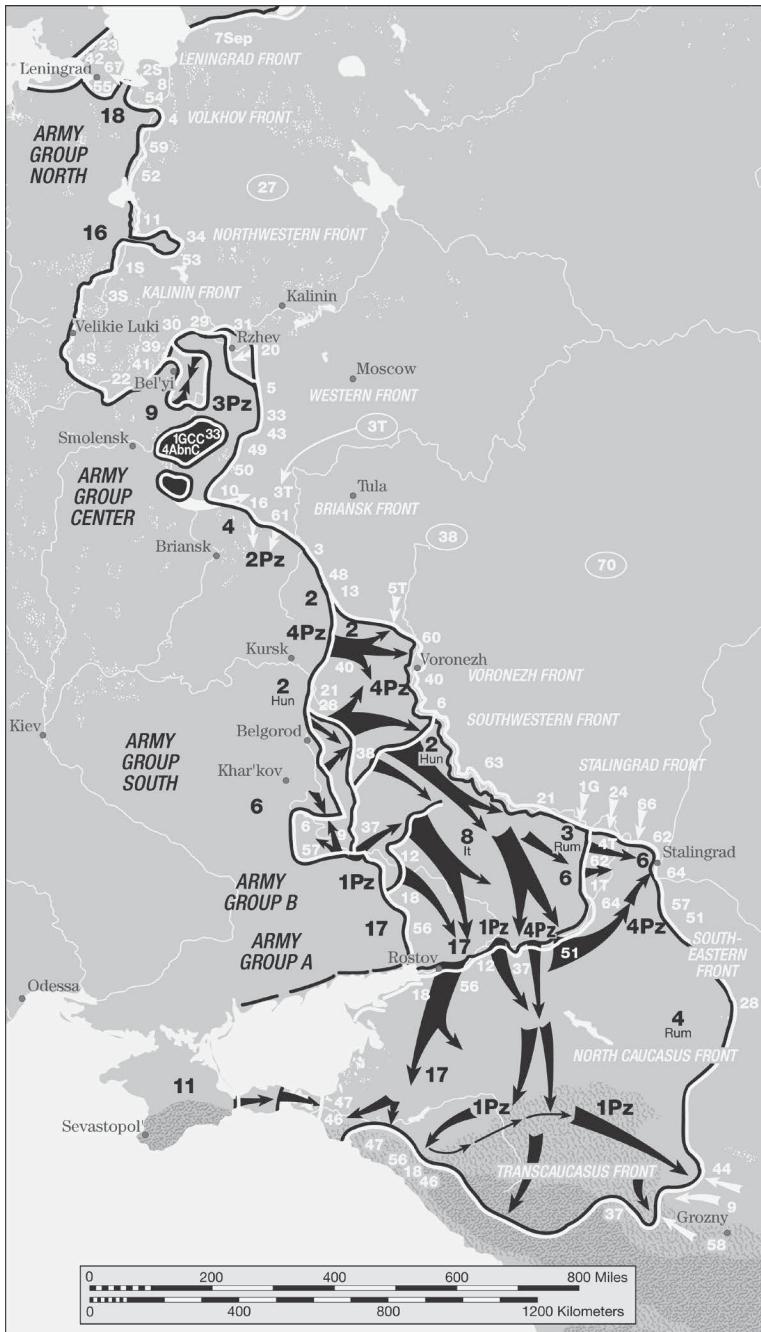
Operation Blau *The German 1942 Offensive*

PLANNING FOR OPERATION *BLAU* (BLUE)

From the inception of Operation Barbarossa, German planners had envisioned a follow-up campaign down the eastern side of the Black Sea to the Caucasus Mountains.¹ Originally, this operation was scheduled to begin in the fall of 1941 as the first step in a grand scheme to envelop Asia Minor and the Middle East, linking up with Axis forces in North Africa. In November 1941, the German dictator adjusted his plans. He instructed General Halder, the head of OKH, to confine the projected operation to Soviet territory rather than continuing onward into Iran and Turkey. Even this more limited operation, intended to seize control of the oil fields in the Caucasus, would require German troops to advance over difficult terrain for an additional 800 kilometers (500 miles) beyond the farthest 1941 German spearhead at Rostov on the Don River. In anticipation of this, Hitler formed the Oil Brigade Caucasus, a 10,000-man organization of specialists, to restore and operate the captured oil fields. He also withdrew the available German and Romanian mountain troops from combat to refit them for a new push into the Caucasus.

In February 1942, the Operations Division of OKH issued a series of preliminary instructions for the next summer campaign, whose objective was to reach the Caucasus while continuing to destroy Red Army units. To this end, as described in chapter 7, Army Group South received priority for replacement troops and equipment. Fourth Panzer Army joined First Panzer in the south, bringing with it a number of refurbished divisions from Army Group Center.

In addition, twenty German and twenty-one other Axis divisions shifted from other theaters to the southern region. The non-German units, including six Italian, ten Hungarian, and five Romanian divisions, generally had fewer weapons and less-reliable equipment than even their depleted German counterparts. The Axis powers lacked the industrial capacity to equip their soldiers for mechanized combat, and German production could only spare a few antitank batteries for its allies. Italian motorized units suffered from the same technical problems displayed by similar formations in North Africa. The remaining satellite units were cavalry or leg infantry divisions more suitable for rear area security against partisans than for confronting



Map 9. Summer–Fall Campaign, May–October 1942

a Red Army tank force. Quite apart from the usual German contempt for their allies, these troops in many instances had training and doctrine that were incompatible with those of their dominant partner. German staff officers rated only one Italian division as equal to an average German formation. Yet, Germany desperately needed more troops to secure the flanks and mop up behind the advancing German spearheads. Every step it took eastward meant further lengthening the front. The fact that OKH based its plans on such slender reeds illustrates the complete inadequacy of German forces to cover the projected advance into southeastern Russia. Ultimately, the presence of these units together with the iron limitations of logistics proved to be the Achilles' heel of the German plan.

German strategic intelligence concerning the overall strength and production of its Soviet opponent remained wildly inaccurate. Unaware of the renaissance in Soviet weapons production, the Germans tended to overemphasize the importance of Lend-Lease equipment. This provided another incentive to advance to the Caucasus, in order to cut off the developing supply line of the Persian corridor through Allied-occupied Iran.² In a further attempt to interdict Lend-Lease, on 14 April OKW ordered the *Luftwaffe* and the Navy to concentrate their efforts against Allied convoys headed for Murmansk.

The Chief of the OKH, Halder, drafted the plan for the summer campaign, a plan that was modified first by Colonel General Alfred Jodl, the operations chief of OKW, and then by Hitler himself. The result was Führer Directive No. 41, issued on 5 April 1942. It was a curious combination of broad general instructions, in the German tradition of decentralized execution, and very explicit requirements added by the dictator. The directive assumed that the Soviet Union was almost exhausted, but unlike the directive for Operation Barbarossa, it tacitly acknowledged that no single campaign was likely to crush the enemy completely. The directive assigned tasks to all the army groups as well as to the *Luftwaffe*, but it focused on Army Group South.

Also unlike Barbarossa, Operation *Blau* called for a carefully sequenced series of encirclement attacks, designated as *Blau I*, *II*, *III*, and so on.³ This sequence would permit the Wehrmacht to focus its assets, especially the panzers and the tactical air support, on one objective at a time. *Blau I* would begin with a double envelopment of Kursk and Belgorod, followed by an exploitation eastward to the Don River city of Voronezh. Next, Fourth Panzer and Sixth Armies would swing southward from Voronezh to meet First Panzer Army near Millerovo (*Blau II*). At this point, the Germans planned to reorganize into two new army groups for further operations. Army Group B would advance eastward into the great bend in the Don River to establish a strong flank defense, and other German units would seize the lower Don River crossings at Rostov. All this was in preparation for the further advance to

the Caucasus oil fields, to be conducted by Army Group A, including Kleist's First and Hoth's Fourth Panzer Armies, Colonel General Richard Ruoff's Seventeenth Army, and (under Ruoff's direction) the Romanian Third Army.

Directive No. 41 mentioned the great industrial city of Stalingrad only in passing, as part of securing the flank: "Every effort will be made to reach Stalingrad itself, or at least to bring the city under fire from heavy artillery so that it may no longer be of any use as an industrial or communications center."⁴

With perfect hindsight, various German leaders blamed Hitler for seeking two divergent objectives—Stalingrad and the Caucasus—and thereby creating a confused command structure and dissipating Germany's combat power.⁵ Still, Hitler was not the only German who became mesmerized by the symbolism of Stalin's namesake city. Moreover, the creation of two army group headquarters was almost unavoidable given the vast distances and the volume of troops involved. As the campaign progressed and the German left flank extended farther and farther, Army Group B stretched until it controlled four non-German satellite armies at the front, far beyond its effective span of control. Some German planners even considered creating a third army group headquarters, possibly under the Romanian military dictator Antonescu, to control this long flank, freeing a reduced Army Group B to focus on the Stalingrad region itself. By the fall, the German force was fighting in three different directions, and it lacked an overall headquarters to direct the campaign.

PRELIMINARY BATTLES

Before the *Blau* operation began, however, there were three preliminary battles—two in the Crimea and one at Khar'kov—all of which redounded to Germany's advantage.

As a result of their successful winter landing, the Soviets had nearly 260,000 men, 347 tanks, and 3,577 guns and mortars crammed into the Kerch' Peninsula, an area that measured only 18 kilometers in width by 75 kilometers in depth.⁶ Commanded by Lieutenant General Dmitrii Timofeevich Kozlov, this Crimean Front was supposed to break out and relieve the besieged port of Sevastopol'. Kozlov had no room to maneuver, and his supply lines across the Sea of Azov were interdicted by German air and small naval units. Worse still, Stalin assigned Lev Mekhlis, the notorious hatchet man, as representative of the *Stavka* to this *front*. Mekhlis openly bullied commanders and reshuffled personnel. The combination of a mediocre commander, an inexperienced staff, and a meddling commissar doomed the Crimean Front.

This played into the hands of General Erich von Manstein, commander of the German-Romanian Eleventh Army. He also benefited from the presence

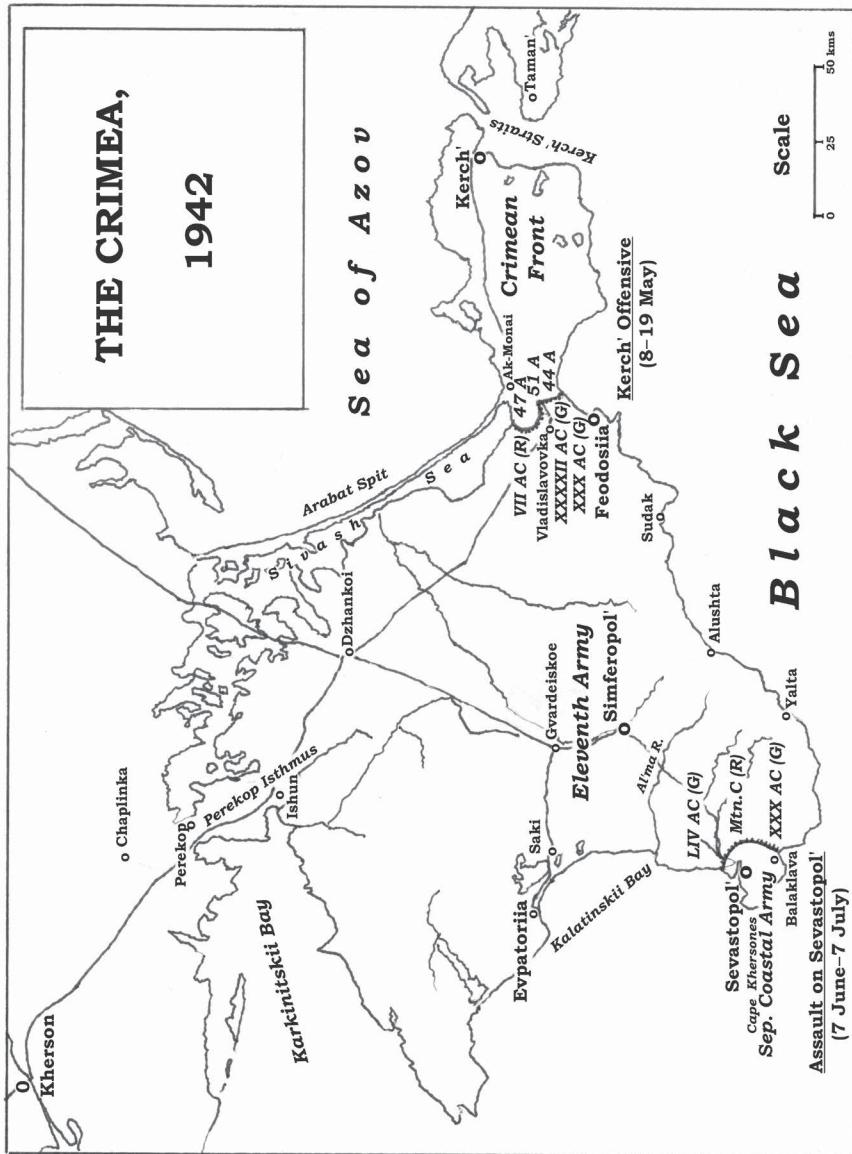
of Wolfram von Richthofen's VIII *Flieger Korps*, the premier air-support element of the *Luftwaffe*. Manstein first misled the Soviets by pretending to attack a slight bulge on Kozlov's right (northern) flank, and then he attacked the other end of the Soviet lines on 8 May 1942. Within ten days, bold thrusts by the outnumbered Germans and constant air attacks had destroyed the Crimean Front, with 176,566 soldiers killed, wounded, or captured.⁷ Stalin rightly blamed Mekhlis for this disaster and never used him again as a *Stavka* representative.

Manstein followed up this success with a renewed attack on Sevastopol' beginning on 2 June. German siege guns as large as 800mm, supplemented by normal field artillery and Richthofen's fighter-bombers, blasted even the strongest fortifications of the port, but the German-Romanian infantry suffered heavy casualties in the ground advance. Finally, on the night of 28–29 June, elements of the German 50th Infantry Division used engineer assault boats to cross the Severnaia Bay in secret, penetrating the center of the city and seizing its power plant. A renewed offensive then proved so successful that the *Stavka* authorized evacuation, removing key staff officers and commanders during the first nights of July.⁸ Adolf Hitler promoted Manstein to field marshal for these twin victories. The Soviet government awarded the Order of Lenin to the city for its heroic defense.

The fall of Sevastopol' was overshadowed by an even greater disaster for the Red Army when its first prepared offensive failed miserably in May.⁹ Marshal Timoshenko had developed a plan so complex that it was beyond the capacity of his inexperienced forces to coordinate and supply. Three armies (the 21st, 28th, and 38th) of the Southwestern Front, supported by 3rd Guards Cavalry Corps, were to advance westward toward Khar'kov. There, they intended to meet another pincer attack, composed of two army-level formations (the 6th Army and Group Bobkin) supported by the new 21st and 23rd Tank Corps, attacking from a second bridgehead, 65 kilometers to the south, over the Northern Donets River. The Southwestern Direction planned to mass 765,300 men and 923 tanks against the German Sixth Army. In reality, though, many of these formations had to turn over their previous defensive sectors and then move laterally behind the front lines in a crablike motion that disrupted the normal east–west lines of communication. Once in their attack locations, these divisions had to deal with higher and adjacent headquarters whose personalities and procedures were new to them. Moreover, Timoshenko retained only a small reserve consisting of two rifle divisions, three cavalry divisions, and three separate tank battalions, a force too small to have a major effect on the battlefield.¹⁰

Unfortunately for their subordinates, Stalin, the *Stavka*, and Timoshenko all assumed that their opponents were still the understrength skeletons of the previous winter. Convinced that the main German effort in 1942 would be

**THE CRIMEA,
1942**



Map 10. Crimea, 1942

toward Moscow, they misjudged both the strength and the mobility of their rejuvenated opponents. Southwestern Front expected to encounter only twelve German infantry divisions and one weak panzer division, whereas in fact it faced sixteen infantry and two panzer divisions plus smaller infantry battle groups. In addition, the Southwestern Front paid little attention to the German Seventeenth Army, which was in a position to attack the Soviet 6th Army and Group Bobkin from the south. The Southern Front, opposite Seventeenth Army, provided no intelligence on its opposite number. In addition, the relatively narrow frontage of the Soviet operation permitted the Germans to shift forces from adjacent armies.

The initial attack on 12 May, beginning with an hour of artillery preparation and fifteen minutes of air attacks, nonetheless achieved tactical surprise. In the south, Lieutenant General A. M. Gorodniansky's 6th Army focused its attacks on the Hungarian 108th Infantry and German 464th Security Divisions, neither of which was equipped to oppose a massive attack conducted according to *Stavka* Directive No. 03 (see chapter 7). Within two days, the southern pincer had advanced 60 kilometers, but poor staff work meant that the two tank corps, which should have moved forward each night to begin the exploitation, remained in their original assembly areas.

The Germans' greater experience at maneuver soon reasserted itself. After some discussion, Hitler authorized the transfer of VIII *Flieger Korps* from the Crimea and permitted Kleist to launch the southern wing of a preexisting plan, Operation Fridericus. This plan originally aimed to pinch off the Soviet bulge west of the Northern Donets River. The German attack kicked off on 17 May, slicing into the left flank of the southern Soviet pincer. The III Motorized Corps, led by Geyr von Schweppenburg, included not only the 14th Panzer, 16th Panzer, and 60th Motorized Divisions but also three other German and Romanian divisions to protect the flanks of the penetration.¹¹ Soviet leaders, among them Timoshenko and Khrushchev, were so focused on their continued advances that they did not react for two and a half days, and the *Stavka* was even slower. Again, inexperienced Soviet staffs were not capable of maneuvering or supplying their units in retreat, and headquarters at all levels lost control of their troops. By 28 May, the Soviet 6th and 57th Armies as well as the two tank corps were completely destroyed, with other units suffering heavy casualties, including 207,047 killed, captured, or missing and 652 tanks and 1,646 guns lost. The commanders of the Southwestern Front and of two field armies fell into German hands, and the commander of 6th Army committed suicide. The Germans claimed to have captured 239,036 Soviets.¹² This stunning victory went far to restore German confidence, and Bock followed it up with several limited operations to prepare for the main *Blau* offensive.

THE OFFENSIVE BEGINS

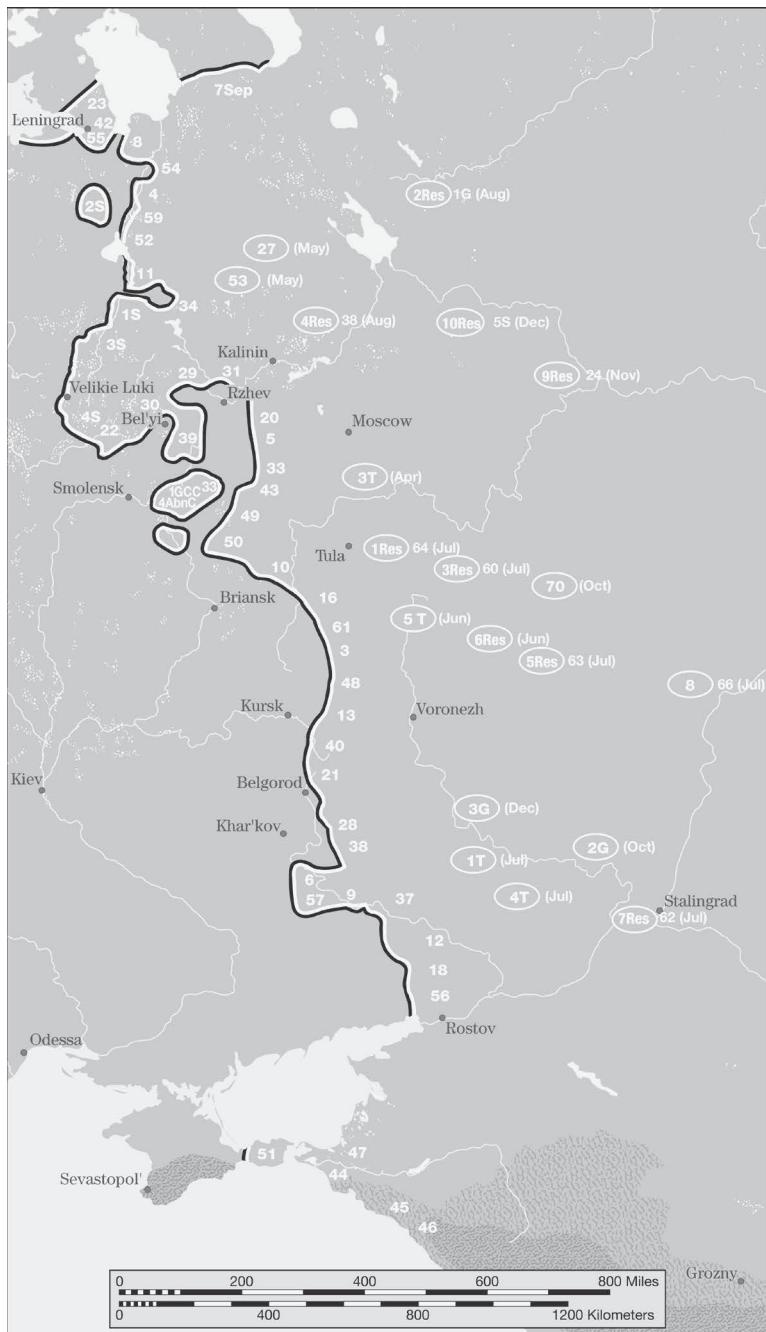
The second battle of Kharkov had disrupted German preparations for the summer offensive. The units involved were unable to complete their refitting, and beyond that, the timetable of preparations underwent significant changes. On 1 June, Hitler visited Army Group South and agreed to postpone the start of the main offensive until 28 June (see Table 8-1).

In the interim, the *Stavka* belatedly recognized that at least part of the forthcoming German offensive would occur in the south. The Red Air Force attempted a number of raids on German assembly areas in the south, but it was still too weak to achieve local air superiority. In addition to the ten armies forming in reserve, individual Soviet divisions were withdrawn from the central region to provide greater strategic depth (see Map 11). Nonetheless, many of these reserves remained in the Moscow area rather than redeploying to the south. As late as 5 July, the *Stavka* still believed that the new offensive was only a prelude to another advance on Moscow, with the attackers wheeling northward once they reached Voronezh.¹³

On 19 June 1942, Major Joachim Reichel, the operations officer of 23rd Panzer Division, crash-landed in a light aircraft behind Soviet lines. In a similar accident two years earlier, a *Luftwaffe* major landing inside Belgium in fog had compromised the German plans for the 1940 offensive. Despite this precedent and in violation of standing security instructions from Hitler, Reichel carried with him an overlay and summary of XXXX Panzer Corps' role in the forthcoming *Blau* offensive. The corps commander and chief of staff as well as Reichel's division commander were court-martialed for this breach of security. It was too late to revise the plan, however, so the Germans had to trust to luck. Fortunately for them, Stalin found this security compromise so unbelievable that he dismissed it as a German deception to distract him from defending Moscow.¹⁴

The offensive began at dawn on 28 June 1942. Colonel General Maximilian von Weichs controlled a temporary army group consisting of his own Second Army, Colonel General Hermann Hoth's Fourth Panzer Army, and Colonel General Gusztáv Jány's Hungarian Second Army. After thirty minutes of artillery and air attacks, the Axis forces easily penetrated the junction between the Briansk and Southwestern Fronts. Lieutenant General of Artillery M. A. Parsegov lost control of the defending 40th Army as the Germans lunged eastward.¹⁵ After a two-day delay because of heavy rain, Paulus's Sixth Army also attacked farther to the south, penetrating 21st Army to form the second half of a vast pincer headed for Voronezh on the Don River.

Reacting to the German onslaught, Stalin ordered the Briansk and Southwestern Fronts to respond immediately with counterattacks and counter-strokes. Underscoring his belligerence, he reminded Golikov at the Briansk



Map 11. Soviet Dispositions on 30 April 1942 and Reinforcements to 31 December 1942

Table 8-1. Opposing Orders of Battle, July 1942

AXIS	SOVIET
Army of Lapland (later Twentieth Mountain Army) (Gen. Eduard Dietl)	Karelian Front (Lt. Gen. V. A. Frolov) 14th, 19th, 26th, and 32nd Armies and 7th Separate Army
Finnish Army	Leningrad Front (Col. Gen. L. A. Govorov) 23rd, 42nd, 55th, and 8th Armies Coastal Operational Group
Army Group North (Col. Gen. Georg v. Küchler) Eighteenth Army Sixteenth Army	Volkhov Front (Col. Gen. K. A. Meretskov) 54th, 4th, 59th Armies, 2nd Shock Army, and 52nd Army
Army Group Center (Field Marshal Günther von Kluge) Ninth Army Third Panzer Army Fourth Army Second Panzer Army	Northwestern Front (Col. Gen. P. A. Kurochkin) 11th, 34th, 53rd Armies and 1st Shock Army
Army Group South (Field Marshal Fedor von Bock) <i>Armeegruppe von Weichs</i> Second Army (Col. Gen. Maximilian Freiherr Von Weichs an dem Glon) Fourth Panzer Army (Col. Gen. Hermann Hoth) (4 panzer, 3 motorized divisions) Hungarian Second Army (Col. Gen. Gusztáv Jány) (1 motorized division) VIII Air Corps	Kalinin Front (Col. Gen. I. S. Konev) 3rd Shock, 4th Shock, 22nd, 30th, 39th, 29th, and 31st Armies
Sixth Army (Gen. of Pz. Troops Friedrich Paulus) (1 panzer, 1 motorized division) IV Air Corps	Western Front (Col. Gen. G. K. Zhukov) 20th, 5th, 33rd, 43rd, 49th, 50th, 10th, 16th, and 61st Armies
First Panzer Army (Col. Gen. Ewald von Kleist) (3 panzer, 2 motorized divisions)	Briansk Front (Lt. Gen. F. I. Golokov) 3rd, 48th, 13th, 40th Armies 5th Tank Army (2 tank corps) 2nd Air Army, 6th Sapper Army <i>Front</i> units (5 tank, 2 cavalry corps)
Seventeenth Army (Col. Gen. Richard Ruoff) (1 panzer, 2 SS, and 1 Slovak motorized division) Romanian Third Army Eleventh Army (Field Marshal Erich von Manstein) Army Group South Reserve: Italian Eighth Army (-) 2 Hungarian corps	Southwestern Front (MSU S. K. Timoshenko) 21st Army (1 tank corps) 28th Army (1 tank corps) 38th Army (1 tank corps) 9th Army (1 cavalry corps) 7th Sapper, 8th Air Armies <i>Front</i> units (1 tank, 1 cavalry corps)
	Southern Front (inactivated 28 July) (Lt. Gen. R. A. Malinovsky) 37th, 12th, 18th, 56th, 24th Armies 8th Sapper, 4th Air Armies
	North Caucasus Front (MSU S.M. Budenny) 47th, 51st, Coastal Armies 5th Air Army <i>Front</i> units (1 cavalry, 1 rifle corps)
	Transcaucasus Front (Army Gen. I. V. Tiulenev) 44th, 46th Armies
	Stavka Reserve: 1st through 10th Reserve Armies 5th Tank Army (5 tank, 1 cavalry corps)

Table 8-1. (continued)

AXIS	SOVIET
Total forces in Army Group South Area:	
68 German divisions (52 inf., 9 panzer, 7 mtd.)	93 Soviet divisions (81 rifle, 12 cavalry) 100 Soviet brigades (62 tank, 38 rifle)
22 other Axis divisions (8 Hungarian, 7 Romanian, 6 Italian, 1 Slovak)	
1,327 operational tanks*	2,300 operational tanks*
17,000 guns/mortars, 1,640 aircraft	16,500 guns/mortars, 758 aircraft

* These figures do not include Pz I, Pz II, T-60, or T-70 light tanks, or nonoperational medium tanks.

Sources: David M. Glantz and Jonathan M. House, *To the Gates of Stalingrad: Soviet-German Combat Operations, April–August 1942*, vol. 1 of *The Stalingrad Trilogy* (Lawrence: University Press of Kansas, 2009), 110–122, and a truncation of *Boevoi sostav Sovetskoi Armii, Chast' 2 (Ianvar'-dekabr' 1942 goda)* [The combat composition of the Soviet Army, pt. 2 (January–December 1941)] (Moscow: Voenizdat, 1966), 119–139.

Front: “You now have 1,000 tanks and the enemy has no more than 500. . . . On the operational front of three enemy tank divisions, you have assembled more than 500 tanks, and the enemy has at the most 300–350 tanks.”¹⁶ Stalin then released Lieutenant General A. I. Liziukov’s new 5th Tank Army to Golikov’s control and directed the *front* to mount a counterstroke west of Voronezh. Powerful on paper, with a strength of more than 640 tanks, Liziukov’s tank army began its counterstroke on 5 July.¹⁷ Inexperienced in conducting large mobile operations, Liziukov committed his army’s three tank corps to combat piecemeal. Although Fourth Panzer Army’s 9th Panzer Division later destroyed two of Liziukov’s tank brigades in several days of fighting, the uncoordinated but tenacious Soviet force tied 9th and 11th Panzer Divisions down in heavy fighting west of Voronezh throughout much of July. Meanwhile, Fourth Panzer Army’s *Grossdeutschland* Motorized and 24th Panzer Divisions seized Voronezh, precipitating an intense fight for a bridgehead around the city east of the Don.¹⁸ This went beyond Hitler’s instructions and resulted in several days’ delay before the two divisions were able to break contact and join Fourth Panzer’s advance to the southeast; Bock’s decision ultimately cost him his job.¹⁹

Throughout the initial week of Operation *Blau*, Stalin, still believing the main German offensive would materialize along the Moscow axis, reacted characteristically to the German advance. As he had done in the summer of 1941, he ordered the Briansk and Southwestern Fronts to resist stubbornly and counterattack whenever and wherever possible. When Golikov and Timoshenko repeatedly asked for permission to withdraw, Stalin demurred, insisting they had more than sufficient forces with which to defend and

counterattack. He permitted a limited withdrawal of the 21st, 28th, 38th, and 9th Armies on 6 July. On 10 July, three days after First Panzer Army joined the German onslaught and after advancing German panzer spearheads threatened them with envelopment and destruction, Stalin approved a more significant withdrawal. However, this required the Southwestern and Southern Fronts to withdraw their forces to the Kazanskaia, Chertkovo, Belovodsk, Novo-Astrakhan', and Cherkasskoe line, where they were once again to conduct strong counterattacks. By this time, Sixth Army's forces had already outflanked this new line from the north.²⁰ The Southwestern Front's 28th, 38th, and 9th Armies were essentially hors de combat, and the Southern Front's 37th and 12th Armies were about to be routed. Hedging his bets, during the next two days Stalin ordered five fresh Soviet armies to concentrate in positions along the Don River's eastern bank and block any German advance into the great bend in the Don.²¹

This established a pattern that persisted through late August. Some Soviet formations, particularly newly organized and poorly equipped ones, broke and ran; others stayed and fought. The new tank formations, although still clumsy, posed a serious threat that forced German tactical commanders to move more cautiously than they had done in 1941, while always watching their flanks for counterattacks. Given sufficient fuel, the panzers could still advance almost anywhere they wished, but they suffered more casualties and took fewer prisoners—only 54,000 in the first three weeks of the campaign—than in the previous year.²² Unfortunately for the German field commanders, this change at the tactical level was not visible to Hitler or his immediate advisers. Accustomed to quick and successful encirclements, the dictator, OKW, and OKH began to suspect Bock and his subordinates of being too cautious and indecisive and of allowing the enemy to escape.²³

Meanwhile, on 7 July the Fourth Panzer and Sixth Armies linked up south of Voronezh. Two days later, as planned, Army Group South split into two parts: Bock would command the redesignated Army Group B, while Field Marshal Wilhelm List's new Army Group A began its own offensive farther south, with the ultimate goal of reaching the Caucasus.

One reason for the initial German success was that, until the fall of Voronezh, the *Stavka* continued to regard Moscow as the primary target; it was still trying to forestall the notional offensive that German deceptions suggested would start in Army Group Center. On 5 July, Zhukov's Western Front launched three armies—the 16th, 61st, and 3rd Tank—in a spoiling attack against Second Panzer Army near Bolkhov, north of Orel. Second Panzer was barely able to parry this attack, which again suffered from poor coordination both between headquarters and between tanks and infantry.²⁴

On the 13th, Hitler relieved Bock of his command because of the delay in dealing with Soviet resistance at Voronezh and an argument about how best

to encircle the Southwestern Front during *Blau* II. In his stead, Maximilian von Weichs became the Army Group B commander. Three days later, the German dictator moved the operational elements of OKW and OKH to a field location code-named *Wehrwolf* near Vinnitsa, in the western Ukraine. From there, he attempted to supervise the two army groups in their divergent goals. By 13 July, the breakthrough was already complete, and Army Group B began to pivot south and east to encircle Rostov. In the process, Hitler resubordinated Fourth Panzer Army plus an infantry corps from Army Group B to Army Group A, temporarily relegating the remaining elements of Army Group B to flank and rear security.

The great distances in the southern theater placed a severe strain on German logistics, so that by mid-July, the spearhead divisions of Fourth Panzer Army were already running short of fuel and struggling to reach their encirclement objective at Millerovo. First Panzer Army, traveling a shorter distance, was initially better supplied with fuel, but its limited strength faded more each day. Because of the losses during 1941 and the Khar'kov battles, the mechanized units of this army had begun Operation *Blau* II with an average tank strength of only 40 percent; by 16 July, they had been reduced to 30 percent, with only one tank battalion remaining in each division. Ten days later, the eight mobile divisions of Army Group A averaged only fifty-four tanks each.²⁵

The Germans continued to advance to the lower Don, where faulty intelligence reported large Soviet concentrations. First Panzer Army sent Mackensen's III Panzer Corps on a wild, cavalry-style raid east of the Northern Donets River and then southward, reaching Rostov for the second time in the war. However, General of Panzer Troops Friedrich Kirchner's LVII Panzer Corps of Seventeenth Army had already penetrated the heart of that city on 23 July. By this time, most of the Red Army defenders had evacuated Rostov despite orders from Malinovsky, commander of the Southern Front, to hold the city. Still, the remaining troops of 56th Army managed to destroy the main bridge over the Don River, and those soldiers plus NKVD units forced the German 125th Infantry Division to fight house to house in clearing the city at the end of July. Fortunately for the Germans, on the night of 25–26 July Brandenburger special operations troops bluffed their way into possession of several other Don bridges south of the city. Still, for a second time, a major encirclement effort had closed on an almost-empty sack because of Soviet retreats and the usual German inability to seal the encirclement. The Germans were poised to advance on the Caucasus but could show only 83,000 prisoners from *Blau* II. This left a major force of Soviets to the east, with the armies of the new Stalingrad Front threatening the flank of the future advance.²⁶

Soviet commanders were nonetheless disturbed by the speed and depth of the German offensive. By 29 July, the German advance had cut the direct rail links from Moscow to the south, forcing strategic reserves to take a

time-consuming detour into Central Asia in order to reach the battle area. Soviet military and civilian labor had constructed extensive field fortifications, but these proved useless because of shortages of skilled engineers and barrier materials. During the withdrawals in July, Southwestern Front lost control over many of its subordinate elements. Contrary to mythology, the resulting retreat was not a deliberate strategy on the part of the *Stavka*. Quite the contrary, the repeated retreats of July, with the severe losses that resulted, coming on top of the Crimean and Khar'kov disaster, appeared to Moscow an ominous repetition of the failures of 1941.

This situation prompted the issuance on 28 July of People's Commissariat of Defense Order No. 227, better known by its title—*Ni Shagu Nazad!* (Not a Step Back). Drafted by Vasilevsky as chief of the General Staff and extensively rewritten by Stalin himself, this decree forbade any further retreats, demanding iron discipline and an end to defeatism. The Red Army had habitually used blocking detachments, control points (usually NKVD) that prevented Soviet troops from retreating, returned stragglers to their parent units, and dragooned military-age civilians into the Red Army. Now, however, each *front* was to create penal battalions, composed of those who had proved cowardly or unsteady, and then assign such battalions to the most dangerous missions.²⁷

THE DIVIDED GERMAN ADVANCE

Because of the failure to destroy or capture the large Soviet forces encircled during *Blau I* and *II*, Hitler unintentionally came to Stalin's rescue by dividing the German efforts, focusing for the first time on the industrial and symbolic value of Stalingrad. Führer Directive No. 45, issued on 23 July, ordered Army Group B "by a thrust forward to Stalingrad, to smash the enemy forces concentrated there, to occupy the town, and to block the land communications between the Don and the Volga, as well as the Don itself."²⁸ To this end, the dictator transferred XXIV Panzer Corps from Fourth Panzer Army to Sixth Army and gave the latter headquarters a higher priority for air support. In retrospect, German chroniclers mark this order as the beginning of the Stalingrad debacle. Thereafter, the 1942 offensive would operate on two diverging axes, east toward Stalingrad and south to the Caucasus, either of which alone would have posed a major challenge for the depleted German forces and logistical system.²⁹

List's Army Group A faced the daunting task of covering 290 kilometers from Rostov to Maikop, the northernmost oil field. To accomplish this, General Ruoff was to use his own Seventeenth Army plus the Romanian Third Army to pin Budenny's North Caucasus Front against the Sea of Azov

and the western Caucasus Mountains, while Kleist's First Panzer Army, and Hoth's weakened Fourth Panzer Army advanced on the oil fields. Operation Edelweiss kicked off on 26 July and at first made phenomenal progress—240 kilometers in the first week while traversing a high salt desert in temperatures of 40 degrees Celsius (104 degrees Fahrenheit).³⁰ In August, though, this advance slowed because of difficult terrain, inadequate fuel, and a shift in air support priorities to the Stalingrad region.

Until the railroad network could be restored, German field commanders were hamstrung by shortages of petroleum and transport. On 9–10 August, Army Group A captured the small Maikop oil field, only to find that the defenders had systematically destroyed all the wells and refineries in the area. The Oil Brigade Caucasus took months to restore operations. As they moved farther away from their railheads, the German forces were increasingly worn down at the same time that they had to spread out to cover huge territories. Just as in 1941, tactical successes did not add up to decisive victory, and in the interim, the defenders exacted a rising price in German blood.

From Hitler's point of view, Operation *Blau* had degenerated into a long series of missed opportunities in which the small-minded, overly cautious professional soldiers sought to dissuade their Führer from following the correct course to victory. He had an overwhelming sense that his strategic window of opportunity was closing. Therefore, given the previous errors of the generals, the creative gambler in Hitler was inclined to follow his own instincts. On 9 September, he relieved List of command of Army Group A. Instead of appointing another general, for the next two months the German chancellor had the two field army commanders of that group report to him directly on alternate days. General Halder, who since 1939 had loyally served Hitler as head of the OKH, found himself retired on 24 September, and Hitler hinted at further dismissals.

Throughout the fall, after Fourth Panzer Army was diverted to Stalingrad, Army Group A periodically assembled enough vehicles and supplies to make another convulsive lunge forward, with the defenders bitterly contesting each advance. By early November, the leading elements of First Panzer Army were struggling to seize the road junction of Ordzhonikidze, in extreme southern Russia, from which they could advance another 110 kilometers northeastward to the Grozny oil fields. Army General Ivan Vladimirovich Tiulenev, commander of the Soviet Transcaucasus Front, not only fought Mackensen's III Panzer Corps to a standstill but also, on 6 November, surrounded most of 13th Panzer Division. After frantic German relief efforts, the remnants of this division escaped on foot, having suffered 2,500 casualties and lost two-thirds of their tanks and other vehicles.³¹ The failure in the Caucasus merely added to the German preoccupation with Stalingrad, which seemed to offer the only clear goal east of the Don.

Yet, even reaching that city proved difficult for the overstretched German forces. The steep banks of the rivers and ravines in the region of the Don River bend seriously impeded German movement and restricted river crossing sites. General Paulus, commander of Sixth Army, had two panzer and two motorized divisions to spearhead his infantry while advancing against stiffening Soviet resistance, and his entire operation depended upon a single low-capacity railroad line. Moreover, OKH supply planners did not adjust their allocations to support the additional high-maintenance divisions, so the entire army was starved of fuel and resources. At the end of July, Hitler personally redirected transport capacity from First Panzer to Sixth Army, but by that time, Paulus had developed a supply backlog that was never fully eliminated. In the interim, stopgap supply measures entailed great risks, such as airlifting small amounts of flammable fuel and ammunition on Ju-52 transports.³²

This combination of restrictive terrain, inadequate supply, and stiffening enemy resistance meant that Paulus had great difficulty reaching, let alone conquering, Stalingrad. Between 17 July and 23 August 1942, he had to launch four successive offensive efforts to cross the Don and reach the outskirts of his objective. He frequently encountered major Soviet counterstrokes, especially that by the recently formed Stalingrad Front on 26 July. The commander of this front, Major General Vasiliy Nikolaevich Gordov, had replaced the inadequate Marshal Timoshenko only four days earlier, and most of his subordinate armies were equally short-lived. Nonetheless, at Stalin's insistence Gordov launched 1st and 4th Tank Armies, as well as the re-formed 21st, 62nd, and 64th [rifle] Armies, at Paulus's northern spearhead, General of Infantry Gustav von Wietersheim's XIV Panzer Corps. The three divisions of this corps—3rd and 60th Motorized and 16th Panzer—had the novel experience of having to retreat and dig in when struck by 13th Tank Corps. As so often before, however, Moscow's demand for an immediate counteroffensive meant that the Soviet units arrived on the battlefield in a piecemeal fashion. The more experienced Germans, supported by over 1,000 *Luftwaffe* sorties on the 27th alone, quickly recovered from their surprise and wreaked considerable havoc on Gordov's ill-coordinated advance, only to run short of fuel and ammunition themselves.³³ When the battle in the great bend in the Don had run its course, Soviet 1st Tank and 62nd Armies had been virtually destroyed; their remnants withdrew into Stalingrad city, where, reinforced by whatever forces the *Stavka* could hastily assemble, they commenced a deadly war of attrition in the city's rubble.

As Sixth Army and Fourth Panzer Army struggled forward, the Red Army not only impeded its advance but also repeatedly struck its elongating left flank. Again, a shortage of railroad capacity delayed the redeployment of Romanian Third Army to shore up this flank until September, forcing the Germans to devote more of their own troops to this task. From 20 to 28

August, the Stalingrad Front's 21st and 63rd Armies crossed the Don River near Serafimovich, forcing Italian Eighth Army, also deploying to that flank, to fall back temporarily. At the same time, a counterattack by 1st Guards Army seized another bridgehead over the Don near Kremenskaia; German forces diverted from the main advance failed to eliminate this bridgehead. Two other bridgeheads opposite Hungarian Second Army, northwest of the Italians, also posed a continuing threat to Army Group B's advance. Meanwhile, the Western and Northwestern Fronts conducted a series of limited offensives that tied down German reserves and blocked the capture of Leningrad.³⁴

On 23 August, the *Luftwaffe* launched its first major firebomb raid on Stalingrad; the combination of air and ground fire soon reduced much of the area to rubble covered by thick, black smoke. That same day, Sixth Army resumed its eastward advance, breaking through the crust of forces in front of it. Army Group B's intent was to seize Stalingrad in a coup de main by enveloping it from the north and south with Sixth and Fourth Panzer Armies' panzer corps so as to avoid a costly fight clearing defenders from the city's rubble. Sixth Army's XIV Panzer Corps once again led the way, pushing a pencil-thin corridor through the northern suburbs of Stalingrad to reach the Volga that afternoon. On the southern end of the city, XXXXVIII Panzer Corps of Hoth's Fourth Panzer Army attempted a mirror-image advance to the river, with almost the same results. Elated by this success, Hitler forbade any withdrawal from the river. Yet, the hunter quickly became the hunted. Operating under Zhukov's instructions, scratch forces of Soviet troops placed enormous pressure on both sides of XIV Corps' corridor, preventing it from seizing Stalingrad's factory district. At one point, unpainted T-34s that had just rolled off the factory line overran the headquarters of 16th Panzer Division's 64th Panzer-Grenadier Regiment. The *Luftwaffe* failed to parachute supplies to that division on the night of 24–25 August, prompting its commander, Major General Hans Hube, to announce to his officers that he intended to violate the Führer's instructions and break out to the west. Fortunately for Hube's career, 3rd Motorized Division was able to get supplies to him the next day, enabling the 16th to retain its toehold on the Volga.³⁵ Still, this desperate corridor battle was an inauspicious beginning to the German attack on Stalingrad because it left the northern half of the city in Soviet hands.

STALINGRAD

In 1942, Stalingrad was a vast industrial city that sprawled in a narrow, 24-kilometer ribbon along the west bank of the Volga River. Swelled by tens of thousands of refugees, much of its population of 600,000 was clustered

around three huge factory complexes in the northern half of the town: the Red October Steel Works, the Stalingrad Tractor Factory, and the Barrikady Ordnance Factory. Although numerous Soviet headquarters were involved, the tactical defense of the city rested with Lieutenant General Vasilii Ivanovich Chuikov's 62nd Army, which began the battle in the city with elements of two tank corps, nine rifle divisions (one of them NKVD), and seven rifle and two tank brigades, all of which were severely depleted.³⁶

The elongated shape of this complex and the river beyond it made encirclement almost impossible; once the armored coup de main failed, the attackers would have to clear the city methodically. To accomplish this, Sixth Army and Fourth Panzer Army had twenty-five divisions between them: three panzer, three motorized, one Romanian, and eighteen German infantry divisions.³⁷ On 16 September, Paulus received operational control over the infantry elements of Fourth Panzer Army, but even this proved inadequate. As the struggle continued throughout the fall, Paulus periodically rotated the assault units with the divisions protecting his army's long left wing along the Don, but even this was only a relative respite. The Red Army continued to attack that wing, launching four failed offensives in the Kotluban' area during September and October. These assaults at Kotluban', coupled with similar assaults by 64th and 51st Armies south of the city, prevented XIV Panzer Corps, as well as elements of 14th Panzer Division, from helping to seize the city.³⁸

Potentially, the defenders could draw on much larger supplies of men and munitions. Using boats and barges, the Stalingrad Front ferried troops across the Volga at night despite frequent German artillery attack. Once again, the *Stavka* policy of maintaining large operational and strategic reserves allowed the Soviets to absorb a German offensive, albeit at enormous human cost. Between 14 September and 26 October, Chuikov received nine rifle divisions, a naval infantry brigade, and two tank brigades as reinforcements. Eventually, he began to send back the cadres of veteran units to be filled up with individual replacements rather than bleeding completely new units.³⁹ Despite these reinforcements, the attrition was so high that the strength of 62nd Army rarely exceeded 55,000 men. Deliberately or otherwise, the *Stavka* and a series of *front* commanders gave the defenders just enough replacements and ammunition to keep Sixth Army locked in a death struggle.

This struggle required incredible endurance and improvisation on both sides. Early in the battle, Chuikov realized that he had to neutralize the German superiority in airpower and artillery. He directed his troops to "hug" the enemy; that is, to remain so closely engaged that the Germans could not use air strikes without endangering their own men. For weeks on end, small groups of Red Army infantrymen and combat engineers operated so close to their opponents that often only a single street or even a single wall separated

them. Deadly battles of search and ambush were fought out at ranges measured in meters.

Nonetheless, the Germans slowly forced their opponents back. By late September, Paulus, relying on his remaining armor to overwhelm the defenders, had succeeded in clearing the southern two-thirds of the city. A month later, the front lines were only 200 meters from the landing docks along the river, even as Chuikov's men held on grimly to the factory district in the northern part of the city. Rifle divisions lost as much as 90 percent of their strength.

The Germans were also bled white, however. Infantry and panzergrenadier regiments, sometimes commanded by lieutenants for lack of senior officers, could barely muster a few hundred men each to continue the advance. By the morning of 31 October, as it gathered for another urban assault, 24th Panzer Division's dismounted rifle strength (including two panzer-grenadier regiments, a motorcycle battalion, and a combat engineer battalion) was only 41 officers and 960 men.⁴⁰ In fact, for much of October the effective German combat strength was scarcely greater than that of the Soviets. On 2 November, Hitler agreed that the combat engineer battalions from German divisions in quiet sectors would be redirected to the city to muster enough troops for the final push there. The German dictator had already announced the fall of the city, but Chuikov's troops held on stubbornly and even counterattacked the engineers.⁴¹

CONCLUSIONS

The Soviet Union and its armed forces suffered catastrophic defeats during the seventeen months known as the First Period of War. Quite apart from the strategic surprise of June 1941, the Red Army and Air Force were caught in transition, still half mobilized while changing their leadership, equipment, organization, doctrine, and dispositions. Soviet training and maintenance levels were low, while leadership was weak, timid, or simply inept. As a result, during the first six months of the war, two-thirds of the Red Army's active-duty strength, 3,137,673 men, perished or fell into captivity, along with a sizable portion of its command and staff cadre. Another 1,336,147 were wounded. By the end of 1942, this ghastly casualty total had risen to over 11 million, more than 1.5 million of which were suffered as a result of Operation *Blau*.⁴²

The very scale of their success in 1941 hindered the Germans' advance. German panzer columns easily pierced Soviet defensive deployments, although they were sometimes delayed by uncoordinated Red counterattacks. An unbridled German optimism propelled the invaders onward into positions that stretched their logistics to the breaking point and wore out their

few mechanized units. Tactical and even operational encirclements exceeded exponentially the earlier achievements in Poland and France, but they failed to achieve the ill-defined strategic objectives of the war. Still, the invaders plunged eastward, reaching Rostov and the suburbs of Leningrad and Moscow by December.

It is traditional to argue, as the first edition of this study did, that the German rapier, designed to end conflict cleanly and efficiently, was dulled by repeated and often clumsy blows from a simple, dull, but very large Soviet bludgeon. There is considerable truth to this metaphor, as inexperienced Soviet commanders used successive waves of newly mobilized armies, each taking its toll of the invaders before shattering. Indeed, the Soviet mobilization capacity, more even than the German problems with distance and logistics, saved the Soviet Union in 1941–1942. While the German command struggled to keep a dozen panzer divisions operational, the Commissariat of Defense raised and fielded more than 100 armies of various types.⁴³ These armies lacked everything except manpower and commissars, but their attritional effects on the invaders proved the cliché that quantity has a quality all its own.

The USSR's survival in the face of innumerable disasters was miraculous. This survival underscored the capacity of the Soviet population and its armies for suffering. It was as if the Soviet government had resorted to the eighteenth-century medical practice of bleeding the patient to restore health. Whether by design or by chance, the bleeding produced results—but at the cost of enormous casualties and suffering.

This sacrifice bought Stalin the time necessary for the industrial mobilization that, with Allied support, provided the survivors with abundant implements to wage war. The first German onslaught had eliminated much of the prewar Soviet inventory of obsolescent, poorly maintained tanks, aircraft, and other weapons. With a few exceptions produced in the name of expediency, such as the T-60 light tank, the replacement weapons were more than a match for their German counterparts. The Germans also lost many of their least effective weapons, such as Panzer II tanks, in the first campaigns. However, despite the efforts of men such as Speer, Germany was unable to replace all of those losses in 1942.

This leads us back to the metaphor of rapier and bludgeon. Not all Soviet commanders used the wasteful approach of throwing masses of ill-prepared troops at the invaders. As early as August and September 1941, in the struggles by Konev's 19th Army along the Vop' River northeast of Smolensk and Rakutin's 24th Army at El'nia, certain generals and formations showed what they could achieve under the right circumstances. By July 1942, the surviving brigade and division commanders began to be worthy of the self-sacrifice exhibited by their troops. These survivors increasingly had the hard-won

skills to challenge the Germans at the tactical level and found themselves promoted in many cases to command of armies and tank corps. Of course, such Soviet generals were still handicapped by inexperienced staffs, inflexible communications, the same terrain restrictions that faced the Germans, and a constant pressure from the impatient *Stavka*. Far too often, the institutional and doctrinal desire to strike back meant that the Soviets launched their counterattacks prematurely, before all their troops and supplies were concentrated for the fight. Many of these problems endured to the end of the war, but in November 1942, for the first time, the Soviets took the time to prepare properly for an offensive.

The improvements in Soviet leadership affected both sides. First, Stalin increasingly trusted his subordinates to implement his intentions, a necessary prerequisite for future success. Symbolic of this new attitude was the 9 October 1942 restoration of command authority, reducing the all-powerful commissars to deputy commanders for political affairs.⁴⁴ Second, as described earlier, the growing skill and lethality of Red Army formations forced German commanders to proceed more slowly and cautiously, an attitude that Hitler misinterpreted as hesitancy and disobedience. Thus, at the same time that Stalin was decentralizing authority and investing more trust in his subordinates, Hitler (seconded by Halder) was moving in the opposite direction, depriving field commanders of their freedom of action. Sometimes, his actions were justified, especially his efforts to restrict excessive sharing of information when it produced leaks, as happened in the Reichel affair. Overall, however, the reduction in command flexibility made it far more difficult for the Germans to deal with their increasingly skilled opponents.

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“Under the banner of Lenin, forward to victory!” (poster by A. P. Voloshin, 1941)

РОДИНА-МАТЬ ЗОВЕТ!



"The Motherland calls!" (poster by I. M. Toidze, 1941)



Chiefs of the Red Army (clockwise): General Staff Marshals of the Soviet Union
B. M. Shaposhnikov and A. M. Vasilevsky with General of the Army A. I. Antonov



Marshal of the Soviet Union
G. K. Zhukov, *Stavka*
representative, Western and 1st
Belorussian Front commander



General of the Army N. F. Vatutin,
Voronezh and 1st Ukrainian Front
commander



Marshal of the Soviet Union I. S. Konev (right) and his chief of staff, Lieutenant General M. V. Zakharov, planning the Korsun'-Shevchenkovskii operation, January 1943



Marshal of the Soviet Union R. Ia.
Malinovsky, 2nd Ukrainian Front
commander



Marshal of the Soviet Union
K. K. Rokossovsky, 3rd Belorussian
Front commander



General of the Army I. Kh. Bagramian, 1st Baltic Front commander, 1944

General of the Army
I. D. Cherniakhovsky, 3rd
Belorussian Front commander, 1944



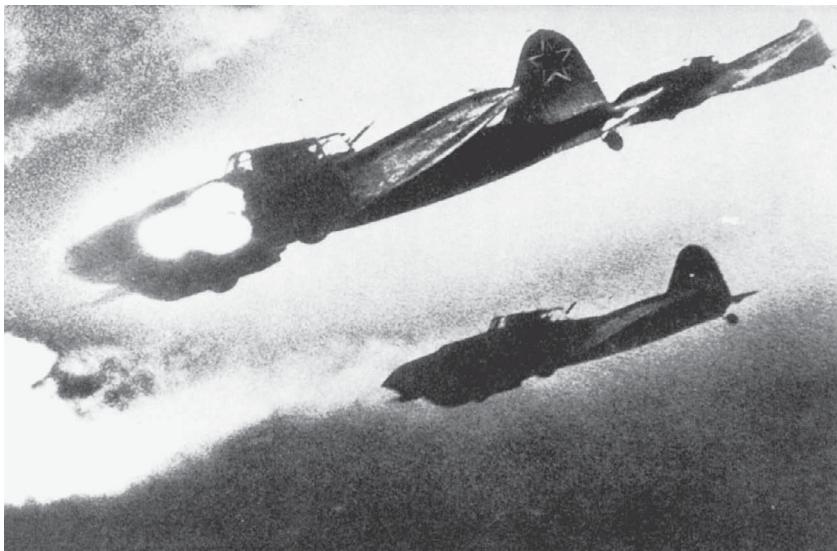
Lieutenant General P. A. Rotmistrov (center), 5th Guards Tank Army commander,
and his staff



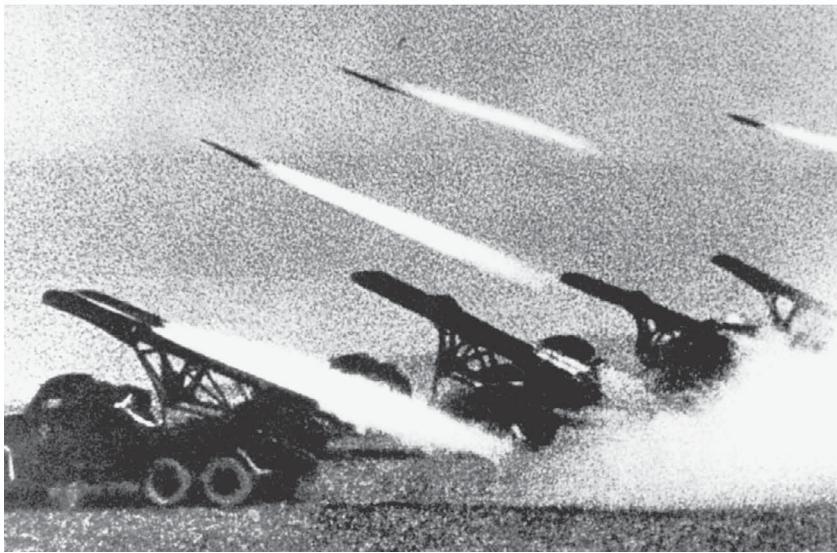
Surviving Soviet *front* commanders at war's end, from left to right, front row:
I. S. Konev, A. M. Vasilevsky, G. K. Zhukov, K. K. Rokossovsky, and K. A. Meretskov;
second row: F. I. Tolbukhin, R. Ia. Malinovsky, L. A. Govorov, A. I. Eremenko, and
I. Kh. Bagration



Colonel M. T. Leonov, commander of the Voronezh Front's 112th Tank Brigade,
and his brigade staff conduct tabletop training for a forthcoming operation in the
Kursk region, 1943



Soviet *Shturmovik* aircraft in action, 1943



Red Army "Katiusha" multiple-rocket launchers firing during the Battle of Kursk, 1943



Soviet T-34 tanks in the attack



Attacking Soviet infantry



Soviet infantry assault



Soviet tanks and infantry assault a village



Soviet tank column enters a city



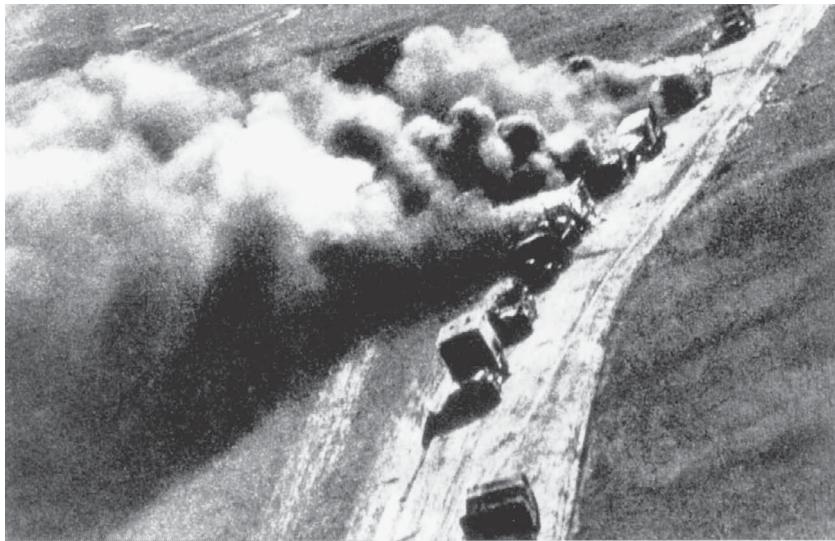
Soviet tank and infantry assault



Soviet tank assault with infantry onboard tanks



Soviet forces crossing the Dnepr, November 1943



Soviet attack on a German column, Belgorod-Khar'kov operation, August 1943



A defeated German soldier, Kursk 1943



German prisoners of war in the streets of Moscow, July 1944



"Glory to the Red Army!" (poster by L. F. Golovanov, 1946)

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SECOND PERIOD OF WAR

November 1942–December 1943

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CHAPTER NINE

Operation Uranus

The Destruction of Sixth Army

SOVIET PLANNING

Stalingrad marked a turning point not only in the conduct of the war but also in the *Stavka's* planning system. While the Germans advanced despite a series of limited Soviet counterstrokes during July and August 1942, *Stavka* planners never lost sight of their goal, which was to resume large-scale offensive operations with the aim of destroying at least one German army group. Having found his own military intuition and that of his political cronies to be deficient, Stalin finally granted his military subordinates a greater role in planning and conducting operations. Nonetheless, the Soviet leader remained the ultimate authority. He determined the political aims of operations and often shaped those operations after listening to and acting upon the recommendations of his senior commanders.¹

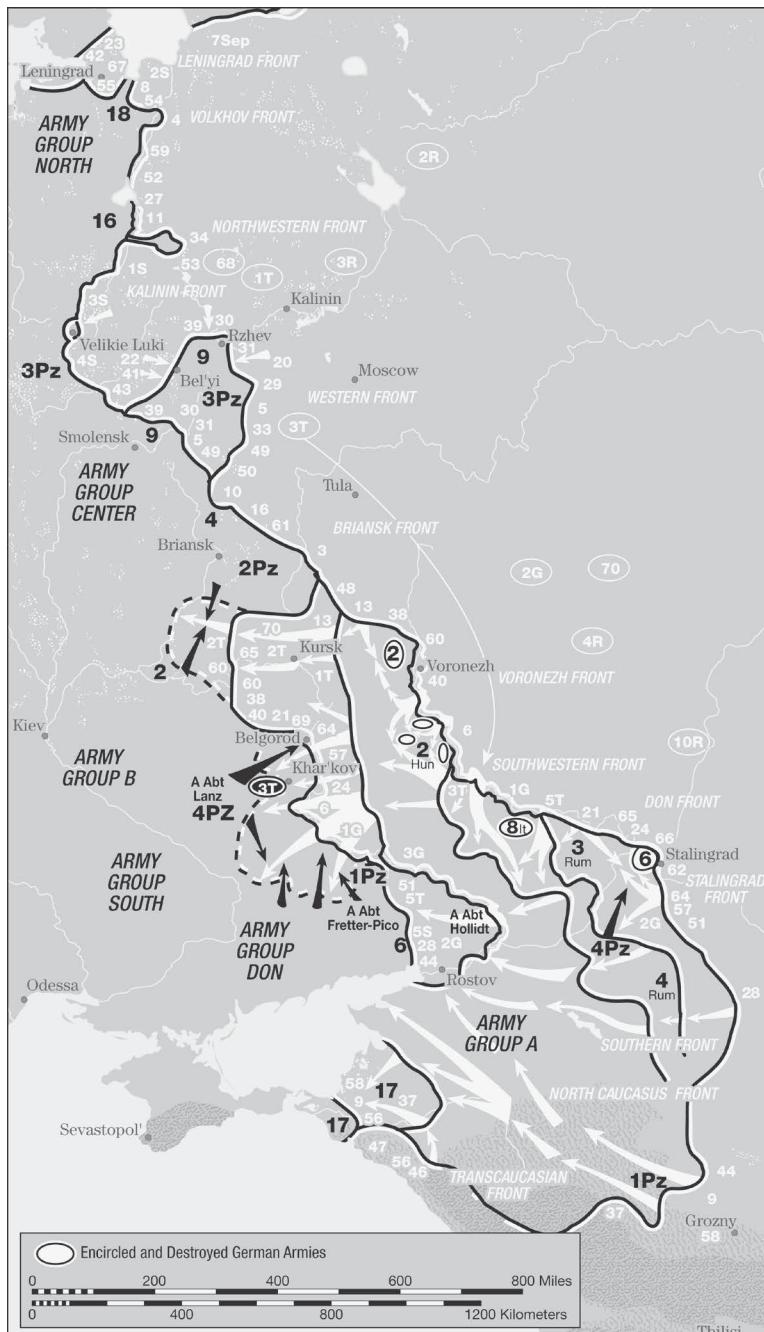
In June 1942, Boris Shaposhnikov's fragile health had finally given way under the strain of war, and he went into semiretirement. His successor, Aleksandr Mikhailovich Vasilevsky, remained chief of staff, deputy defense commissar, and sometime field representative of the *Stavka* until February 1945, when he assumed command of the 3rd Belorussian Front, followed in July by command of the Far Eastern theater. Far less temperamental than Zhukov, Vasilevsky exercised a calming, rational influence on the dictator. The new chief of staff surrounded himself with superbly competent assistants, appointing Colonel General Aleksei Innokent'ovich Antonov as his first deputy and chief of the Operations Directorate in December 1942. To replace the cumbersome system of three Strategic Direction headquarters, Stalin and Vasilevsky increasingly used *Stavka* representatives to coordinate and supervise the conduct of major operations by one or more *fronts*. These senior officers, including Zhukov, N. N. Voronov, Timoshenko, and others, provided the critical link between operating *fronts* and the General Staff; they also gave Stalin a sense of confidence that field operations would be carried out in accordance with his wishes.²

Throughout the summer of Operation *Blau* and the desperate defense of Stalingrad, Vasilevsky kept a small group of staff officers, headed by Major General Fedor Efimovich Bokov, working on plans for a strategic counteroffensive, designed to be the first phase of an ambitious winter campaign

that would embrace the entire central and southern regions of the front (see Map 12). A number of other officers, most notably Zhukov and Vasilevsky, later claimed authorship of the result (Operation Uranus), but their accounts do not match the facts.³ Newly released *Stavka* records now prove that Eremenko, commander of the Stalingrad Front, was responsible for proposing the concept for what ultimately became Operation Uranus. He did so on 6 October in response to Zhukov's requests for comments from his *front* commanders about a fresh counteroffensive to encircle German Sixth Army. In September and early October, the *Stavka* had already launched several major counteroffensives from the Kotluban' region north of Stalingrad and from areas south of the city, but these had proved costly failures. Recoiling in horror over the prospect of repeating these bloodlettings, Eremenko suggested a far broader envelopment operation from the bridgeheads across the Don River at Serafimovich and Kletskaia and from the lake region south of Stalingrad; the attacking forces would link up at Kalach on the Don, deep in Sixth Army's rear.⁴ This concept involved penetrating Romanian rather than German defenses and employing cavalry and armor to carry out the enveloping maneuver. Zhukov, in his capacity as Deputy Supreme Commander, accepted Eremenko's proposal, strengthened it significantly with armor, and convinced Stalin of the plan's feasibility.

By mid-October 1942, Stalin was sufficiently confident to expand this proposal into a series of strategic counteroffensives scheduled to begin in late October but ultimately delayed until mid-November.⁵ The first, Operation Uranus, aimed to encircle and destroy Axis forces in the Stalingrad region. It would be followed by Operation Saturn, an advance southwestward to Rostov aimed at isolating and destroying all of German Army Groups A and B. Simultaneously, Zhukov would coordinate the Western and Kalinin Fronts in Operation Mars, an attempt to collapse Army Group Center's salient at Rzhev northwest of Moscow, seize Velikie Luki, distract German reinforcements from the south, and heavily damage Kluge's army group.⁶ The final planet in this constellation of Soviet offensives was to be Jupiter or Neptune. Just as Saturn depended on the success of Uranus, Jupiter or Neptune was designed to build on Mars. A new thrust by the Western Front toward Viaz'ma would then link it up with the victorious forces from the Rzhev salient, destroying the entire German Army Group Center.⁷

Uranus differed from the previous Soviet offensives in two critical respects. First, by November Army Group B had become overextended, with its German units bled white and its vulnerable flanks defended by a thin crust of satellite forces. Second, unlike many earlier Soviet counteroffensives Operation Uranus involved months of careful planning and preparation.⁸ The Soviets allowed more time to assemble troops and munitions, and in many cases, the formations themselves, having fought in the previous battles, had more experienced staffs with more time to train before the counteroffensive.



Plan Uranus called for a classical encirclement. It involved so many redeployed forces that a new Southwestern Front, commanded by Colonel General Nikolai Fedorovich Vatutin, took form to conduct the encirclement's northern pincer. At only forty-one years of age, Vatutin was Vasilevsky's protégé, and he was already known for his audacity.⁹

It was no coincidence that the initial Soviet objectives were the threadbare satellite armies deployed on German Sixth Army's flanks. In early November, Lieutenant General P. I. Romanenko's refitted 5th Tank Army secretly redeployed to the Serafimovich bridgehead over the Don River northwest of Stalingrad. Vatutin planned to use Romanenko's force, together with Lieutenant General I. M. Chistiakov's 21st Army, to make the attack. They would operate in parallel with the neighboring 65th Army of Rokossovsky's Don Front to achieve a shallow encirclement of the overextended Romanian Third Army. Once the penetration began, 5th Tank Army's 1st and 26th Tank Corps with 21st Army's 4th Tank and 3rd Guards Cavalry Corps would advance much deeper, wheeling southeastward across the Don to encircle the German defenders at Stalingrad. The 5th Tank Army's 8th Cavalry Corps would provide a thin outer encirclement to delay German relief columns. To support 5th Tank Army's advance, the critical element in the entire plan, Romanenko also had operational control of 1st Mixed Aviation Corps, a large group of close-support aircraft.

On the German southern flank, east of the city, A. I. Eremenko, commander of the Stalingrad Front, would launch 51st and 57th Armies, spearheaded by 13th Tank and 4th Mechanized Corps, to push through the Romanian Fourth Army and link up with 5th Tank Army near Kalach on the Don. The 4th Cavalry Corps would cover Stalingrad Front's left flank. Because 5th Tank Army had to travel 120 kilometers as opposed to the 90 kilometers expected of 4th Mechanized Corps, the Southwestern Front would begin its attack one day before the Stalingrad Front.¹⁰ Once Operation Uranus succeeded, the *Stavka* planned to use the powerful 1st Guards Army to spearhead Operation Saturn, the drive on Rostov.

This plan had inevitable weaknesses, of which the most obvious was the weak outer encirclement of cavalry forces that would have to parry the initial German relief efforts. More significantly, Soviet tank and mechanized forces still suffered from a lack of maintenance, motor transportation, and general logistical support. As Soviet after-action critiques indicated, once committed to the exploitation, tanks and other vehicles broke down at an alarming rate.¹¹

The Red Air Force also intended to use new equipment and doctrine to wrest local air superiority. The air force commander, Novikov, had assigned ten regiments of the latest model Iak-9 and La-5 fighters to 8th Air Army at Stalingrad in the late summer of 1942. Recognizing the limited experience of new pilots, he instituted a strict system of ground control and experimented

with the first Soviet instance of radar-directed fighter interception. On 9 November, Novikov's chief of staff, Lieutenant General F. Ia. Falaleev, issued a regulation instructing all commanders to focus their air assets on supporting ground operations in the breakthrough zones, rather than trying to be strong everywhere. The Red air units still suffered from shortages of fuel, spare parts, and trucks, but they were gradually developing effective tactics based on wingmen and retaining an advantage in altitude.¹²

GERMAN PERCEPTIONS AND FAILURES AT STALINGRAD

From Hitler on down, German commanders were aware of the weakness of their flanks at Stalingrad, but they deferred efforts to improve those defenses until after they finished capturing the city. Moreover, the Germans generally failed to anticipate the massive scale of the counteroffensive the *Stavka* conceived. On 15 August, for instance the *Fremde Heere Ost* (Foreign Armies East) Intelligence Division of OKH had estimated, with considerable accuracy, that the Red Army still had seventy-three rifle divisions, eighty-six tank brigades, and a number of other reserve units available. By 6 November, the same office inexplicably asserted that the Soviets lacked sufficient forces for a major new offensive in the south.¹³

One reason for this German error was the Soviet disinformation indicating that no major offensive was planned in the Stalingrad region. Throughout the late summer and fall, a series of Soviet offensive actions against Army Groups Center and North and the continued presence of strategic reserves near Moscow contributed to this deception.¹⁴ In mid-October, the *Stavka* intentionally used unencrypted radios to transmit a long directive on defensive preparations for the coming winter, hoping that the German monitors would intercept it. As late as 12 November, OKH intelligence suggested that the troop concentrations opposite Romanian Third Army were only intended for a shallow attack to sever the railroad leading to Stalingrad.¹⁵ In general, the Germans had very accurate knowledge of frontline Soviet units but little detail about what happened farther to the rear.

The shortage of manpower and equipment continued to limit Axis combat power. The rivalry between the German Army and the *Luftwaffe* meant that the latter would not transfer manpower to the former. Instead, during the fall of 1942 Hermann Göring began to organize *Luftwaffe* field divisions that lacked both heavy weapons and experienced ground commanders.

The XXXVIII Panzer Corps headquarters, commanded by Lieutenant General Ferdinand Heim, was the designated reserve behind the Romanian-Italian sector. Unfortunately for the Axis, this "corps" was as flimsy as the units it was supposed to support. Its 22nd Panzer Division had sent its

engineer battalion to fight in Stalingrad, and the 22nd's 140th Panzer-Grenadier Regiment was detached to German Second Army at Voronezh. The division's remaining equipment had deteriorated during months of inaction behind the front, to the point that only twenty-four tanks were actually functional when the division counterattacked on 19 November. The 14th Panzer Division, again minus its infantry units, was designated to cooperate with Heim's panzer corps but could muster only fifty-one tanks.¹⁶

These small reserves were no match for the 660 tanks of the four Soviet mobile corps. Overall, the ratio of Soviet to Axis forces in the Stalingrad region was significant, especially given the large proportion of Romanian forces that suffered the initial attack. Official Soviet accounts generally understated the actual force ratios, which were close to two to one in all combat categories. In the main penetration sector, the Soviet numbers were overwhelming, quite apart from the advantages of surprise (see Table 9-1).¹⁷

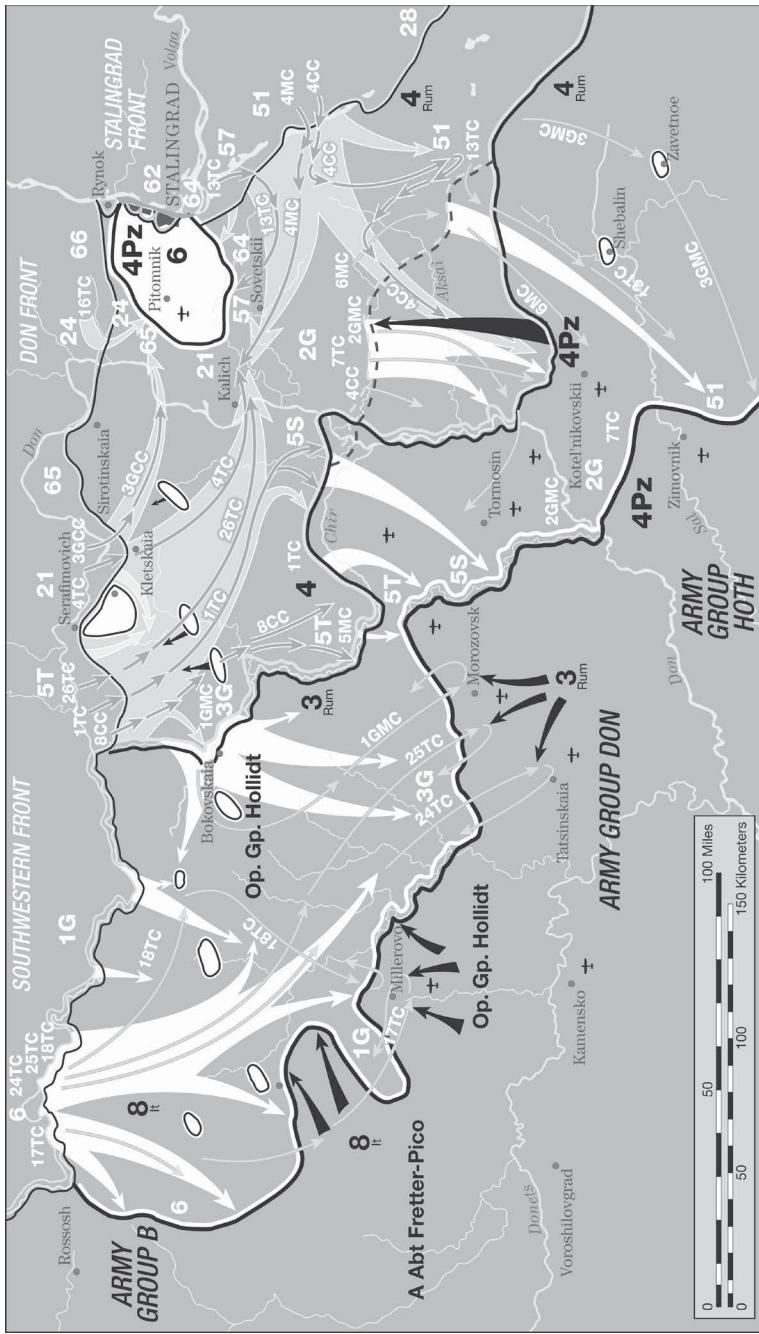
The Stalingrad counteroffensive and ensuing winter campaign occurred in three phases. First, between 19 and 30 November the Southwestern and Stalingrad Fronts penetrated Axis defenses and encircled German and Romanian forces in a large pocket adjacent to the city. Next, between 1 December 1942 and 10 January 1943 they attempted to exploit this success but were hampered by German efforts to relieve the beleaguered Stalingrad force. Finally, between 10 January and 18 March the *Stavka* supervised the liquidation of the Stalingrad pocket (Operation Ring), while attempting to expand its success throughout the entire German front. This larger effort was stymied by a combination of Soviet errors and skillful German counterblows.

Initial successes exceeded Soviet expectations (see Map 13). On 19 November, the Southwestern Front began the offensive, with supporting attacks by the neighboring Don Front. The Romanian defenders had no effective antitank guns or reserves, and they were easily crushed, although General Mikhail Laskar, the able commander of 6th Infantry Division, made a

Table 9-1. Soviet Strength at the Beginning of the Stalingrad Counteroffensive

Front	Personnel	Tanks	Artillery	Aircraft
Southwestern	398,100	410	4,348	447
Don	307,500	161	4,177	202
Stalingrad	429,200	323	5,016	221
Volga Flotilla	8,700			
<i>Total</i>	<i>1,143,500</i>	<i>894</i>	<i>13,541</i>	<i>870</i>

Sources: G. F. Krivosheev, *Soviet Casualties and Combat Losses in the Twentieth Century* (Mechanicsburg, PA: Stackpole Books, 1993), 126, and K. K. Rokossovsky, ed., *Velikaia bitva na Volge* (Moscow: Voenizdat, 1982), 254–258.



Map 13. Soviet Counteroffensives at Stalingrad

remarkable stand for the first three days. The 26th and 1st Tank Corps of Romanenko's 5th Tank Army passed through the attacking rifle divisions to enter the battle by noon on the first day. In coordination with Chistiakov's neighboring 21st Army, 5th Tank Army captured the bulk of three Romanian divisions (27,000 prisoners) and continued its exploitation. The two tank corps and Major General A. G. Kravchenko's 4th Tank Corps from 21st Army advanced as much as 70 kilometers per day, bypassing centers of resistance. On 22 November, 26th Tank Corps, commanded by Major General A. G. Rodin, approached Kalach-on-the-Don, whose bridges were essential to both sides in the battle. To capture these bridges before the Germans could destroy them, Rodin organized a small forward detachment of five T-34 tanks and two motorized infantry companies under Lieutenant Colonel G. N. Filippov. Filippov boldly formed this detachment into a closely packed column and advanced on a bridge north of the town with all vehicle headlights blazing.¹⁸ The German sentries mistook Filippov's detachment for a friendly force, allowing it to seize and hold the bridge, together with nearby key terrain, until relieved by the rest of the tank corps. After bypassing Kalach-on-the-Don, on the afternoon of 23 November 26th Tank Corps linked up with Major General V. T. Vol'sky's 4th Mechanized Corps at Sovetskoe, southeast of Kalach, completing the encirclement.¹⁹ By the end of November, Soviet forces had encircled 22 divisions, totaling 330,000 men, including Sixth Army, Romanian remnants, and one corps of Fourth Panzer Army. This Axis force far exceeded Soviet expectations; reducing the pocket required seven rifle armies and extensive command and staff attention, thereby forcing the *Stavka* to reduce the intended scale of its follow-on operation, Saturn.

Most German accounts contend that General Paulus, the Sixth Army commander, could have broken out of this encirclement had he acted promptly. This argument is questionable for a number of reasons. First, Hitler repeatedly forbade making such a breakout, and he made no secret of his willingness to relieve Paulus or anyone else who tried to do so; he wanted Sixth Army to stand fast, tying up large numbers of Soviet forces, until relieved, a function that it did in fact perform. Second, this argument assumes a logistical strength that Paulus never possessed. The entire assault on Stalingrad had been conducted on a shoestring, which meant his forces lacked the fuel, ammunition, and transportation needed to break out. In fact, to alleviate the demand for fodder, Sixth Army had shipped most of its horses and veterinary units to the rear before the first snows, expecting to remain in Stalingrad for the winter. Without draft animals, Sixth Army might have escaped Stalingrad but only by leaving most of its heavy equipment, supplies, and even wounded behind, as Paulus reluctantly admitted in a 23 November message to Hitler.²⁰ Finally, the Soviets possessed powerful reserves that could block the relief or breakout by the Stalingrad garrison.

In this extremity, Field Marshal von Manstein was appointed commander of the newly created Army Group Don, with orders to rescue Sixth Army by driving a corridor through the encirclement to resupply Paulus. Meanwhile, on 20 November Hitler asked General Hans Jeschonnek, the *Luftwaffe* chief of staff, whether his service could supply Sixth Army by air for a short period of time before Manstein was able to relieve the siege. Jeschonnek replied that such an airlift was possible, assuming that the *Luftwaffe* retained control of forward airfields. Within hours, he realized his error and tried to correct himself, but the dictator had the answer he wanted to hear, and Göring later repeated the promise that the *Luftwaffe* could transport 600 tons per day.²¹ To reject Göring's assurances, Hitler would have had to repudiate both the *Luftwaffe* and its chief in favor of the army generals who had so often thwarted his will.

Given the poor weather and airfields in the area plus the frequent maintenance problems of aircraft in the field, such a goal would have required 375 sorties per day and close to 1,000 Ju-52 transports, at a time when the entire *Luftwaffe* had only 750. The Germans did concentrate all available transports, disrupting their training program by dispatching half-trained crews in aircraft that lacked radios and navigation instruments. Despite all these efforts, the daily shipments reached 300 tons on only one occasion.²²

The slow, unarmed Ju-52s, supplemented by other German aircraft, flew into the first systematic Soviet air defense system of the war. Major General P. S. Stepanov, the Red Air Force coordinator of the battle, established concentric rings of ground-controlled fighter interceptors and antiaircraft guns. In addition, Stepanov used specially trained night fighters and elite *okhotniki* (free hunters) to seek targets of opportunity. The air armies in the Stalingrad region totaled more than 1,350 aircraft by mid-November, as compared to 732 German aircraft (not including the influx of air transports) in Fourth Air Fleet. Moreover, most of these Red aircraft were newer, more capable types that had higher availability rates than the worn-out German aircraft.²³ The German aircrews were under constant stress from adverse weather, aerial intercept, and Soviet attacks on airfields. By one German account, Fourth Air Fleet lost 488 transports and bombers converted to the transport role; this figure included 266 Ju-52s, more than one-third of Germany's entire inventory. By contrast, the Soviets estimated that they had destroyed 903 transports and bombers, including 676 Ju-52s.²⁴

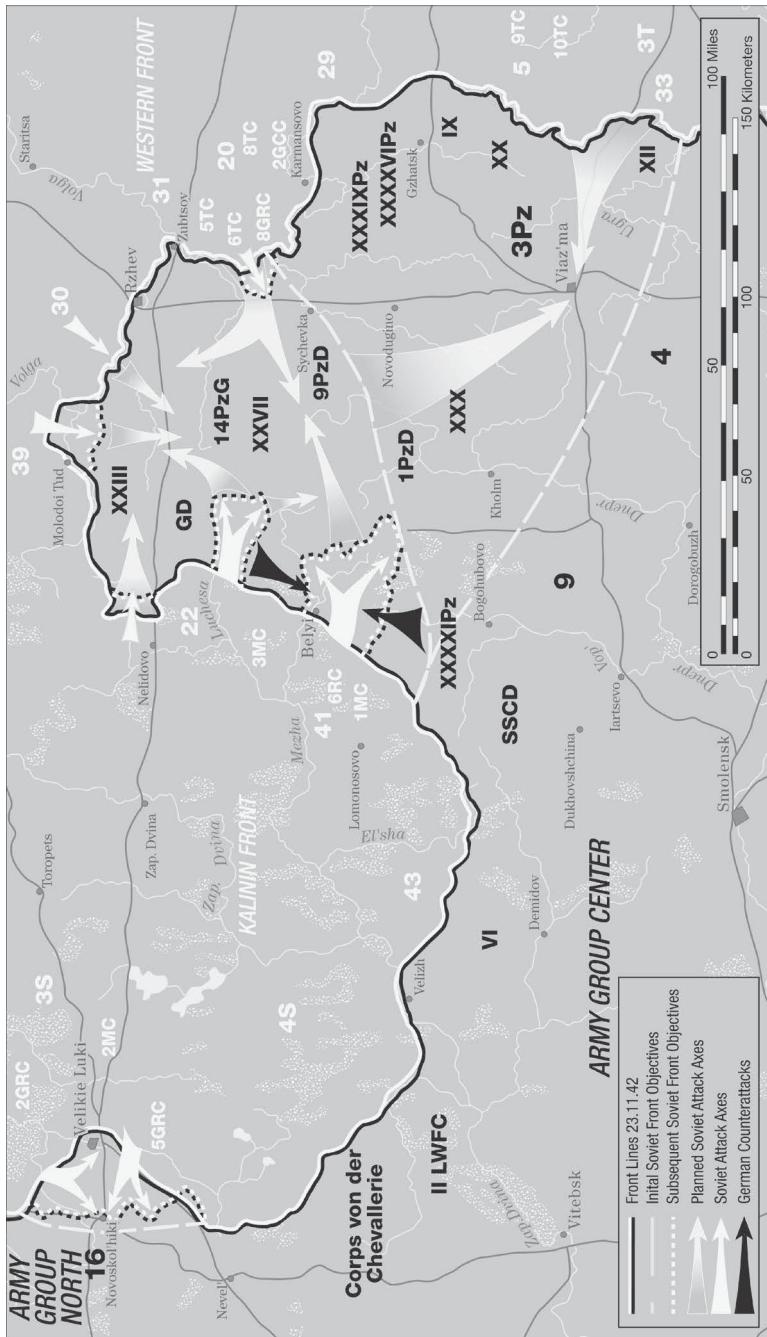
MARS

In the north, Zhukov prepared Operation Mars against Army Group Center's Ninth Army in the Rzhev-Sychevka salient. This operation called for Colonel

General Konev's Western Front and Army General Maksim Alekseevich Purkaev's Kalinin Front to attack the eastern and western walls, respectively, of this hammerhead-shaped salient. The plan also included supporting attacks by 39th Army against the "nose" of the salient and by 3rd Shock Army against the small Velikie Luki salient, farther west. In addition, the North-western Front's armies were to crush the German salient at Demiansk once and for all.²⁵

Despite later Soviet explanations that Mars was simply a diversionary operation associated with the Uranus counteroffensive, its size, scope, and ferocity indicate that it was a major attempt to defeat Army Group Center. In fact, Mars was originally scheduled to precede Uranus, and it may initially have been more important. The presence of six tank, two mechanized, and two guards cavalry corps indicates the significance of this operation to the *Stavka*.²⁶ Moreover, just as Operation Uranus at Stalingrad was to be expanded into Operation Saturn, so Mars also called for a second stage, likely to be code-named either Jupiter or Neptune, that was scheduled to commence in early December after Mars had encircled German Ninth Army in the Rzhev-Sychevka region. This operation would involve large forces attacking westward toward Viaz'ma to link up with the victorious Soviet force at Rzhev, thereby destroying the bulk of Army Group Center. Western Front was to conduct the Viaz'ma thrust using the heavily reinforced 5th and 33rd Armies, backed up by two tank corps and perhaps Lieutenant General Pavel Semenovich Rybalko's refurbished 3rd Tank Army from the *Stavka* reserve. Unfortunately for the attackers, no matter how experienced Zhukov and his senior commanders had become, the junior officers and soldiers of the Red Army still had difficulty defeating more experienced German units, especially when the Germans were in well-prepared defenses. In the end, these defenders frustrated Zhukov's plan, prompting Soviet historians to cover up this disastrous companion piece to the Stalingrad offensive.²⁷

The operation began on 25 November, once the initial success at Stalingrad was assured. The right wing of Konev's Western Front failed to penetrate the 102nd German Infantry Division, which shredded three Soviet divisions east of Osuga. Konev's other wing, 20th Army, had some success farther south during the first two days of the offensive, penetrating perhaps 8 kilometers in the Sychevka sector with a mobile group consisting of a tank and cavalry corps. By that time, however, XXXIX Panzer Corps had contained the Soviet intrusion, which was so narrow that supplies and reinforcements became hopelessly confused on the few routes leading forward. Konev's only success was the insertion of 20th Cavalry Division into the German rear. Cut off, this division spent almost a month behind enemy lines until a raid by Major General Mikhail Efimovich Katukov's 3rd Mechanized Corps rescued the remnants in early January.²⁸



Map 14. Operation Mars

On the other side of the Rzhev bulge, Purkaev's Kalinin Front initially had greater success, advancing up to 35 kilometers into Walter Model's Ninth Army. By the end of November, the Germans were hard-pressed to deal with these threats, and elements of the famous *Grossdeutschland* Division were fighting in three separate locations. Yet, Colonel General Joseph Harpe's XXXXI Panzer Corps conducted a brilliant defense, retaining the town of Belyi and stalling the Soviet offensive south of that shoulder. This afforded time for the Germans to move reserves to the Belyi area. Based on his previous experience, Zhukov persisted in demanding renewed efforts from exhausted units. As a result, the major formations of 41st Army, including the lavishly equipped 1st Mechanized Corps, remained committed inside the so-called Belyi pocket, where by 11 December they were surrounded by three panzer divisions. Although portions of 1st Mechanized and 6th Rifle Corps broke out, they left most of their heavy weapons behind, and the Kalinin Front's offensive came to grief. Overall, Operation Mars cost the Red Army at least 1,655 tanks, representing the destruction of four mobile corps and dozens of smaller formations. The 20th Army alone suffered 58,500 casualties, more than 50 percent of its initial strength.²⁹

The most that could be said of Mars was that it attrited German units, tied down local reserves, and thereby complicated the German response to Uranus, where the *Stavka* was increasingly focusing its attention.

WINTER STORM AND LITTLE SATURN

The original Soviet plan for Operation Saturn involved the use of 1st Guards Army on the Southwestern Front's right wing, as well as Lieutenant General R. Ia. Malinovsky's 2nd Guards Army, to penetrate the Italian Eighth Army on the middle Don and then advance to seize Rostov, cutting off German units to the south and east. Malinovsky's command was one of the first Soviet efforts to re-create the larger, more complex field armies of the prewar design—it included two guards rifle corps, each of three divisions, plus a mechanized corps and various fire support elements. In practice, though, the *Stavka* had to divert this elite force to deal with more pressing problems.

The Soviets quickly realized that Uranus had been almost too successful; the huge German force trapped at Stalingrad required far greater forces to contain and reduce it than were called for in the original planning. Moreover, the German efforts to relieve that embattled pocket also demanded greater defenses on the outer Soviet encirclement ring.³⁰ In early December, Manstein began to assemble two panzer corps to conduct his counterattack. At the confluence of the Chir and Don Rivers, some 90 kilometers west of Stalingrad

city, XXXXVIII Panzer Corps received a variety of divisions shipped from elsewhere in the East, and LVII Panzer Corps assembled near Kotel'nikovo. After two arduous campaigns, however, the once-invincible German panzer corps were largely shadow forces. The three divisions—11th Panzer, 336th Infantry, and 7th *Luftwaffe* Field—initially assigned to XXXXVIII Panzer Corps had only limited combat power, and they soon found themselves heavily engaged to fend off attacks from Vatutin's Southwestern Front along the Chir River.³¹ Lieutenant General Friedrich Kirchner's LVII Panzer Corps at least received the full-strength 6th Panzer Division, which had been refurbished in a quiet sector, but Kirchner could not advance until other divisions arrived from different locations.³²

Despite these handicaps, Manstein's counterattack, Operation *Wintergewitter* (Winter Storm), began auspiciously on 12 December 1942.³³ One day later, 6th and 23rd Panzer Divisions seized a bridgehead over the shallow Aksai River, but thereafter, they encountered stiffening Soviet resistance, first from the depleted forces that had created the encirclement and then, beginning on 18 December, from the redeployed 2nd Guards Army. Winter weather and inadequate air support further complicated German efforts. Even when reinforced by the threadbare 17th Panzer Division, LVII Panzer Corps never broke through the Soviet defenders so that it could advance toward Stalingrad. Instead, by 26 December Kirchner's corps was in full retreat back to Kotel'nikovo. Meanwhile, 5th Tank and 5th Shock Armies continued to press XXXXVIII Panzer Corps on the Chir River. Although the Germans struggled forward up to 50 kilometers, *Wintergewitter* was effectively dead after 21 December. In truth, even if Hitler had authorized Paulus to break out westward toward Manstein's two panzer corps, Sixth Army lacked the mobility and ammunition to conduct such an operation. On 24 December, a major counterstroke by 2nd Guards and 51st Armies drove LVII Panzer Corps back as much as 100 kilometers, ending any chance to relieve the pocket.³⁴

Manstein's efforts to relieve Stalingrad did have one beneficial effect for the besieged soldiers: they prompted the *Stavka* to divert various large formations to block him. In turn, this meant that Operation Saturn was modified into Little Saturn, a shallower envelopment of the Italian Eighth Army and Army Detachment Hollidt, defending along the southern banks of the Don and Chir Rivers.³⁵

Even without 2nd Guards Army, Vatutin's Southwestern Front brought an impressive array of forces to bear when it launched Little Saturn on 16 December. General F. I. Kuznetsov's 1st Guards Army formed the right (northern) wing of the attack, including not only two full rifle corps in first echelon but also the 17th, 18th, 24th, and 25th Tank Corps. This army, supported by

Voronezh Front's 6th Army to its west, again aimed its breakthrough effort at underequipped satellite troops, in this case Italian Eighth Army. The Eighth consisted of one German and ten Italian divisions, but the actual point of the Soviet attack was focused against the two divisions of Italian II Corps.

Some 80 kilometers to the southeast of this attack, General D. D. Leliushenko's 3rd Guards Army provided the supporting left wing of Little Saturn. This army possessed seven rifle divisions, three separate brigades, and the 1st Guards Mechanized Corps. Opposite Leliushenko was Army Detachment Hollidt, controlling eight demoralized Romanian divisions, two German infantry divisions, and the ill-fated 22nd Panzer Division. Army Detachment Hollidt, like the Italian Eighth Army, actually belonged to Army Group B, although in the crisis Hollidt would be transferred to Manstein's Army Group Don.³⁶ The Italians lacked effective antitank defenses and reserves to counterattack, but a few German units attempted to hold the shoulders of the Soviet penetration. By 19 December, three Italian infantry divisions were surrounded and the mobile corps were in full exploitation mode.³⁷

Three of these new formations—the 24th and 25th Tank Corps and 1st Guards Mechanized Corps—in effect pioneered the tactics of fully mechanized tank armies, a type of formation that spearheaded all Soviet offensives during the final two years of the war. In December 1942, these corps thrust southward toward the airfields at Tatsinskaia and Morozovsk, which were supporting the *Luftwaffe* effort to resupply Stalingrad. Major General Vasilii Mikhailovich Badanov's 24th Corps aimed to seize the airfield and logistical complex at Tatsinskaia. He accomplished this mission but only at great cost. On Christmas Eve, the 24th Tank Corps, already reduced to fewer than 80 of its initial complement of 200 tanks, penetrated to Tatsinskaia, destroying 56 German transport aircraft and rendering the airfield inoperable.

Badanov held his position for four days and then escaped a German counterattack with the remnants of his force. Late in the operation, at Stalin's urging, Badanov received temporary control over all three corps. By this time, however, these mobile corps had been reduced to fewer than twenty tanks each, making them too weak to conduct additional offensive action.³⁸ Still, the raid had further disrupted the failing German airlift. Badanov also forced Manstein to keep XXXXVIII Panzer Corps in a defensive role rather than attempting to relieve the city, and he drew 6th Panzer Division away from LVII Panzer Corps, setting it up for a decisive defeat by 2nd Guards Army. In addition to the aircraft, the Germans had more than 16,000 casualties and lost 84 tanks and 106 guns—the equivalent of a panzer division—in halting Badanov.³⁹ This experience encouraged the *Stavka* to order the creation of new tank armies whose multiple corps could conduct exploitations to great depths on the battlefield; Badanov would ultimately receive command of 4th Tank Army.

OPERATION RING AND THE DONETS BASIN

At this point, the *Stavka* faced two equally important tasks: reducing the Stalingrad pocket (Operation Ring) and expanding the winter campaign to gain maximum advantage. Although the Don Front staff drew up the operations order, they were closely supervised not only by Vasilevsky but also by *Stavka* representatives such as Novikov for air matters and P. N. Voronov for artillery. In this effort, a forerunner of Soviet artillery preparations in later battles, Voronov coordinated a concentration of artillery that averaged 41.9 guns and mortars per kilometer of the German front.⁴⁰

While the Soviets planned their attack, combat action around the Stalingrad pocket slowed to a crawl in late December. Despite this, Paulus's army continued to bleed profusely, suffering 11,066 casualties in the second half of December. The steady drain in men, ammunition, fuel, and spare parts meant that the defenders had lost much of their combat capability by the time the Soviets actually began their attack on 10 January 1943.⁴¹ The Germans fought with their usual stubbornness but gradually gave ground. Based on the initial success of 21st Army on the southwestern side of the pocket, Rokossovsky reallocated most of the reinforcing artillery and other nondivisional assets to make 21st Army the main effort, attacking eastward and northeastward through the lines of XIV Panzer Corps to take the western suburbs of Stalingrad. After penetrating the Rossoshka River line on 15 January, 21st Army with 57th Army on its right reached the main German airfield of Pitomnik one day later; the last airstrip at Gumrak fell on 22 January. By the 26th, the Soviets had split the pocket in half from east to west. At the last minute, Hitler promoted Paulus to field marshal, clearly expecting him to commit suicide. Instead, Paulus surrendered to elements of 64th Army on 31 January, and all organized resistance ended two days later.⁴²

The determined stand of Sixth Army came at a terrible cost. Only a few thousand seriously wounded soldiers were flown out of the pocket on empty transports. When Germany began to reconstitute the twenty-two divisions lost at Stalingrad, often the sole survivors were logistical elements such as the divisional bakery companies. This contrasted markedly with the Soviet encirclements during previous battles, when enough commanders and key personnel often escaped to rebuild their units and fight again. Sixth Army was completely gone, suffering 147,000 dead and 91,000 prisoners of war, at a Soviet cost of nearly one-half million casualties (see Table 9-2).⁴³

Sixth Army had, indeed, tied down a large number of Soviet troops for two months, limiting the wider effect of the Soviet winter campaign. As a result, Stalin ended 1942 as he had ended the previous year, optimistically attempting to conduct a strategic offensive on a shoestring and becoming overextended in the process. West of Stalingrad, the Southwestern and Southern

Table 9-2. Soviet Casualties at Stalingrad, 19 November 1942–2 February 1943

Front	Killed/captured	Sick/wounded	Total
Southwestern	64,649	148,043	212,692
Don	46,365	123,560	169,925
Stalingrad	43,552	58,078	101,630
Voronezh (6th Army)	304	1,184	1,488
<i>Total</i>	<i>154,870</i>	<i>330,865</i>	<i>485,735</i>

Source: G. F. Krivosheev, *Soviet Casualties and Combat Losses in the Twentieth Century* (Mechanicsburg, PA: Stackpole Books, 1993), 127.

(former Stalingrad) Fronts, spearheaded by the first three guards armies as well as 5th Shock, 5th Tank, 51st, and 28th Armies, continued to press Army Group Don back toward Voroshilovgrad (today Luhansk in Ukraine) and Rostov in hopes of destroying that army group and cutting off Army Group A, which was then withdrawing from the Caucasus.

Field Marshal von Manstein felt hamstrung by Hitler's reluctance to release strategic reserves and by the need to protect Army Group A's supply lines. The German dictator wanted to keep this army group in the Kuban' region, southeast of the Don, even if only in a bridgehead east of the Crimean Peninsula. Hitler hoped this would allow him to again advance on the Caucasus oil fields later in 1943. Army Group A had already gone into winter quarters before the November counteroffensive began, and it was very slow to redeploy its forces to face the new threat. On 28 December, Hitler authorized Army Group A to gradually shorten its lines while he resubordinated some of its troops to Manstein, but this reshuffling in midwinter took time.⁴⁴ Meanwhile, Army Group Don had to hold the bridges at Rostov, the key to all railroad lines and supplies for Army Group A. To accomplish this, two ad hoc Axis formations, Army Detachments Fretter-Pico and Hollidt, tried to defend the eastern Donbas region despite their wide-open flanks. On the northern flank, 1st and 3rd Guards, 5th Tank, and 5th Shock Armies pressed in; in the south, 2nd Guards, 51st, and 28th Armies continued the offensive that they had launched on Christmas Eve, seeking to reach Rostov. Spearheading 2nd Guards Army's advance, 3rd Guards Tank Corps (formerly 7th Tank Corps), commanded by General P. A. Rotmistrov, thrust straight down the Don River valley to seize a bridgehead barely 20 kilometers northeast of Rostov by 10 January. Although this thrust proved futile because it was unsupported, farther east a deep attack by 3rd Guards Mechanized Corps (formerly 4th Mechanized Corps) lunged southward toward the Manych River at Proletarskaia. It was slowed by 5th SS Panzer Division *Wiking* (Viking),

supported by the prematurely committed 503rd Panzer *Abteilung* (Battalion) equipped with the formidable Panzer VI Tiger tanks. A short, savage engagement at Zimovniki on 7 January left fourteen T-34s and four other Soviet tanks and twenty Tigers out of action.⁴⁵

Both sides were hampered by the Russian winter. On 24 January 1943, a brief thaw produced puddles on the road, which itself became a sheet of ice when the temperature dropped to -15 degrees Fahrenheit (-26 degrees Celsius) on 26 January. A three-day snowstorm began the following day.

On 27 January, Hitler again compromised between Manstein's urgings for withdrawal and his own desire to retain the Kuban'. He decided to move the headquarters of First Panzer Army north through Rostov but sent only one panzer, one infantry, and two security divisions along. The other maneuver elements of First Panzer Army, such as 13th Panzer Division, remained with Seventeenth Army in a defensive bridgehead.⁴⁶ Eventually, all these forces evacuated to the Crimea, but for the moment, they were unavailable to Army Group Don in its efforts to contain Soviet offensive action. Fortunately for Manstein, because the Soviet advance on Rostov faltered from utter exhaustion he was able to extract Fourth Panzer Army through the Rostov "gate" before it slammed closed during the first week of February.⁴⁷ These escaping forces proved vital to the counteroffensive he mounted in the Donbas and Khar'kov regions after mid-February.

WIDENING THE BREACH

Western historians have long credited Manstein with staving off disaster in the winter of 1943. Between January and March, he overcame both Hitler's opposition to maneuver warfare and the Red Army elated by the victory of Stalingrad. He achieved a stunning setback against the Soviets, a temporary victory that restored stability to the southern wing of the German front at a time when collapse was imminent. Despite his exertions, however, the Germans and their allies suffered staggering losses in the winter campaign.

Manstein's victories in the Donets Basin (or Donbas) and at the third battle of Khar'kov during late winter were far more significant than even this tribute suggests. Unknown to the Germans, Soviet strategic aims had expanded far beyond simply defeating the Axis forces in southern Russia; the *Stavka* sought to collapse enemy defenses along the entire Eastern Front. As previously described, the Soviet high command had originally formulated Plan Saturn to smash large elements of Army Group B and then seize Rostov to destroy Army Group A. The unexpected size of the Stalingrad encirclement reduced Saturn to Little Saturn, but the *Stavka* continued to undertake operations that were beyond its resources. Without denigrating Manstein's

achievements in operational maneuver, Soviet overextension and misjudgments were necessary prerequisites for his victories.

Building upon the success of Little Saturn, the *Stavka* continued the process in January 1943, gradually expanding its offensive to include Army Group Center as well as Army Groups Don and A. This new series of offensives began with attacks against Axis units defending the middle Don and subsequently against the German-Romanian forces trying desperately to hold Rostov for Army Group A. Between 13 and 27 January, the Voronezh Front's 3rd Tank, 40th, and 6th Armies conducted the Ostrogozhsk-Rossosh' operation, severely damaging the lightly equipped divisions of Hungarian Second Army and paving the way for further advances in that area.⁴⁸ Then, on 24 January the Briansk Front's 13th Army joined the Voronezh Front's 38th, 60th, and 40th Armies in attacking German Second Army, defending the Voronezh salient on the upper Don River. Despite snow so deep that only tracked vehicles could operate, in a matter of days the mobile corps attached to the Soviet 13th and 40th Armies encircled VII and XIII Corps. With massive German air support, VII Corps managed to rejoin German lines by 1 February, but the German infantry suffered heavily.⁴⁹

Meanwhile, throughout January Southwestern Front's 1st and 3rd Guards, 5th Tank, and 5th Shock Armies, together with half of Southern Front's 2nd Guards Army, tried to exploit their gains in Little Saturn and the Tormosin offensives by pounding Army Detachment Hollidt's forces in the eastern Donbas region. Despite the arrival of two new tank corps (the 2nd and 23rd) to supplement the five corps already present (the 2nd Guards Tank, 25th Tank, 1st Guards, 2nd Guards, and 5th Mechanized), Hollidt gave ground very slowly because of resolute and skillful support from 6th and newly arrived 7th Panzer Divisions. In fact, 6th, 7th, 11th, 19th, and 23rd Panzer Divisions, together with 5th SS Panzer Division and 16th Motorized Division, held off a virtual torrent of Soviet armor to conduct a phased withdrawal back to the Voroshilovgrad and Mius River line. In the process, these panzer and motorized divisions, along with severe winter weather, weakened Soviet armor forces to the point where they were ripe for defeat in Manstein's mid-February counteroffensive.

January ended with Operations Gallop and Star, in which the Voronezh Front's 40th, 69th, and 3rd Tank Armies, in coordination with the Southwestern Front's 6th, 1st Guards, and 3rd Guards Armies, burst through the ad hoc German formations that had replaced satellite troops along the Northern Donets River northwest of Rostov. Manstein had to redeploy increasingly larger elements of First and Fourth Panzer Armies to protect his northern flank.⁵⁰

In mid-February, the greatest threat to the Germans came from the Southwestern Front's exploitation force, Group Popov, an ad hoc collection of four tank corps and three rifle divisions commanded by Lieutenant General

Markian Mikhailovich Popov. Popov's mobile group was the forerunner of a modern tank army, but its component units had already lost much of their combat power in previous operations; Popov had only 137 operational tanks when he advanced on 2 February.⁵¹ He nonetheless crossed the Northern Donets River and pressed into the German rear, reaching the coal-mining center of Krasnoarmeiskaia by the 12th before First Panzer Army contained his attacks. Three days later, Vatutin sent the full-strength 25th and 1st Guards Tank Corps on a drive through Pavlograd to Zaporozh'e on the Dnepr River, a key node controlling the last major road and rail lines to Rostov. Zaporozh'e was also the headquarters of Army Group Don (soon renamed Army Group South), Fourth Air Fleet, and other major formations.

Hitler was determined to conduct a counteroffensive. He assembled 1st (*Leibstandarte Adolf Hitler* [Adolf Hitler Life Guard]) and 2nd (*Das Reich* [Germany]) SS Panzer-Grenadier Divisions under a new SS Panzer Corps headquarters, commanded by Lieutenant General Paul Hausser, one of the few *Waffen* SS leaders who had been a fully trained army general staff officer. Hausser's orders were to hold Khar'kov against the advancing Soviet forces, while simultaneously counterattacking on 8 February. Despite initial success, the SS formation lacked both the combat power and the staff experience to contain the Soviet 69th Army, which retook Belgorod that night. Against Hitler's express orders, Hausser retreated from Khar'kov on 14 February. That same day, the weakened First Panzer Army withdrew from the Donets to the Mius River. Instead of punishing the SS for disobedience, the dictator relieved Hausser's superior, General of Mountain Troops Hubert Lanz, the army detachment commander who had attempted to make the SS Panzer Corps obey orders.⁵²

Most accounts of Hitler during this period portray him as being stubborn, rejecting all opposition to his ideas. Yet even though he certainly fulfilled his reputation for obstinacy, the German dictator still recognized the value of strong-minded commanders who got results. At an 11 February meeting, for example, Richthofen, now the commander of Fourth Air Fleet, insisted that commanders on the scene had to have freedom of decision. This frank argument, in conjunction with Richthofen's efforts in the field, so impressed Hitler that he promoted the *Luftwaffe* general to field marshal.⁵³

Manstein wanted more than just a fair hearing from his Führer. By mid-February, the Army Group South commander was so frustrated that he verged on open insubordination, suggesting that he be given command of the entire Eastern Front. This criticism prompted Hitler, unaware of the Soviet forces approaching Zaporozh'e, to fly there on the afternoon of 17 February to meet with Manstein.

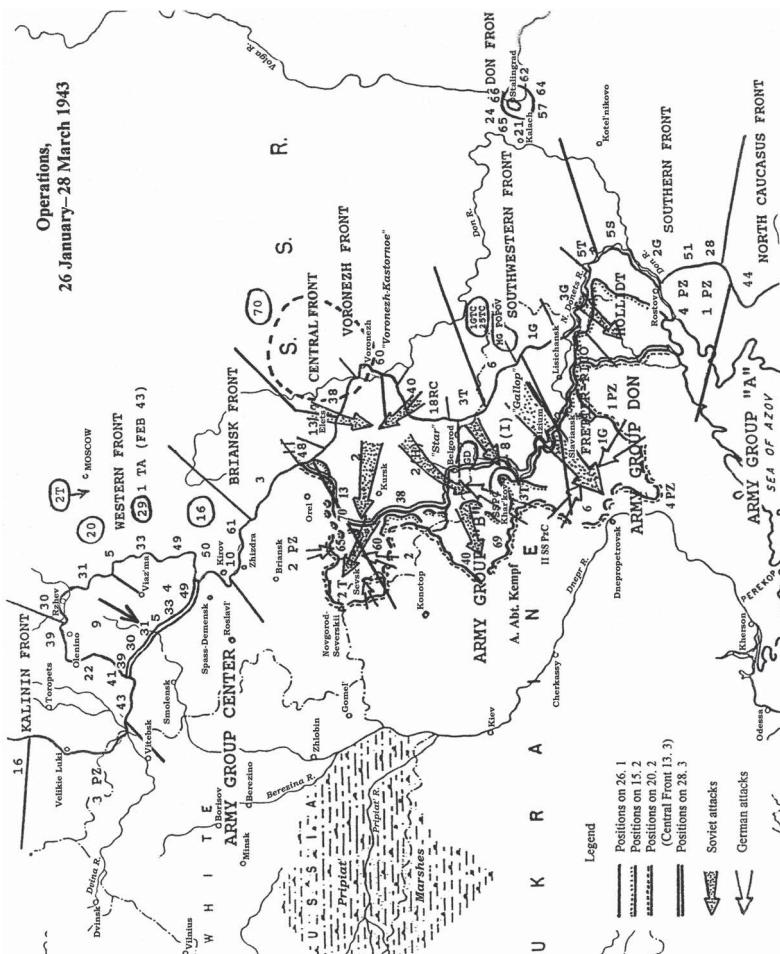
Fortunately for Hitler and for Army Group South, Manstein was in the process of shifting Fourth Panzer Army headquarters to that area to assume

control of SS Panzer Corps, now joined by 3rd (*Totenkopf* [Death's Head]) SS Panzer-Grenadier Division and various threadbare panzer divisions, for a counteroffensive. Also fortunately for the Germans, their opponents were severely depleted after three weeks of offensive operations. Although he did not completely agree with Manstein, at the 17 February conference Hitler released seven understrength panzer and motorized divisions for the counteroffensive. Meanwhile, Richthofen had greatly improved the maintenance status of his air fleet. The result was an average of 1,000 sorties per day after 20 February, as compared to 350 sorties per day in January. For the last time in Russia, the *Luftwaffe* was able to provide clear air superiority for a major German thrust.

At the time, Stalin and his subordinates continued to believe that they were on the threshold of a great victory. German defenses throughout southern Russia appeared to be crumbling, and the *Stavka* sought to expand that victory to include Army Group Center. Once Stalingrad fell on 2 February, Stalin and Zhukov immediately redirected the troops in that encirclement to a new location farther north. Rokossovsky's Don Front headquarters and two of his rifle armies (the 65th and 21st), together with the newly formed 2nd Tank and 70th Rifle Armies, received orders to move to the Voronezh-Livny area and form a new Central Front. The veteran 16th Air Army and 2nd Guards Cavalry Corps also redeployed to this area. Three other Don Front armies (the 24th, 64th, and 66th) refitted in the Stalingrad area and awaited orders to join either Rokossovsky's or Vatutin's *fronts*.

The *Stavka* planned to bring its winter campaign to a crescendo with three successive operations against Army Group Center. First, beginning on 12 February 1943 the combined Western and Briansk Fronts were to encircle and destroy German units in the Orel salient. Then, between 17 and 25 February these *fronts*, joined by the new Central Front, would clear the Briansk region of German forces, secure bridgeheads across the Desna River, and prepare for a subsequent advance on Smolensk. During the final phase, beginning 25 February and continuing to mid-March, the Kalinin and Western Fronts would seize Smolensk and, in concert with the Briansk and Central Fronts, destroy Army Group Center in the Rzhev-Viaz'ma salient. The entire offensive was timed to coincide with the anticipated successes of the Voronezh and Southwestern Fronts so that by mid-March, the strategic offensive would carry Soviet forces westward to the Dnepr River.⁵⁴

Execution was much more difficult than conceptualization, as the Soviets went into another cycle of hasty, inadequately prepared operations. Rokossovsky's Don Front, redesignated the Central Front on 15 February, had only six days to redeploy and an additional five days to prepare for an offensive in an entirely new region.⁵⁵ Although 2nd Tank Army and 2nd Guards Cavalry



Corps were already concentrated near Livny, 70th Army's forces had to move more than 200 kilometers on Russian winter roads, and 21st and 65th Armies had to complete arduous rail and road movements from Stalingrad. Heavy snows hampered movement, the spring thaw was due any day, and the roads from the assembly areas to the front lines were already in poor condition. Only one single-track rail line was available from Stalingrad northward, and movement schedules dissolved.

Rokossovsky objected to the stringent schedule imposed by the *Stavka* but dutifully attempted the impossible. Ultimately, he was unable to attack until 25 February, and even then, he had to march elements of 2nd Tank and 65th Armies directly from the railheads to their assault positions.

Rokossovsky began his offensive on 25 February with Rodin's 2nd Tank Army and Lieutenant General P. I. Batov's 65th Army in the vanguard.⁵⁶ Lieutenant General G. F. Tarasov's 70th Army, composed of NKVD border guards from the Trans-Baikal and Far Eastern regions, and Chistiakov's 21st Army were to join the attack as soon as they arrived, even before they were fully concentrated. Both armies were still struggling forward on muddy, congested roads. At the same time, the Briansk Front's 13th and 48th Armies pounded the weakened right flank of Second Panzer Army. On 22 February, General Bagramian's 16th Army of the Western Front struck Second Panzer's other flank north of Zhizdra. Rain and a skillful German defense hindered Bagramian's advance, and by 24 February, he had made only insignificant gains. Subsequent attacks did not improve the situation.⁵⁷

Rokossovsky's redesignated Central Front made greater progress. With 13th Army covering his right flank, Batov and his 65th Army advanced deep into the German rear area against light resistance. Second Tank Army and Major General V. V. Kriukov's cavalry-mechanized group, the latter consisting of 2nd Guards Cavalry Corps plus rifle and ski units, exploited rapidly westward through Sevsk toward Novgorod-Severskii.⁵⁸ By 1 March 1943, Rokossovsky had enveloped the flanks of Second Panzer Army to the north and Second Army to the south. By then, 70th Army's divisions had filtered forward and joined battle on Batov's northern flank, threatening a further advance on Orel and Briansk deep in the German rear.

The Germans' resistance stiffened as their forces conducted a skillful withdrawal and new units from other sectors arrived on the shoulders of Rokossovsky's penetration. Rokossovsky needed the additional strength of 21st, 62nd, and 64th Armies, but they were still en route to their new locations. By 7 March, Kriukov's cavalry-mechanized group reached the outskirts of Novgorod-Severskii, marking the deepest Soviet advance of the winter campaign. The tide, however, was already turning to favor the Germans. Without reinforcements, Rokossovsky's advance ground to a halt southwest of Orel. His attempt to restore momentum by shifting 2nd Tank Army from

the Briansk to the Orel axis only weakened his left flank and center, where German Second Army soon counterattacked using a multidivision force. As the Central Front faltered, catastrophe in the south sounded the death knell for Rokossovsky's ambitious offensive.

The entire plan for attacking Army Group Center was predicated on continued success farther south, an assumption that collapsed in late February 1943. By this time, the increasingly threadbare mobile units of the Southwestern Front were operating well beyond their logistical range and were advancing into a trap set by Manstein.

What followed is known by the Germans as the Donets Campaign and by the Russians as the Donbas and Khar'kov operations, both of which were classics of mobile warfare.⁵⁹ Beginning on 20 February, Fourth Panzer Army's XXXX Panzer Corps (7th and 11th Panzer Divisions and 5th SS Motorized Division [*Wiking*]) surrounded and destroyed the remnants of Group Popov in a running fight from Krasnoarmeiskaia to the Northern Donets River. On the 23rd, General von Mackensen's First Panzer Army was able to join this panzer corps in a thrust to the northeast. The day before, SS Panzer Corps (the SS Panzer-Grenadier Divisions *Das Reich* and *Totenkopf*) and XXXVIII Panzer Corps (6th and 17th Panzer Divisions) struck the flanks of Southwestern Front's 6th Army and 1st Guards Army, cutting the supply lines of 25th Tank Corps, which was then approaching Zaporozh'e, and virtually encircling the entire force. Deprived of fuel, the crews of the 25th abandoned their equipment and joined the swelling mob of fugitives trying to escape to the north. Once again, German forces were too weak to seal off the encircled Soviet forces, and they captured only 9,000 prisoners.⁶⁰

Having virtually destroyed the Red Army troops south of the Northern Donets River, Manstein followed up with a renewed advance to Khar'kov. Between 1 and 5 March 1943, Fourth Panzer Army mauled the depleted remnants of Rybalko's 3rd Tank Army, which the *Stavka* had dispatched to assist the beleaguered Southwestern Front and if possible threaten the flank of the German thrust toward Khar'kov. Renewed cold weather provided perfect conditions for maneuver, and Hoth as commander of Fourth Panzer Army, acting on Manstein's guidance, tried to envelop Khar'kov from the north and northeast. Instead, the SS Panzer Corps commander, Hausser, again ignored direct orders and entangled both *Das Reich* and *Leibstandarte Adolf Hitler* in three days of costly street battles. Eventually, the Germans cleared Khar'kov on 14 March. Soviet resistance west of the Donets was at an end, and Hoth's troops reoccupied Belgorod a few days later.⁶¹

Manstein's brilliant Donets campaign effectively halted the Soviet Stalingrad offensive in the south. By early March, the *Stavka* had to divert the refurbished 62nd and 64th Armies, en route from Stalingrad to reinforce Rokossovsky, to restore the front north of Khar'kov. Still, the Soviet high

command attempted to continue the offensive against Army Group Center. On 7 March, Rokossovsky received instructions to scale back his offensive but to continue attacking northward toward Orel using 21st Army, which was finally reaching the front. That same day, however, the German Second Army used 4th Panzer Division and several Hungarian infantry units to counterattack Rokossovsky's western flank. Kriukov's 2nd Guards Cavalry Corps was spread too thinly to contain even this limited threat. This counterattack, in conjunction with Manstein's attempt to advance north of Khar'kov on 17 March, forced the Red Army to halt its winter campaign and finally assume the defensive. The legacies of Rokossovsky's offensive were the S-shaped front lines that became the Kursk bulge, the natural focus of both German and Soviet plans for the summer to come.

Rasputitsa and Operational Pause, Spring 1943

By late 1943, mud and rain had again halted operations in Russia. The two sides rebuilt their forces and planned for a third summer of war. This pause is another appropriate occasion to place the operational struggle in its larger context of grand strategy, national mobilization, changing tactics and organization, and concepts for the next campaign.

THE WIDER WAR

From the first moments of the 1941 invasion, the Soviet Union had borne the brunt of Germany's military power, absorbing at least 75 percent of all German land and air units. In the course of 1942 and early 1943, however, Great Britain and the United States made a small but growing contribution to the struggle against Hitler. This contribution was never sufficient to satisfy Stalin or his hard-pressed generals, who suspected their allies of waiting on the sidelines while the Germans and Soviets bled each other to death. Nevertheless, those allies helped in ways rarely acknowledged by Soviet leaders or historians.

Throughout the 1942 campaign, Hitler worried constantly about the threat of an Allied invasion in western Europe. He repeatedly announced new plans to pull mechanized units from Russia and redeploy them to the West. From a strategic point of view, the dictator had a point, in that there was far less depth or margin of error for defeat in the West than in the East, but the Eastern Front commanders resented such withdrawals. Sometimes, as in the case of the *Grossdeutschland* Motorized Division, his advisers were able to dissuade him, but he was prey to constant anxiety. In this respect, the British-Canadian raid at Dieppe, France, on 18–19 August 1942 was a tactical failure but a strategic success, prompting Hitler to shift more reserves to France. A few weeks later, the dictator dispatched 22nd Infantry Division from the Crimea to Crete, where he anticipated an Allied landing. In May 1943, he sent 1st Panzer Division to Greece.¹ For the remainder of the war, the threat of an Allied invasion tied down a small but growing number of divisions, often mechanized units, in the West. Some, such as 6th Panzer Division in 1942, were able to refit and return to the East as much stronger units. Still, the absence of these units from the German order of battle in the

East represented a more significant weakness than the absence of similar-sized elements from the larger Red Army.

November 1942 proved to be a severe strain for the German war machine. At the second Battle of Alamein (23 October to 4 November), the British Eighth Army shattered Panzer Army Africa (*Panzerarmee Afrika*).² Immediately afterward, a combined British-American force invaded French North Africa. Instead of cutting his losses in the Mediterranean, Hitler felt compelled to send all available reserves, including several elite parachute units, to Tunisia. Compared to the titanic scale of war in the East, the German forces involved in North Africa were quite small, generally equivalent to less than six divisions, albeit with a high proportion of panzers. However, coming on top of the losses in Russia, the North African Campaign had a disproportionate effect by draining German reserves. At the end of October, German forces in the East were already short 300,000 replacements after the heavy fighting of August and September.³ Given the sudden priority on troops and weapons for North Africa, German commanders found it impossible to assemble any strategic reserves or even to keep the infantry units in Stalingrad up to strength.

Perhaps the greatest Allied contribution to the Soviet cause in 1942–1943 was in the air. Four hundred *Luftwaffe* aircraft redeployed from the East to the Mediterranean during November and December 1942 in response to the threat in North Africa, including a vain effort to bomb Malta into submission to open the supply lines to the desert. German losses in the Mediterranean between November 1942 and May 1943 totaled 2,422 aircraft—40.5 percent of the entire *Luftwaffe* strength.⁴ Hardest hit was the transport arm. In addition to the costly attempt to resupply Stalingrad, the transport pilots conducted two major surges of supplies and reinforcements to North Africa—once in November, after the initial Allied invasion, and again in May 1943, when the remaining German forces were destroyed in Tunisia. This latter effort alone cost 177 Ju-52s and 6 of the scarce Me-323 “Giant” transports. Taken together, three major airlifts in six months destroyed the *Luftwaffe* transport force, depriving it not only of aircraft but also of irreplaceable instructor pilots. Without such transports, future parachute and aerial resupply operations were impossible.

The strategic bombing offensive over western Europe was equally costly to the *Luftwaffe*. Much has been written about the appalling losses suffered by the U.S. Army’s Eighth Air Force in daylight bombing raids during 1943. What is often overlooked is the heavy loss rate among its opponents, the *Luftwaffe*’s fighter-interceptors. From March 1943 onward, German fighter losses in the West consistently exceeded those in the East. Even in July 1943, at the height of the Kursk offensive, 335 German fighters fell over Germany

but only 201 over Russia.⁵ Göring's and Hitler's determination to defend the Reich caused them to concentrate fighter squadrons and antiaircraft batteries in Germany at the expense of the Eastern Front. This priority on home air defense and the accompanying high losses among fighter aircraft were major causes for the loss of German air supremacy in the East. Whether they realized it or not, the Red Air Force and Red Army owed at least some of their success between 1943 and 1945 to the sustained bravery of British and American bomber crews.

During the 1942–1943 period, significant amounts of Lend-Lease aid began to reach the Soviet Union. The standard Soviet estimate of this aid suggests it represented only 4 percent of Soviet production, but in reality, it was far more significant. The United States, Great Britain, and Canada provided vast quantities of aluminum, manganese, coal, and other materials to replace the supplies captured by the Germans in 1941, thereby allowing Soviet manufacturing to recover much more rapidly than would otherwise have been the case. In addition to raw materials, the Allies shipped 34 million uniforms, 14.5 million pairs of boots, 4.2 million tons of food, and 11,800 railroad locomotives and cars. Western fighters totaled 3,204 aircraft, or 63.5 percent of the entire Soviet air defense force (*Protivo-vozdushnaia oborona*, or PVO) inventory, in the course of the war. The Americans balked at a few unusual Soviet requests, of course. In 1943, for instance, the Soviet Purchasing Committee in the United States had the effrontery to ask for eight tons of uranium oxide, an obvious bid for fissionable material to support the fledgling Soviet nuclear program! Overall, however, the Allies poured materials into the Soviet Union between 1942 and 1945, prompting one historian to remark that "the Allies bought the German defeat in Russian blood and paid in Spam."⁶

Lend-Lease trucks were particularly important to the Red Army, which was notoriously deficient in such equipment. By the end of the war, two out of every three Red Army trucks were foreign built, including 409,000 cargo trucks and 47,000 Willys jeeps. For many years after the war, *Studebaker* and *Villies* were familiar words to Russian war veterans. These trucks solved one of the Red Army's greatest deficiencies: the inability to resupply and sustain mobile forces once they had penetrated into German rear areas. Without the trucks, each Soviet offensive from 1943 to 1945 would have come to a halt after a shallower penetration, allowing the Germans time to reconstruct their defenses and forcing the Red Army to mount yet another deliberate breakthrough attack.

Other Lend-Lease equipment, especially combat vehicles and aircraft, proved less successful, increasing unfounded Soviet suspicions that they were being given junk. Soviet commanders complained bitterly about Western-furnished weapons whose design flaws had nothing to do with Allied politics.

The British Valentine and Matilda tanks, for example, were designed at the start of the war with turrets so small that no gun larger than 40mm would fit, making these tanks almost useless against the heavier German Panzer IV, V, and VI. By contrast, the Soviet T-34 and the U.S. M4 Sherman tanks had turrets sufficiently large to accommodate bigger main guns later in the war. The Sherman, though, disappointed the Soviets because its narrow treads made it much less mobile on mud than its German and Soviet counterparts, and it consumed great quantities of fuel. In fact, the U.S. Army Ordnance planners had standardized this width early in the war to ensure that Shermans would fit onto ocean transports and across existing U.S. bridging equipment, two considerations that meant nothing to the Soviets.

Similarly, the Red Air Force valued Western transport aircraft but considered the Lend-Lease combat planes to be inferior. Based on their experience in 1941, the Soviets wanted close air support, ground attack aircraft, and low-altitude fighters. Unfortunately for Soviet requirements, the British and American airpower advocates had neglected these functions in favor of fighter-interceptors and long-range bombers. The superb A-20 light bomber performed well in the Soviet inventory, but the same could not always be said for fighters. To get early delivery, the Soviet Purchasing Committee had to accept existing, obsolescent aircraft that were already in production, including the P-39 Aircobra, the P-40 Warhawk, and early-model British Hurricane fighters. The Soviet Union complicated the situation further by refusing to allow Allied mechanics and instructor-pilots to train their Soviet counterparts on the aircraft. Still, Soviet aces such as A. I. Pokyshkin and G. A. Rechalov used P-39s to achieve numerous victories. In the spring of 1943, these aircraft were instrumental in enabling the Red Air Force to achieve air superiority over the German bridgehead in the Kuban' bridgehead, east of the Sea of Azov.⁷

THE HOLOCAUST AND MANPOWER

While Operations *Blau* and *Uranus* shuddered to their inevitable conclusions, the German Final Solution transitioned from widespread field massacres to full-fledged industrial genocide. The catalyst may have been the realization that Germany faced a worldwide coalition arrayed against it, although some would argue that the government was committed to eliminating all Jews and many Slavs even as Operation Barbarossa seemed on the verge of success.⁸ In any event, the Wannsee Conference of 20 January 1942 set the course for the systematic murder in camps.

In practice, though, Germany's continuing need for labor forced it to compromise on these policies, using at least 1.65 million Jews and even more Slavs, both military prisoners and civilians, as forced laborers. In practice,

the policy of mistreating and underfeeding such workers was self-defeating, limiting productivity.⁹ Thus, despite millions of slave laborers, the Nazi regime still had to continually balance allocations of German manpower to industry and to the field army. One way to supplement the latter supply was to use large numbers of Soviet prisoners as volunteer laborers (*Hilfswilliger*, or HiWis), who often made up 5 to 10 percent of the manpower in troop units, construction, and civil administration. HiWis worked basically for food and generally suffered heavily when they were recaptured by the Red Army.

Any manpower gains of this type were more than offset by the loss of satellite armies during the Soviet counteroffensives at Stalingrad. After suffering 96,000 casualties, the Hungarian dictator Miklós Horthy ordered all but two light infantry divisions home at the end of the year; the Slovaks, who had lost a regiment in Stalingrad and more in the Caucasus, followed suit. The Italian Eighth Army, with 125,000 survivors out of 220,000 men committed, returned home in March 1943. Only the Romanians continued to field significant troop units in the East, despite having lost 140,000 men, the equivalent of sixteen of their eighteen divisions, in November and December 1942. With considerable German equipment transfers, Antonescu rebuilt his nonmechanized formations in 1943, but the Romanian infantry divisions, like their German counterparts, now had only six battalions each.¹⁰

There remained the possibility of recruiting Soviet citizens, especially from among the minority groups (citizens of the Baltic States, Ukrainians, Cossacks, and the like.) When the Germans first invaded, many of these people had volunteered to fight the hated Bolsheviks, but except for the Cossacks, most such volunteers were confined to paramilitary security units, the so-called *Ordnungs Polizei* (Order Police) battalions. Some of these units were pressed into service to enforce the Holocaust evacuations; others found themselves fighting at the front. By the end of 1942, most of these minority groups had realized that the Germans would not grant them independence, so voluntary recruitment declined. The Ukrainian Insurgent Army (*Ukrayins'ka Povstans'ka Armiya*, or UPA) even began to attack the Germans and, when it returned in 1944, the Red Army.

It was at this point that the German demand for military manpower prompted a renewed effort to recruit such minority groups. Heinrich Himmler, who previously had required "Aryan" troops for the *Waffen SS*, now decided to expand his empire by encouraging Hitler to recruit more broadly. For instance, in January 1943 the dictator ordered the creation of a "Latvian Legion" that eventually grew into two divisions. The 15th *Waffen SS* Grenadier Division was built around five veteran Order Police battalions and went into action with little training or preparation, and 19th Division was formed from scratch; German SS generals were in command of both divisions. Legally, these were deemed volunteer units, but in fact the Germans used the

conscription laws of the defunct Latvian Republic as a pretext to compel young men to choose either labor or military service.¹¹ Other SS units were formed around various ethnic battalions, originally under German Army control but transferred to Himmler during 1943–1944. The Cossacks provided two cavalry divisions, the Belorussians and others manned 30th Waffen SS Grenadier Division, and numerous other units were recruited among the various nationalities of Europe. Counting HiWis, perhaps as many as 1 million Soviet citizens served in German uniform, willingly or otherwise.¹² Some recruits considered themselves anti-Communist, and others joined for their own nationalistic reasons. Some of the ethnic groups, notably the Estonians, attempted to negotiate with the Germans so that these new divisions would only defend their homelands, but there were few agreements of this type.

Having lost vast territories and armies in 1941–1942, the Soviets also had manpower shortfalls. Once they began reconquering lost ground, they simply impressed all available manpower, sometimes enlisting as many as 200,000 men per month, but in early 1943, this was still largely in the future.¹³ To make up the shortfall in manpower, some aspects of the Soviet economy were thinned out—by 1945, the collective farms were operating with only 71 percent of their 1941 work staff. More significantly, the proportion of women on these farms increased from 56 percent in 1940 to 73 percent in 1943, and most of the remaining males were elderly.¹⁴

For all its rhetoric of gender equality, the Soviet government was slow to use women for military purposes beyond constructing obstacles and cutting firewood outside the major cities. Despite the eagerness of some women to serve, at first the Red Army assigned them almost exclusively as medics and communications operators and to other dangerous but traditionally “female” occupations. Gradually, the Soviet government authorized well-publicized instances of female pilots, tank commanders, sappers, and snipers, and a number of able women rose to command battalions. Even when women served in combat units and partisan groups, they were sometimes relegated to supposedly female housekeeping roles, such as cooking, or they were pressured to become the mistresses of commanders. Although numbers are difficult to establish, well over 800,000 women served in the Red Army, the majority of them conscripted. As soon as the war ended, however, the government discharged virtually all of these women.¹⁵

Thus, like the Germans, the Soviets never had enough troops to fill completely the ranks of the many new wartime formations. High-priority units, such as mechanized or guards formations, received more replacements and equipment than normal units. Even the authorized tables of organization were different; a guards rifle division was authorized 10,670 soldiers, as compared to the normal 9,435, and more field guns and automatic weapons than a typical rifle division. In practice, the typical rifle division was seriously under-

strength in men and matériel. An average Soviet rifle division with 7,000 troops in the summer of 1943 might decline to as few as 2,000 troops by 1945.¹⁶

Both sides resorted to straggler control to maintain strength in the combat units, but this process has acquired a sinister and unjustified reputation with regard to the Red Army. Particularly during periods of great stress, blocking detachments of NKVD troops established checkpoints behind the front lines, verifying the purpose and identity of anyone moving toward the rear. There were undoubtedly some instances when perceived deserters were summarily executed (and the same fate awaited German stragglers later in the war), but in general, the blocking detachments performed a vital, positive service by sweeping up the tired, lost, and faint of heart and returning them to their units to fight another day.

The net result of all this was a decrease in the number of rifle armies the Soviets mobilized in 1943, which, of course, was also caused by the sharp decrease in the number of armies destroyed. However, the Soviets began forming new-model tank armies and reserve armies, and they redesignated many armies throughout the year as circumstances required. Overall, the NKO formed or redesignated twenty-three armies (including five tank armies) in 1943, whereas the Germans destroyed or the NKO disbanded fourteen armies during the same period (see Tables J and K in the Appendix).

STRETCHED THIN

Manpower shortages meant that, despite Manstein's notable victories in the Donbas and at Khar'kov, the German Army in the East faced a grim future in the spring of 1943. Quite apart from the loss of the entire Sixth Army, much of Fourth Panzer Army, and four satellite field armies—a total of more than 700,000 troops—attrition had once again reduced the Axis force to a shadow of its 1941 strength. On 1 April 1943, the German Army's strength in the East stood at 2,732,000 men in 147 infantry and 22 panzer divisions, with 1,336 tanks and 6,360 guns. By contrast, the Red Army had 5,792,000 soldiers organized into more than 500 division equivalents and supported by more than 6,000 tanks and 20,000 artillery pieces.¹⁷

This imbalance was particularly evident in the infantry divisions. Prior to Operation *Blau*, 69 of the 75 divisions in Army Groups North and Center had been reduced from a standard structure of 9 infantry battalions with four-gun artillery batteries to 6 battalions with three-gun batteries.¹⁸ After the 1942 campaign, this reduction became almost universal. Some divisions retained 3 regimental headquarters with only 2 battalions each; others reduced the proportion of support to infantry troops by having only 2 regiments of 3 battalions. In either case, the resulting division lacked the manpower to

defend broad frontages and still retain some reserve for counterattacks. The continuing reductions in available animal and motor transport made this division far less mobile than its 1941 predecessor; artillery batteries were sometimes overrun because their crews could not move the guns, and local reconnaissance and counterattack forces were often mounted on bicycles.

During 1942, many infantry divisions received the new 75mm antitank guns that were much more effective against Soviet armor, but there was a shortage of ammunition for these guns.¹⁹ The situation was even worse in the case of the various *ersatz* units, such as security divisions or *Luftwaffe* field divisions, which had even fewer troops (usually two regiments and one artillery battalion), fewer heavy weapons, and less training than normal infantry divisions. The twenty-two *Luftwaffe* divisions were particularly vulnerable because, except for paratroopers, few of the leaders in those units had experience in ground combat and logistics. Each newly formed unit had to pay its own terrible price to acquire the experience that conventional German units had in their institutional memories. German Army officers, constantly aware of the personnel shortages in their own units, were appalled at the thought of 170,000 above-average *Luftwaffe* recruits wasted in their own formations instead of bringing existing army units up to strength.²⁰ Gradually during 1943, these *Luftwaffe* divisions were transferred to army control and in some instances commanded by army officers, but the damage was already done. Throughout the war, the *Luftwaffe* and *Waffen SS* continued to recruit volunteers into their own separate units to the detriment of conventional army formations.

To complicate matters further, Hitler attempted to eradicate the German defensive doctrine that proved so successful in both world wars. During the summer of 1942, the weakened infantry units of Army Groups North and Center had conducted several local withdrawals under the pressure of Soviet attacks. To halt this tendency, on 8 September 1942 Hitler issued a Führer Defense Order, his most detailed statement on the subject.

This order was a mixture of theory and detailed practice, but it included three major points.²¹ First, Hitler rejected the famous elastic defense of 1917, harking back instead to the rigid and extremely costly German defensive battles in France during 1916. This concept assumed that the defender had not only ample infantry manpower but also large supplies of barbed wire, antitank mines, and other materials for constructing field fortifications. Second, the dictator suggested that defending units should move laterally in the path of the Soviet attacks to increase strength. This assumed that the German defenders could accurately identify Soviet troop concentrations and predict the sites of future attacks, an assumption that was repeatedly disproved by Soviet deception plans.²² Moreover, given Hitler's insistence that the defenders stand fast, concentrating forces laterally in this manner simply put more

troops at risk from the Soviet artillery barrages fired in preparation for offensives. Finally, Hitler announced his intention to manage the defensive battles personally, requiring all commanders in the East to provide him with detailed maps of their positions and assessments of their supplies and capabilities. This requirement struck yet another blow at one of the hallmarks of German tactical success—the independence of subordinate leaders in choosing the means to accomplish their assigned missions.

This Defense Order was another indication of Hitler's frustrations about the indecisive nature of the war, as described in chapter 8. He had relieved two army group commanders and the chief of the General Staff during Operation *Blau*, and he came close to firing General Alfred Jodl at OKW. The new chief of the General Staff, Colonel General Kurt Zeitzler, was eleven years younger than Halder and was known for his positive attitude. Zeitzler was by no means a passive tool, however; on five occasions over the next two years, he offered his resignation on matters of principle. Still, he lacked the prestige and authority of his predecessors; Hitler even deprived him of control over the assignment of general staff officers, one of the cherished traditions of the OKH.²³ Based on repeated security violations such as the Reichel affair, Hitler also attempted with considerable justification to halt the General Staff practice of freely exchanging operations information with higher and adjacent headquarters.

Even as the German Army as a whole and the infantry in particular declined in both quantity and quality, the armored and mechanized forces experienced an unexpected renaissance in 1943. In February, the confused state of tank production and the poor condition of the panzer divisions prompted Hitler to recall Heinz Guderian from his forced retirement. Wise in the ways of National Socialist bureaucracy, Guderian insisted that he report directly to Hitler as inspector general of panzer troops. This appointment included authority over tank production as well as control of the organization, doctrine, and training of all armored forces, including panzer elements of the *Waffen SS* and *Luftwaffe*. In practice, of course, the independent fiefdoms of the Third Reich did not allow Guderian to succeed completely. Nevertheless, during the period 1943–1944, he worked wonders by increasing production, discouraging some of the more ill-considered design changes, and repeatedly rebuilding the panzer force to fight again.²⁴

TIGERS, PANTHERS, AND ELEPHANTS

Part of this reconstruction was the fielding of a third generation of German armored vehicles, especially the Panzer VI, or “Tiger I,” and Panzer V, or “Panther,” tanks. Although these ultimately developed into some of the best

weapons of World War II, their development was neither smooth nor an unmixed blessing.

After the 1940 encounters with British and French heavy tanks, Hitler had called for a new design that would marry the redoubtable dual-purpose 88mm gun with a faster, more heavily armored vehicle. One month before the Germans invaded Russia and encountered the T-34, two engineering companies, Henschel and Porsche, began developing rival versions of this tank. At Hitler's insistence, the Henschel Tiger I received more armor, until it weighed almost 60 tons, with a top speed of 38 kilometers (23.8 miles) per hour. In August 1942, the German dictator approved the Henschel design for production. Unfortunately, the Tiger I was a typical example of German craftsmanship; in the first production run in 1943, it took more than 300,000 man-hours and 800,000 *reichsmarks* to build each tank. The Tiger I proved so difficult to manufacture that its principal producer was rarely able to reach its goal of twenty-five (later fifty) units per month. In two years of production (1942 to 1944), 1,350 were built, but only 178 were available by the time of the next German offensive in July 1943. Technologically, the Tiger Is might have ruled the battlefield, but there would never be enough of them to equip Germany's panzer divisions.²⁵

Moreover, the Tiger design did not satisfy Hitler's well-intentioned desire for a vehicle that would carry a long-barreled (L71) version of the 88mm gun, a task that proved impossible at the time. To satisfy this requirement quickly, the Porsche design for the Tiger tank was modified into a nonturreted assault gun, with the gun fixed inside an armored casemate on a tracked chassis. This 67-ton monster was variously referred to as "the Ferdinand" (in honor of Ferdinand Porsche, its designer) or more aptly "the Elephant." The weight of this vehicle, powered by essentially the same engine as the Tiger I, limited it to a maximum speed of only 27 kilometers (18 miles) per hour. The Elephant used an innovative electric transmission that suffered significant teething problems in its early career. More significantly, the Elephant was armed solely with the 88mm gun. It is an axiom of armored design that any vehicle must have machine guns for secondary armament to defend itself from enemy infantry that might creep up close to attack the vehicle with short-range antitank weapons. The absence of secondary armament meant that the Porsche vehicle had to go elephant hunting for flies, using cannon shells in a vain effort to swat the Soviet infantry! The Elephant could perform as an antitank weapon, staying to the rear of German assault formations, but it could not safely lead the attack.²⁶

The Tiger and Elephant were far too heavy for the existing civilian and military bridges of the era. In order to move these wonder weapons across ravines or water obstacles, therefore, the Germans had to construct special bridges or rafts. There were similar problems with moving these extrawide vehicles by rail, which required the backbreaking labor of changing the tank

tracks for narrower treads in order to fit the vehicles onto flatcars before movement and then reversing the procedure at the other end.

Meanwhile, the German Ordnance Department worked on a smaller medium tank that was intended as the direct counterpart to the T-34. The design that emerged in November 1942 weighed close to forty-five tons and was therefore slower than desired. This *Panzerkampfwagen V*, or “Panther,” was an excellent conception, but it was rushed into production without thorough testing. In the spring of 1943, the first panzer divisions to take delivery of the Panther discovered a number of design flaws, especially in the steering mechanism. All 325 Panthers on hand had to be rebuilt at a factory outside Berlin. Approximately 200 rebuilt Panzer Vs had returned to units by June 16, at which time Guderian reported that 65 of these vehicles had further problems. Although 200 Panthers were operational for the Kursk offensive on July 5, during the next nine days enemy action plus at least forty-six cases of mechanical failure reduced the number of available Panthers to only 38. Further design problems plagued the Panther all summer; one tank battalion reported twenty-five engine failures in nine days of operations. Ultimately, the German designers solved these problems and made the Panther into a superb tank, but this result was not achieved until long after Kursk. Even if the Panther had been perfect, it was never available in sufficient numbers. In the entire war, Germany produced 5,976 Panthers, equal to only three months of Soviet tank production.²⁷

As described in chapter 9, the technological surprise of the Tiger I was sacrificed by a premature commitment during the desperate German efforts to relieve Stalingrad. More significantly, on 14 January 1943 the Soviet troops at Leningrad captured a Tiger that had become immobilized.²⁸

In response to the Tiger, the Red Army took a leaf from the German book, temporarily assigning some of its 85mm antiaircraft guns for use as tank killers. In addition, the Soviets, like the Germans, turned to self-propelled guns that could be manufactured cheaply on obsolescent tank chassis. These weapons were labeled “SU” for *Samokhodnaiia ustanovka* (self-propelled mounting). During 1943, the Soviet Union produced 1,300 heavy SUs with 152mm guns, 800 medium SUs with 122mm howitzers, and 2,300 light SUs with 76mm or smaller caliber guns. None of these weapons could equal the long-range penetration capacity of the Tiger’s 88mm gun, but at shorter ranges, the heavy SUs could indeed penetrate Tiger armor. Spurred by the first encounters with the Tiger, Soviet engineers designed the 152mm self-propelled gun from the ground up in a scant twenty-five days in December 1942 and January 1943. Four months later, the first heavy regiments were formed with only twelve SU-152s each and sent to the battlefield after a few weeks of training. The SU-152 earned the nickname *Zvierboy* (Animal Hunter) for its ability to knock out Tigers, Panthers, and Elephants.²⁹

RETURN OF THE DEEP OPERATION

In 1941, the Red Army had temporarily simplified its force structure, and it was unable to implement its prewar military theories because it lacked the initiative, the weaponry, and the trained leaders to employ that structure and those theories effectively. After Stalingrad and Uranus, however, the Soviets had accumulated enough of these scarce commodities to begin elaborating on their force structure and updating their doctrinal concepts. Tested in late 1942 and 1943 and perfected in 1944 and 1945, the new Red Army developed rapidly to the point where it could conduct the ideal Deep Operation. Mistakes abounded even in 1945, but then, mistakes are in the nature of warfare.

From mid-1941 until late 1942, virtually all Soviet rifle armies consisted of a half dozen divisions and separate brigades plus a few artillery regiments, all subordinated directly to an army headquarters. Beginning with the first three guards armies in 1942 and continuing throughout 1943, the Defense Commissariat started to re-form rifle corps, each with three to five divisions and supporting specialized units, below the army headquarters. Rather than forming new elements from scratch, rifle brigades were steadily reorganized into full divisions, and worthy rifle divisions became guards formations. As production and manpower permitted, the rifle armies, corps, and divisions gradually received attached units of the various specialized arms, such as armor, engineers, antiaircraft guns, and mortars. Until then, the *Stavka* kept these in reserve and allocated them to *fronts* and armies as needed, on a case-by-case basis. These attachments were particularly common in guards units and in any rifle corps or army assigned to conduct a deliberate attack on German defenses. From being little more than a collection of infantry and field guns with a few tanks and antitank guns, a typical rifle army grew into a complex structure that could integrate a variety of combat arms and services—in essence, a combined-arms army.³⁰

To assist the *fronts* and armies, the *Stavka* organized an impressive array of supporting formations, which it assigned to field forces based on operational requirements. The intent was to create a structure capable of providing requisite support to all forms of operations but especially penetrations, exploitations, and attacks against fortified positions in the field or in urban areas. Gun, howitzer, antitank, antiaircraft, self-propelled, and multiple-rocket launcher artillery battalions, regiments, and brigades emerged during 1942 and 1943. Eventually, these units were grouped into imposing artillery divisions and corps. The artillery penetration corps of April 1943 contained as many as 1,500 tubes and rocket-launcher rails each.³¹ Such large organizations were technically part of the Supreme High Command Reserve (RVGK), assigned by the *Stavka* to *fronts* and individual armies that were conducting

major attacks. This lavish concentration of firepower enabled Soviet commanders to pulverize the most imposing German defenses. Soviet organizational efforts in other support arms followed the same pattern, leading to a proliferation of engineer, railroad, transportation, and logistical formations.

The most significant structural change, however, occurred in the armored forces. During the Battle of Stalingrad and the ensuing winter campaign, the tank and mechanized corps organized in 1942 had proven their worth as instruments for the limited, tactical exploitation of enemy rear areas. For the remainder of the war, high-priority combined-arms armies such as the guards armies would control one or two tank or mechanized corps for the purpose of encircling German defenders to a depth of 50 to 200 kilometers behind the front lines.

However, the Red Army needed a larger mechanized formation, analogous to a panzer corps or panzer army, for deeper, operational exploitations up to 500 kilometers. The result was the 1943 tank army. Unlike the 1942 organizations of the same name, which were a mixture of tank, cavalry, and rifle units, the new tank armies were designed to share a common level of mobility and armored protection. Although organizations varied, the typical new tank army was built around one or two tank and one mechanized corps, plus a separate tank brigade or regiment supported by a variety of specialized regiments for motorcycle reconnaissance, multiple-rocket launchers, heavier howitzers, antitank weapons, and antiaircraft guns. By Soviet standards, this structure was lavishly supported by organic signals, transportation, and maintenance units, and often dedicated aviation formations. After the initial employment of these armies in 1943, the NKO added additional artillery, signals, and logistical support units. The depths to which these armies penetrated increased steadily throughout the war.³²

The ad hoc groups of mobile corps commanded by Vasilii Badanov during the Tatsinskaia raid and by Markian Popov in the Donbas region were the forerunners of this new formation. In some cases, the headquarters of depleted rifle armies provided the experienced staffs for the new mechanized formations. For the remainder of the war, the five (later six) tank armies were the spearhead of Soviet deep attacks, conducting operational maneuver and seeking objectives deep in the German rear areas. On a map, Soviet offensive plans often resembled a set of Russian nesting dolls, with shallow encirclements inside of other, deeper encirclements. The separate tank and mechanized corps, sometimes replaced by cavalry-mechanized groups in difficult terrain, were attached to the forward combined-arms armies so that they could encircle one or more German corps immediately behind the German main defense lines. Meanwhile, operating under *front* control, the tank armies bypassed these struggles, straining to penetrate as far as possible into the operational depths and thereby achieve larger encirclements.

Thus, the tank and mechanized corps, tank armies, and cavalry-mechanized groups formed mobile groups for operational maneuver in support of armies and *fronts*, as envisioned by the interwar theorists. In principle, mobile groups would enter the battle only after rifle divisions had penetrated the German forward defenses, allowing the mobile corps and tank armies to pass through a narrow gap in those defenses. In practice, Soviet commanders often misjudged the moment to commit their mobile groups for exploitation, or they deliberately sent them into battle to complete penetrations when rifle formations became stymied. In such circumstances, the mobile corps and tank armies were delayed and reduced in strength as they finished the initial penetration. Once they had accomplished that task, they were free to seek deeper objectives. When the mobile group was logically exhausted and could go no farther, it would send brigade-sized forward detachments to seize bridgeheads over the next major water obstacle, providing springboards for the next major offensive.

An offensive battle involved three separate questions for the Red commanders: how to concentrate sufficient forces and firepower on a narrow front in order to overcome initial enemy resistance, how to expand and develop the tactical penetration to the point where the Germans could no longer seal it off, and when to halt the operational exploitation by mobile forces before they became overextended and vulnerable to enemy counterattacks. This last problem involved bringing supplies and reinforcements forward to support the mobile groups. Rifle armies (redesignated combined-arms armies in early 1943) were to create and widen the penetrations, tank and mechanized corps and tank armies were to exploit those penetrations, and transportation and supply units were the keys to sustaining that exploitation.

All of these changes—from the formation of rifle corps to the use of tank armies on deep, independent missions—were part of a gradual decentralization of power in the Red Army. Two years of war had produced a number of skilled staff officers and commanders, and Stalin himself had come to trust his subordinates to an unprecedented degree. Increasingly, the dictator relied upon a combination of skilled *Stavka* staff planners in Moscow and “representatives of the *Stavka*” to supervise operations in the field.

As suggested in chapter 8, the leadership styles of the two adversaries began to cross over in 1942 and early 1943. The Germans had begun Barbarossa with much of their traditional subordinate freedom and initiative intact, and the immediate Soviet response to failure had been to hunt for traitors and suppress independent military thought. After a year and a half of war, Hitler became frustrated by the apparent cautiousness and lack of information security on the part of his subordinates, prompting him to tighten controls over what happened in the field. He still tolerated opposition, at least from successful commanders such as Richthofen and Manstein, but

he was increasingly intrusive in military decisions. By contrast, Stalin had become sufficiently confident in both himself and his major subordinates to permit them much greater freedom from centralized micromanagement and the suspicions of political officers and secret policemen. In their memoirs, senior German officers blamed Hitler's interference and rigid control for all manner of evils, conveniently overlooking their own mistakes. Few of these Germans, whose opinions of the enemy were formed during the heady days of 1941, recognized that their opponents were developing the same command procedures and staff expertise that had once made the Wehrmacht supreme.

THE GERMAN DILEMMA, SPRING 1943

In 1941, Germany had attacked all along a front that eventually stretched from Leningrad to Rostov. In 1942, its offensive had been confined to the southern portion of that front, and even then, the divisions were weaker than they had been the previous year. After two years of ferocious attrition, in 1943 the Wehrmacht was no longer capable of conducting a general offensive on a wide front. Politically, however, Germany had to attack somewhere to avoid defections among its satellites. In their efforts to find some limited goal for an offensive, the Germans focused on the Kursk salient, a remnant of the Red Army's offensive in February and March 1943. Here, the front lines bent westward, forming a Soviet bulge that was 250 kilometers from north to south and 160 kilometers from east to west. If the Germans could pinch this salient off by attacking at the northern and southern shoulders, they could destroy a large concentration of Red troops, shorten their lines, and free up reserves for future actions. This course of action was so obvious that their Soviet opponents were hard at work preparing to defeat it. Once again, the Germans sought an operational success by an encirclement battle, this time without the advantage of surprise and without even pretending that such a success would lead to strategic victory. The OKW issued Operations Order No. 5 on 13 March and No. 6 on 16 April 1943, outlining this plan.³³

The chief of the OKH General Staff, Zeitzler, was especially interested in the proposal. Unfortunately for the Germans, even Guderian could not rebuild panzer units overnight, and the Germans lost valuable time recovering from the winter campaign. On 3 May 1943, Zeitzler persuaded Hitler to attend a meeting in Munich to discuss the proposed Kursk offensive, Operation *Zitadelle* (Citadel). General Walter Model, who as commander of Ninth Army would have to make the principal attack on the northern side of the bulge, described the elaborate Soviet defensive preparations identified by aerial photography and argued that the proposed offensive was exactly

what the Soviets were preparing to meet. As commander of Army Group South, Manstein also felt that the moment of opportunity had passed, but his counterpart at Army Group Center, Field Marshal Günther von Kluge, was enthusiastic about the proposal.³⁴ Zeitzler argued that the new Panther and Tiger tanks would give the Germans a decisive technological advantage, but Guderian and Albert Speer countered with technical problems, especially those associated with the Panther.

As so often during the war, Hitler was unable to make a decision. Critics have depicted this as another example of how his leadership crippled the Germans, but he was arguably correct to hesitate when his generals were divided. The prospect of conducting a deliberate penetration of massive Soviet defenses, where even success would not lead to strategic victory, was indeed daunting. A week after the Munich meeting, in a private conversation with Guderian, Hitler reportedly remarked, “Whenever I think of the attack [at Kursk] my stomach turns over.”³⁵ Ultimately, Hitler saw no alternative and agreed to the plan. A series of delays, especially with regard to new tank fielding, postponed Citadel until 5 July, giving both sides ample time to plan and prepare.

THE SOVIET STRATEGY

During the winter offensives of 1941–1942 and 1942–1943, the Red Army had repeatedly attempted to do too much too rapidly. Planning, troop concentrations, fire support, and especially logistics had all suffered from this haste. Manstein’s brilliant counteroffensive during February and March 1943 finally convinced most senior Soviet officers that they had to set more modest, realistic goals for the future and stop trying to win the war in a single, climactic offensive.

Zhukov and Vasilevsky concluded that the 1943 Soviet offensive and ensuing summer campaign, like those of the previous two years, must be preceded by a defensive battle to absorb and reduce German striking power. Still flushed from the destruction of Sixth Army, Stalin was initially inclined to disagree and sought to resume the offensive as soon as the *rasputitsa* ended. In a meeting at the Kremlin on 12 April, the commanders made their case for a temporary defensive action. Zhukov, Vasilevsky, and operations chief Antonov convinced Stalin to stand on the defensive as a prelude to a planned counteroffensive campaign. Stalin again vacillated in early May but finally accepted the *Stavka* view.³⁶

The *Stavka* strategic plan for 1943 therefore required the Voronezh and Central Fronts to defend the Kursk bulge, flanked to the north by the Briansk and Western Fronts and to the south by the Southwestern and Southern

Fronts. East of Kursk, Stalin created a large strategic reserve, the Steppe Military District, which would provide reinforcements to the Briansk and Western Fronts or deploy forward as the Steppe Front, depending on circumstances. Until May, the Soviets were not completely sure that the Germans would attack at Kursk, so the *Stavka* ordered all six *fronts* to erect defenses in depth. Initially, the reserve armies of the Steppe Military District concentrated east of Khar'kov so that they could deploy either there or northwestward to Kursk itself, depending on the direction of the German thrust.³⁷

From the start, this defensive preparation was an integral part of the larger *Stavka* plan for a subsequent offensive. As soon as the expected German offensive was halted, the Western, Briansk, and Central Fronts would attack the Orel bulge, the reciprocal German salient just north of the Kursk bulge. Shortly after the German attack was halted, the Voronezh and Steppe Fronts, followed by the Southwestern Front, would also attack south of Kursk, toward Khar'kov. In the time between these two strokes, the Southwestern and Southern Fronts would conduct diversionary attacks on the Northern Donets and Mius Rivers. These diversions were intended to draw German reserves away from the main Soviet thrusts. Staggering offensives in this manner would also permit the Soviets to muster necessary firepower, air support, and supplies for each attack in turn, rather than attempting to do everything at once.

Once the Red Army had seized Orel and Khar'kov, neighboring forces would broaden the offensive further. The original Soviet objective for the year was the Dnepr River line, although by fall the *Stavka* was once again expanding its objectives, this time encompassing all of Belorussia and Ukraine. In late spring, Vasilevsky as chief of the General Staff also ordered extensive reconnaissance to determine German intentions and dispositions, with strict *maskirovka* (combined deception and operational security) steps to conceal the assembly and redeployment of the Steppe Military District.

As June turned into July, both sides put the finishing touches on their preparations. Since 1939, no German major offensive had failed to penetrate enemy defenses and exploit into the rear areas, but Kursk was the first case in which the defender could anticipate exactly the location of the penetration attack. With no chance of surprise, the German forces placed increased faith in their new equipment and rebuilt panzer divisions. It is a measure of Soviet self-confidence that the senior commanders were looking beyond the failure of the German offensive to the first major Soviet summer offensive of the war.

CHAPTER ELEVEN

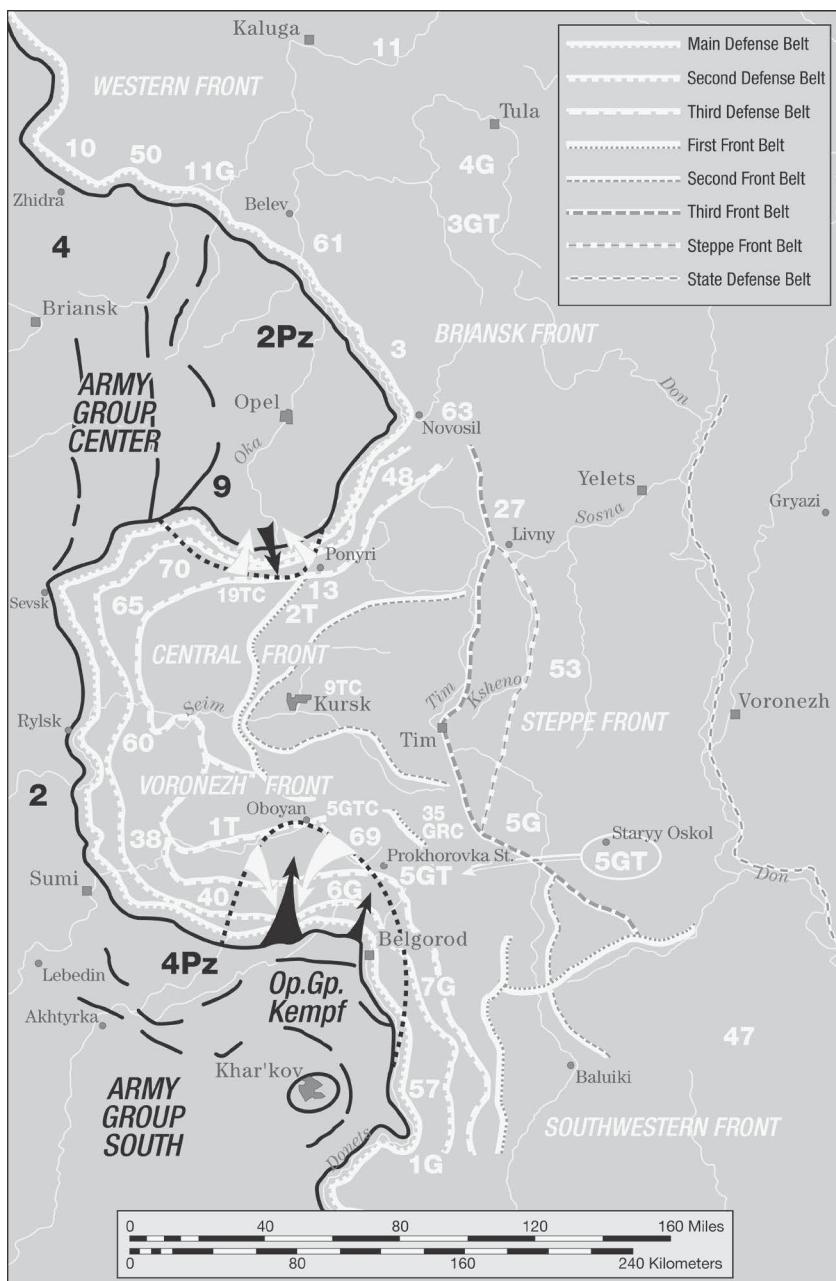
Kursk to the Dnepr

GERMAN PREPARATIONS AND FORCES

Given the peculiar shape of the Kursk salient, the German operational plan was obvious to both sides: two massive, armor-tipped thrusts, aimed at the northern and southern shoulders of the bulge, would aim to meet at the middle, surround all the forces in the pocket, and tear a major wound in the Soviet defensive front. Fifty divisions, including nineteen panzer and motorized divisions with 2,451 tanks and assault guns, would be supported by over 1,800 aircraft (see Map 16).¹

On the northern shoulder, in the region of Field Marshal von Kluge's Army Group Center, General Walter Model's Ninth Army controlled XXIII and XX Army Corps and XXXXI, XXXXVI, and XXXXVII Panzer Corps. The panzer corps included four panzer divisions, backed by two panzer divisions and 10th Panzer-Grenadier Division in army reserve, plus fifteen infantry divisions, for a total of 335,000 soldiers. The XXXXI Panzer Corps also contained two battalion-sized detachments of Elephant self-propelled guns, and XXXXVII Panzer Corps controlled 21st Panzer Brigade, the latter including thirty-one Tigers and a number of other assault guns. Overall, Model had 920 tanks and assault guns, most of the tanks being Panzer III and IV vehicles, although not all were operational when the battle began. As described in the previous chapter, the hasty development of Germany's third generation of armor resulted in significant maintenance issues and impeded combined-arms training with the new vehicles.² Sixth Air Fleet supported Army Group Center with more than 730 combat aircraft and 100 dual-purpose 88mm guns. However, the air fleet received only two-thirds of its required levels of aviation fuel, seriously impeding close air support efforts.³

The main assault would come from Field Marshal von Manstein's Army Group South, attacking the southern shoulder. Colonel General Hermann Hoth's Fourth Panzer Army of 223,907 men and 1,089 tanks and assault guns controlled both the lavishly equipped II SS Panzer Corps of three panzer-grenadier divisions (*SS Leibstandarte, Das Reich, and Totenkopf*) and XXXXVIII Panzer Corps, with the refurbished 3rd and 11th Panzer Divisions as well as the oversized Panzer-Grenadier Division *Grossdeutschland*. The three SS divisions totaled 364 tanks, including 42 Tigers, and 130 assault



Map 16. Soviet Defensive Actions in the Battle of Kursk, 5–23 July 1943

guns, and the *Grossdeutschland* had 329 tanks and 35 assault guns, including almost all available Panther tanks (200) grouped in 10th Panzer Brigade.⁴

On Hoth's right (eastern) flank stood Army Detachment Kempf, named for its commander, Lieutenant General Werner Kempf. Kempf had a total of nine divisions in three corps, of which the main offensive strength was III Panzer Corps. This corps contained three panzer divisions (the 6th, 7th, and 19th) with 299 tanks, a separate detachment of 45 Tigers, plus 31 assault guns and an infantry division, for an overall strength of 375 tanks and assault guns. Originally designated as the flank guard for Fourth Panzer Army, Kempf's force, which fielded a total of 419 tanks and assault guns, had unusual success because, perhaps unintentionally, it cut diagonally through the Red defenses, crossing unit boundaries laterally rather than attacking head on.⁵

Manstein also held XXIV Panzer Corps in reserve, including 17th Panzer Division and 5th SS Panzer-Grenadier Division *Wiking*, plus 23rd Panzer Division after 7 July, with a total of 181 tanks and assault guns. Overall, Army Group South's forces at Kursk included twenty divisions, of which six were panzer and four were elite panzer-grenadier divisions, for a total of 1,508 tanks and assault guns, although again not all of these weapons were operational. Fourth Air Fleet, with 1,100 German and Hungarian aircraft, supported this army group, but here too there were major fuel shortages. Moreover, most ground support had to come from obsolescent Ju-87s.⁶

SOVIET PREPARATIONS AND FORCES

Soviet air and ground reconnaissance observed every detail of the German preparations. As the Central Partisan Headquarters in Moscow, together with the NKVD, developed greater control over the partisan groups in the field, the *Stavka* was able to use those forces in conjunction with Red Army scout units. The latter infiltrated German rear areas to both observe and hamper enemy movement. Equally important, by mid-1943 the General Staff's Main Intelligence Directorate (GRU) had created an effective hierarchy of staff officers to collect, analyze, and disseminate all available intelligence information. Each front-level intelligence department controlled agents, *Spetsnaz* (*Spetsial'noe naznachenie*, or special designation) reconnaissance units, and radio-intercept teams and also supervised the collection efforts of subordinate intelligence sections. Air reconnaissance units supported every headquarters from army upward. By 12 April, for example, the Voronezh Front had correctly identified all the mobile divisions of the Fourth Panzer Army.

Nor did the GRU simply accumulate information passively. Throughout June and July, specialized engineer "destroyer" brigades within each *front*

raided bridges, railroads, and other key facilities, complicating German logistics and security. In June alone, partisan operations behind Army Group Center destroyed 298 locomotives, 1,222 railroad cars, and 44 bridges.⁷

The long delays in the Germans' preparations allowed their opponents the luxury of constructing elaborate defensive systems at the intended breakthrough points. During March and April, the *Stavka* issued a series of engineer publications on defensive systems that showed increasing sophistication, using every fold in the ground to cover and conceal troops. The core of each Soviet position was its antitank defenses, organized into a network of strongpoints and regions with minefields packed densely along the German avenues of approach and covered by the interlocking fires of thousands of antitank weapons. Each forward rifle company facing the Germans had at least three artillery pieces, nine antitank guns, one tank or self-propelled gun, and a platoon of combat engineers within its defensive position. The average number of mines per kilometer of front reached 3,200 by the time the battle began in July. The opportunity to plan and prepare so thoroughly also meant that the traditional weaknesses of the Red Army, such as artillery fire direction and field communications, were eliminated. Every artillery target, every meter of field telephone was checked and rechecked, with daily fire control drills.⁸

Soviet troop concentrations extended far beyond the Kursk salient itself. In particular, two *fronts* were poised north of the central battlefield, waiting to collapse the Orel salient, the reciprocal of the Kursk salient that included all of Model's rear area support, as well as German Second Panzer Army. On the northern face of the Orel bulge, Colonel General Vasilii Danilovich Sokolovsky's Western Front positioned two armies. Lieutenant General I. Kh. Bagramian commanded 11th Guards Army; almost undetected by his opponents, Bagramian's force built up to twelve rifle divisions, four tank brigades, and an imposing array of artillery and other supporting units. By 12 July, after being reinforced by two fresh tank corps (1st and 5th), 11th Guards Army included 170,500 men, 648 tanks and self-propelled guns, and more than 3,100 artillery pieces and mortars, although not all of this armor was operational at any given moment.⁹ On Bagramian's right (western) flank, Sokolovsky deployed Lieutenant General I. V. Boldin's 50th Army in support. The 50th was a more typical field army of the period, but it still had 62,800 men, 1,071 guns and mortars, and 87 tanks and self-propelled guns in seven rifle divisions and a tank brigade. First Air Army, with five fighter-bomber divisions and as many fighter divisions, supported the Western Front.¹⁰ On the eastern tip of the Orel bulge stood Colonel General M. M. Popov's Bryansk Front, with three rifle armies, a guards tank corps, and a host of air and artillery support elements, totaling 433,616 men and 160 tanks and SP (self-propelled) guns, ready to make a supporting attack.

The actual defense of the Kursk bulge was divided between General Rokossovsky's Central Front, opposite Model in the north, and Vatutin's Voronezh Front, opposite Hoth and Kempf on the southern face. Central Front included Lieutenant General A. G. Rodin's 2nd Tank Army behind five combined-arms armies, of which Lieutenant General N. P. Pukhov's 13th and Lieutenant General I. V. Galanin's 70th Armies would bear the brunt of German Ninth Army's attack. Rodin's 2nd Tank Army included two tank corps and a separate brigade, for a total of 37,000 men and 456 tanks and self-propelled guns.¹¹ Reflecting its key role, 13th Army had twelve rifle divisions (six rifle, three guards rifle, and three guards airborne) supported by 4th Artillery Penetration Corps and a number of separate tank units, totaling 2,934 guns and mortars and 270 tanks and self-propelled guns. The 70th Army included eight rifle divisions and three tank regiments, or 96,000 men, 1,678 guns and mortars, and 125 tanks.¹²

In the south, General Vatutin, with Nikita Khrushchev as his political commissar, controlled four robust combined-arms armies, General Katukov's 1st Tank Army (646 tanks and self-propelled guns and more than 419 guns and mortars), and a number of separate corps, all supported by 2nd Air Army. The main defense opposite Fourth Panzer Army consisted of Lieutenant General I. M. Chistiakov's 6th Guards and Lieutenant General M. S. Shumilov's 7th Guards Armies. In addition to veteran staffs, each of these armies had seven divisions in two rifle corps, various tank and antitank units, and more than twenty artillery regiments, for a combined total of more than 160,000 soldiers and 401 tanks and self-propelled guns.¹³

By themselves, these forces should have been sufficient to contain the German attacks. According to declassified Soviet records, the Central and Voronezh Fronts fielded 1,337,166 soldiers, 19,794 guns and mortars, and 3,433 armored combat vehicles to oppose the 777,000 soldiers, 8,170 guns and mortars, and 2,451 armored combat vehicles of the German Ninth Army, Fourth Panzer Army, and Army Detachment Kempf (see Table 11-1).¹⁴ However, the *Stavka* did not rely upon this force alone to thwart a German breakthrough. It backed up Rokossovsky's and Vatutin's forces with General I. S. Konev's Steppe Military District (redesignated Steppe Front on 9 July), which numbered 573,195 men (449,133 combat), 9,211 guns and mortars, 1,513 tanks (1,506 operable), and 126 SP guns.¹⁵ This increased Soviet superiority in the Kursk region to 2.5 to 1 in manpower and 2.1 to 1 in armor. Konev had two guards armies, two guards tank armies (3rd and 5th), and a long list of other units. As indicated in chapter 10, the Steppe Front had three missions: to reinforce the two other *fronts* as necessary, to provide further defensive belts east of the Kursk salient, and to plan for eventual counteroffensive action. In a very real sense, therefore, it was physically impossible for Operation Citadel to ever create the penetration necessary for a true *blitzkrieg* exploitation.

Table 11-1. Correlation of Combat Forces, Battle of Kursk

Sector	Soviet	German	Correlation
<i>Central Front</i>			
Men	711,575 (total) 510,983 (combat)	445,000*	1.6:1
Tanks/SP guns	1,694/91	951	1.9:1
Guns and Mortars/MRLs	11,076/246	4,570	2.5:1
<i>Voronezh Front</i>			
Men	625,591 (total) 466,236 (combat)	331,907**	1.9:1
Tanks/SP guns	1,706/42	1,508	1.2:1
Guns and Mortars/MRLs	8,718/272	3,600	2.5:1
<i>Overall</i>			
Men	1,337,166 (total) 977,219 (combat)	777,000	1.7:1
Tanks/SP guns	3,400/133	2,451	1.4:1
Guns and Mortars	19,794/518	8,170	2.5:1

Sources: *Bitva pod Kurskom: Ot oborony k nastupleniu* [The Battle at Kursk: From defense to offensive] (Moscow: OO AST, 2006), 136 and 761–762 (originally published in 1945 by Red Army General Staff, classified secret), and Niklas Zetterling and Anders Frankson, *Kursk 1943: A Statistical Analysis* (London: Frank Cass, 2000), 18 and 20.

Notes:

* Includes 335,000 in Ninth Army and 110,000 in Second Army.

** Includes 223,907 men in Fourth Panzer Army and 108,000 men in Army Detachment Kempf.

In 1941 and 1942, Stalin and his generals had repeatedly misinterpreted the German offensive plans and concentrated their forces in the wrong areas. The obvious threat to Kursk allowed the Soviets, for the first time in the war, to reduce their defenses on secondary fronts and concentrate at the critical points. It was this concentration, more than any overall strategic superiority, that allowed the Soviets to outnumber the Germans in the Orel-Kursk region by 2.7 to 1 (2,226,000 to 900,000) in troops, 3.3 to 1 (33,000 to 10,000) in gun tubes, and 2.6 to 1 (4,800 to 1,800) in armored fighting vehicles.¹⁶

True to its tradition of building strong strategic reserves, the *Stavka* created reserves across the entire expanse of the front, from Moscow to Voronezh. In the course of the battle, Konev passed control of four corps and two complete armies to Vatutin. Meanwhile, the growing experience of Soviet staff officers enabled the Steppe Front, which was not involved in current operations, to plan further ahead than could the German headquarters. In addition, as already noted, the Briansk and Western Fronts north of Kursk and the Southwestern and Southern Fronts to the south were prepared to conduct a series of counteroffensives once the German onslaught was blunted.¹⁷

Had they known the full scope of Soviet preparations, even the most confident German commanders would have been daunted. Instead, these commanders knew only about the forward Soviet defenses, and they were frequently misinformed about forces farther to the rear. In the Voronezh Front, for instance, dummy troop concentrations misled German aerial reconnaissance; the actual troops of the Steppe Front and other reserves remained concealed from view.

CAULDRON

The German attack was finally scheduled for the morning of 5 July 1943.¹⁸ Through defectors and reconnaissance reports, the Soviet commanders were able to predict the attack to the minute. One half-hour before the German artillery was scheduled to begin firing, the Red artillery launched its own counterpreparation against areas where the attackers were likely to assemble. The results were mixed—German artillerymen suffered heavily, caught in the open just as they prepared to fire their own preparations, but elsewhere, the Soviet fires often missed the intended concentrations of assault troops. Still, OKH reluctantly agreed to move back the scheduled start times by 150 minutes in the north and 180 minutes in the south, but even then, the initial German attacks were somewhat uncoordinated.¹⁹ General Novikov's attempt at a preemptive airstrike on German forward airfields was less effective; *Luftwaffe* tactical radar provided just enough warning for the defenders to prepare, and the 300 VVS aircraft took heavy casualties.²⁰

On the northern face of the salient, General Model attacked 13th and 70th Armies on a frontage of 50 kilometers, but he was never able to break through. In six days of fighting, the Ninth Army, with heavy Stuka support, only penetrated some 8 to 15 kilometers into the Central Front's massive defenses. Beginning on 6 July, the second day of the battle, Rokossovsky launched a series of counterattacks with 2nd Tank Army and other reserves, culminating in a seesaw battle at and west of Ponyri Station. After one final attempt, the German attack in the north came to a halt on 12 July, having lost up to 400 tanks and 50,000 casualties.²¹ Some elements actually had to withdraw two days later.

In the south, Fourth Panzer Army had more success. Here, the Germans used their new Tigers and other heavy armor as a wedge behind which the older, medium tanks and the few available infantry personnel carriers could advance. Hoth's XXXXVIII and II SS Panzer Corps eventually penetrated into the third Soviet defensive belt, a depth of 35 kilometers, but they were stopped by Katukov's 1st Tank Army and other mechanized formations. After a heated discussion with the *Stavka*, Vatutin got permission to use this armor

defensively, digging in the tanks while launching incessant counterattacks against the flanks of the German armor.²² This tactic reduced the advantages of the new German tanks by limiting the exposure of Soviet armor. In the south as in the north, the Germans failed to achieve a significant operational penetration and were, therefore, unable to encircle and disrupt their enemy's rear areas.

The battle reached its critical point on 11–13 July at a key railroad junction known as Prokhorovka Station, where the town itself was defended by 5th Guards Army's 33rd Guards Rifle Corps. More importantly, Pavel Rotmistrov's 5th Guards Tank Army, released from the Steppe Front's control, had infiltrated forward 100 kilometers in night marches and was prepared to attack II SS Panzer Corps and most especially the *Leibstandarte Adolf Hitler* Division. Reinforced by three additional mobile corps, Rotmistrov planned to reduce the German technical advantage by charging forward to ranges of only a few hundred meters, where each side's tank guns stood a chance of penetrating the other's armor. The 18th and 29th Tank Corps conducted this suicidal charge on 12 July across open, rolling terrain. Rotmistrov lost as many as 400 of the 500 attacking tanks to a force of fewer than 200 German tanks, and Vatutin's larger plan to encircle the German spearheads failed due to poor coordination between forces. Still, Soviet sacrifices near Prokhorovka enabled the defenders to fight II SS Panzer Corps almost to a halt by 13 July. Worn down by a week of constant battle, the panzer spearheads were no match for the fresh reserves of the Soviet tank forces. Compartmentalized by various obstacles such as the railway embankment and the Psel' River, the Prokhorovka battlefield and associated fight by III Panzer Corps involved 306 German and 672 Soviet tanks and self-propelled guns, belying its older reputation as a titanic clash involving from 1,200 to 1,500 tanks.²³ By 13 July, only 3rd SS Division *Totenkopf* and Kempf's III Panzer Corps were still able to advance, however slowly.

Three days earlier, on 10 July 1943, the Western Allies had invaded Sicily. This activated Hitler's constant concern for his western defenses, prompting him on 13 July to order that II SS Panzer Corps begin withdrawing so that it could redeploy to Italy. Hitler apparently felt, with some justification, that there was less strategic depth and therefore less margin for error in defending western as opposed to eastern Europe. Manstein objected to the SS redeployment, but the most that he could obtain was permission to continue fighting with a goal of destroying more Soviet armor.²⁴ Even this attack quickly halted; on 18 July, Fourth Panzer Army and Army Detachment Kempf began a fighting withdrawal to their initial positions.

Soviet detailed preparations, concentrated forces in depth, and accurate intelligence, together with the mobility of the tank corps and new tank armies, all contributed to the defeat of Citadel. It was the first time that a major

German offensive had failed to break through enemy defenses into the strategic depths beyond, but this was only the initial phase of the German failure.

OREL AND BELGOROD-KHAR'KOV

The German commanders had no choice but to retreat. On 12 July, the Red Army began its own planned strategic offensive, starting with Operation Kutuzov against the Orel salient, immediately to the north of the Kursk bulge. To further complicate matters, on 10 July the Gestapo had arrested Colonel General Rudolf Schmidt, commander of Second Panzer Army in the Orel bulge, for his consistent criticism of Hitler. Model temporarily assumed command of Second Panzer in addition to his own Ninth, but with most of the latter army still locked in struggle on the northern shoulder of the Kursk salient, this attack by Western, Briansk, and later Central Fronts caught the Germans off balance.

Kutuzov featured a technique that became standard in later Soviet offensives. On the day prior to the actual attack, reinforced battalions from each of the forward divisions seized many of the German first-line outposts, stripping away the covering forces so that the subsequent offensive efforts could be focused against the German main defensive line.²⁵ Sokolovsky's Western Front initiated the main attack on the northern face of the Orel salient on 12 July, where 11th Guards Army created a penetration on the first day, after which 1st and 5th Tank Corps soon outran their neighbors in the exploitation. Meanwhile, on the 13th, the Briansk Front made its main attack using 3rd and 63rd Armies, each focused on a narrow, 9-kilometer front to punch a hole through enemy defenses. Because of the depth of German positions, the Red Army ignored its own doctrine to achieve a significant density of attackers. Each attacking division focused five or six infantry battalions, 160 to 200 guns, and up to eighteen infantry support tanks against a single kilometer of German defensive position. A two-and-a-half-hour artillery barrage prefaced the attack, after which the shells moved slowly forward to cover the attacking infantry.²⁶ This concentration permitted passage of Lieutenant General P. S. Rybalko's 3rd Guards Tank Army on 14 July.

The one exception to the general Soviet success occurred near the eastern tip of the salient, where Major General Lothar Rendulic, commander of XXXV Army Corps, had correctly predicted the point of Soviet attack and concentrated his slender resources carefully. This enabled Rendulic to hold up his opponents for two days, and elsewhere, German defenses were almost equally tenacious.²⁷ Nonetheless, on 5 August, after weeks of heavy combat, 3rd Guards Tank Army entered Orel; by 18 August, the Briansk Front had reached the outskirts of the city for which it was named, completely eliminating

the German salient in the region. Kutuzov was a model of the increasingly sophisticated Soviet ability to plan and conduct offensive actions.

Worse was to follow for the Germans. The Western and Briansk Fronts had begun their offensive at full strength because they had not been involved in the initial struggle for Kursk. Meanwhile, secondary attacks in the Donbas region had succeeded in attracting most of Manstein's armored reserves—including II SS, XXIV, and XXXXVIII Panzer Corps—to that region. Manstein had been confident that Operation Citadel had severely damaged the defending Soviet formations within the bulge. He was, therefore, shocked by the ability of the same Soviet forces that had fought the best German units to a standstill at Kursk to shift to the offensive in August, only two weeks after the German withdrawal.²⁸

The new offensive toward Khar'kov, code-named Rumiantsev, involved the Voronezh and Steppe Fronts attacking from the southern shoulder of the Kursk offensive, scene of the greatest German penetration in Citadel. To further distract German reserves, a notional tank army and combined-arms army were simulated massing on the western tip of the bulge. An elaborate series of radio signals and false troop movements supported this deception. *Stavka* representative Zhukov, together with *front* commanders Vatutin and Konev, planned for 5th and 6th Guards Armies—the two elements that had borne the brunt of the German offensive—together with 53rd Army to attack on a sector only 30 kilometers wide. This concentration of infantry and artillery was necessary to penetrate the five successive German defensive lines between Kursk and Khar'kov. Then, 1st Tank and 5th Guards Tank Armies, largely reequipped after Citadel and supported by two additional mobile corps, would act as the *front*'s mobile groups, developing the success by encircling Khar'kov from the north and west. Katukov would form the outer encirclement line, facing west, while Rotmistrov formed the inner encirclement line, facing the city. To the west of this main penetration, 27th and 40th Armies, supported by four separate tank corps, would launch a secondary attack; to the east and southeast, 69th and 7th Guards Armies, followed later by Southwestern Front's 57th Army, would join the attack.²⁹

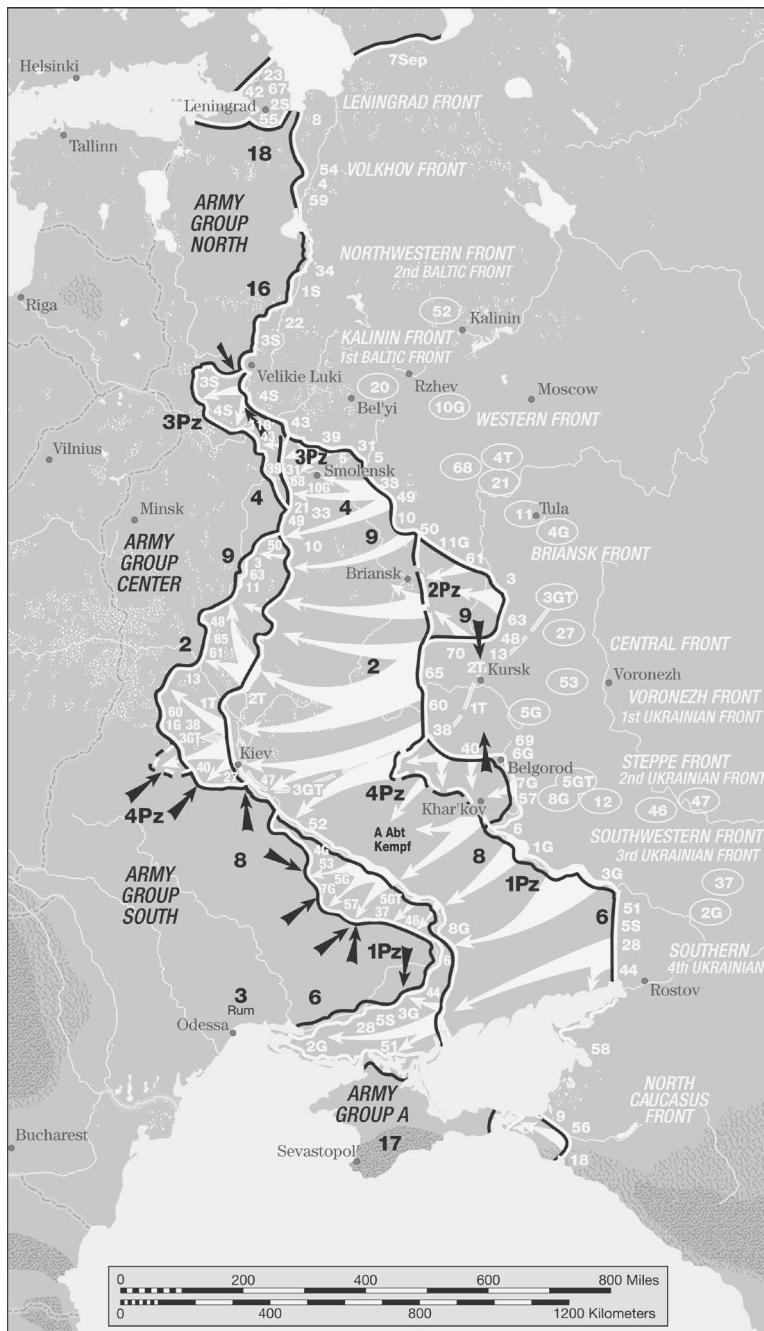
The initial attacks by three armies on 3 August symbolized the growing material wealth and sophistication of Soviet offensive practice. Each attacking rifle division was reinforced by so much artillery that it formed specialized, multibattalion artillery groups to support the attacking infantry regiments. Other artillery units provided long-range fires into German reserve positions while maintaining an antitank group to halt any counterattack. Still, just as at Orel, the German defenses proved so tenacious that the leading brigades of the two tank armies had to enter the fray to complete the penetration. Late on 5 August, the third day of the Rumiantsev offensive, forward tank elements were finally free to exploit into the German rear areas. The city

of Belgorod fell that same evening, and the two tank armies reached a depth of more than 60 kilometers behind the initial German lines. Over the next few days, the combined-arms armies on both sides of the main attack sector pressed forward against the Germans in an ever-widening ripple, each army joining in as its neighbor achieved a breakthrough.

At that point, the German mobile reserves, hastily redeployed from the Orel and Donbas regions, attempted their usual task of counterattacking to break up the Soviet offensive, but the magic was gone. The *Grossdeutschland* Division detrained and entered combat immediately, before its forces were fully assembled. The most this division could achieve on 6–7 August was to delay 40th Army in its secondary attack on the western flank of the main offensive. Under cover of such counterattacks, Manstein assembled four infantry and seven panzer or motorized divisions. Former divisions of II SS Panzer Corps—now under control of III Panzer Corps because its parent headquarters had gone westward in response to the Sicilian invasion—attempted to use the same maneuver schemes they had employed when capturing Khar'kov five months earlier. This time, however, it was the Germans rather than the Soviets who were worn out and overextended. On 12 August, the leading corps of 1st Tank Army clashed with three battle groups of SS *Totenkopf* Division. The Germans surrounded and destroyed about 100 of Katukov's tanks, but this setback did not lead to a Red collapse. For three days, the SS divisions and elements of both tank armies maneuvered around the town of Bogodukhov, northwest of Khar'kov. Finally, on 16–17 August, III Panzer Corps managed to stabilize the situation by pushing 6th Guards Army and the remnants of 1st Tank Army back to the Merchik River.³⁰ Despite this outcome, the Germans had failed to destroy the Soviet mechanized forces completely, and they could not prevent Konev's rifle forces from seizing Khar'kov on 28 August. The Soviets usually describe the Rumiantsev offensive, including the clash at Bogodukhov, as the Belgorod-Khar'kov operation; the Germans refer to it as the fourth battle of Khar'kov. Regardless of its name, this marked the end of the last major German offensive in the East and the beginning of the Soviet summer-fall campaign.³¹

WIDENING THE GAP

For the third time in the war, in early August Stalin and the *Stavka* ordered a general offensive to build upon their successes at Orel and Belgorod-Khar'kov. Just as in the previous winter, their objective was the Dnepr River line from Smolensk to the Black Sea. In one of his periods of realistic policy-making, Hitler also recognized the need to withdraw to the Dnepr to restore a continuous front for Army Group South. The Germans had done nothing



Map 17. Summer–Fall Campaign, June–December 1943

to fortify this river, although it was a major obstacle in itself. Indeed, the Western Bug, Dnepr, and Don Rivers all had generally higher banks on their western sides, making them good defensive positions for the Germans facing eastward. Thus, as the Red Army reached each of these river lines the *Stavka* attempted to seize bridgeheads on a wide frontage in order to deny the Germans use of this barrier.³²

As the Germans fell back in the south, Moscow launched a series of *front* and multi-*front* attacks as part of the general offensive. Against Army Group Center, where the Germans had been preparing defensive positions for as long as eighteen months, the forces carrying out these attacks experienced great difficulty. On 7 August 1943, for example, Sokolovsky's Western Front, supported by Colonel General A. I. Eremenko's Kalinin Front, attempted to retake Smolensk by a concentric attack against the German Fourth and Ninth Armies (Operation Suvorov). However, German defenses were strong, the attackers were less coordinated than those who took part in the Kursk operation, and German aerial reconnaissance detected the Soviet main effort despite hasty attempts at deception. The defenders reallocated their scarce resources to contain the first Soviet attack, prompting the *Stavka* representative with Sokolovsky, General N. N. Voronov, to recognize that the element of surprise had been lost. A renewed offensive began on 7 September, but it would take the remainder of the month for the Soviets to capture Smolensk, incurring great losses in the process. Although it had only limited success, this offensive did draw sixteen German divisions northward from the Khar'kov region.³³

A series of other offensives in the north and center of the front were also dogged by excellent German defenses, inadequate coordination, and unfavorable terrain. As a result, the greatest Soviet successes in 1943, as in the previous winter, remained in the south. To the south of Smolensk and Briansk, Rokossovsky's Central Front experienced difficulties continuing its advance after it reduced the Orel bulge in August. Rokossovsky had five combined-arms armies, 2nd Tank Army, and 9th Tank and 7th Guards Mechanized Corps. All of these forces were severely depleted in the fighting around Kursk and Orel. Yet even in adversity, they displayed superb staff work and flexibility in adjusting to changing circumstances.

The initial attack on 26 August bogged down rapidly because German stay-behind agents reported the focus of the main Soviet effort, allowing Second Army once again to concentrate forces at the critical point. In four days of fighting, Central Front advanced only 25 kilometers. Rokossovsky recognized his problem as early as 27 August, so that night, he transferred 9th Tank Corps and 13th Army 100 kilometers to the south, using strict noise and light discipline. The Germans lost track of these formations, enabling

Rokossovsky to attack the southern flank of Second Army while the bulk of German reserves remained in the north. By 22 September, Central Front's 13th, 60th, and 61st Armies, supported by the two mobile corps, were closing on the Dnepr River north of Kiev.³⁴

Meanwhile, on 1 September, General M. M. Popov's Briansk Front commenced operations against its namesake city. After skillful maneuvering by Colonel General I. V. Boldin's 50th Army against Ninth Army's left flank, Briansk fell to the Soviets on 17 September.³⁵ Thereafter, Popov's forces drew even with Rokossovsky's advance and reached the banks of the Dnepr and Sozh Rivers north of Gomel' on 3 October.

Rounding out the first wave of offensives, Malinovsky's Southwestern Front and F. I. Tolbulkhin's Southern Front struck into the Donbas on 16 and 18 August, respectively, but this time, they were not simply making a diversion. Despite a lack of mechanized divisions, First Panzer and the re-created Sixth Armies avoided encirclement and fought a month-long withdrawal to the Panther Defensive Line (as the Russians called Germany's Eastern Wall), running from Zaporozh'e on the Dnepr to the Black Sea.³⁶

Part of the problem from the German point of view was that the OKW, which was responsible for all theaters other than the Soviet conflict, was unwilling to release forces to reinforce the Eastern Front, which was controlled by the OKH. On 3 September 1943, Field Marshals von Manstein (Army Group South) and von Kluge (Army Group Center) tried in vain to persuade Hitler to place all theaters under OKH and thereby eliminate duplication and division of command.³⁷

PURSUIT

Throughout September, the two opposing armies raced to the Dnepr River, with the Germans destroying everything in the path of the advancing Soviets. This systematic destruction only contributed to the indiscipline developing among the German rank and file. Burning everything in sight clearly indicated that all hope of victory was gone, and the additional tasks required by scorched earth further exhausted the German infantry. Vatutin, commander of the Voronezh Front, urged his troops forward with the exhortation, "They are burning the bread, we must attack."³⁸

The Germans believed that the pursuing Soviet forces were huge, but in fact they had been worn down by previous operations and were strung out along dusty roads. Resupply and maintenance were difficult, but the weakened mobile forces continued their pursuit. The 5th Guards Tank Army, for example, had only 50 of its 500 tanks operational after the Belgorod-Khar'kov

operation. Rotmistrov concentrated these tanks into three detachments and moved phantom radio transmitters to simulate the rest of his army and thereby deceive German signals intelligence teams.³⁹

Between 19 and 23 September 1943, Vatutin's leading tank and rifle elements reached the Dnepr north and south of Kiev. Despite a lack of bridging equipment, the Soviets improvised forty bridgeheads between 19 and 26 September, primarily south of the city. One bridgehead in particular seemed promising: during the pursuit, two tank corps from Rybalko's 3rd Guards Tank Army, reinforced by a separate cavalry corps, had been reassigned as the spearhead of the Voronezh Front. The infantry elements of these three corps seized a bridgehead at Velikii Bukrin, just south of Kiev, but they needed reinforcements to continue the offensive. In anticipation of such a development, in early September the *Stavka* had directed refresher parachute training for several airborne units. After a year and a half fighting as ground troops, 1st, 3rd, and 5th Airborne Brigades were reorganized as a provisional corps and reallocated to Vatutin for use in the exploitation. Two of these brigades were scheduled to jump near Velikii Bukhrin on the night of 24–25 September.⁴⁰

Unfortunately for the Soviets, the headlong pursuit to the Dnepr had outrun the ability of the GRU to provide timely intelligence about enemy troop dispositions. Unbeknownst to Vatutin, five German divisions—two panzer, two infantry, and one motorized—were en route to the proposed drop zone, with lead elements of 19th Panzer Division already on site. The result was a shambles, with highly trained parachutists scattered over the drop zone and decimated by the unexpected defense. This failure soured Stalin on large-scale airborne operations for the remainder of his life. Hard on the heels of this failure, during October Vatutin's Voronezh Front launched multiple offensives against German forces attempting to contain his bridgeheads north and south of Kiev, all of which ended as bloody failures (see later discussion).

Successes elsewhere more than compensated for the failures north and south of Kiev. On 15 October, with the race to the Dnepr still under way, Rokossovsky's Central Front punched through the German defenses along that river south of Gomel', occupying favorable positions for a subsequent advance into southern Belorussia. Farther south, Tolbulkhin's Southern Front also smashed through Army Group South's Panther Line on 11 October. Racing to the Dnepr, Tolbulkhin's troops ultimately isolated the German Seventeenth Army in the Crimea.⁴¹

The successful German defense along the Dnepr in late September and October permitted Guderian to rebuild a few panzer divisions, but it did not change the overall balance. Germans maintained tight control over the Soviet bridgeheads near Liutezh and Velikii Bukhrin north and south of Kiev (Voronezh Front) and south of Kremenchug (Steppe Front). Germany also

retained its own bridgehead on the eastern bank, opposite Nikopol'. However, during mid-October the Voronezh Front succeeded in enlarging its small bridgehead in the bogs near the village of Liutezh, north of Kiev, an area so impassible that the overextended Germans had not used major forces to contain it. The Voronezh Front, redesignated 1st Ukrainian Front in late October, attempted to exploit this weakness.⁴² To do so, though, meant violating all the normal rules of vehicle movement in swampy terrain. Initially, on 11 October, Vatutin dispatched Lieutenant General A. G. Kravchenko's 5th Guards Tank Corps to reinforce the Liutezh bridgehead. Kravchenko had to move his corps laterally across several rivers and then link up with the small infantry bridgehead. His troops got there by the dangerous expedient of sealing their T-34s as much as possible and charging through the streams at full speed. The corps commander laconically reported that he had managed to get "most" of his vehicles across in this manner, but undoubtedly numerous tanks and crews sank in the muddy streams. Although the Germans managed to contain Kravchenko's thrust short of Kiev proper by mid-October, the enlarged bridgehead provided Vatutin a new opportunity.⁴³

In late October, Vatutin secretly moved all of Rybalko's 3rd Guards Tank Army, together with significant infantry and artillery reinforcements, into the cramped bridgehead. On 3 November, 1st Ukrainian Front's 38th Army and Rybalko's tank army burst from the bridgehead, overwhelming the surprised German defenders. Three days later, Vatutin's troops retook Kiev, and soon his *front* had formed a major strategic foothold across the Dnepr, on Ukrainian soil.⁴⁴

Vatutin's forces exploited this success relentlessly. The 3rd Guards Tank Army raced forward through Fastov toward Kazatin, deep in the German rear, followed closely by General K. S. Moskalenko's 38th Army; at the same time, 1st Guards Cavalry Corps and 60th Army sped westward to seize Zhitomir and threaten Korosten'. Manstein reacted quickly, attempting to repeat his February victory south of Khar'kov, when he had destroyed the majority of three Soviet armies. He redeployed XXXXVIII and XXIV Panzer Corps from the Velikii Bukrin region to destroy the Soviet spearheads and drive the enemy back to the Dnepr. Circumstances had changed, however. The antiarmor capability of Soviet infantry units, backed up by their own tanks and self-propelled guns, exacted a terrible toll on the counterattacking Germans. Still, on 10 November XXXXVIII Panzer Corps halted 3rd Guards Tank Army near Fastov. As they had done at Bogodukhov three months before, the panzers lopped off and destroyed Rybalko's forward brigades. Yet, Manstein was unable to retake Fastov.

Frustrated, he turned XXXXVIII Panzer Corps westward, seeking to locate and turn Vatutin's right flank. Again, he achieved a fleeting success. Zhitomir was reportedly defended by drunken troopers of 1st Guards

Cavalry Corps, who had looted Fourth Panzer Army's liquor stores. These forces were routed, but redeploying Soviet infantry, armor, and antitank units again halted the Germans near Brusilov. Twice more, in late November and early December, Manstein maneuvered XXXXVIII Panzer Corps against Vatutin's right flank; each time, the German attack faltered after initial success. On 19 December, Manstein made a final attempt to eradicate the dangerous bridgehead. In fierce fighting along the Korosten'-Kiev rail line, he encircled and destroyed what he believed to be four Soviet corps. In fact, the Germans had attacked a deception force that was masking the assembly of a formidable Soviet strike force farther south, in the Brusilov area. As Manstein contemplated his supposed successes near Korosten', his armor again ground to a halt after negligible gains. The next day, Christmas 1943, all his optimism evaporated as the Soviets launched a massive assault near Brusilov. The 1st Tank and 1st Guards Armies advanced westward from Kiev, ripping a gaping hole through the defenders and signaling the beginning of the next Soviet winter campaign.⁴⁵

Farther south, Konev's 2nd Ukrainian Front, with Rotmistrov's 5th Guards Tank Army in the lead, continued to expand the bridgehead of Krivoi Rog, further rupturing the Dnepr defensive line. As winter set in during November and December, German SS and panzer units barely contained this bridgehead through a series of local counterattacks. Numerous Soviet attempts to eliminate the German Nikopol' bridgehead failed, but these attempts distracted German commanders from other dangers farther north along the Dnepr.

While Vatutin and Konev conducted the dramatic so-called Battle for the Dnepr in the south, an equally important, if less successful, Soviet offensive developed opposite Army Group Center. In late September, the *Stavka* ordered the beginning of liberation of Belorussia. In early October, Eremenko's Kalinin Front, soon redesignated as the Baltic Front, seized the critical city of Nevel' by a coup de main. This severed Army Group Center's communications with Army Group North while threatening Vitebsk from the north. Soon thereafter, Rokossovsky's Belorussian Front, the erstwhile Central and Briansk Fronts, launched the Gomel'-Rechitsa operation into southern Belorussia.⁴⁶ At the same time, Sokolovsky's Western Front repeatedly pounded German defenses at Orsha and Mogilev, east of Vitebsk. Initial successes led the *Stavka* to order the Baltic, Western, and Belorussian Fronts to launch concentric blows in early November, with the goal of seizing Minsk and eastern Belorussia. This ambitious offensive faltered by mid-November in the face of strong and skillful German resistance as well as deteriorating weather conditions.⁴⁷

With the situation stabilized in Belorussia and Soviet forces supposedly contained in their Dnepr bridgeheads, the Germans halted operations for

the winter, confident that a lull in fighting would ensue. The Soviets did not accommodate them.

CONCLUSIONS

Soviet historiography describes the period from November 1942 through December 1943 as the Second Period of War, and it was certainly pivotal in many ways. On a strategic level, the Germans began this period believing that they were within a few hundred meters of victory at Stalingrad and a few kilometers from the oil fields of the Caucasus. By the end of this period, the invaders could have no illusions about the ultimate outcome of the struggle. After Kursk, Germany could not even pretend to hold the strategic initiative in the East. Moreover, a vast area of European Russia had returned to Soviet control, although the land would require a decade to recover from the devastating German occupation.

Organizationally, the Wehrmacht was clearly in decline by late 1943. In addition to the destruction of Sixth Army, much of Fourth Panzer Army, and four allied field armies, the German panzer force and air transport capability had been shattered repeatedly. Hundreds of ordinary infantry divisions were reduced to two-thirds of their original strength, with declining mobility and inadequate antitank defenses. Even the growing industrial mobilization of Germany, fueled by slave labor and directed by the organizational genius and ruthlessness of men such as Speer, Guderian, and Sauckel, could only patch together the existing units. New generations of weapons, particularly in armor and fighter aircraft, offered some technical advantages, but Germany was unable to produce, man, and fuel enough of them to counterbalance the industrial capacity of the United States and the USSR. Military manpower was a particular concern. Stalingrad had cost Germany the support of most satellite states, and after the Citadel disaster, even Finland and Romania looked to their own futures. Forced or voluntary enlistment of ethnic Germans in central Europe or anti-Soviet ethnicities in the East could not fill the resulting gap.

Indeed, after Kursk a vicious cycle set in. Each new setback forced the Germans to commit their newly recruited replacement troops and their refurbished panzer divisions to battle more rapidly and with less training. Poorly trained troops suffered from abnormally high casualty rates before they learned the harsh realities of combat. These casualties, in turn, meant that commanders had to call on the next wave of replacements at an even earlier stage in their training.⁴⁸ Meanwhile, the cadre of World War I veterans who had led the victories between 1939 and 1941 became increasingly overaged and attrited.

In their memoirs, German commanders often blame this situation on Hitler's errors or the overwhelming numerical superiority of the Soviet Armed Forces. As this study has suggested, both explanations have been exaggerated, in that Hitler often listened to his generals, those generals were by no means infallible, and Soviet deception efforts overstated their actual combat strength. Perhaps the principal cause of the reversal in the Soviet-German conflict was the revolution in Soviet command, staff, and operational and tactical skills. By late 1942, Stalin had come to trust his commanders and staff officers as professionals, and they had justified this trust by learning the painful lessons of mechanized warfare. Indeed, an entire section of the General Staff was devoted to the study and dissemination of "war experience" based on an exhaustive Marxist analysis of each battle, operation, and campaign. These lessons were grafted onto the prewar concepts of the Red Army, producing new regulations and procedures. During the summer and fall of 1943, the Soviet commanders experimented with a variety of strategic and operational techniques. In particular, they worked out most, but not all, of the difficulties of integrating the different arms and services into a true combined-arms operation.

At Kursk, Soviet commanders and planners demonstrated their sophisticated understanding of intelligence, deception, and antitank defense. Moreover, for the first time the Germans lost the advantage of surprise. Subsequent Soviet operations displayed similar improvements in the careful orchestration of artillery, engineers, reconnaissance, infantry, and armor to penetrate German defenses by focusing overwhelming force on narrow fronts. In the counterstroke at Prokhorovka and in the Kutuzov, Rumiantsev, and Suvorov offensives, the Red Army tested the tank armies and separate tank and mechanized corps that were henceforth the hallmark of Soviet deep operations. With experienced commanders, competent staff officers, and improved logistics based on Lend-Lease trucks, these armored formations made mistakes but gradually demonstrated their ability to match the best efforts of the German panzer force.

Many problems remained to be solved, particularly the correct timing and procedure for introducing these mobile formations into battle during or after the initial penetration attacks and sustaining them during exploitations. In addition, the Soviets had to find ways to reduce the often catastrophic number of casualties they suffered even in successful offensives, lest victory be snatched from the Soviet grasp by an army and nation bled white.⁴⁹ Even the most famous Soviet commanders made costly mistakes of this kind throughout the rest of the war. Yet the future outline of Soviet offensive capability was clear, and realistic German commanders began to recognize that they faced an entirely new and far more competent Red Army.

THIRD PERIOD OF WAR

January 1944–May 1945

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CHAPTER TWELVE

Third Winter of the War

The campaigns of late 1943 through May 1945 were almost continuous, punctuated only by brief pauses while the Soviet war machine gathered itself for another major offensive. This period, known to Soviet scholars as the Third Period of War, witnessed the final maturity of both armed forces. It is therefore appropriate to examine the relative strengths of the two antagonists before resuming the operational history of the war.

THE GERMAN DECLINE

After Kursk, the strength and combat effectiveness of the German armies in the East entered a period of almost constant decline. Periodic influxes of new conscripts and equipment, especially for the mechanized units and the *Waffen SS*, gave the defenders the means to conduct local counterattacks, some of which, especially in Romania during the spring of 1944, were quite successful. Yet, these attacks were steadily less effective, due to both the growing sophistication of the Soviet troops and the steady decay in the level of German training and equipment.

The German infantry formations were even more emaciated than their mechanized counterparts. The six-battalion infantry division was largely helpless against a Soviet mobile group. Many divisions simply fought as division groups, with strengths not much larger than a regiment. In December 1943, after much discussion, Heinz Guderian won his case to have an older model of Czech tank chassis reconfigured as a self-propelled tank destroyer (the *Jagdpanzer 38t "Hetzter,"* joining the *Sturmgeschütz III* [StuG III] assault gun, both armed with 75mm guns). Unfortunately for German infantrymen, there were never enough tank destroyers or even large-caliber towed guns to equip more than one-third of each division's antitank unit.¹ On the positive side of the ledger, the introduction of large quantities of *panzerfaust* (handheld antitank weapons) in late 1943 offered a relatively cheap way to destroy or damage large number of Soviet tanks.

Tanks themselves became relatively scarce. The authorized size of a tank company declined from twenty-two in 1939 to seventeen (admittedly superior) vehicles by 1943. Lack of spare parts limited maintenance efforts even

for those tanks that were available. On 10 March 1944, for instance, when Marshal Konev's 2nd Ukrainian Front captured a German depot at Uman' in the Ukraine, it found some 300 immobilized German tanks, most of them awaiting parts.² Moreover, Germany's chronically inadequate supplies of fuel limited all motorized and mechanized movement; Allied bombing of oil fields and refineries only exacerbated this problem.

The steady withdrawal of the *Luftwaffe*'s fighters and 88mm guns to defend the Reich, in conjunction with the growing effectiveness of the Red Air Force, made the German troops equally vulnerable to air attacks. Light antiaircraft batteries eventually appeared in panzer and motorized divisions, but the average infantry formation had little effective air defense.

Germany's warring bureaucracies made strenuous efforts to overcome these equipment problems. In October 1943, Albert Speer had reached agreement with Heinrich Himmler to cooperate in maximizing industrial production from Germany. Addressing a meeting of Nazi party officials in Posen on 6 October, the two leaders spoke bluntly of the need for total mobilization, demanding the same type of dedication to production that had been involved in the ghastly genocide then reaching its crescendo. In practice, however, Speer had already achieved about all that was possible with regard to production, especially given the strain of Allied bombing and the growing proportion of the economy supporting the military.³ By the end of 1944, foreigners made up 22.1 percent of German agricultural labor, 24.9 percent of industrial workers, and 11.2 percent of government and security forces.⁴ German factories continued to churn out weapons, but they lacked the labor and raw materials needed to offset the capacity of their American and Soviet counterparts.

SOVIET FORCE STRUCTURE AND DOCTRINE

By contrast, the Third Period of War marked the full development of Soviet force structure, equipment, and operational and tactical concepts. Before considering this development, it is worth recalling that the Soviets, like the Germans, suffered from severe manpower shortages. The staggering civilian and military casualties of the war, the large factories needed to maintain weapons production, and the demands of rebuilding the shattered lands reclaimed from the Germans all strained the supposedly inexhaustible supply of Soviet manpower. The manpower needed to build new mechanized and artillery units could come only by reducing the number of replacements provided to rifle units. Moreover, because the Soviets were almost continuously on the offensive, they inevitably suffered heavier casualties at the tactical level than the German defenders. As a rule of thumb, during the final period

of the war the Soviet combat units directly involved in an offensive suffered 22 to 25 percent casualties in order to accomplish their objectives.⁵

Thus, by 1944 the Red Army manpower crisis was, in its own way, as serious as that confronting the Wehrmacht. Many rifle divisions had an effective strength of 2,000 or less. The number of artillery pieces organic to such divisions dwindled in favor of nondivisional penetration artillery units that could be concentrated at critical points. Tank and guards formations had a higher priority for replacements than the rifle divisions, but they suffered such heavy casualties that they, too, were frequently understrength. Among the hardest-hit units were the submachine-gun companies that rode on the backs of T-34s as accompanying infantry during exploitation and pursuit operations. For this reason, beginning in late 1942 the Soviets had created numerous fortified regions (*ukreplennye raiony*) that were economy-of-force formations composed of high-firepower but low-manpower elements. These regions consisted of machine-gun and artillery battalions designated to occupy large sectors of the front, thereby releasing other, more capable combat forces for concentration along critical attack axes. Such organizations, together with increasingly effective Soviet deception measures, go far to explain the mistaken German belief that they were hopelessly outnumbered; though the Red Army unquestionably overwhelmed its opponents on the narrow frontages selected for the main attacks, elsewhere the Germans were fighting shadows composed of economy-of-force units and imaginary opponents.

The resulting disparity between the authorized and actual strength of many Soviet formations also helps explain the seemingly amazing performance of some German counterattacks. The ability of a full-strength *Waffen SS* division with priority for the best German weapons to halt a Soviet "corps" or "army" probably resulted more from the numerical weakness of the Soviet formations than from the supposed tactical superiority of the German attackers. Even without allowing for casualties, the tank corps was authorized fewer soldiers than a German panzer division. Although such assessments must always be subjective, on an individual basis the average Red Army commander and soldier was probably as effective as his or her German counterpart in 1944–1945.

During the First Period of War (June 1941–November 1942), the Red Army had frittered away an enormous numerical advantage because it lacked the skill to deploy and maneuver its forces. In the Second Period of War (November 1942–December 1943), neither side had an overwhelming strategic advantage in numbers, but the Soviets had slowly developed the manpower and deception skills to create what Red officers termed a "favorable correlation of forces" at the critical point. During the Third Period of War, the Soviets had both the numbers and the skill to destroy the German forces, but the manpower crisis necessitated a continued emphasis on sophisticated

maneuver attacks. Massive frontal assaults still occurred but less frequently, and they were usually examples of failure on the part of Red Army commanders.

Structurally, the Red Army continued the trend toward creation of fully combined-arms organizations for both rifle and mobile forces. Infantry (combined-arms) and guards armies generally consisted of three to four corps each plus an impressive array of artillery, antitank, mortar, "guards-mortar" (*Katiusha* multiple-rocket launchers), and antiaircraft units. Guards armies and the specially designated shock armies tended to have higher proportions of artillery and infantry-support tanks.⁶ Because the Red Army held the strategic initiative, the NKO created far fewer armies in 1944 and 1945. However, as the front shrank, the NKO disbanded depleted armies operating along secondary axes, assigning their forces to *fronts* working in more active sectors. During this period, the NKO disbanded five armies, formed five new armies (including one tank, one guards, and one air), and redesignated three more tank armies as guards units (see Tables L and M in the Appendix).

The real innovations lay in the manner in which these forces were tailored and employed. At every level, artillery, engineer, and tank troops reinforced the units designated to make the main attack. The 1944 *Field Regulations (Polevoi Ustav)* of the Red Army formalized procedures for a host of techniques that had developed during 1943, including the artillery offensive and the air offensive to provide continuous support to the attacking ground forces. More importantly, however, the *Ustav* stressed the importance of maneuver, surprise, and initiative, three hallmarks of interwar German and Soviet theory:

Maneuver is one of the most important conditions for achieving success. Maneuver consists of the organized movement of troops for the purpose of creating the most favorable grouping and in placing this grouping in the most favorable position for striking the enemy a crushing blow to gain time and space. Maneuver should be simple in conception and be carried out secretly, rapidly, and in such a way as to surprise the enemy. . . .

The readiness to take responsibility upon oneself for a daring decision and to carry it out to the end in a persistent manner is the basis of the action of all commanders in battle. Bold and intelligent daring should always characterize the commander and his subordinates. Reproach is deserved not by the one who in his zeal to destroy the enemy does not reach his goal, but [rather] by the one who, fearing responsibility, remains inactive and does not employ at the proper moment all of his forces and means for winning victory.⁷

The doctrinal publications of most modern armies express similar sentiments, but the Red Army paid far more than lip service to these ideas.

Though it is true that failure still received harsh punishment, the Red officer corps, particularly in mobile units, was encouraged and expected to take risks and make decisions as necessary.

Because the Third Period of War consisted of an almost unbroken series of Soviet offensives, it is worth examining the procedures used for such operations.⁸ Once Stalin approved a *Stavka* recommendation to attack in a certain region, the first step was to concentrate overwhelming local superiority without alerting the German defenders. As the war progressed, Germany lost most of the sympathizers and stay-behind agents who might have provided information about such troop concentrations. Only German aerial reconnaissance and signals-intercept teams provided any information about the Soviet rear areas, and these units were vulnerable to the growing Soviet skill in operations security and deception. Thus, even though German intelligence analysts frequently had a good picture of the frontline forces opposite them, they were consistently deceived about the location and strength of second-echelon rifle forces and especially of the mobile formations that were keys to Soviet deep exploitation. Time after time, the Red Army was able to mass its forces undetected, while distracting the defenders with the fantasy of an offensive elsewhere along the front.

Each level of Soviet forces, from the rifle regiment to the *front* headquarters, had its own specialists in reconnaissance work. The undermanned German defenses often leaked individual and unit infiltrators. Reconnaissance and diversionary *Spetsnaz* teams identified key targets and destroyed bridges and other vulnerable sites. The traditional German tactic of holding forward positions with as few troops as possible played into the hands of Soviet reconnaissance, as demonstrated in the July 1943 Kutuzov operation against the Orel bulge. By 1944, it was common for Red reconnaissance troops to conduct a reconnaissance-in-force (*razvedka boem*) at the start of each major offensive. Twenty-four hours before the official start of the attack, company- and battalion-sized reconnaissance subunits would capture or disrupt the first line of German defensive positions, thereby ensuring that the actual offensive began against the defender's main positions.

If a formal artillery preparation seemed necessary, Soviet gunners provided not only massive weights of exploding metal but also sophisticated firing schedules designed to catch the defenders off-guard. For example, the Germans often remained in deep bunkers until the enemy artillery fire slackened, then rushed outside to take up positions before the Red infantry and armor arrived. Recognizing this, Soviet artillery preparations frequently included a period of massive shelling, a few minutes without firing, and then renewed artillery fire to catch the defenders in the open after they left their bunkers.

The actual offensive normally began with infantry forces supported by engineers and tanks or self-propelled guns. If German armor was in the area,

heavy self-propelled guns would take up overwatching positions behind the first line of attackers, waiting to engage the German tanks when they appeared. Artillery and air support shifted forward along with the attackers, who tried to brush past the German frontline defenses and reach the rear as rapidly as possible.

On occasion, the German defenses at a particular point proved too strong for a rapid penetration. In such a case, the best Soviet commanders, such as V. D. Sokolovsky at Smolensk in September 1943, refocused their forces at a weaker point in the German lines. This flexibility was made possible by a pattern of attacking at multiple points while holding back significant forces from the initial assault. If one spearhead failed, the second-echelon rifle forces as well as the mechanized exploitation formations could then switch to exploit success somewhere else. The military doctrine of numerous armies encourages reinforcing success in this manner, but actually doing so in a timely manner requires exquisite planning and staff coordination.

Once a breakthrough appeared imminent, senior commanders focused on the most effective time to introduce mobile forces on the battlefield. On the one hand, mechanized forces committed too early might become bogged down in the penetration battle; on the other hand, forces committed too late might encounter German counterattacks or reorganized defenses. In both world wars, the hallmark of German defensive doctrine was a local counterattack launched before the attacker could consolidate his initial gains. In the key penetration sectors, each attacking combined-arms army commander had one or more mobile formations, equivalent in size to a reinforced panzer division. These separate mechanized corps, tank corps, and cavalry corps had relatively long-range tactical or short-range operational objectives, seeking to capture a key river crossing or encircle a German division or corps.

The true stars of the Soviet offensive were the tank armies and cavalry-mechanized groups, the latter usually composed of a tank or mechanized corps paired with a cavalry corps. The *front* commanders (or, in the case of multi-front operations, the appropriate *Stavka* representative) controlled these key forces. The tank armies and (on difficult terrain) cavalry-mechanized groups had much deeper, operational-level objectives, often hundreds of kilometers in the German rear. In some cases, the tank armies worked in pairs to encircle entire German field armies. As the war progressed, it became axiomatic that where Soviet mobile forces succeeded, the offensive succeeded; where they failed, the offensive also failed. As if to ratify the importance of tank armies, on 25 January 1944 the NKO created a sixth such organization by combining two separate mobile corps under the veteran “*tankist*” Lieutenant General A. G. Kravchenko.⁹

Yet even the tank armies did not move as compact masses. During the exploitation and pursuit, every Soviet commander, from reinforced rifle

division up to tank army, dispatched a “forward detachment” ahead of his main body. Such detachments tended to grow in size and in the scope of their missions as the war progressed. Each separate mobile corps would be led by a reinforced brigade of 800 to 1,200 troops, whereas a tank army might be preceded by a separate tank brigade or even one of its three corps, numbering 2,000 to 5,000 soldiers. During an exploitation, forward detachments might precede the main body of their parent units by 20 to 50 kilometers, depending on the size of the formations involved and the strength of the German defenses. In all cases, the forward detachment commanders were expected to use extraordinary initiative and skill, bypassing centers of German resistance to continue the advance. Eventually, these detachment commanders, often captains, majors, or lieutenant colonels in their twenties, could even call upon air support to facilitate their rapid advance. When the detachment had exhausted its combat power and supplies, the commander was expected to seize a bridgehead over the next water obstacle, providing a starting point for the next offensive. If, by chance, a forward detachment became pinned down by the Germans, the parent corps or army would maneuver to counterattack or, more commonly, bypass the German defenders and continue the advance.¹⁰

Just as the German encirclements of 1941 and 1942 had often failed to prevent the escape of the surrounding units, so the Soviets experienced difficulty in sealing off the Germans that they were able to encircle. However, the encircled Germans frequently were unable to obtain permission from higher headquarters to escape or were too far from their own lines to escape successfully. Those who did escape faced a much more hostile landscape and populace than did the Red Army soldiers evading capture in 1941–1942. With a few notable exceptions, the Soviet encirclements of 1944–1945 usually ended with the capture of most or all of the bypassed German soldiers. Ultimately, the Red Army solved the difficult problem that had so often thwarted the Wehrmacht—holding an encirclement closed with one set of formations while continuing to pursue with a separate group of mobile forces.

THE THIRD BROAD-FRONT OFFENSIVE

According to official German and Soviet figures, in late 1943 the Germans fielded 2,468,500 soldiers and 709,000 satellite troops in the East, including 26 panzer divisions, 151 other divisions, 2,305 tanks and self-propelled guns, 8,037 towed guns and mortars, and 3,000 aircraft. The Red Army boasted 6,394,500 men, including 35 tank and mechanized corps, more than 480 other division-sized formations, 5,800 tanks, 101,400 artillery pieces and mortars, and 13,400 aircraft of all types.¹¹ These Soviet forces were grouped

into 60 combined-arms armies, 5 shock armies, and 5 (soon to be 6) tank armies.

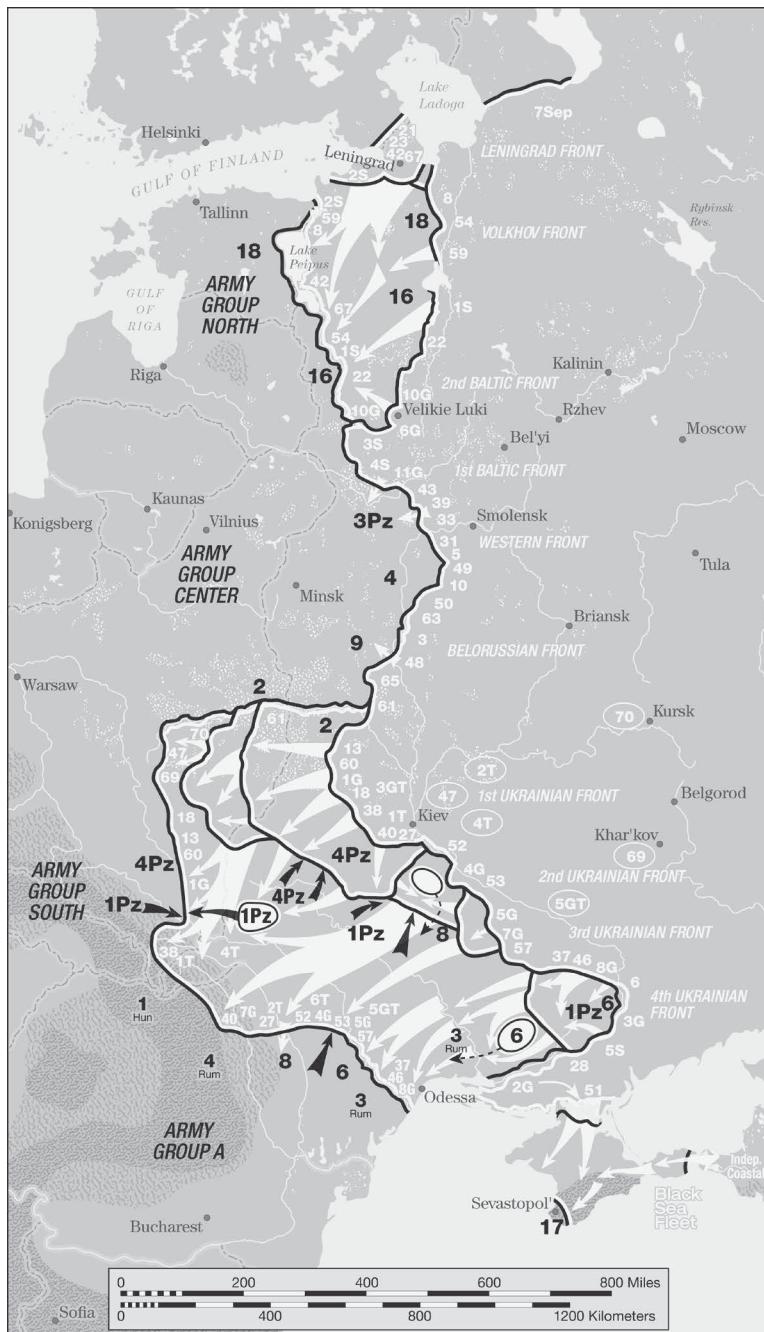
In early December 1943, the *Stavka* issued its operational plans for the third winter campaign, designed to clear German forces from the approaches to Leningrad in the north, from Belorussia in the center, and from the Crimea and the Ukraine in the south (see Map 18).

The traditional Soviet interpretation of this period stresses the successes at the northern and southern ends of the front, implying that Joseph Stalin and the *Stavka* cautiously focused their efforts on those areas. In fact, it seems clear that Stalin continued to pursue a broad-front strategy, using his growing numerical advantage to place pressure along the entire front in hopes of overwhelming the Axis defenders. The victories in the south and north were indeed real, and most of this chapter will focus on those successes because of their significance to the overall conduct of the war. But in addition, the reader should be aware of two significant failures, neither of which received much coverage in subsequent Soviet accounts. In the center of the battle line, three Red Army headquarters—the 1st Baltic, Western, and Belorussian Fronts—conducted no fewer than eleven offensives against their opponents between 23 December 1943 and 29 March 1944. With few exceptions, these attacks made little progress, and they often came to a halt in a matter of days; even the victories that ended the siege of Leningrad were marred by errors. The Soviets still lacked the combat power and experienced staffs needed to succeed in all their efforts, many of which were against long-prepared German defenses. Furthermore, between April and early June 1944, the 2nd and 3rd Ukrainian Fronts tried and notably failed to invade Romania and knock it out of the war, as will be discussed below.¹²

CLEARING THE RIGHT BANK OF THE DNEPR

Most of these failures were still in the future when the Red Army began to expel the invader from the Ukraine. Although the 1st, 2nd, 3rd, and 4th Ukrainian Fronts were all involved in this effort, as part of the larger broad-front strategy, the *Stavka* scheduled their offensives in two waves, with staggered patterns of attacks, from 25 December 1943 through April 1944. This series of attacks, initially sequential and later simultaneous, permitted Moscow to switch key artillery and mechanized resources from one *front* to another, while concealing for some time the true scope of the planned offensive.

Winter in the Ukraine was usually far less severe than winter in Russia proper, where the principal fighting had occurred during the previous two years. The relatively mild climate in the south made for unpredictable weather and terrain trafficability; both sides found themselves thwarted by



Map 18. Winter Campaign, December 1943–April 1944

sudden thaws throughout the season. In general, however, the “mild” (by Russian standards) climate allowed the Red Army to continue its operations without a break, much to the dismay of its opponent. In the meantime, partisan groups—both those directed by Moscow and those seeking Ukrainian independence—made the German rear areas increasingly chaotic and insecure. In a series of savage struggles with the Germans and with various other guerrilla organizations, the separatist Ukrainian Insurgent Army (UPA) came out on top by early 1944.

The first phase of the Soviet offensive to free the right bank of the Dnepr River lasted from 25 December 1943 through late February 1944. It consisted of five major operations, each conducted by one or two *fronts*. Erich von Manstein, the commander of Army Group South, switched his available reserves from point to point to meet these thrusts, but he was preoccupied with the possibility that Army Groups South and A might become pinned against either the Carpathian Mountains or the Black Sea and separated from the rest of the German defenders.¹³

The first two operations, conducted by N. F. Vatutin’s 1st and I. S. Konev’s 2nd Ukrainian Fronts, were virtually a continuation of the earlier operations to expand their bridgeheads across the Dnepr River. On 25 December 1943, after repeated counterstrokes by Manstein’s XXXXVIII Panzer Corps had failed to expunge the Kiev bridgehead, Vatutin’s *front* struck out of the bridgehead toward Zhitomir and Vinnitsa in the Zhitomir-Berdichev operation. The Germans had to make extreme efforts to halt 1st Tank and 3rd Guards Tank Armies just short of their objectives. Meanwhile, Konev’s 2nd Ukrainian Front wheeled westward from its earlier objective, Krivoi Rog, and, spearheaded by 5th Guards Tank Army, seized Kirovograd. The result was a large salient occupied by two German corps totaling five army divisions, plus the reinforced 5th SS Panzer Division *Wiking*. Southeast of Kiev, this salient jutted northeastward to the Dnepr River at the boundary between First Panzer and Eighth Armies. Ironically, this was the site of both the first Soviet bridgehead across the Dnepr River (Velikii Bukrin) and the last remaining Dnepr sector of the Panther Line still in German hands; Hitler would not authorize Manstein to withdraw from it.¹⁴

After these Soviet offensives had worn the Germans down, Zhukov coordinated 1st and 2nd Ukrainian Fronts in the Korsun’-Shevchenkovskii operation. Although the salient was an obvious candidate for attack, the timing and location of the Soviet attack eluded German intelligence. Beginning on 19 January 1944, Konev orchestrated an elaborate deception to depict 5th Guards Tank Army as being concentrated in the forests west of Kirovograd, while that army secretly moved 100 kilometers northward to prepare for the encirclement of the salient. In addition to dummy positions, vehicle movements, and false radio communications depicting the tank army’s presence,

the rifle forces in the deception area also launched a limited local attack as if in preparation for a mobile force to exploit. German Eighth Army detected the ruse on 21 January, but this forty-eight-hour head start meant that the German defenders were too late to establish a strong defense before Konev's *front* began to attack on 24 January.¹⁵ The next day, Rotmistrov's 5th Guards Tank Army, followed by the 5th Guards Cavalry Corps, passed through the attacking 4th Guards and 53rd Armies and struck due west to link up with the corresponding attack from Vatutin's *front*.

Even more surprising to the Germans was the sudden appearance—literally out of the snow—of the new 6th Tank Army on the other, north-western face of the German bulge. Here, Vatutin attacked two days after Konev, but he found it difficult to penetrate the German defenses. General Kravchenko's 6th Tank Army had a newly formed headquarters and two understrength maneuver corps, but by 3 February, it had linked up with 5th Guards Tank Army, forming a thin outer encirclement around the German XI and XXXXII Corps. The Soviet 27th, 52nd, and 4th Guards Armies held the inner encirclement around the Germans.

Despite orders to hold onto the Dnepr at all costs, the commander of XI Corps, General of Artillery Wilhelm Stemmermann, had anticipated this disaster by constructing supplementary defenses and stockpiling supplies in the area that became the Cherkassy pocket.¹⁶ Konev hammered relentlessly at the pocket, capturing the western portion around Korsun' on 10 February, but Stemmermann continued a stubborn defense. Other German officers, including the senior leaders of the SS division, were evacuated by the transport aircraft that were able to land in the encirclement. Between 9 and 14 February 1944, the *Luftwaffe* claimed that it delivered up to 185 tons per day into the pocket, but renewed winter weather put a halt to this resupply.

Manstein quickly assembled the 1st, 16th, and 17th Panzer Divisions as well as 1st SS Panzer Division *Leibstandarte Adolf Hitler* to launch a counterstroke that made some progress against the understrength 6th Tank Army. Stalin reinforced the two *fronts* involved and demanded renewed efforts, with Konev controlling the inner encirclement and 2nd Air Army in a determined effort to liquidate the defenders before their relief could arrive. Using volunteer pilots in a snowstorm, Konev dropped incendiaries on the towns that sheltered the remaining German forces. By the morning of 17 February, Stemmermann had used up his available supplies, destroyed his heavy weapons, and ordered a breakout to the west. In the process, the Germans ran the gauntlet of 27th and 4th Guards Armies. The German troops were still several kilometers short of friendly lines when dawn arrived, bringing with it Soviet tanks and Cossack cavalrymen who massacred the fleeing Germans. Stemmermann died in the ensuing struggle, but his effort was recognized by the posthumous award of Oak Leaves to his Knight's Cross.¹⁷

Although German accounts claim that 30,000 troops escaped, the Soviets' version is far more credible: by their accounting, 55,000 Germans were killed or wounded and another 18,000 became prisoners. Any units that may have escaped had lost all equipment, were in shock, and had to be completely reorganized in Poland. Stalin, who had formally admonished the commanders when the Germans appeared on the verge of breakout, jubilantly promoted Konev to marshal of the Soviet Union and made Rotmistrov the first marshal of tank troops.¹⁸ The brilliant Colonel General Vatutin might well have received similar recognition, but on 29 February, he was ambushed and fatally wounded by the Ukrainian separatists. He did not die until 15 April, but Zhukov immediately assumed command of 1st Ukrainian Front and set about executing Vatutin's new plan. This ambush highlighted the growing threat of anti-Soviet insurgents in the western republics, insurgents who continued to fight for years after the war.

While German attention was riveted on Korsun'-Shevchenkovskii, Soviet forces struck against both flanks of Army Group South, taking advantage of the fact that operational reserves had concentrated in an attempt to free the encirclement. On the 1st Ukrainian Front's right (northern) flank, Vatutin had thrown his 13th and 60th Armies, supported by 1st and 6th Guards Cavalry Corps, against Manstein's overextended northern flank, south of the Pripiat' Marshes. Between 27 January and 11 February, an audacious cavalry advance through inhospitable swampy terrain unhinged German defenses and seized Rovno and Lutsk, favorable positions from which to conduct future operations into the rear of Army Group South.¹⁹

Farther south, Army General R. Ia. Malinovsky's 3rd Ukrainian Front and Army General F. I. Tolbukhin's 4th Ukrainian Front launched concentric blows against German defenses opposite the great bend of the Dnepr River. Vasilevsky coordinated this attack for the *Stavka*, seeking to crush the reconstituted Sixth Army commanded by *General der Gebirgstruppe* (General of Mountain Troops) Ferdinand Schörner. Attacking on 30 January, Soviet forces collapsed the Nikopol' bridgehead on the Dnepr's south bank, seized the salient in the great bend, and captured the city of Krivoi Rog. Schörner was a convinced Nazi and a strong leader, but the most he could do was evacuate the salient and patch together a new front line.²⁰

These five operations, later known as the first five of the "Ten Stalinist Crushing Blows of 1944," had cleared German defenders from the entire Dnepr River line by the end of February.²¹ Deprived of their river defenses, Manstein's forces were now vulnerable to defeat in detail in the vast interior plains of Ukraine.

FREEING THE UKRAINE

Despite slow progress against Army Groups North and Center, the Soviet offensive in the south continued virtually without a halt, even during the spring thaw. In the second phase of this offensive, from early March through mid-May 1944, six additional Soviet offensives completed the process of clearing the Ukraine and the Crimean Peninsula.²² In preparation for this, the *Stavka* reshuffled its forces and committed all six tank armies in the south. The main effort remained with Vatutin's (later Zhukov's) and Konev's *fronts*, each of which had thirty-six rifle divisions and three tank armies. Their goal was to split the German front, separating Army Groups Center and South in order to destroy the latter by pinning it against the Black Sea or the Carpathian Mountains.

The *Stavka* sought to capitalize on German perceptions that the Soviet main effort would be toward Vinnitsa, Army Group South's headquarters in the center of the sector, where First Panzer Army stood on the defensive. Instead, the Soviets shifted their main effort northwestward into the Rovno and Dubno regions against Fourth Panzer Army. Here, 1st Ukrainian Front's right flank had achieved considerable success in the minor Rovno-Lutsk operation, at a time when German attention was focused on the crisis at Korsun'-Shevchenkovskii. The *Stavka* now "castled" three tank armies to the right, together with the bulk of Vatutin's *front*. Manstein's intelligence staff finally detected the shift and moved First Panzer Army westward into the threatened Proskurov sector, but it was too late to deflect the initial Soviet blow.

On 4 March, Zhukov launched 1st Ukrainian Front on its powerful drive from the Shepetovka and Dubno regions southwestward toward Chernovtsy, near the Romanian border.²³ Zhukov committed 3rd Guards Tank and 4th Tank Armies to tear a gaping hole in the thin German defenses. On 7 March, the two tank armies approached Proskurov, where they were halted by the German III and XXXXVIII Panzer Corps. Soon thereafter, however, 1st Tank Army joined the action, and on 21 March, together with 4th Tank Army, it again ripped through the defenders into the German operational rear. Katukov's 1st Tank Army advanced remorselessly, even at night, with headlights and sirens on to disorient the defenders. In seven hours on 24 March, Katukov's forward detachment, built around 64th Guards Tank Brigade, advanced nearly 80 kilometers, forced the Dnestr River almost without pausing, and then cut the rail line behind First Panzer Army. By 27 March, Lieutenant General D. D. Leliushenko's 4th Tank Army and Lieutenant General K. S. Moskalenko's 38th Army had completed a loose encirclement around twenty-one poorly equipped divisions, all that remained of First Panzer Army. To achieve this encirclement, Leliushenko had commandeered PO-2 biplanes to drop fuel cans to his forward detachment.²⁴

On 25 March, Manstein convinced Hitler that First Panzer Army had to receive permission to break out; Hitler also gave him two SS Panzer and two infantry divisions to assist in the operation. This concession was all the more surprising because OKW had recently issued Führer Order No. 51, which designated twenty-six major cities, including Proskurov, as fortified places to be defended to the last man.²⁵ A 15-kilometer gap remained in the encirclement, which 4th Tank Army, reduced to a mere sixty functional tanks, was unable to fill. Zhukov concentrated his available forces to the south of the encirclement, where he anticipated a breakout attempt into Romania. Instead, the remnants of First Panzer Army escaped to the west in early April, aided by a counterattack launched by II SS Panzer Corps with two fresh divisions. Still, by 17 April the forward detachments of 1st Tank Army had reached the Carpathian Mountains, effectively cutting off Army Group South, now redesignated Army Group North Ukraine, from forces to the south. For its feats, on 25 April Katukov's tank army received the guards designation.

Konev's 2nd Ukrainian Front commenced the Uman'-Botoshany operation on 5 March 1944, one day after Zhukov's *front* had struck and after German operational reserves had moved westward out of the Uman' sector.²⁶ In addition to the usual massive artillery and infantry preparation, Konev took the risky step of committing Lieutenant General S. I. Bogdanov's 2nd Tank and Marshal of Tank Troops Rotmistrov's 5th Guards Tank Armies from the very beginning of the attack. They were soon followed by elements of Lieutenant General A. G. Kravchenko's 6th Tank Army. Fortunately for the attackers, the German defenses proved so brittle that Konev's gamble paid off, and the tank forces plunged forward, supported by Colonel General K. A. Koroteev's 52nd Army. By 10 March, they had captured the major rail junction as well as the supply and maintenance depot of Uman' in the western Ukraine. That same day, Konev's leading forces captured Vinnitsa, until recently the site of Manstein's army group headquarters and at one time Hitler's eastern command post.²⁷

Ignoring the bypassed and immobilized German forces, the mobile groups raced westward to seize the rivers of the western Ukraine. By 11 March, forward detachments from Bogdanov's 2nd Tank and Kravchenko's 6th Tank Armies held bridgeheads across the lower Southern Bug River. Within two days, 2nd Ukrainian Front had improvised crossings on an 80-kilometer frontage. On the afternoon of 17 March, 29th Tank Corps of 5th Guards Tank Army had reached the Dnestr River near Soroki and immediately pushed rifle forces across. By 21 March, an entire mechanized corps was across the river, and First Panzer Army to the north was effectively separated from Eighth Army in the south.

While the six tank armies set the pace in 1st and 2nd Ukrainian Fronts, the other two *fronts* were far from idle. Malinovsky's 3rd Ukrainian Front

began its own offensive along the Black Sea coast on 6 March 1944 in the Bereznegovataia-Snigirevka operation.²⁸ Lieutenant General Issa Aleksandrovich Pliev, a veteran cavalry leader since the start of the war, commanded a cavalry-mechanized group consisting of 4th Guards Cavalry Corps and 4th Mechanized Corps. He arrived at the southern reaches of the Southern Bug River on 22 March and thrust onward with the ultimate objective of the Danube River on the Soviet frontier. Operating in the region that had made it famous during the Civil War, Soviet horse cavalry once again proved its value in terrain that would not support heavy mechanized vehicles. Although almost encircled by the Soviet advance, the German Sixth Army extricated itself and fought a delaying action westward across the southern Ukraine. A three-day blizzard temporarily halted both sides at the end of the month. By that time, 3rd Ukrainian Front had commenced its spring offensive to secure Odessa; in early April, it closed into positions alongside 2nd Ukrainian Front on the Dnestr River at the Romanian border, but achieved little in the way of bridgeheads for future operations.²⁹

These successive German defeats prompted Adolf Hitler to replace Field Marshals von Manstein and von Kleist, the commanders of Army Groups South and A, respectively. On 30 March 1944, he sent his personal aircraft to pick the two men up and bring them to his headquarters. Awarding each of them the Swords to their Knight's Crosses, he indicated that he approved of everything they had done. Nonetheless, he explained, he needed not master tacticians but commanders who would drive their subordinates to the utmost. Newly promoted Field Marshal Model and Colonel General Schörner replaced them.³⁰ Manstein and most German observers have depicted this as another example of the dictator's intolerance for opposition. It is worth remembering, however, that Hitler had accepted constant criticisms for seventeen months before replacing the two commanders, an action that any leader might take when two subordinates seemed not only constantly negative but also less effective than they had been in the past. Moreover, the manner in which he conducted this relief was polite and generous rather than insulting and irrational.

The next blow in the south was the recapture of the Crimea, launched by Tolbukhin's 4th Ukrainian Front on 8 April.³¹ The 2nd Guards and 51st Armies, supported by 19th Tank Corps and (on the Kerch' Peninsula) the Separate Coastal Army, all attacked the German-Romanian Seventeenth Army and, by 16 April, drove the Axis force back into Sevastopol'. This trap was clearly a product of Hitler's instinct to stand and fight; he also insisted on defending the Crimea, which he regarded as a base for bomber attacks against the Romanian oil fields. The German defense was tenacious, but it did not endure as long as that of the Red Army two years earlier, probably because of the previous destruction of fixed defenses. Between 6 and 10

May, while the city was under assault, the Germans made a belated attempt to evacuate by sea and air. From an initial strength of approximately 121,000 Germans and Romanians in the Seventeenth Army, only 38,000 Axis troops escaped from the beaches of Sevastopol', although many rear area personnel had departed before this final act. Regardless of the exact numbers of survivors, the skeleton units that escaped had lost all their heavy equipment, which German industry had to replace for the Romanians as well as the German troops.³²

By May 1944, the Red Army had freed virtually all Soviet territory in the south and, in the process, shattered much of the German First Panzer, Sixth, Eighth, and Seventeenth Armies. The strategic attention of Hitler and his military advisers was riveted on the south, where the continued presence of all six tank armies suggested that it would be the focus of the next Soviet summer offensive. This preoccupation goes far to explain the German surprise when the next great offensive instead struck Army Group Center.

THE FAILED INVASION OF ROMANIA

The Red Army's victories of winter–spring 1944 had significant political as well as military consequences. In February, heavy Soviet bombing and warnings from both the United States and the USSR prompted Finland to begin diplomatic negotiations. In March, Marshal Ion Antonescu of Romania flew to Berlin to appeal for the evacuation of Romanian troops from the Crimea. He had already lost much of present-day Bessarabia and Moldova, which Romania had annexed, and now faced defeat in the Crimea, which Romanian arms had sacrificed so much to conquer in 1942. In Romania itself, five years of war and German economic exploitation had resulted in inflation of almost 1,300 percent.³³ Disaffection and even sabotage now hampered the movement of railroad trains supplying the front. Antonescu asked Hitler to unify the Third and Fourth Romanian Armies under a separate, national army group staff, but the most the Germans would concede was two mixed German-Romanian army detachments, with General Petre Dumitrescu nominally commanding the German Sixth as well as the rebuilt Romanian Fourth Armies. In principle, the two dictators did agree that the remaining Romanian forces of both detachments would fall under a new Army Group South Ukraine, which was geographically isolated from the rest of the German line.³⁴

Still, the long-term future of Axis Romania was clearly in doubt, and Antonescu had already extended diplomatic feelers to Moscow and London. Meanwhile, on 18 March Hitler had browbeaten Admiral Miklós Horthy, regent of Hungary, who was sheltering Jewish refugees and considering a

diplomatic deal with the Soviets. The next day, the Germans took control of that country, thereby gaining the limited Hungarian petroleum reserves and beginning the deportation of 438,000 additional Jews to Auschwitz. Only the Bulgarian government clung desperately to Germany.³⁵

Such was the situation when Stalin directed another series of offensives by Konev's 2nd and Malinovsky's 3rd Ukrainian Fronts during April–May 1944. The previous operations had freed Soviet territory, but now the Soviet dictator sought to begin shaping the postwar world in a manner favorable to the USSR. Specifically, he saw an opportunity to drive Romania and possibly Bulgaria out of the war and impose Soviet control over the Balkans.

The effort to achieve this began with Konev seeking to capture the area of Kishinev, in what is now Moldova, and Iasi (Iassy in Russian, Jassy in German), some 15 kilometers inside Romania. Both were major communications centers in the lower Dnestr River valley; Konev's ultimate goal was the Ploesti oil field. On 8 April, while German attention was focused on the Crimea, 2nd Ukrainian Front attempted to push forward to the smaller Seret River, west of the Dnestr. Unfortunately for the attackers, previous operations had left them short of manpower, artillery ammunition, and functioning armor. The *Stavka* was well aware of these weaknesses but still insisted that the offensive begin as planned. The initial Soviet penetrations were successful; caught wrong-footed by this attack during the spring muds, the Romanian and German defenders at first gave ground. However, the Axis responded promptly, concentrating the huge *Grossdeutschland* Panzer-Grenadier Division and several depleted panzer divisions. These reserves administered two sharp reverses, one to Kravchenko's 6th Tank Army at Tîrgu Frumos, west of Iasi, and the second to Bogdanov's much stronger 2nd Tank Army, at nearby Podu Iloaie. General of Panzer Troops Hasso von Manteuffel, the brilliant tactician who commanded the *Grossdeutschland*, once again showed how effective the Germans could be at mechanized maneuver. In a series of fierce encounters, the German-Romanian Army Group Wöhler fought Konev to a draw in late April. Although hampered by inadequate equipment, the Romanian units yoked with the Germans offered considerable resistance. Similarly, in late April Malinovsky's 3rd Ukrainian Front succeeded in taking Odessa and closing on the Dnestr River, as previously noted. Spring floods and swampy ground hampered the Soviet efforts, so they achieved almost no usable bridgeheads over the river. Despite being severely weakened in the retreat, General of Artillery Maximilian de Angelis's German Sixth Army reorganized and established strong defenses along the river.³⁶

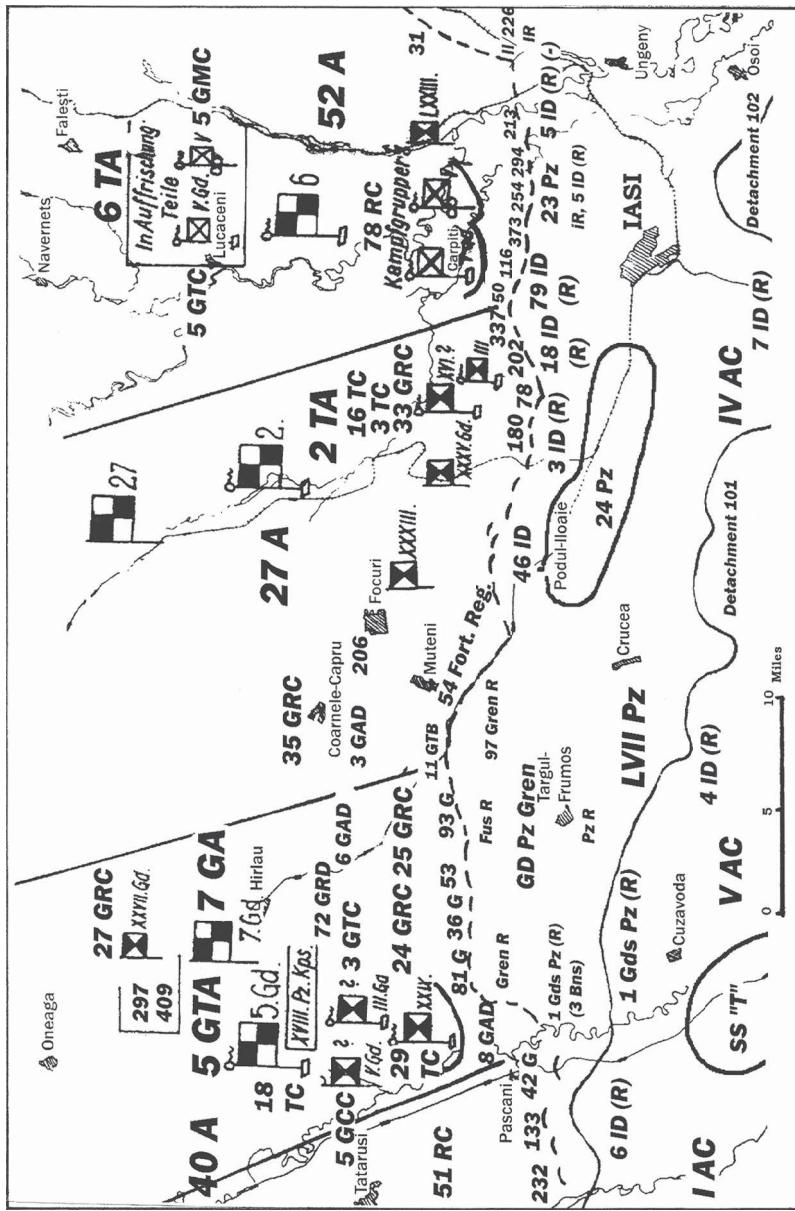
This setback prompted both the *front* commanders and the *Stavka* to pause while they reorganized for a more thorough, deliberate offensive. In late April, two of the most successful field organizations in the Red Army joined 2nd Ukrainian Front: Lieutenant General Shumilov's 7th Guards

Army and Marshal of Tank Troops Rotmistrov's 5th Guards Tank Army. The *front* also gained additional artillery units to support the coming offensive. Meanwhile, both Rotmistrov's and Bogdanov's tank armies received two regiments each of the Soviet Union's newest tank, the Iosif Stalin (or IS-3). Armed with a 122mm A-19 main gun, the IS-3 was the successor to the KV heavy tank and was clearly intended to counter the German Panther.³⁷

The Soviets used more than just mass in their attempt to break into Romania. For example, Malinovsky requested that the *Stavka* reallocate operational areas, including a more suitable bridgehead, from Konev's 2nd to his 3rd Ukrainian Front area of operations. Starting on 24 April 1944, Konev conducted a multilayered deception to convince the Germans that his main penetration attack would come against the Romanian 18th Infantry Division, just north of Iasi, whereas in fact he planned his main effort about 50 kilometers west of that town (see Map 19).

This deception succeeded only too well, as it provoked Group Wöhler to launch local counterattacks north of Tîrgu Frumos on 25–28 April. The *Grossdeutschland* Division, this time supported by the Romanian 1st Guards Division, pushed the Soviets back almost 10 kilometers, seizing the jumping-off positions intended for 7th Guards Army's impending attack. Konev had to delay his offensive for several days, but by 2 May, the two *fronts* were finally ready to attack. Seventh Guards Army, with 5th Guards Tank Army waiting in its rear, would attack once again southward toward Tîrgu Frumos as 27th Army, with 2nd Tank Army behind it, advanced on Shumilov's eastern (left) flank. However, the prolonged battles that had preceded this main attack meant that many of Konev's best divisions numbered between 4,500 and 6,000 men. Bogdanov's tank corps, each authorized more than 160 tanks, began the battle with fewer than one-third that number.³⁸

Opposite them was a mixed Romanian-German force under the control of Lieutenant General Friedrich Kirchner's LVII Panzer Corps. In the ensuing days, both the *Grossdeutschland* and the reconstituted 24th Panzer Division again demonstrated their skill, first halting Konev's attacks on 2–3 May and then launching a series of counterattacks. Worse was to follow for the Soviets: beginning on 10 May, German Sixth Army counterattacked Malinovsky's main bridgehead over the Dnestr River, catching the Soviets at the precise time they were replacing 5th Guards Army with 8th Guards Army. The Germans severely mauled 8th Guards Army (Chuikov's redesignated 62nd Army, the defenders of Stalingrad), overrunning at least one division headquarters. When Malinovsky sent 5th Shock Army to rescue Chuikov, it in turn fell victim to another German counterattack. Once more, the Germans exhibited their ability to construct effective battle groups even from depleted units.³⁹



Map 19. The Situation in the Tîrgu Frumos and Iasi Sectors, 30 April 1944

These unexpected defeats shocked Soviet commanders and staffs all the way to Moscow. The result was a general pause in the southwest, while the Red Army reorganized and rebuilt its forces. As described in the next chapter, both Chuikov and the tank armies were needed elsewhere; the offensive did not resume in Romania for three months.

LENINGRAD AND THE CENTRAL SECTOR OF THE FRONT

As the tide of battle shifted in the Ukraine and Romania, Soviet efforts around Leningrad were finally rewarded with success in 1944. The birthplace of the Bolshevik Revolution had been under siege for more than two years, and forces there initially had to resort to using a tenuous ice road (in winter) and shipping convoys (in summer) on Lake Ladoga. In late January 1943, Operation Spark had opened a narrow corridor, including a light railroad, to the city along the southern shore of the lake. However, the corridor was easily interdicted by German artillery fire. As part of the post-Stalingrad general offensive, in February 1943 Operation Polar Star sought to cut off the German Sixteenth and Eighteenth Armies that were besieging Leningrad. Yet, the Red Army in this region still lacked the resources and experience to overcome established German defenses, and the attack failed with heavy casualties.⁴⁰ Periodically throughout 1943, the defenders had renewed their efforts to break the siege but with little effect. At the same time, German long-range artillery continued to shell the city intermittently throughout the siege, though a centralized counterbattery organization in Leningrad began to coordinate the location and destruction of these German guns.

By January 1944, German Army Group North had dwindled to 397,763 soldiers, supported by only 16 tanks, 109 assault guns, and 71 combat aircraft.⁴¹ These troops had excellent field fortifications constructed over many months, but they lacked the reserves to counterattack any breakthrough. Moreover, the German High Command was distracted by the ongoing battles in the south, and Army Group North had to focus on a growing threat in Belorussia. It was in this situation that Colonels General L. A. Govorov and K. A. Meretskov's Leningrad and Volkov Fronts joined forces with each other and with local partisans. To avoid a frontal assault, the *Stavka* directed that Govorov transfer the reconstituted 2nd Shock Army into the Oranienbaum bridgehead, an isolated site on the Gulf of Finland, west of Leningrad. This now became the springboard for a pincer attack against Eighteenth Army. Throughout November, as the ice closed in on the Gulf of Finland, 2nd Shock Army gradually infiltrated five rifle divisions, 600 guns, and various tank and assault gun units, all the while portraying a cover story of evacuation from Oranienbaum rather than reinforcement. Meanwhile, the Soviet

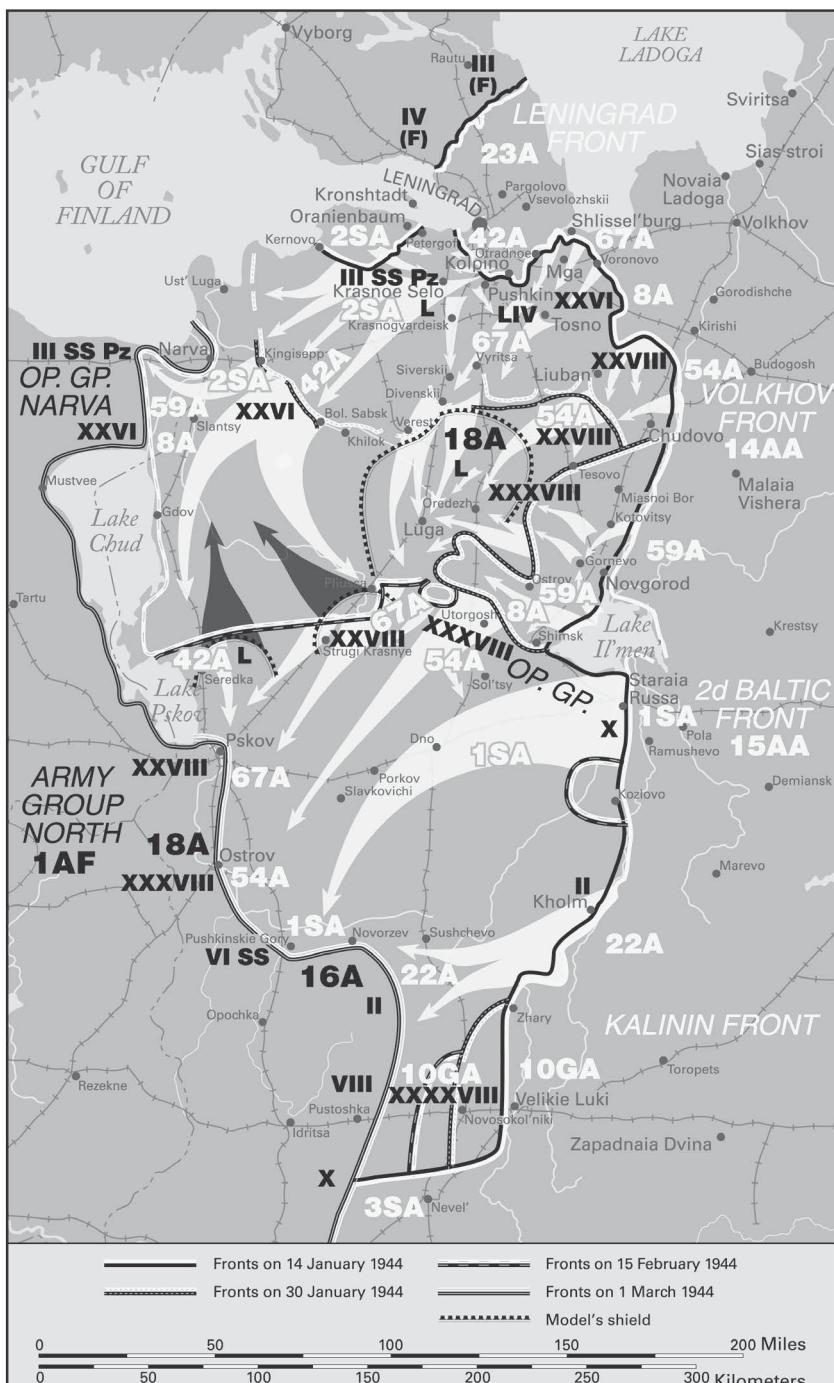
partisan movement behind the front gained in both numbers and capability. Moscow provided cadres and weapons to improve control of these bands. More importantly, the possibility of Soviet victory caused many inhabitants to fear retribution, and the increasingly harsh German forced-labor levies aroused much greater popular opposition to the occupiers. Partisan strength in the Army Group North area grew by 400 percent in late 1943.⁴²

Slowed by mists and intermittent snow, 2nd Shock Army launched its offensive on 13–14 January 1944. A day later, with German attention focused on this bridgehead, the rest of Govorov's *front* joined in the attack, as did Meretskov's Volkov Front farther south, around Novgorod.

The Soviet advance during this Novgorod-Luga operation was slow and fumbling, a far cry from the brilliant successes in the south. This was in part because most commanders had spent the entire war on the Leningrad Front and had therefore not experienced the professional growth of their southern counterparts. Govorov fumed at his subordinates for their linear, frontal tactics and for scattering their forces and depending too much on unsupported infantry. The attackers experienced problems of coordinating aviation, engineer, and other support to the infantry, and armor, artillery, and reconnaissance units often stood idle. The bungling tactics of 1940 and 1941 reappeared one more time.⁴³ Moreover, the Germans had constructed elaborate defenses during more than two years of near immobility and isolation. Nonetheless, the Soviet offensive broke the back of Army Group North, forcing it to raise the siege of Leningrad and withdraw southward.

In February, the *Stavka* dissolved the Volkov Front, dividing its forces between Govorov's Leningrad Front and General M. M. Popov's 2nd Baltic Front. By 20 February, the Soviets had pushed the Germans back 80 to 100 kilometers from the immediate approaches to the great city. Hitler had already responded by sending his defensive expert, Walter Model, to command Army Group North, but even Model's limited counterattacks could not contain the Soviet advance. On 26 February, Leningrad was officially declared free, marked by the first of many victory salutes fired by artillery in that city and in Moscow. By March 1944, the attackers had destroyed three German divisions and damaged at least seventeen others in Army Group North, at a cost of 313,954 Soviet casualties.⁴⁴

Even then, the pursuit was poorly coordinated, allowing the German Eighteenth Army to escape possible encirclement. When the Germans were able to break contact and withdraw, the State Defense Committee censured the hapless Popov and his political member of council, the future party leader Nikolai Aleksandrovich Bulganin. Even such pressure could not overcome the logistical and tactical problems of advancing in the Russian winter. At the end of February, the Germans fell back west of Luga and Lake Il'men' to the new Panther Line running from Lake Peipus to Vitebsk. Although the



Map 20. The Soviet Leningrad-Novgorod Offensive, January–April 1944

Leningrad and 2nd Baltic Fronts crossed the Narva River into Estonia and struggled for several weeks to overcome German defenses in the Ostov and Pskov regions, their offensive ultimately expired.⁴⁵ For the moment, at least, most of Estonia and all of Latvia remained beyond the reach of Soviet troops, although the Finnish government began to look for an exit from the war.

Meanwhile, opposite Army Group Center, the 1st Baltic Front, now commanded by Army General I. Kh. Bagramian, in coordination with Sokolovsky's Western and Rokossovsky's Belorussian Fronts, hammered away at German positions around Vitebsk, Orsha, and Rogachev. While Bagramian conducted the month-long Gorodok operation against the northern approaches to Vitebsk, between 20 December 1943 and 29 March 1944 the Western and Belorussian Fronts attacked at least seven separate times, suffering over 200,000 casualties but making only limited advances in northern and southern Belorussia.⁴⁶

In four months, the Soviet war machine had freed Leningrad, the Ukraine, and the Crimea and made some inroads into Belorussia. Only in Romania and the Baltic region had it been thwarted. Two of Hitler's most effective operational leaders, Erich von Manstein and Ewald von Kleist, had lost their commands. In the process, 16 German divisions, comprising at least 50,000 troops, were wiped off the map through encirclement and attrition, and another 65 German and Romanian divisions were reduced to skeletal strength. Whereas the late winter and spring of 1942–1943 had been a period of rest and refitting for the Germans, the corresponding period of 1944 was an unremitting struggle for survival. The German panzer and *Waffen SS* divisions rushed from place to place, shoring up the tottering defenses. As a result, Army Group Center, the one area of relative stability during this period, had become a huge salient, or “balcony,” jutting toward the east, denuded of most of its reserves. With German political and strategic attention focused on the Balkans, Stalin and the *Stavka* prepared to deal, once and for all, with Army Group Center.

CHAPTER THIRTEEN

Operation Bagration

The Death of Army Group Center

STRATEGIC PLANNING

In March 1944, the State Defense Committee and Soviet General Staff began an exhaustive analysis of the entire front, examining each area to find opportunities for the next round of offensive action. In doing so, the planners had to select a course of action that would accomplish the most in both military and political terms. The Western Allies had finally promised an invasion of France to commence in May; future Soviet operations needed to take this into account, projecting the most likely outcome of the war in terms of which ally would conquer which portions of the continent and especially who would take Berlin.

The most obvious option for the main summer offensive—and the one the German commanders expected—was to continue in the south, advancing into southern Poland and the Balkans and driving several Axis satellites out of the war. Yet, this option might overextend Red forces, committing them to the difficult terrain of the Balkans at the end of ever-lengthening supply chains while leaving large portions of the Soviet Union unredeemed.

A second option was to thrust from the Ukraine northwestward through Poland to the Baltic Sea. However, the three previous general offensives had taught Joseph Stalin that such a grandiose plan was beyond Soviet capabilities, especially in the realms of command, control, and logistics. The Wehrmacht was still far too strong to succumb to a single attack; the previous Soviet offensives had validated painfully the prewar concept of successive offensive operations.

A third possibility was to focus the main effort in the north, with the objective of defeating Finland and completing the reconquest of the Baltic States. From the Soviet perspective, it was past time to eliminate the Finnish threat to both Leningrad and the Murmansk supply line, but by itself, such an offensive would occupy only a fraction of the available resources. Moreover, completing the advance westward into the Baltics risked a prolonged frontal battle against strong German defenses, a battle that, even if successful, would lead to a strategic dead end against the Baltic coast.

Finally, the Red Army could attack Army Group Center, its old nemesis, which was concentrated in the “Belorussian balcony” that jutted eastward

north of the Pripyat' Marshes. If it succeeded, such an attack would decimate the few German field armies that were still relatively intact and cut off Army Group North from its lines of supply and retreat. A Belorussian offensive would also complete the liberation of Soviet territory and place the Red Army in Poland, poised along the most direct route to Berlin. Moreover, success in Belorussia might condition subsequent Soviet success along other strategic axes by destroying remaining German reserves.¹ The disadvantage of this choice was the strength of German strongpoints such as Vitebsk, Orsha, Mogilev, and Rogachev, whose stout defense had frustrated a major Red Army offensive into the region the previous fall and winter. But, thought the *Stavka*, this could be remedied by employing a stronger tank force in the offensive.

In retrospect, the decision to make the main effort in Belorussia appears almost self-evident. In fact, this offensive, which Stalin named Operation Bagration after a hero of 1812, was only the centerpiece of five offensives planned for the summer of 1944. Knowledge of the true scope of the plan was restricted to a handful of men—Stalin, his deputy Zhukov, Chief of the General Staff Vasilevsky, and operations chief Antonov. Furthermore, for logistical and operational reasons, these five offensives were staggered, beginning in the north and working successively toward the south. The five offensives involved the following geographic locales and starting dates: Karelian Isthmus in Finland, 10 June 1944; Belorussia (code-named Bagration), 23 June; Lvov-Sandomierz, 13 July; Lublin-Brest, 18 July; and Iasi-Kishinev, 20 August. For similar reasons, even within Operation Bagration the actual attacks began at the northern flank and rippled southward (see Map 21).

EXIT FINLAND

While preparations for the main Soviet offensive continued apace, Generals Govorov (Leningrad Front) and Meretskov (Karelian Front) lifted the curtain for the summer campaign by striking against Finland. That front had stabilized in late 1941, when the German advance on Leningrad had failed, and Finnish forces remained inactive after reoccupying the territories the Soviets had seized in 1940. Major Soviet bombing raids during February and March 1944 had forced the Finns to open diplomatic negotiations, but they rejected Soviet demands for more territory and extensive reparations. In mid-1944, Stalin decided to end the conflict with Finland, retake the lost territories, and thereby free valuable forces for use elsewhere.

The *Stavka* ordered the Leningrad and Karelian Fronts to secure the Karelo-Finnish isthmus, site of the heaviest fighting in 1939–1940, and the expanse of Karelia north and northwest of Leningrad. Govorov's *front*, supported



Map 21. Summer–Fall Campaign, June–October 1944

by the Baltic Fleet, would attack on 10 June to seize Vyborg (Viipuri) within ten days, and Meretskov was to strike north of Lake Ladoga beginning on the 21st.

Soviet commanders clearly recalled the difficulties they had experienced penetrating the Mannerheim Line in 1939–1940, and since then, the Finns had added additional fortifications. To avoid replicating their previous struggle, the Soviets planned carefully and built up a sizable superiority prior to the offensive.² In the Karelian Peninsula, the Finns had ten weak divisions and four separate brigades and were thus outnumbered by at least two to one. A carefully coordinated Soviet assault forced the defenders to fall back twice, reaching their 1940 stop line on the first day, 21 June. By that date, the left flank of Govorov's 21st Army had secured Vyborg despite intense and sordid German-Finnish negotiations for reinforcements. The Germans did, in fact, send considerable antitank munitions, but most of the troops they promised had to be diverted to Army Group Center (see later discussion). Meanwhile, Govorov reinforced his forward forces at Vyborg with units of 59th Army, which were transported by ship to the Finnish port. That same day, Meretskov's 7th Separate Army commenced operations into central Karelia from its positions along the Svir' River.

The Finns had some successes; on 10–13 August, the Finnish II Corps encircled and mauled two of Meretskov's divisions in the forest near Ilomantsi, north of Lake Ladoga.³ In the long run, the combined attacks by these two *fronts* forced the Finns to sue for peace, with their parliament accepting humiliating terms on 2 September 1944. In addition to demanding territorial concessions, reparations, and Finnish demobilization, Moscow also insisted that the Finns break relations with Berlin and demand an immediate evacuation of the remaining German troops in their country. If this evacuation did not occur by 15 September, the Finns were to intern any remaining German forces.⁴

Anticipating a Finnish defeat, German staff officers had planned Operation Birke, the redeployment of the German Twentieth Mountain Army to secure northern Finland and Norway in order to protect the nickel mines at Petsamo in the latter country. Initially, the Finnish and German commanders cooperated in this project; in an operation appropriately code-named Autumn Maneuvers, the Finnish Army went through the motions of pursuing the Germans without actually engaging them. By the end of September 1944, however, the Soviets had detected the deception, hinting that they would invade if the Finns did not execute the armistice appropriately. Open conflict ensued between the two former allies in early October, although the Germans generally reached their desired positions.⁵ There was one more campaign to be fought in the north.

PREPARATIONS FOR BAGRATION

The early stages of the Finnish defeat distracted German attention further from the looming threat to Army Group Center. Even before the final strategic plan took shape, the *Stavka* restructured its field organization and reshuffled commanders. The huge Western Front split into two more manageable commands (the 2nd and 3rd Belorussian Fronts), while other *fronts* received new designations and areas of responsibility. By April, there were eight Soviet *fronts* north of the Pripyat' Marshes, including (from north to south) the Karelian and Leningrad Fronts, the 3rd, 2nd, and 1st Baltic Fronts, and the 3rd, 2nd, and 1st Belorussian Fronts. Immediately south of the marshes, the 1st Ukrainian Front, which along with the left wing of the 1st Belorussian Front held a salient far to the west, would also be involved in the coming operations.

By mid-May, Marshal Konev had assumed command of 1st Ukrainian Front from Zhukov, who had filled in upon the death of Vatutin. Meanwhile, two field army commanders who had distinguished themselves in the Crimea were promoted to *front* command. At thirty-eight years of age, Colonel General Ivan Danilovich Cherniakhovsky became the youngest man to command a *front*, having led a tank corps in 1942 and 60th Army at Kursk. Despite his supposed Jewish origin, a factor that reportedly aroused Stalin's suspicions, Cherniakhovsky had a brilliant record that had won him the recommendation of both Zhukov and Vasilevsky.⁶ He assumed command of 3rd Belorussian Front west of Smolensk, built around the experienced headquarters of the former Western Front.

Colonel General Ivan Efimovich Petrov was also promoted, to command 2nd Belorussian Front in the Mogilev area. Unfortunately for Petrov, the pernicious influence of L. Z. Mekhlis was still alive in the Red Army. Despite his own previous disgrace, Mekhlis convinced Stalin that Petrov was sick and incompetent, getting him replaced by Colonel General Georgii Fedorovich Zakharov, another victorious commander of the Crimean reconquest. Later in 1944, Petrov became commander of 4th Ukrainian Front when it was created in the south.⁷ Rounding out the command roster, the veteran Rokossovsky commanded the oversized 1st Belorussian Front, which held the extended line from north of Rogachev southward through the Pripyat' Marshes to south of the Kovel' region, and the Rogachev-Zhitomir region, and the newly promoted Marshal I. Kh. Bagramian commanded 1st Baltic Front on the northern flank of the proposed Bagration operation.

Superimposed above these *front* commanders were *Stavka* representatives, who by this stage in the war sometimes had their own independent staffs. Marshal Vasilevsky, chief of the General Staff and coordinator of the 1st Baltic (Bagramian) and 3rd Belorussian (Cherniakhovsky) Fronts on the

northern side, brought along a small element of the General Staff. Zhukov, the Deputy Supreme High Commander, coordinated the 1st (Rokossovsky) and 2nd (Zakharov) Belorussian Fronts in the center and south.⁸

The existence of this elaborate command structure did not mean that the field leaders were simply executing orders from Moscow. On the contrary, all those involved had repeated debates as to how to crush Army Group Center. The basic problem was that, even at this late stage in the war, the Red Army forces opposite Army Group Center were still too weak to ensure a crushing numerical superiority. When the *Stavka* first began to plan the battle, it estimated, overcautiously, that there were 42 German divisions, totaling 850,000 men, opposite the approximately 1 million men in 77 divisions and 5 mobile corps of the 1st Baltic and 1st, 2nd, and 3rd Belorussian Fronts. To achieve a sufficient numerical advantage, the Soviet forces opposite Army Group Center soon received reinforcements totaling 5 combined-arms armies, 2 tank armies, 1 air army, 1 Polish field army, and 11 mobile corps—over 400,000 additional men. The plans also focused on deception campaigns and emphasized destroying the forward German forces as rapidly as possible.⁹

To resolve such issues, Stalin summoned most of the commanders facing Army Group Center to a planning conference in Moscow on 22–23 May 1944. In addition to Antonov, Zhukov, and Vasilevsky, the conference included Rokossovsky; Bagramian; Red Air Force commander Novikov; Army General Andrei Vasil'evich Khrulev, head of the Red Army's Rear Services; and the military councils (commander, chief of staff, and senior political officer) of the 1st Baltic and 1st and 3rd Belorussian Fronts. The 2nd Belorussian Front was omitted because it was not originally assigned a major offensive role.

The General Staff planners presented their preliminary concept, which centered on encircling and destroying much of Army Group Center in a huge pocket east of Minsk. Simultaneously with this deep pincer operation, Bagramian and Cherniakhovsky planned to encircle German forces in Vitebsk, northwest of Smolensk. At the same time, Rokossovsky intended to conduct a tactical double envelopment using two tank corps to surround the forward German forces near Bobruisk, just north of the Pripyat' Marshes. Always suspicious of complicated maneuver schemes, Stalin angrily opposed the Bobruisk plan, but Rokossovsky stood his ground and eventually won his point.¹⁰

The conference arrived at the final outline for Bagration, at least north of the Pripyat' Marshes. The offensive would begin with two tactical encirclements conducted by army-level mobile groups to eliminate the German anchor positions on the northern and southern flanks of the “balcony” (see Map 22). The 1st Baltic and 3rd Belorussian Fronts would then cooperate to encircle Vitebsk, while 1st Belorussian Front encircled Bobruisk. At the same time, 5th Guards Tank Army and a cavalry-mechanized group, cooperating with 3rd Belorussian Front in the north and a number of mobile corps and

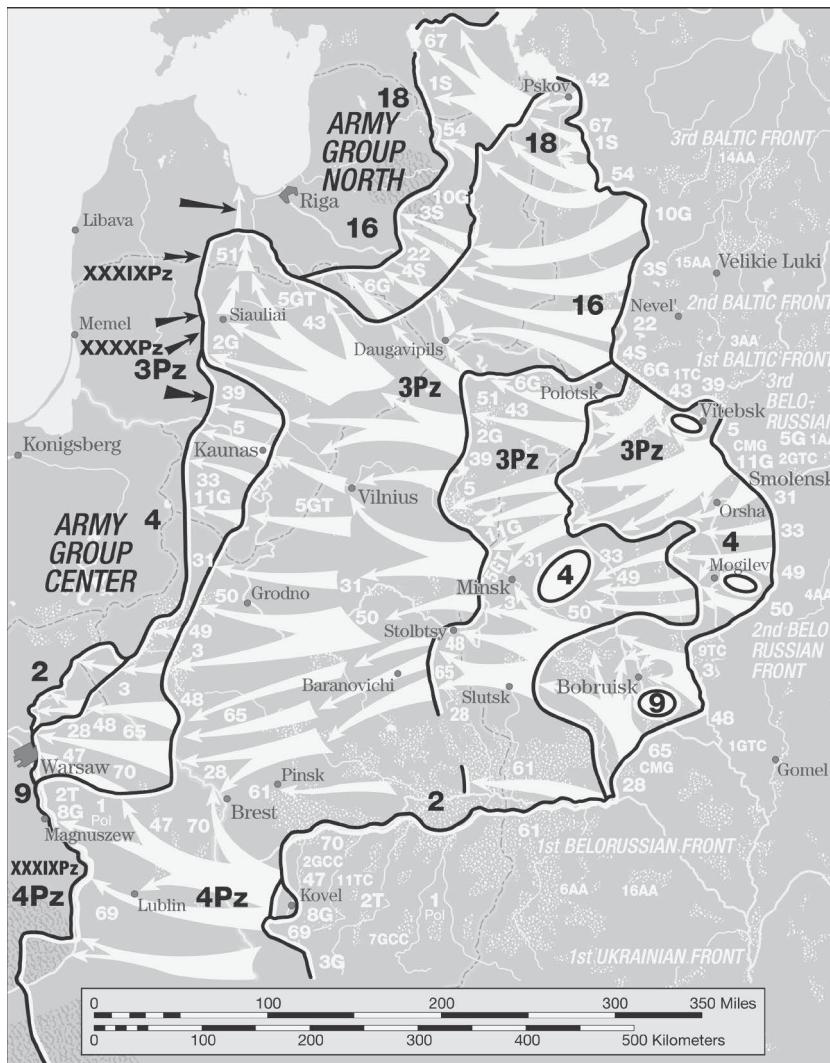
cavalry-mechanized groups from 1st Belorussian Front in the south, would conduct the deep encirclement of Minsk. The 1st Baltic Front would protect the northern flank by attacking due westward along the banks of the Western Dvina River through Polotsk in the direction of East Prussia, and the left wing of 1st Belorussian Front, operating south of the marshes, would subsequently launch 2nd Tank Army in a deep thrust from the Kovel' region westward toward the Vistula River. The date for this offensive was tentatively set for 15–20 June 1944.

Ten days after this conference, Stalin summoned Konev to explain how the 1st Ukrainian Front could broaden the scope of Bagration. Because the majority of tank armies were still in the south, Konev had an enormous mass of mechanized forces at his disposal. He proposed a double thrust, which would later become the Lvov-Sandomierz operation. On his northern flank, the new marshal would concentrate fourteen rifle divisions, 1st Guards Tank Army, and a cavalry-mechanized group in a 10-kilometer-wide penetration sector west of Lutsk and encircle the German forces at Lvov from the north. Farther south, Konev envisioned a simultaneous attack by fifteen rifle divisions, one cavalry corps, and both 3rd Guards Tank and 4th Tank Armies on a slightly wider penetration frontage.

Konev planned to encircle and destroy the German forces east of Lvov and then launch the two tank armies northwestward toward the Vistula River near Sandomierz in southern Poland. Konev also planned a complex deception to mislead the Germans into believing that his attack, which they expected, would erupt from the Stanislaw sector just north of the foothills of the Carpathian Mountains. Again, as with Rokossovsky's proposal, Stalin resisted such a complicated plan, particularly the encirclement of Lvov. He finally permitted Konev to proceed but with the clear warning that the marshal would suffer the consequences of failure.¹¹

The *Stavka* issued the basic directive for Bagration on 31 May 1944.¹² Unlike previous general offensive plans, this scheme limited the *fronts* involved to attainable goals, with the initial *front* objectives not more than 150 kilometers from their starting positions. Indeed, the enormous success of this offensive caught Soviet commanders off-guard, and they had to adjust their plans during the operation to encompass even deeper objectives.

All of this planning involved massive logistical concentrations as well as the secret movement of forces literally all across the front, including 6th Guards and 11th Guards Armies moving from 2nd to 1st Baltic Front, 5th Guards Tank and 8th Guards Armies from Moldavia in the south to 3rd Belorussian Front, 28th Army plus a cavalry-mechanized group from the Ukraine to southern Belorussia, and 2nd Tank Army from the Romanian border to the Kovel' region of 1st Belorussian Front. During May and June 1944, Stalin, Zhukov, and Vasilevsky bombarded the chief of Rear Services, Khrulev,



Map 22. Belorussian Operation, June–August 1944

with preemptory demands to hasten the massive rail movements. Yet, everything had to be done under strict security measures to sustain the deception that the main offensives would continue to be against the German southern wing.¹³ Ultimately, the original schedule could not be met. Without any conscious effort at irony, the starting date for Bagration slipped to 23 June 1944, the third anniversary of the German invasion.

By 20 June, the four *fronts* involved in Bagration itself, minus the left wing of 1st Belorussian Front, included 14 combined-arms armies, 1 tank army, 4 air armies, 118 rifle divisions and 2 rifle brigades (most of these organized into 40 rifle corps), 7 fortified regions, 2 cavalry corps (with a total of 6 cavalry divisions), and scores of supporting artillery formations. The total combat force encompassed 1,254,300 men, 4,070 tanks and self-propelled guns, 24,383 artillery pieces, and 5,327 combat aircraft. The 1st Belorussian Front's left wing included another 416,000 men, 1,748 tanks and self-propelled guns, 8,335 guns and mortars, and 1,456 aircraft organized into 5 combined-arms armies, 1 tank army, 1 air army, 36 rifle divisions (in 11 rifle corps), 2 cavalry corps, and 4 separate tank or mechanized corps.¹⁴

Exact comparisons between the two sides are difficult because of different methods of accounting. Thus, for instance, the German official account does not include its Second Army, which, like the left wing of 1st Belorussian Front, was not directly engaged at the start of Bagration. With that caveat, however, the force ratios were roughly as indicated in Table 13-1.

The constant demand for troops in the south had reduced Army Group Center to a cordon of divisions and separate regiments, all defending on extended frontages. Its “panzer” corps and army headquarters were virtually denuded of armored units. At least twenty separate regiments, most of them low-priority security units, were counted as tactical reserves but were, in fact, committed to rear area security operations against the growing partisan threat. Only four line divisions—the 20th Panzer, 60th Panzer-Grenadier, 14th Infantry (Motorized), and 707th Infantry (former Security)—were available as operational reserves behind a frontage of almost 600 kilometers, and 20th Panzer was controlled by OKH rather than by the army group.¹⁵ Hitler’s concept of how this cordon would defend its sector involved only modest withdrawals to the so-called Tiger and Bear positions, along a line intended to connect the Dvina and Dnepr River lines. West of this line, the Army Group Center commander, Field Marshal Ernst Busch, had also designated the Berezina River as the Beaver position, but little preparation had been done on it because of Hitler’s concern that this would encourage commanders to retreat too readily. In late May, the dictator categorically forbade withdrawal behind those two lines.¹⁶ The Allied invasion of Normandy on 6 June made him even more reluctant to provide reserves or flexibility in the East.

Table 13-1. Force Ratios at Start of Operation Bagration, 22 June 1944

CATEGORY	GERMAN	SOVIET	RATIO
Divisions	63	178	1:2.8
Personnel	336,573*	1,254,300	1:3.7
Tanks and SP guns	495	4,070	1:8.2
Artillery	2,589	34,016	1:13.1
Aircraft	602	4,853	1:8.1

Sources: M. E. Morozov, ed., *Velikaia Otechestvennaia voina 1941–1945 gg.: Kampanii i strategicheskie operatsii v tsifrah, v 2 tomakh—Tom II* [The Great Patriotic War 1941–1945: Campaigns and strategic operations in numbers, in 2 volumes—vol. II] (Moscow: Glavarkhiv goroda Moskvy, 2010), 382; and Karl-Heinz Frieser, Klaus Schmider, Klaus Schönherr, Gerhard Schreiber, Krisztián Ungváry, and Bernd Wegner, *Das Deutsche Reich und der Zweite Weltkrieg*, Band 8, *Das Ostfront, 1943/44: Der Krieg im Osten und an den Nebenfronten* (Munich, Germany: Deutsche Verlags-Anstalt, 2007), 534.

Note: These German figures include only tactical combat units engaged, not the total strength of the army group, which was close to the Soviet estimate of 800,000. The Soviets assert that the Germans fielded 900 tanks and assault guns, 7,627 guns and mortars, and 1,342 combat aircraft, a clear exaggeration.

A typical German infantry division had a 32-kilometer sector to defend, which was far too wide for the traditional defense in depth with local counter-attack forces. Only listening posts and periodic patrols covered the inevitable gaps between the forward battalions. In most instances, the German commanders supplemented their network of obstacles, trenches, and bunkers with a secondary defense line a few hundred meters to the rear, with the division establishing a sketchy secondary line 4 to 6 kilometers behind the front. Virtually no defenses existed farther to the rear; as already noted, most of the supposed reserves were tied down in antipartisan campaigns that weakened but could not destroy the Soviet guerrilla network.

DECEPTION PLANNING

The parlous state of Army Group Center was enhanced by a successful Soviet strategic deception. An organized campaign portrayed major Soviet offensives in the north and south, with only limited attacks against Army Group Center. These measures were so successful that, up to the day of the attack in Belorussia, German intelligence believed that 2nd Tank and 5th Guards Tank Armies as well as 5th Guards and 8th Guards Armies were still opposite Army Group South Ukraine.¹⁷

The Soviet plan for *maskirovka* (the combination of deception and operational security mentioned earlier) played directly into the German preoccupation with their allies on the northern and southern flanks. Colonel

Reinhard Gehlen, head of the Foreign Armies East (*Fremde Heere Ost*) intelligence office, continued throughout May and June to predict major Soviet attacks in those regions. At the same time, German strategic attention was distracted by the Karelian campaign and by Anglo-American operations in Italy and preparations to invade France. The *Luftwaffe* continued to place air defense of the Reich above the tactical needs of the Eastern Front.

German intelligence officers at every level had a fairly accurate picture of the first-line Soviet infantry and artillery but little information concerning operational and strategic forces located in the rear. The continuing decline in German air strength in the East and draconian Soviet *maskirovka* discipline made aerial reconnaissance ineffective. Ground reconnaissance and the few remaining agents were increasingly unable to move about in the Soviet rear areas. Moreover, Soviet radio silence along large portions of the front negated signals intelligence. Overall, intelligence analysts failed to identify the arrival of three combined-arms armies, a tank army, and several mobile corps opposite the army group. Moreover, the Soviet delay in launching Bagration made it difficult for even the most astute observer to determine the correct starting date.¹⁸

At corps level and below, many German commanders and their intelligence officers anticipated some form of attack, but their concerns appeared exaggerated to higher headquarters, which turned a deaf ear. For example, a week before the start of Bagration, a battalion commander in the German 12th Infantry Division described the threat to General of Artillery Robert Martinek, commander of XXXIX Panzer Corps, who was on an inspection tour. Martinek agreed completely but replied by misquoting a proverb, "Whom God would destroy, he first strikes blind."¹⁹ Higher German headquarters did not fully recognize the offensive threat of Bagration until 25 June, three days after it had started.

Given this blindness, Army Group Center was little more than a shell by the time the Soviets attacked. The notional Soviet offensive plan in the south played directly into German expectations, giving the illusion that there was an opportunity to attack the flank of this offensive. Kurt Zeitzler as chief of the General Staff and Walter Model as commander of Army Group North Ukraine persuaded Hitler to redeploy LVI Panzer Corps, the principal counterattack force for Army Group Center, southward in preparation for such an opportunity, thereby moving it away from the actual point of Soviet attack.²⁰

ATTACK

German and Soviet accounts differ as to the actual starting date for the Bagration offensive, in part because of the staggered nature of the Soviet

attack. On the night of 19–20 June 1944, partisans launched a wave of attacks against railroad junctions, bridges, and other key transportation points throughout Army Group Center's rear area. Although the local German defenses thwarted many of these attacks, more than a thousand transportation nodes were put out of action, making German retreat, resupply, and lateral troop movements impossible.²¹

Two nights later, on 21–22 June, massive bombing attacks also struck the German rear areas; the Soviet reconnaissance battalions had already begun to move into gaps in the sparsely held forward German positions and in some instances captured the first-line enemy defenses.²² The main attacks actually began on 23 June; reconnaissance elements were so successful that in many instances the artillery preparations were canceled. These main assaults consisted of carefully organized task forces of tanks, self-propelled guns, and infantry, supported by dedicated artillery and fighter-bombers. To cite one example, 11th Guards Army of 3rd Belorussian Front concentrated five divisions and a separate tank brigade on an attack frontage of only 8 kilometers. They were directly opposite the German 78th *Sturm* (Assault) Division, a rare three-regiment infantry unit with additional assault guns and artillery, along the Moscow-Minsk Highway, one of the few paved, high-speed avenues in the region. The same kind of tactical superiority was produced at four other points along the front line. The entire offensive was led by engineer tanks, with plows attached to clear lanes through minefields. At night, searchlights and flares robbed the Germans of their night vision and helped guide the Soviet advance.²³

The 50mm antitank guns that still equipped most German regimental antitank companies were largely ineffective against the frontal armor of T-34 and heavier tanks. Instead, the German infantrymen used antitank mines, explosive charges, *panzerfausts*, and similar short-range weapons to exact a price from the attacking forces. Most Soviet commanders simply bypassed the isolated centers of German resistance and continued their advance into the rear.²⁴

In the Vitebsk sector, late on 24 June small mobile task forces of Lieutenant General A. P. Beloborodov's 43rd Army swept aside the remnants of the thoroughly demoralized German Corps Group E and seized crossings over the Western Dvina River west of the city. By midday on 25 June, they had linked up with the armored forward detachments of Lieutenant General I. I. Liudnikov's 39th Army, cutting off LIII Army Corps' withdrawal routes from the city. Virtually without a pause, General Chistiakov's 6th Guards Army, supported by Lieutenant General V. V. Butkov's 1st Tank Corps, wheeled westward and began pursuing the remnants of Third Panzer Army toward Polotsk.

To the south, Rokossovsky began the 1st Belorussian Front assault on 24 June, as his lead divisions emerged almost miraculously from the swamps to

engage the surprised Germans. Painstaking advance engineer work had enabled his troops to build wooden causeways and ramps through the swamps along the eastern side of the Ptich' River, undetected by the defenders.²⁵ Once the leading rifle units overwhelmed German defenses, Rokossovsky unleashed his armored forces straight down the swamp-bound roads through the German defenses and into their rear areas. By midday of 25 June, Lieutenant General M. F. Panov's 1st Guards Tank Corps had penetrated over 40 kilometers to the southern approaches to Bobruisk, and General Pliev's veteran cavalry-mechanized group followed behind, preparing to swing westward toward Slutsk.²⁶ The 20th Panzer Division, unable to determine whether the main attack was coming from Rogachev in the east or from south of Bobruisk, wasted two days marching and countermarching in response to confusing orders. Ending its agony, on 26 June Lieutenant General B. S. Bakhorov's 9th Tank Corps broke free from German defenses west of Rogachev and raced westward to seize crossings over the Berezina River south of Bobruisk; simultaneously, 1st Guards Tank Corps did likewise on the west bank of the river.

The lightning drive of the Soviet armor, followed by a torrent of troops from 65th, 48th, and 3rd Armies, caught the German XXXV Corps and part of XXXXI Panzer Corps, together with 20th Panzer Division, in a cauldron of fire southeast of Bobruisk. While attempting to run the gauntlet to freedom, the fugitives were pounded unmercifully by Soviet airpower at the crowded road junction of Titovka.²⁷ Only the most stoic and lucky were able to survive the carnage and break out northwest of the city. In a sense, they were assisted by the fact that Soviet commanders were already urging their forces onward to the west, toward Minsk.

In the secondary Soviet attack opposite Orsha and Mogilev, the German experience was initially less disastrous. Lieutenant General I. T. Grishin's 49th Army achieved only a small penetration on 24 June at the junction of German XXXIX Panzer and XII Army Corps. Overall, however, one German battalion often found itself confronting one or more Soviet rifle divisions.²⁸ The paucity of his armor forced Grishin to use a separate tank brigade with infantry mounted on the tanks as the nucleus of his mobile exploitation force. News of mounting disaster prompted the German Fourth Army to begin a slow withdrawal back to Mogilev on the Dnepr. By 27 June, Grishin's army was across the river north and south of the city, and the now-desperate defenders contemplated a further retreat to Minsk, which itself was threatened with capture by the operational exploitation forces of 1st and 3rd Belorussian Fronts. On Hitler's orders, Mogilev was also to be held to the last man. Some of the defenders obeyed those orders, but many did not, experiencing battles as harrowing as those for Vitebsk and Bobruisk. Although they avoided immediate defeat in the tactical encirclement of Mogilev among the Dnepr,

those who escaped fell victim to a much larger operational encirclement at Minsk.

Whenever such encirclements occurred, Hitler declared the towns to be fortresses to be defended to the last man. In many instances, these towns consisted of wooden buildings with no cellars, making prolonged defense impossible. By this stage in the war, German commanders at regiment level and below had learned to avoid any town that might be declared a fortress. If they happened to be caught in such an indefensible site, they would use any opportunity to fight their way out. On 27 June, for instance, the surviving elements of 12th Infantry Division, together with thousands of support troops and hundreds of wounded soldiers, became encircled at Mogilev. Two battalion task forces from the division broke out on their own. They achieved an almost miraculous escape across the Berezina River and were able to reach German lines along the Neman River, southwest of Minsk.²⁹

The Soviets did not succeed everywhere, of course; 78th *Sturm* Division, blocking the Minsk highway, halted the first attack by 11th Guards Army, and elsewhere, traffic jams behind the front delayed exploitation.³⁰ Still, by 27 June major gaps had opened in the north between Third Panzer and Fourth Armies and in the south between Fourth Army and the stricken Ninth Army. The two tank corps of Rotmistrov's 5th Guards Tank Army, plus Lieutenant General V. T. Obukhov's separate 3rd Guards Mechanized Corps, advanced through the northern gap with their brigades moving on parallel roads to seek any possible crossing sites on the Berezina River. Pliev's cavalry-mechanized group raced into the southern gap across the Ptich' River and on to Slutsk, which it occupied by midday on the 29th.

OKH had belatedly reacted to these threats, and a limited number of mechanized units arrived by rail and road. The 5th Panzer Division detrained at Borisov and, together with a collection of lightly armed rear area security units, attempted to close the gap between Third Panzer and Fourth Armies. The most they could achieve, however, was to ambush the Soviet forward detachments by hiding in woods or villages and opening fire at close range. Such tactics only delayed the advance for a few hours until the Red commanders located alternate routes and bypassed the defenders.³¹ However, Rotmistrov and other tank commanders soon learned that armored fighting in Belorussia was vastly different and more costly in terms of tanks than it had been in the steppes of the Ukraine. Here, the forests and swamps resulted in very short engagement ranges, offering potential ambush sites at every turn. German *panzerfausts* took a terrible toll on Rotmistrov's armor.³²

FALL OF MINSK

On 2 July 1944, only a handful of understrength German regiments were in and around Minsk. The recapture of this city was a classic example of Soviet forward detachments and tank corps exploiting a breakthrough. In essence, the rapid movement of small forward detachments passing through the town simply preempted the entire German defense effort. On the north side of Minsk, 5th Guards Tank Army's 29th Tank Corps bypassed the town, seeking out any German counterattack forces to the west while seizing a crossing over the Svisloch' River. Meanwhile, 3rd Guards Tank Corps moved into the northwestern corner of the city on 3 July, and Colonel O. A. Losik's 4th Guards Tank Brigade of Major General A. S. Burdeinyi's 2nd Guards Tank Corps, the mobile group of 11th Guards Army, cleared the northeastern side.³³ The city was effectively secured in one morning, with the Soviets seizing key locations before the German defense was organized. On the afternoon of 3 July, forward elements of 1st Guards Tank Corps arrived from the south, completing the occupation of the city. Immediately behind them were the rifle elements of 3rd Army (from the southeast) and 31st Army (from the northeast). Thus, at the same time that the city fell to mechanized forces, rifle units arrived to establish the inner encirclement around the bypassed elements of the German Fourth Army still defending east of Minsk. The entire process was accomplished virtually without a pause in the exploitation.³⁴

Farther south, remnants of the German Bobruisk force continued desperate attempts to escape after the two Soviet tank corps completed their envelopment. German sources admit that this latter encirclement included most of two corps, comprising about 70,000 men, from Ninth Army. As in the case of 5th Panzer Division in the north, OKH dispatched 12th Panzer Division with orders to restore the situation, although how a single panzer division, however strong, could succeed against multiple Soviet mobile corps was not addressed. Responding to the call, this division began detraining in the Osipovichi area, 50 kilometers from Bobruisk, on 27 June. The chief of staff of Ninth Army welcomed the division commander with the ironic comment, "Good to see you! Ninth Army no longer exists!"³⁵ This remark was all but literally accurate, although a determined counterattack on 30 June by a combat group of 12th Panzer Division rescued up to 10,000 unarmed German troops escaping from the Bobruisk area. The remaining 60,000 were subjected to massive Red air strikes and eventually capitulated. The German Sixth Air Fleet, which had begun the battle with only forty-five fighters in the area, was so hampered by lack of fuel and aircraft that it could do nothing against the massive Soviet air superiority.

Worse was to come for the defenders. On 27 June, Hitler issued Operations Order No. 8, another stand-fast directive that called for the reconstruc-

tion of a *front* using troops that were already surrounded. German commanders continued to request permission to withdraw or maneuver and were consistently refused until it was too late. This inability or unwillingness of the head of state to react in a timely manner to a developing disaster had dogged the Soviets in 1941; three years later, it was the Germans' turn. Ultimately, LIII Army Corps capitulated at Vitebsk, and an encirclement east of Minsk accounted for most of Fourth Army.³⁶

While the 2nd Belorussian Front's 33rd, 49th, and 50th Armies engaged in the gruesome task of eradicating the encircled Fourth Army, Chernia-khovsky's and Rokossovsky's *fronts* drove westward without a pause to maintain the momentum of the advance. They seized the key towns of Molodechno and Baranovichi, which dominated the narrow movement corridors through swampy and heavily wooded regions of central Belorussia. Further development of the offensive toward Vilnius and Bialystok required Soviet seizure of similar towns before the Germans could erect new defenses around them.

By 3 July, as 5th Guards Tank Army reassembled west of Minsk, Obukhov's cavalry-mechanized group (the 3rd Guards Cavalry and 3rd Guards Mechanized Corps) began the fight for Molodechno against 5th Panzer Division and remnants of XXXIX Panzer Corps. Farther south, Pliev's cavalry-mechanized group fought along the approaches to Baranovichi. German resistance stiffened with the arrival of additional reinforcements, especially 7th Panzer Division in the north and 4th Panzer Division in the south. On 5 July, however, Rotmistrov's 5th Guards Tank Army rejoined the advance on Vilnius. By 8 July, the 3rd Belorussian Front, together with its cavalry-mechanized group, 5th Army, and 11th Guards Army, had encircled Vilnius and begun a complex fight to reduce the garrison, block relief attempts, and simultaneously continue the advance to the Neman River. Heavy fighting raged in the Lithuanian capital until 13 July, as Rotmistrov's tanks supported costly, block-by-block street combat.³⁷

That day witnessed another example of German heroism, as a small combat group of the newly arrived 6th Panzer Division penetrated 30 kilometers through Soviet lines and rescued a small portion of the garrison. At the same time, Soviet forces reached the Neman River southwest of Vilnius. Meanwhile, in the north, Bagramian's 1st Baltic Front secured Polotsk and then, joined in the offensive by the neighboring 2nd Baltic Front, raced northwestward along both banks of the Western Dvina River. Additional Soviet reinforcements including 2nd Guards and 51st Armies, newly arrived from the Ukraine and Crimea, added momentum to Bagramian's thrust and threatened to rout the already weakened northern flank of Army Group Center.³⁸ The fighting along this axis now focused on a Soviet drive toward Kaunas, Riga, and the shores of the Baltic Sea, a drive that threatened to sever communications between the German Army Groups North and Center.

The fall of Vilnius was accompanied by the loss of Lida and Baranovichi, key communications nodes in the south. The Soviet 50th and 49th Armies rejoined their parent *fronts* after reducing the Minsk pocket, and the 2nd and 1st Belorussian Fronts focused, respectively, on the seizure of Grodno and Bialystok, even deeper in the German rear. Within a week, the advance through southern Belorussia expanded into a larger battle for the approaches to the Polish border and the Vistula and Narew River lines, as 1st Belorussian Front's southern wing went into action west of Kovel'.

In the twelve days between 22 June and 4 July 1944, Army Group Center lost 25 divisions and well over 300,000 men. In the ensuing weeks, it lost more than 100,000 additional soldiers. The Soviet drive finally slowed at the end of the month as its armored spearheads became worn down. Tank losses in combat and the wear and tear of three weeks of maneuver forced most tank formations to stand down for repair and refit. Losses were particularly heavy in 5th Guards Tank Army. Rotmistrov was soon removed from command and "elevated" to deputy chief of Soviet Armored and Mechanized Forces, ostensibly for incurring such heavy losses. Lieutenant General V. T. Vol'sky, whose mechanized corps had led the encirclement at Stalingrad, ultimately took command of Rotmistrov's army.³⁹

The slowing of the Soviet advance offered little consolation for the Germans. After the initial catastrophic retreats, Field Marshal Model, commander of Army Group North Ukraine, was also given command of Army Group Center on 29 June so that he could coordinate the redistribution of the surviving forces and erect new defense lines somewhere to the west. Thus, Model achieved something like the unity of command that Manstein had sought in vain. The new commander had already shifted fresh panzer divisions into Belorussia. Soon, though, he was beset with new problems as his old front erupted in flames from L'vov to Kovel'. This merged into one continuous struggle from the Baltic south to the Carpathian Mountains.

L'VOV-SANDOMIERZ

On 28 June, the *Stavka* ordered a general advance by all four *fronts*—the 1st Baltic and the three Belorussian headquarters. They were joined on 13 July by Konev's 1st Ukrainian Front, which accelerated its plans for what became the L'vov-Sandomierz offensive south of the Pripyat' Marshes to capitalize on the success in Belorussia.

Army Group North Ukraine was in marginally better condition than Army Group Center had been, with considerable, if understrength, mechanized forces in reserve. These included three panzer, one panzer-grenadier, one security, and two SS (5th SS *Wiking* and 14th SS *Galicia* or Ukrainian)

divisions. The army group's southern flank also included Hungarian First Army, but after the German coup, only the two German infantry divisions in that army had the equipment and motivation for effective defense.⁴⁰

In accordance with earlier plans, the *Stavka* directed Konev to destroy elements of the German Army Group North Ukraine in the Lvov and Rava-Russkaia regions by delivering two simultaneous blows northeast and east of Lvov.⁴¹ To accomplish this, he had no fewer than three of the Soviets' six tank armies plus two cavalry-mechanized groups. In the north, Colonel General Katukov's 1st Guards Tank Army, secretly redeployed from the south, and Lieutenant General V. K. Baranov's cavalry-mechanized group (1st Guards Cavalry and 25th Tank Corps) were to strike southwestward along the Styrl River from the Lutsk region toward Rava-Russkaia and the western approaches to Lvov. Simultaneously, Colonel General Rybalko's 3rd Guards Tank Army and Colonel General Leliushenko's 4th Tank Army, plus a second cavalry-mechanized group commanded by Lieutenant General S. V. Sokolov, would exploit a penetration begun by 38th and 60th Armies, advancing directly on Lvov from the east. To deceive the Germans, Konev orchestrated a feint to the south around Stanislaw. By virtue of a massive but concealed redeployment, he created a significant superiority over the German defenders at his chosen points of attack, even though, overall, the only Soviet advantage was in aircraft.⁴²

Konev's offensive began in the northern sector on 13 July, when 3rd Guards and 13th Armies' reconnaissance units found German forward positions unmanned. Immediately, forward battalions and main forces joined the advance so that, by day's end, they had penetrated up to 15 kilometers.⁴³ Within days, Sokolov's cavalry-mechanized group, followed by Katukov's tank army, plunged into the yawning gap in the German defenses. Katukov employed his customary forward detachment, 1st Guards Tank Brigade, to deceive the Germans as to where his army would enter combat, and thus, he was able to deal effectively with the German operational reserves, 16th and 17th Panzer Divisions, which he brushed aside to the north.⁴⁴ The 16th Panzer Division was later able to disengage, conduct a long march to the west, and reach Lvov in time to participate in that city's defense.

As Katukov led the thrust deep into German defenses in the north, Konev's combined-arms armies on the direct approaches to Lvov were unable to open the planned corridors for Rybalko's and Leliushenko's armor. The 38th Army faltered in the German tactical defenses, and 60th Army opened only a small hole through the German defenses east of the village of Koltov; meanwhile, First Panzer Army launched a series of counterattacks against these two armies. Quickly responding to the changing circumstances, Konev ordered both Rybalko and Leliushenko to pass their armies successively through the narrow corridor on 60th Army's front. They were

accompanied by 31st and 4th Guards Tank Corps, whose missions were to hold open the shoulders of the penetration. Having temporarily lost his tank corps, Sokolov was to have his cavalry corps swing northward along the path of 1st Guards Tank Army and help lead the race to the Vistula.

Beginning early on 14 July, the more than 1,000 tanks and self-propelled guns of Konev's mobile force thrust into the Koltov corridor. Despite determined counterattacks by 8th and 1st Panzer Divisions, the armored armada traversed the gauntlet of fire successfully.⁴⁵ On 18 July, lead elements of 3rd Guards Tank Army linked up northeast of Lvov with forward brigades of Sokolov's cavalry-mechanized group, trapping the German XIII Corps (four division-sized army units, plus 14th SS Division) in the Brody pocket. Subsequently, while rifle forces reduced the pocket, 60th Army supported by Lieutenant General P. P. Poluboiarov's 4th Guards Tank Corps held off III Panzer Corps, which included 1st and 8th Panzer Divisions.⁴⁶ At the same time, the two tank armies attempted to envelop Lvov from both north and south. Heavy fighting raged on the approaches to the city as the German XXXVI Army Corps fended off the Soviet tank army attacks.

In the end, the rapid advance of 1st Guards Tank Army and of Sokolov's cavalry-mechanized group toward the Vistula and San Rivers unhinged the defense of Lvov. On 23 July, Katukov's tank army approached Peremyshl', severing German communications with Lvov, and Konev ordered Rybalko to swing his army westward to join Katukov astride the German logistical lines. On 27 July, when the lead elements of Sokolov's cavalry and tank force were but 20 kilometers from the Vistula, the Germans abandoned Lvov. The XIII Corps also tried to break out of the Brody pocket, but no more than 5,000 men escaped. Konev immediately ordered both Katukov and Rybalko to turn their armies toward the Vistula, and the remaining German armor struggled to redeploy from Lvov to meet the new threat. As Leliushenko's 4th Tank Army and Baranov's cavalry-mechanized group fended off German counter-attacks from the south, 1st and 3rd Guards Tank Armies roared northward toward the river. On 29 and 30 July, forward detachments of Katukov's army, along with motorized elements of Lieutenant General N. P. Pukhov's 13th Army, seized a series of small bridgeheads across the Vistula River south of Sandomierz. Within days, they were joined by the balance of their armies and by Rybalko's 3rd Guards Tank Army.

A long and arduous struggle ensued for possession of the bridgehead.⁴⁷ For over a month, German reserves redeployed from Hungary joined with units from Lvov, organized into the LIX, III, and XXXVIII Panzer Corps, to hammer vainly at Soviet positions in and around the bridgehead. Farther south, XXIV Panzer Corps struck at the Soviet southern flank east of the Vistula. The heavy fighting only proved the German adage that a Soviet bridgehead, once occupied, could not be destroyed.

While the L'vov-Sandomierz battle continued, German operations were further confused by the failed 20 July attempt to assassinate Adolf Hitler. Kurt Zeitzler was already on the verge of nervous collapse and had retired from active operations before the bomb exploded. Among those few qualified generals who were neither wounded by the blast nor implicated in the plot was Heinz Guderian, who became acting chief of the General Staff on 21 July. Eager to gain Hitler's trust, Guderian insisted on an "exemplary [Nazi] attitude" and vigorous counterattacks in the East.⁴⁸

LUBLIN-BREST OPERATION

During this time, Field Marshal Model faced additional challenges to his skill. No sooner had Minsk fallen and the Soviet offensive begun along the L'vov axis than he had to contend with an equally severe threat on the Kovel'-Lublin axis, north of Sandomierz in southern Poland. There, on 18 July, the left wing of Rokossovsky's 1st Belorussian Front joined the fray.⁴⁹ After feinting on 9–10 July to draw German attention away from Soviet offensive preparations at L'vov, Rokossovsky's armies went into action.

On 18 July, Lieutenant General N. I. Gusev's 47th Army and Colonel General Chuikov's 8th Guards Army tore into German defenses, and by 21 July, they had reached the Western Bug River. The next day, Lieutenant General S. I. Bogdanov's 2nd Tank Army began its exploitation toward Lublin and the Vistula, with 11th Tank and 2nd Guards Cavalry Corps leading the drive northwest toward Siedlce to cut off the retreat of Army Group Center elements defending around Brest and Bialystok.⁵⁰

Although Bogdanov was wounded on 23 July during the fighting for Lublin and was replaced by Major General A. I. Radzievsky, the rapid advance continued, carrying lead elements of 8th Guards Army and 2nd Tank Army to the eastern bank of the Vistula by 25 July. As Chuikov's soldiers seized a bridgehead near Magnuszew and Lieutenant General V. Ia. Kolpakchi's 69th Army secured one near Pulawy, the *Stavka* ordered Radzievsky to turn his army northward toward Warsaw to help cut off the withdrawal of Army Group Center.⁵¹

By 28 July, Radzievsky's army, with three corps abreast, engaged the German 73rd Infantry Division and the Hermann Göring Parachute Panzer Division some 40 kilometers southeast of Warsaw. A race ensued between Radzievsky, who was seeking to seize the routes into Warsaw from the east, and the Germans, who were attempting to keep control of both those routes and the city. The nearest Soviet forces within supporting range of Radzievsky were 47th Army and 11th Tank and 2nd Guards Cavalry Corps, then fighting for possession of Siedlce, 50 kilometers to the east. On 29 July, Radzievsky

dispatched 8th Guards and 3rd Tank Corps, both worn down by previous operations, northward. Their assignment was to swing northeast of Warsaw and turn the German defenders' left flank, as his 16th Tank Corps continued to fight on the southeastern approaches to Praga, across the river from Warsaw itself.

Although Lieutenant General A. F. Popov's 8th Guards Tank Corps fought to within 20 kilometers of the city on the east side, Major General N. D. Vedeneev's 3rd Tank Corps ran into successive panzer counterattacks orchestrated by Model. The German commander assigned a number of reinforcements to Ninth Army to defend the Warsaw region, including a large assemblage of antitank guns. Beginning on 30 July, the Hermann Göring and 19th Panzer Divisions struck the overextended and weakened tank corps north of Wolomin, 15 kilometers northeast of Warsaw.⁵² Although the tank corps withstood three days of counterattacks, on 2 and 3 August 4th Panzer Division and 5th SS Panzer Division *Wiking* joined the struggle. In three more days of intense fighting, 3rd Tank Corps was severely mauled and 8th Guards Tank Corps was also sorely pressed. By 5 August, 47th Army had arrived in the area, and 2nd Tank Army was withdrawn for rest and refitting. The three rifle corps of 47th Army were stretched out on a front of over 80 kilometers, from south of Warsaw to Siedlce, and were unable to renew the drive on Warsaw or the Narew River. German communications lines eastward to Army Group Center and North had been damaged but not cut.

The approach of 2nd Tank Army to the Polish capital gave rise to one of the most controversial episodes of the war: the second uprising in Warsaw.⁵³ In April and May 1943, the Jewish ghetto had made a gallant but ultimately futile rebellion against the Germans. On 1 August 1944, the Polish Home Army of General Tadeusz Bor-Komorowski in turn rose up in rebellion. Believing that the Red Army was about to arrive, the Home Army wanted to strike at the hated Germans and stake a claim for the postwar legitimacy of the Polish government exiled in London.⁵⁴ Although the insurgents seized large areas in downtown Warsaw, they failed to secure the four bridges over the Vistula and were unable to hold the eastern suburbs. For two months, the Home Army struggled and ultimately perished in Warsaw, but it received little material help from the Soviets until late in the fight. At the time and thereafter, the Poles accused the Soviet Union of deliberately allowing them to die, and certainly Stalin had no use for the right-wing leaders of the Home Army; he had already disarmed other elements of that army and put its rank and file into the Soviet-controlled 1st Polish Army. However, the Red Army was clearly unable to mount a new offensive in August, and it was in any case anxious to get appropriate starting points for future operations rather than becoming involved in a prolonged urban battle. As a result, 1st Belorussian Front focused both on defending the Magnuszew bridgehead,

south of Warsaw, against heavy counterattacks in mid-August and, with 2nd Belorussian Front, on driving forward across the Western Bug River to seize crossings over the Narew River north of Warsaw.

The Soviet 47th Army remained the only major force opposite Warsaw until 20 August, when it was joined by Lieutenant General Z. M. Berling's 1st Polish Army. Red Army forces finally forced the Bug River on 3 September, closed up to the Narew the following day, and fought their way into a bridgehead across that river on the 6th. On 13 September, lead elements of 47th Army entered Praga in Warsaw's eastern suburbs. Three days later, elements of two Polish divisions launched an assault across the river but made little progress and withdrew back across the river on 23 September.⁵⁵

The Soviets have long maintained their sincerity in attempting to assist the Polish uprising. German resistance was probably sufficient to halt any Soviet attack, at least until mid-September. Thereafter, a Soviet advance on Warsaw would have involved a major reorientation of military efforts from Magnuszew in the south or the Bug and Narew Rivers in the north, in order to muster sufficient force to break into Warsaw. Even if they had reached Warsaw, the city would have been a costly place to clear of Germans and an unsuitable, congested location from which to launch a new offensive.

The limited Soviet-Polish efforts to reach Warsaw on 10 September and again on 16–17 September only encouraged the rebels to fight on. At great cost, the Royal Air Force and its Commonwealth Allies flew long-range missions from Italy to parachute weapons into Warsaw. Until mid-September, however, Stalin refused permission for the U.S. Army Air Force to use Soviet airfields for similar supply missions. By the time the first such mission was flown on 18 September, the areas remaining in Home Army hands were too small for parachute drops, and only about one-fifth of containers reached their intended recipients.⁵⁶ Three more months passed before the Soviets accumulated sufficient force to break out of their Vistula bridgeheads.

CONCLUSIONS

Operation Bagration, together with the ensuing L'vov-Sandomierz and Lublin-Brest operations, propelled the Red Army across the Neman River to the border of East Prussia and across the Vistula and Narew Rivers in northern and central Poland. By this stage in the war, Hitler's rigidity was indeed contributing significantly to German defeats. Except for the German counterattacks at Warsaw and at Siauliai in Lithuania, logistical overextension rather than German strength halted the Soviet exploitation. The destruction of more than thirty German divisions and the carnage wrought in a number of surviving units, accompanied by a Soviet mechanized advance in excess of

300 kilometers, had decimated Army Group Center, the strongest German formation; severely shaken Army Group North Ukraine; and brought the Red Army to the borders of the Reich.

Germany had always been limited by its available manpower, and the casualties during these two months were staggering. Army Group Center lost almost 450,000 troops, and its strength fell from 888,000 to 445,000 despite reinforcement from the flanks. Still, Hitler took encouragement from the fact that the front was now shortened. On 7 July, he directed the formation of fifteen new panzer-grenadier divisions and ten panzer brigades. Formed around the staffs of decimated divisions, these new units soaked up replacements earmarked for the Eastern Front during July and August 1944, as well as absorbing 45,000 troops released from hospitals.⁵⁷ Yet despite the German need to direct new divisions and equipment eastward, throughout June and July the Wehrmacht was still able to contain the Allied bridgehead in Normandy.

The strategic success of Bagration did not come without cost for the Soviets. Of the 2,331,000 troops engaged in the Belorussian and Lublin-Brest operations, 178,507 were killed or missing and 587,308 were wounded, for a casualty rate of almost one-third. In addition, 2,957 tanks and self-propelled guns, as well as 2,447 guns and mortars, were lost in combat or for maintenance reasons. Soviet casualties in the L'vov-Sandomierz operation totaled another 65,001 killed or missing and 224,295 wounded, and this meant the loss of 1,269 additional tanks and self-propelled guns as well as 1,832 guns and mortars.⁵⁸

Despite such losses, Soviet manpower strength at the front continued to rise, from 6,394,500 troops (with another 727,000 in hospital) on 12 March 1944 to almost 6.5 million troops in late fall. Overall German strength ranged from 2,460,000 (plus 550,000 of its allies) on 1 June to 1,996,000 (plus 774,000 of its allies) on 1 August, 2,042,000 (plus 271,000 allies) on 1 September, and 2,030,000 (with only 190,000 allies) on 1 November. Even more telling, Soviet armored strength rose from 7,753 tanks and self-propelled guns on 1 June 1944 to 8,300 on 1 January 1945, whereas German armored inventory rose from 2,608 on 1 June to 3,658 on 1 August and 3,700 on 1 November. Between 1 June 1944 and 1 January 1945, Soviet artillery strength increased from some 100,000 guns and mortars to 114,600 tubes, even as German artillery inventory fell from 7,080 on 1 June to 5,703 on 1 August and down to 5,700 on 1 November.⁵⁹ Albert Speer's mobilization program kept pace in equipment, but Soviet industry more than matched the effort. Moreover, Speer could not generate the resource that Germany needed most—trained and ready military manpower.

In mid-August 1944, while the Soviet victors rested and refitted along the Vistula River, the *Stavka* turned its attention to achieving similar successes on the northern and southern flanks.

CHAPTER FOURTEEN

Clearing the Flanks

The Soviet success against Army Group Center prepared the way for future operations on the strategic flanks, both north and south. By the end of 1944, these operations had ejected the German Army from all Soviet territory and begun the creation of the postwar Soviet domination of eastern and central Europe.

GERMANY ON THE DEFENSIVE

Quite apart from the disaster in Belorussia and southern Poland, July 1944 was a difficult time for the German High Command. Overwhelming Anglo-American airpower not only dominated the skies over the Reich but also made the German defense against the Allies in Normandy untenable. On 17 July, Field Marshal Erwin Rommel was seriously wounded when his car was strafed by a British fighter-bomber. Three days later, the failed assassination plot made Hitler more paranoid and arbitrary in his actions. On the 25th, in Operation Cobra, a combination of tactical and strategic bombers blasted a hole through the German defenses west of St. Lô, signaling the Allied breakout from the hedgerow country. Within days, Lieutenant General George S. Patton's U.S. Third Army began its exploitation into Brittany and eastward toward Paris. For one of the few times in the West, Germany faced an armored thrust comparable to the deep operations conducted by German forces in 1941–1942 and by the Soviets in 1943–1944. That thrust soon produced a nearly catastrophic encirclement of another German army group at Falaise; in turn, this disaster placed more demands on the dwindling supply of German divisions.

One of Heinz Guderian's first actions as chief of the Army General Staff was to withdraw five panzer and six German infantry divisions from Colonel General Ferdinand Schörner's Army Group South Ukraine, the mixed German-Romanian force defending the lower Dnestr River and Romania with its back to the Carpathian Mountains. This army group, which had been so effective in halting the Soviets in April and May, still faced a long-term deficit of forces. Organized into two mixed German-Romanian groups of two field armies each (Groups Wöhler and Dumitrescu), Army Group South

Ukraine held strong forward positions with the seemingly impenetrable Carpathian Mountains as a fallback line. Since its once-powerful armored force had departed to help other sectors during July, it was weak in mobile reserves, having only 13th and 20th Panzer Divisions (the latter an infantry combat group without tanks), 10th Panzer-Grenadier Division, and the poorly trained and poorly equipped 1st Armored Division “Great Romania.”¹ The army group was also hampered by a tenuous logistical system, in which entire trains would disappear until they were located by air and their reluctant Romanian engineers bribed to bring them to the front. Meanwhile, Germany’s Hungarian allies were more belligerent toward their Slovak and Romanian neighbors than they were toward the Soviets. As one German staff officer remarked, Army Group South Ukraine had to fight on three different fronts—against the Soviets; against the satellite countries of Hungary, Slovakia, and Romania; and against the OKW.²

For political reasons and to protect the key Romanian cities of Iasi and Kishinev, the army group still needed to defend the extensive terrain from the Carpathians to Dubossary on the Dnestr River. This included the huge eastward bulge along the lower Dnestr, in the area that is now Moldova, leading to the Black Sea. Despite their mauling in May, the Soviets held dangerous bridgeheads over the river; even during the relative quiet of June, July, and early August, the Soviets inflicted another 10,000 casualties on the Romanians.³ Schörner repeatedly requested permission to withdraw from this bulge but got nowhere with Hitler and the OKW. In the meantime, OKH quietly authorized him to begin constructing a fallback position in the Carpathians but to do so in a manner that did not attract Romanian government attention.

The satellite armies were the Achilles’ heel of this entire defense. Just as in the Crimea, at Stalingrad, and at Tigru Frumos, some Romanian divisions fought loyally and even valiantly alongside their German counterparts. Others, though, had little capacity and less interest in prolonging the war, especially given their catastrophic losses in the preceding three years. German commanders accurately predicted that the next major offensive would be against their army group and that the main efforts would come against the Romanian forces, but neither the Soviets nor the Germans were prepared for the speed of the Romanian collapse in August 1944.

IASI-KISHINEV OPERATION

In essence, the Soviet conquest of the Balkans in the fall of 1944 consisted of one carefully planned penetration operation and exploitation—the Iasi-Kishinev operation of 20–29 August—followed by a long pursuit that ended at the gates of Budapest four months later.

While planning this campaign, the *Stavka* was motivated by political as well as terrain considerations. In late July 1944, Moscow's attention shifted to the south, seeking to destroy Army Group South Ukraine and introduce Soviet power into the region of Romania, Bulgaria, and Yugoslavia. At the same time, Hitler's remaining oil reserves in the Ploesti oil fields of Romania and the Balaton region of Hungary were natural strategic targets. Moreover, on practical grounds, the Soviets wished to avoid fighting in the Carpathian Mountains and to reduce the number of river-crossing operations by advancing parallel to and between the Dnestr, Prut, Siret, and other rivers of the Balkans. For all these reasons, the initial thrust of the coming campaign was oriented to the south rather than over the Carpathians to the west.

Army Generals R. Ia. Malinovsky and F. I. Tolbukhin now commanded the 2nd and 3rd Ukrainian Fronts, respectively. They opposed Army Group South Ukraine, which had a total strength of approximately 500,000 German troops and 170 tanks and assault guns, plus 405,000 Romanians with fewer than 100 armored vehicles. As was often the case at this stage in the war, German intelligence underestimated the capabilities of these two *fronts*, which totaled 1,314,200 men and 1,874 tanks or assault guns.⁴ However, much of this strength consisted of untrained and ill-equipped recruits. Like their German counterparts, Red Army commanders often had to use soldiers with little or no training. During the liberation of the Ukraine and Bessarabia in the late winter and spring, these two *fronts* had press-ganged all available manpower from the liberated regions. Blocking detachments pulled men out of villages, haystacks, or wherever they could be found and put them into uniform, issued them weapons, and incorporated them into rifle divisions, in theory through the divisions' organic training battalions. One rifle division of 5th Shock Army grew from 3,800 to 7,000 men in this manner without any significant improvement in actual combat power. As a result, Soviet rifle formations no longer had the same staying power they had exhibited earlier in the war, forcing their commanders to use ever-increasing amounts of infantry, artillery, air, and armor support.⁵

The *Stavka* plan for what became the Iasi-Kishinev operation called for a coordinated attack by the 2nd and 3rd Ukrainian Fronts, in cooperation with the Black Sea Fleet, to destroy German and Romanian forces in the Iasi, Kishinev, and Bendery regions and, subsequently, to advance to Bucharest and the Ploesti oil fields.⁶ Just as in Bessarabia, penetration attacks in two principal sectors would be accompanied by secondary attacks in neighboring sectors to prevent the Germans from shifting their reserves. The 2nd Ukrainian Front was to penetrate the German-Romanian defenses between Tigru Frumos and Iasi and then commit Major General V. I. Polozkov's 18th Tank Corps to seize the Prut River crossings in the rear of the German Sixth Army. After participating in this penetration with their lead brigades, Kravchenko's

6th Tank Army and Lieutenant General S. I. Gorshkov's cavalry-mechanized group (the 5th Guards Cavalry Corps and 23rd Tank Corps) would pivot southward to seize the Siret River crossings and the key pass known as the Focșani Gap. This would in turn facilitate a further advance by the tank army to Bucharest.

Meanwhile, the 3rd Ukrainian Front would launch a similar attack farther south from a small bridgehead over the Dnestr in the Tiraspol'-Bendery area; Tolbukhin would then introduce Major General V. I. Zhdanov's 4th Guards and Major General F. G. Katkov's 7th Mechanized Corps for deep exploitation. These two corps would turn north and link up with 18th Tank Corps from the 2nd Ukrainian Front, encircling the bulk of Axis forces in the Kishinev area. Instead of passively forming an outer encirclement around the resulting pocket, however, the majority of the mobile forces, including 6th Tank Army and 4th Guards Mechanized Corps, would continue to thrust southward toward Bucharest and Ploesti.

To achieve sufficient concentration in the penetration sectors, the field armies of these two *fronts* were specially configured so that their strength varied in accordance with their assigned tasks. Some armies with an economy-of-force or deception mission had as few as five divisions. But in each of the two designated penetration sectors, Malinovsky and Tolbukhin concentrated two full armies, each with nine rifle divisions, ample artillery, and supporting armor, including IS-3 tanks for infantry support.⁷

Despite such massive concentrations, the Soviet attack did not run smoothly when it began on 20 August 1944. In the southern penetration sector at Bendery, two German infantry divisions held firm for several days. The Bendery bridgehead was so small that Tolbukhin's troops had great difficulty launching the attack. The 7th Mechanized Corps became entangled with the assault infantry on crowded roads, delaying the exploitation for critical hours on 20 and 21 August. In the north, the attack progressed much more rapidly, with 6th Tank Army entering the exploitation phase on the first day of the battle. Much of this success occurred because the Romanian defenders put up only token resistance. Only those units with local ties—such as the Romanian 14th Infantry Division, raised around Kishinev (modern Chisinau, capital of Moldova)—fought bravely.⁸

In Bucharest, conspirators had long planned a coup against Marshal Antonescu's pro-German government. The Soviet offensive accelerated this; on 23 August, King Michael arrested Antonescu and publicly denounced the 1940 Treaty of Vienna that had forced him to surrender Transylvania to Hungary. On orders from Hitler, local German forces attempted to march on the capital and even bombed the royal palace. This gave Bucharest a pretext to declare war on Germany, which completed the destruction of the German Sixth Army that was already far advanced.⁹ By 24 August, 3rd Ukrai-

nian Front's 46th Army had surrounded the Romanian Third Army along the shores of the Black Sea. The next day, the Romanian army surrendered; after several weeks of reorganization, it appeared in the Soviet order of battle. In late September, Romanian First Army, a garrison formation, mobilized against the Hungarians along the Transylvanian border.¹⁰ The entire southern flank of German defenses was suddenly exposed.

Faced with this collapse, isolated German units fought delaying actions with their customary skill and courage. The 10th Panzer-Grenadier Division, in particular, conducted a long rearguard action in the vicinity of Iasi, allowing numerous Romanian and German units to escape the trap. Meanwhile, most of four corps of the German Sixth Army became trapped in a large pocket east and southwest of Kishinev. With overwhelming air superiority, the Soviets pounded this encirclement during the hot days in late August. German defenders stubbornly attempted to break out, stretching the pocket to the west. They were unwittingly assisted in this by Tolbukhin, who asked the *Stavka* to remove 4th Guards Army, a 2nd Ukrainian Front formation that had entered the sector of his 3rd Ukrainian Front. The method chosen to resolve this issue was to send 4th Guards Army northward to cross the Prut River and retrace its steps on the western bank of that river.

By this stage of the operation, 6th Tank Army and the other mobile forces were well to the southwest, and 5th Shock Army, involved in the original penetration, had begun entraining for redeployment north to Poland. Thus, the movement of 4th Guards Army on 27–28 August created a power vacuum near the Kishinev pocket, facilitating the German attempt to break out. The bubble around the surviving elements of Sixth Army moved westward until 5 September, when Major General A. O. Akhmanov's 23rd Tank Corps returned from the south to block them. Within sight of escape at the Siret River, the remnants of Sixth Army were finally brought to bay and destroyed.¹¹

By 29 August, Army Group South Ukraine had suffered a fate similar to that of Army Group Center—the destruction of Sixth Army and the two Romanian armies and the utter collapse of the German front in Romania. The Germans lost control of the Ploesti oil fields and Bucharest by 2 September. German and Romanian losses exceeded 400,000 men, at a cost to the Soviets of 67,000 casualties.¹² On 1 September, Army Group South, the new designation for Army Group South Ukraine, had strength returns of only 200,000 Germans and 2,000 Axis forces.¹³ An Axis retreat ensued across the Carpathians, not halting until Soviet forces had penetrated Bulgaria and swung westward into the plains of eastern Hungary.

One further complication for both sides was the premature mutiny of part of the satellite Slovak Army in north-central Slovakia, beginning on 29 August 1944. Unfortunately for the rebels, the unit of their army closest to the Soviets did not join the mutiny, leaving the Slovaks more than 200 kilometers

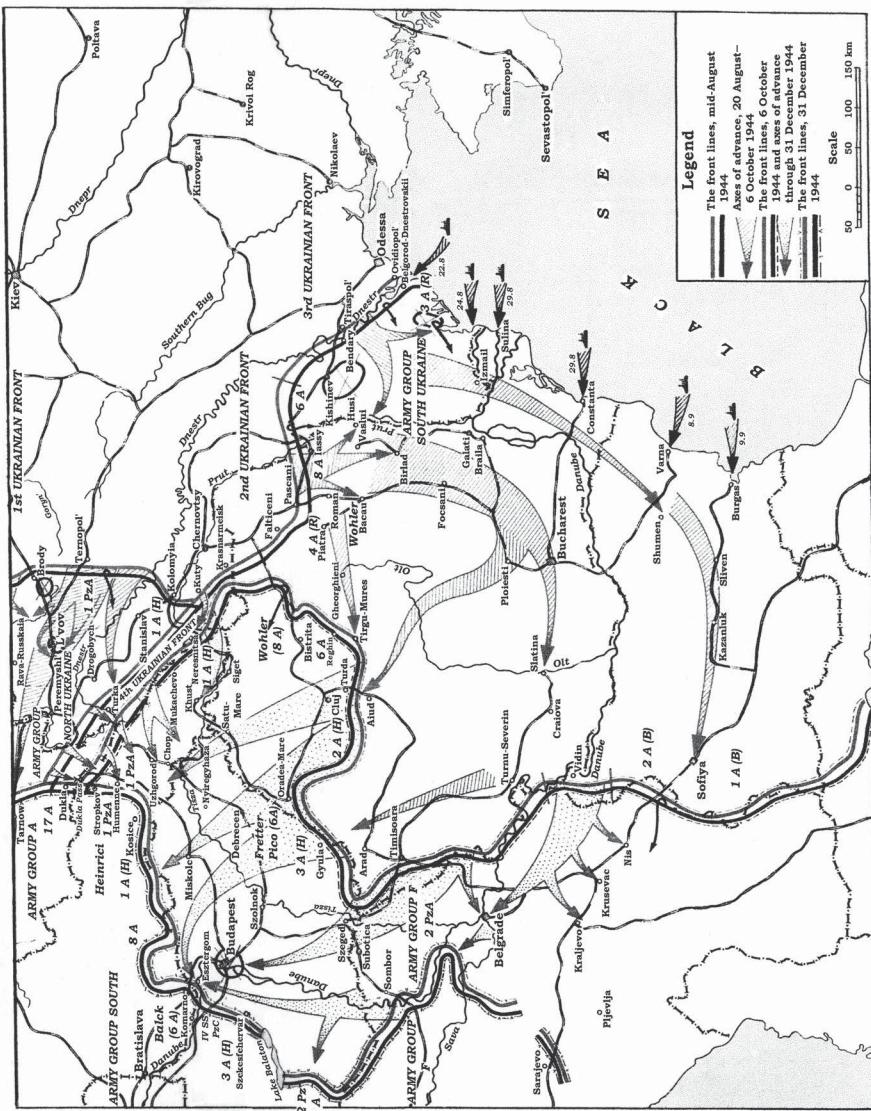
from the nearest assistance. The Germans quickly disarmed the rest of this army before another Romanian-style reversal could occur. The exile Czech government in London, aided by the American Office of Strategic Services (OSS), provided the uprisings with weapons and advisers. During September, the *Stavka* flew in 2nd Czechoslovak Airborne Brigade, as well as an air regiment with La-5 fighters, to support the Slovaks, but the Soviet 38th Army, including 1st Czechoslovak Corps, was unable to advance beyond the Dukla Pass. By 27 October, the Germans had liquidated the rebellion.¹⁴

ADVANCE ON BUDAPEST

The Red pursuit continued across the Balkans, placing great demands on Soviet logistical capabilities. By this stage in the war, the distance that a Soviet offensive could cover depended more on its logistical support than on the strength of the Axis defenders. Germany had no operational reserves in the Balkans; all its available forces were committed to a vain effort to control the insurgents in Yugoslavia. Field Marshal von Weichs, commander of Army Group E, was already contemplating the evacuation of Greece, falling back through Yugoslavia. Like a great swinging door, the leading edge of the Soviet pursuit moved clockwise through the region.

By the end of September, Tolbukhin's 3rd Ukrainian Front had completed its sweep of Bulgaria. Leaving Lieutenant General M. N. Sharokhin's 37th Army to support the Bulgarian government, which now joined the Soviet war effort, Lieutenant General N. A. Gagen's 57th Army advanced into western Bulgaria. Supported by the Bulgarian 2nd Army, it prepared for future operations against German Army Groups E and F in Yugoslavia. Lieutenant General I. T. Shlemin's 46th Army, having entered Bulgaria, swept back into southern Romania and, supported by the Bulgarian 4th Army, advanced on Timisoara in concert with 2nd Ukrainian Front's left wing.¹⁵

Meanwhile, Malinovsky reorganized his forces for the advance across the Carpathians into eastern Hungary. Gorshkov's cavalry-mechanized group, followed by Lieutenant General F. F. Zhmachenko's 40th Army and Lieutenant General S. G. Trofimenko's 27th Army, cleared the passes through the Carpathians north of Ploesti into Transylvania. Kravchenko's tank army (newly redesignated as guards for its spectacular performance in Romania), with Lieutenant General I. M. Managarov's 53rd Army attempting to keep pace with it, swept west from Bucharest, crossed the Carpathians, and reached the Hungarian border west of Cluj. By the end of September, Malinovsky's forces had occupied the mountain passes on an 800-kilometer front and had pressed the weak covering forces of the German Eighth Army and Hungarian



Map 23. Soviet Advance through the Balkans, Fall of 1944

Second and Third Armies back to and in some cases across the Hungarian border.

Malinovsky's *front* now consisted of four combined-arms armies (the 40th, 7th Guards, 27th, and 53rd), 6th Guards Tank Army, a cavalry-mechanized group, several separate mobile corps, and the Romanian 1st and 4th Armies, newly incorporated into the Soviet fold. The *Stavka* ordered Malinovsky to destroy German and Hungarian forces in Hungary and drive that state from the war. Supporting him would be Colonel General I. E. Petrov's 4th Ukrainian Front, recently reactivated in the northern Carpathians between 1st and 2nd Ukrainian Fronts.

To conduct these operations, the *Stavka* reinforced Malinovsky with 46th Army (and soon thereafter also with 4th Guards Army) from Tolbukhin's *front* and two mechanized corps, 2nd Guards and 4th Guards. Malinovsky also gained a second cavalry-mechanized group, consisting of 2nd and 4th Guards Cavalry Corps and 7th Mechanized Corps, commanded by Lieutenant General I. A. Pliev, the great practitioner of cavalry operations in adverse terrain who had again distinguished himself in Belorussia. Because 2nd Ukrainian Front was deployed on an excessively broad frontage, its operational densities remained low throughout the Hungarian operations, and logistical sustainment was difficult. Malinovsky was therefore forced to conduct a series of multiarmy operations, each preceded by a short operational pause and limited redeployment of forces. In particular, he had to husband and reshuffle his mobile elements.¹⁶

Malinovsky's initial plan called for an advance in the center from Oradea-Mare, on what is now Romania's northwestern frontier, toward Debrecen in southeastern Hungary. Flank armies would meanwhile clear northern Romania and advance into southern Hungary via Szeged. Malinovsky sought to trap all German forces in eastern Hungary in a pincer between his 2nd and Petrov's 4th Ukrainian Fronts. In early September, Petrov, in conjunction with General Moskalenko's reinforced 38th Army, on the left wing of 1st Ukrainian Front, had begun a thrust into the Carpathian Mountains from the western Ukraine through the Dukla Pass. Petrov's mission was to exploit gains made in the Lvov-Sandomierz operation and assist the abortive uprising in Slovakia. Thereafter, the *Stavka* directed Malinovsky to seize Debrecan and then swing his forces northward along the eastern bank of the Tisza River through Chop to Uzhgorod. There, his forces were to link up with those of 4th Ukrainian Front and 38th Army, encircling and destroying all German and Hungarian forces in eastern Hungary.¹⁷ With that accomplished, Malinovsky's *front* could resume its westward advance on Budapest virtually unimpeded. Meanwhile, Tolbukhin's 3rd Ukrainian Front was to advance to seize Belgrade.

German defenses in Hungary were thin. General of Infantry Johannes Friessner, commander of the renamed Army Group South, had two German

and two Hungarian armies available to him for the defense of the country. German Eighth Army (Group Wöhler) was withdrawing from Transylvania to positions east of Cluj, and a reorganized Sixth Army (Group Fretter-Pico) covered the Oradea-Cluj sector, along with elements of Hungarian Second Army. From Oradea, Hungarian Third Army held a long defensive line westward to Szeged, the boundary with Army Group F in Yugoslavia. The only German operational reserves were 23rd Panzer Division plus the lead elements (1st Panzer Division) of a four-panzer division task force promised by Hitler to reinforce Friessner's hard-pressed army group.¹⁸

The first phase of the new Soviet Debrecen operation began on 6 October 1944 at the junction of the German Sixth and Eighth Armies.¹⁹ Within three days, Group Pliev had advanced 100 kilometers northwest to the Tisza River. When Kravchenko's 6th Guards Tank Army failed to seize Oradea, Malinovsky quickly moved Pliev's group eastward from the Tisza to assist. Together, on 12 October, the combined mobile forces seized Oradea, and 53rd Army moved on Debrecen. Pliev's mobile group, combined with that of Gorshkov, then captured Debrecen on 20 October after stout resistance by III Panzer Corps' 1st, 13th, and 23rd Panzer and *Feldherrnhalle* Panzer-Grenadier Divisions. While 53rd and 7th Guards Armies drove westward to clear Axis forces from east of the Tisza River, Group Pliev, still reinforced by Group Gorshkov (5th Guards Cavalry and 23rd Tank Corps) thrust northward toward Chop with a force of about 400 tanks and SP guns. After a spectacular dash to Nyiregyhaza, 40 kilometers north of Debrecen, Pliev's force was struck by a well-orchestrated counterstroke by III Panzer Corps and Group Wöhler's XVII Army Corps, which severely damaged the two cavalry-mechanized groups and severed their communications. Between 21 and 26 October, 1st, 13th, and 23rd Panzer Divisions encircled and mauled Pliev's forces, claiming to have destroyed 200 of his 389 tanks and SP guns.²⁰ By 27 October, out of supplies and very worn down, Pliev's and Gorshkov's forces abandoned their advanced positions and most of their equipment to withdraw south.

On 15 October 1944, Admiral Miklós Horthy attempted again to make a separate peace with Moscow, but the Germans took him into custody the next day. Thereafter, the Hungarian government was in the hands of the Arrow Cross Party, which followed the Nazi line on Jews and fanatical defense of the country.²¹

After failing to destroy German and Hungarian forces in northern and eastern Hungary, on 28 October the *Stavka* was left with no choice but to direct Malinovsky to advance his left wing toward Budapest from Szeged.²² On 29 October, Malinovsky's forces, spearheaded by 2nd and 4th Guards Mechanized Corps, penetrated Hungarian Third Army's defenses and advanced through Kiskoros and Kecslemet to the southern approaches to

Budapest. Resistance from the hastily redeployed III Panzer Corps (1st and 13th Panzer Divisions and Panzer-Grenadier Division *Feldherrnhalle*), assisted by 23rd and 24th Panzer Divisions and by Hungarian forces, brought the Soviet advance to an abrupt halt on 3 November, short of the capital city.

After redeploying Group Pliev and 2nd and 4th Guards Mechanized Corps eastward, Malinovsky struck at Szeged, east of Budapest, on 10 November. Ten days later, however, bad weather and German resistance again halted the Soviets short of Budapest. Farther south, Tolbukhin's 3rd Ukrainian Front had completed the liberation of Belgrade and advanced to the banks of the Danube River near Sombar. On 27 November, Tolbukhin attacked across the river with Lieutenant General N. A. Gagen's 57th Army and Lieutenant General I. V. Galatin's 4th Guards Army. By 3 December, against light resistance, Tolbukhin's two armies reached the shores of Lake Balaton, southwest of Budapest. The Red Army was on the verge of seizing Germany's last oil field.²³

Malinovsky struck again on 5 December, this time north and south of Budapest in a two-pronged attack to seize the city. Kravchenko's 6th Guards Tank Army and Pliev's cavalry-mechanized group advanced to envelop the city from the north via Sáhy; a second force, spearheaded by Lieutenant General K. V. Sviridov's 2nd Guards Mechanized Corps, advanced south of Budapest from small bridgeheads over the Danube River, which the Soviets had seized in late November. From there, this second force secured Székesfehérvár and Esztergom, west of Budapest. Despite a spectacular initial Soviet advance, the Germans shifted their operational reserves and prevented Budapest from being captured or encircled. The Red advance south of the city bogged down against the German Margareite Defense Line between Lake Balaton and the southern outskirts of Budapest. Both 6th Guards Tank Army and Pliev's cavalry-mechanized group came to a halt in the hills north of the Danube.

While Malinovsky's new offensive unfolded and ultimately faltered, at the beginning of December the OKH dispatched reinforcements to Friessner in the form of 3rd and 6th Panzer Divisions plus three sixty-tank Tiger battalions to restore the situation.²⁴ The question was where to use this armor to greatest effect: in the north, against 6th Guards Tank Army, or in the south, against Tolbukhin's developing advance toward Lake Balaton? A nasty debate ensued between the OKH and Friessner, which was further complicated by poor weather that limited the mobility of the armored reinforcements. In the end, Friessner deployed the infantry from the panzer divisions to the north and left the unsupported armor to bolster defenses in the south.

The bad weather and German maldeployments played into Malinovsky's and Tolbukhin's hands. On 20 December 1944, the two generals struck strongly on both sides of Budapest. The 6th Guards Tank Army and Pliev's

Cavalry-Mechanized Group, supported by General Shumilov's 7th Guards Army, rolled up the German defenses in the north, reaching the Danube opposite Esztergom on 27 December. Meanwhile, Tolbukhin's 46th and 4th Guards Armies, supported by 18th Tank, 2nd Guards, and 7th Mechanized Corps and by General Gorshkov's 5th Guards Cavalry Corps, penetrated the Margareithe Line. Routing the unsupported German armor, these Soviet units plunged northwestward to Esztergom.²⁵ By 27 December, the two *fronts* had linked up along the Danube, leaving IX SS Mountain Corps' four divisions and two Hungarian divisions trapped inside Budapest. Because of this catastrophe, both Johannes Friessner and Maximilian von Fretter-Pico were relieved of command. Wöhler became commander of Army Group South, and General Hermann Balck, one of the few remaining practitioners of armored warfare, took command of Sixth Army.²⁶

Too late, the lead elements of IV SS Panzer Corps began to arrive in the area a few days later. Throughout the remainder of December and into January 1945, the Soviets parried heavy counterattacks by the SS to relieve the beleaguered garrison.²⁷ Although the German thrusts failed, their partial success encouraged Hitler to develop what became the final major German offensive of the war—at Lake Balaton in March 1945.

As Malinovsky and Tolbukhin ravaged German defenses in the Balkans, the Soviets began operations to penetrate the German Carpathian Mountains and reach Slovakia and northeastern Hungary. On the 1st Ukrainian Front's left flank, 38th Army, commanded by Colonel General K. S. Moskalenko, was the first to strike in early September toward the Dukla Pass. This was an attempt to link up with the Slovak rebels, who as noted previously had revolted against German authorities, and if possible to cooperate with 2nd and 4th Ukrainian Fronts' advance on Uzhgorod.²⁸ On 8 September, Moskalenko used his three rifle corps to penetrate near Krosno, after which 25th, 4th Guards, and 31st Tank Corps and 1st Guards Cavalry Corps were to exploit and seize the pass. General Ludwig Svoboda's 1st Czech Corps (14,900 men) and Czech tank and airborne brigades participated in the operation.

The initial Soviet success was short-lived, as the Germans dispatched 1st and 8th Panzer Divisions and other reinforcements to bolster Colonel General Gotthard Heinrici, commander of First Panzer Army. As mentioned in chapter 13, Moskalenko penetrated the German defenses and committed his mobile forces into the operation, but German counterattacks thwarted further advances, encircled Lieutenant General V. K. Baranov's 1st Guards Cavalry Corps for several days, and turned back the Soviet threat short of the Dukla Pass; Baranov's corps lost most of its equipment in the process.

On 9 September, Petrov's 4th Ukrainian Front joined the attack, advancing with Colonel General A. A. Grechko's 1st Guards Army and Major General I. M. Afonin's 18th Separate Guards Rifle Corps toward Uzhgorod.²⁹

Again, a successful initial attack degenerated into a slugging match that slowed Soviet progress. In almost two months of heavy fighting, First Panzer and Hungarian First Armies gave ground only grudgingly; by 28 October, Soviet forces had taken Uzhgorod and Mukachevo in Ruthenia but had failed to clear Slovakia of German forces. By this time, Petrov's right flank had joined Malinovsky's forces near Chop on the Tisza River. Further progress by the joined flanks of the two *fronts* remained slow and painstaking throughout the remainder of 1944 and into 1945. His defensive efforts earned Heinrichi the sobriquet of Germany's finest defensive specialist and, on 20 March 1945, command of German forces along the Oder River.

The campaign against the German southern flank had made major gains, driven Romania from the Axis camp, and added several Romanian and Bulgarian armies to the Red Army's order of battle. It also struck a major economic blow to the dwindling Third Reich by depriving Germany of the Hungarian granary and the oil fields of Romania and Hungary that were so critical to the German war effort. Militarily, operations in Hungary drew to the region critical German armored reserves, including 1st, 3rd, 6th, 23rd, and 24th Panzer Divisions as well as two superbly equipped divisions of IV SS Panzer Corps. The absence of these units from the critical Warsaw-Berlin axis would soon prove disastrous for the German cause.

DRIVE TO THE BALTIC COAST

In the late summer and fall of 1944, equal disaster befell the German northern flank. During the pursuit phase of the Belorussian operation, the Soviets vigorously exploited the gap between Army Groups Center and North in the Siauliai operation, which began on 5 July as an extension of the Belorussian offensive. By 31 July 1944, the forward detachments of three armies from the 1st Baltic Front—Lieutenant General A. P. Beloborodov's 43rd, Lieutenant General Ia. G. Kreiser's 51st, and Lieutenant General P. G. Chanchibadze's 2nd Guards Armies, spearheaded by Lieutenant General V. T. Obukhov's 3rd Guards Mechanized Corps—had pressed through the gap to the Gulf of Riga. Lieutenant General I. M. Chistiakov's 6th Guards Army covered the Latvian capital on their right flank.³⁰ This thrust and the narrow Soviet corridor to the Baltic that resulted severed communications between Army Groups Center and North.

One of Guderian's first tasks as chief of the Army General Staff was to eliminate this penetration. After much argument, in mid-August the Germans assembled a few separate tank and self-propelled gun brigades to launch a limited counterattack (Operation Doppelkopf) near Riga. This force, supported by gunfire from the heavy cruiser *Prinz Eugen* and several

destroyers, chopped off the overextended Soviet spearhead at the coastline and established an east–west corridor about 30 kilometers wide between the two German army groups.³¹

Farther to the south, in Lithuania, XXXX and XXXIX Panzer Corps of Third Panzer Army received a more generous share of Guderian's meager reserves. Three understrength panzer divisions (the 5th, 7th, and 14th), plus the Panzer-Grenadier Division *Grossdeutschland*, attacked eastward on 17 August, seeking to seal off the Soviet penetration and retake the key communications junction of Siauliai.

Blitzkrieg had lost its magic. General Bagramian, commanding the 1st Baltic Front, reacted promptly by establishing a deep defensive system in the path of the German advance.³² Most Soviet units were now lavishly supported by a mixture of towed and self-propelled antitank guns, both of which were a match for German armor. Chanchibadze's 2nd Guards Army, the Soviet unit threatened most directly, deployed its main antitank reserve, the 93rd Antitank Brigade. Behind this army, Bagramian set up a second defensive belt, using two rifle divisions and several other antitank brigades. In addition, he committed Lieutenant General V. V. Butkov's 1st Tank Corps, Lieutenant General V. T. Obukov's 3rd Guards Mechanized Corps, and Lieutenant General M. D. Solomatin's understrength 5th Guards Tank Army (recently returned from operations to seize Kaunas, Lithuania) as counterattack forces. This rapid reaction, in combination with significant Soviet air superiority, contained the German attack by 20 August. Third Panzer Army had reopened a narrow corridor to Army Group North but at a prohibitive cost.

As 1st Baltic Front pushed through Siauliai to reach the shore of the Baltic south of Riga, beginning on 10 July 2nd Baltic Front drove westward against Army Group North's Sixteenth Army, capturing Idritsa, Sebezh, and Drissa by 15 July; Daugavpils and Rezekne by 30 July; and Jekabpils and Madona in eastern Latvia by 13 August. On 2nd Baltic Front's right, a week later 3rd Baltic Front attacked the right wing of Army Group North's Eighteenth Army. This strike seized the Panther Line fortress cities of Pskov and Ostov by 23 July and pushed deep into southeastern Estonia and eastern Latvia by 31 July. Resuming its offensive on 10 August, 3rd Baltic Front's 67th Army captured Tartu in southern Estonia on 28 August before being halted by a strong German counterattack, while the front's 1st Shock Army reached the eastern outskirts of the Latvian city of Valga. Completing this mosaic of incessant assaults against Army Group North, on 24 July the Leningrad Front's 2nd Shock Army mounted a daring amphibious operation across the Narva River. In cooperation with 8th Army attacking from the bridgehead across that river south of the city, 2nd Shock surprised III SS Panzer Corps and seized Narva two days later. However, a renewed offensive by the Leningrad Front on 3 August, intended to capture Tallinn, faltered a week later in the

face of stout German and Estonian resistance at hilltops around the village of Simimae.³³

The heavy fighting in July and August along Army Group North's entire front left the force a mere shell of its former self. With many of its divisions diverted to plug the gap in Belorussia and its remaining units tired and understrength, the army group as a whole was ripe for collapse. Early on 29 August, the *Stavka* settled Army Group North's fate by directing the 1st, 2nd, and 3rd Baltic Fronts to attack and destroy it and capture Riga. On 10 September, *Stavka* ordered the Leningrad Front to smash and destroy Army Detachment (*Abteilung*) Narva and capture Estonia's capital, Tallinn.³⁴

The three Baltic *fronts* began their offensive on 14 September by attacking concentrically toward Riga. Farther north, the Leningrad Front joined the fray three days later, attacking Army Detachment Narva from north and south of Lake Chud (Peipus). With a combined force of 1,215,000 men, 27,373 guns and mortars, 2,341 tanks and SP guns, and 3,056 aircraft, the four *fronts* outnumbered Army Group North's forces three to one in manpower and far more in weaponry. The results were predictable.³⁵

Protecting its left wing and center in the Siauliai and Jelgava regions with four armies, Bagramian's 1st Baltic Front advanced directly on Riga from the south with 43rd and 4th Shock Armies. By 22 September, Bagramian's forces captured Baldone, 30 kilometers south of the city. Army General A. I. Eremenko's 2nd Baltic Front and Lieutenant General I. I. Maslenikov's 3rd Baltic Front joined the advance, the former attacking due west toward Riga and the latter from the northeast, seizing Valga and Valmiera with Lieutenant General N. D. Zakhvataev's 1st Shock Army. On 1st Shock's left, Lieutenant General N. P. Simioniak's 67th Army captured Mazsalaca on 25 September and pushed on to the Gulf of Riga. Farther north and attacking on 17 September, Lieutenant General I. I. Feduninsky's 2nd Shock Army smashed German defenses north of Tartu and linked up with 8th Army advancing westward from the Narva region. This offensive crushed Army Detachment Narva's defenses, captured Tallinn by 23 September, and pushed the defenders back to Estonia's western islands. These simultaneous blows brought the entire defensive structure of Army Group North to the brink of collapse.³⁶

General Ferdinand Schörner, appointed as commander of Army Group North on 23 July, had learned much from the German defeat in Romania. He recognized that his position in Estonia and Latvia was untenable and that the narrow corridor between the two army groups was a hostage to any serious Soviet attack. Therefore, he orchestrated a general German withdrawal, under heavy pressure by Soviet forces, back toward Riga.³⁷

By the end of September 1944, Marshal Govorov's Leningrad Front had cleared German forces from all of Estonia except the Baltic islands. Maslenikov's and Eremenko's 2nd and 3rd Baltic Fronts were approaching Riga,

and Bagramian's 1st Baltic Front had fended off German counterattacks, seized Elgava and Dobele, and threatened Riga from the south. However, Schörner's army group had stiffened its resistance outside the city, bolstered by heavily prepared defenses covering the approaches.

Faced with these realities and anticipating new German attempts to solidify the link between Army Groups North and Center, the *Stavka* decided to attack by advancing between the two German groups to the coastline. To do so required changing the 1st Baltic Front's axis of advance from Riga to the west and southwest. On 24 September, the *Stavka* ordered the Leningrad Front and the Baltic Fleet to complete the liberation of Estonia and to mount an amphibious operation against German forces on the Hiiumaa and Saaremaa Islands, the largest islands off the Estonian coast. Meanwhile, 2nd and 3rd Baltic Fronts were to storm Riga and clear the Baltic coast of Germans. More importantly, Bagramian's 1st Baltic Front and part of Colonel General I. D. Cherniakhovsky's 3rd Belorussian Front would deliver a powerful blow along the Siauliai-Memel' axis, capture Memel' and Libau (Liepaja) to cut off Army Group North from East Prussia, and facilitate future destruction of all German forces in the Baltic region.³⁸ To support this assault, Cherniakhovsky was to prepare for an attack along the Königsberg axis into East Prussia.

The reorientation of 1st Baltic Front's operations required an immense reorganization of 1st and 2nd Baltic Front forces and logistics. The resultant shock group included 6th and 2nd Guards, 4th Shock, and 43rd Armies backed up by the *front* mobile group, the refitted 5th Guards Tank Army, with 51st Army in second echelon. Between 24 September and 4 October, Bagramian secretly moved five armies comprising fifty rifle divisions, fifteen tank brigades, and ninety-three artillery regiments into new attack positions.³⁹ The Germans detected the Soviet preparations but were too late to prepare an effective defense.⁴⁰

Bagramian struck on 5 October, and by evening, Vol'sky's 5th Guards Tank Army was exploiting deep into the German rear area. By the 9th, Vol'sky's headlong exploitation had overrun Third Panzer Army headquarters and reached the Baltic coast north and south of Memel', locking the German XXVIII Army Corps into the encircled city while isolating another Third Panzer Army corps, along with the remainder of Army Group North, in the Riga area and Courland.⁴¹

Given this unpleasant situation, Schörner insisted that Army Group North had to withdraw into the Courland Peninsula. This withdrawal took place under fire. Breaking contact with a determined Soviet opponent and reestablishing a new, longer defensive line in Courland required great skill and daring. By 23 October 1944, Army Group North had accomplished this, securing its flanks and in the process salvaging most of its troops and supplies.⁴²

German generals have cited Hitler's insistence on maintaining some 200,000 men, including two panzer divisions, in the Courland Pocket as another example of the dictator's stubbornness. Viewed from the OKH or land perspective, such a criticism has some merit, although the renamed Army Group Courland did keep six Soviet field armies tied down and inflicted significant casualties upon those armies until the army group surrendered, still intact, in May 1945. However, Admiral Karl Dönitz, commander of the *Kriegsmarine* (German Navy) had lobbied Hitler about the strategic importance of controlling the Baltic. With Finland's withdrawal from the war, the Soviet Baltic Fleet had an opportunity to sortie into that sea, threatening German ore supplies from Scandinavia as well as the German Navy's ability to evacuate ethnic Germans from the Baltic coast and especially to train new U-boat crews. Dönitz apparently convinced Hitler that the best strategy for winning the war at this late date was to maximize development of the sophisticated Type XXI submarine. Holding the Courland gave at least the appearance that the Germans had forward naval bases, while denying the Red Navy free rein in the region.⁴³

The *Stavka* next turned its attention to the remnants of Third Panzer Army digging in along the borders of East Prussia. While 1st Baltic Front approached the Neman River from the north, the *Stavka* authorized Chernia-khovsky's 3rd Belorussian Front to strike into Prussia along the Gumbinnen-Königsberg axis. In the ensuing Gumbinnen-Goldap operation, Chernia-khovsky planned to penetrate German defenses with 5th and 11th Guards Armies and then exploit with 2nd Guards Tank Corps and the fresh 28th Army of Lieutenant General A. A. Luchinsky.⁴⁴ The 31st and 39th Armies would support on the flanks.

On 16 October, Colonel General N. I. Krylov's 5th and Colonel General K. N. Galitsky's 11th Guards Armies went into action and drove 11 kilometers into the German defenses. The following day, 31st and 39th Armies joined the assault, and Galitsky's strong army crossed the East Prussian border. German fortifications were so formidable that it took four days for Cherniakhovsky's armies to penetrate the tactical defenses. The second defensive line along the German border proved so strong that Cherniakhovsky committed 28th Army to battle, but the entire advance ground to a halt in the Stalupönen defensive region as heavy German panzer reinforcements stiffened the defense. Fighting continued until 27 October as the flank Soviet armies closed up with 11th Guards Army's forward positions. At heavy cost in casualties, the Soviets had advanced 50 to 100 kilometers into East Prussia, and they learned from experience what preparations would have to be made in the future to conquer the East Prussian bastion.

THE FAR NORTH

Colonel General Lothar Rendulic, commander of the German Twentieth Mountain Army, had saved most of his forces while withdrawing from Finland after the latter's September armistice with Moscow (see chapter 13). The OKW staff had persuaded Hitler that the entire region should be evacuated, but this second evacuation had not yet begun when, on 7 October 1944, the Soviets launched their last offensive in the north, the Petsamo-Kirkenes operation.⁴⁵ Although this operation did not contribute decisively to ultimate Soviet victory and was dwarfed in scale by other operations to the south, it was unusual both because of its venue and because it combined land and amphibious operations.

The setting for this campaign was unique, with its harsh, lunar terrain and equally harsh weather. The fact that the ground had not yet frozen in October made cross-country movement even more difficult. The outcome of the entire offensive hinged on control and use of the few east-west roads in the area, and each side dedicated large numbers of engineer troops to creating and maintaining these roads.

Marshal Meretskov, the Karelian Front commander, and some of his subordinates were veterans of the Finnish wars and had considerable knowledge of the difficulties of Arctic warfare. Most Soviet troops in the area lacked the broader experience that their southern counterparts had acquired in the preceding three years. Still, as was characteristic of this final development of the Red Army, the *Stavka* provided Meretskov with a number of units that were specially configured for operations in the Arctic region. The most unusual were the 126th and 127th Light Rifle Corps, infantry units that were authorized 4,334 ski troops and naval infantry each. These units were designed to fulfill the deep penetration and bypass role ordinarily performed by large mechanized formations. Meretskov also assembled thirty engineer battalions, numerous horse- and reindeer-equipped transportation companies, and two battalions of U.S.-supplied amphibious vehicles for river crossings. Under the overall command of the Karelian Front, Lieutenant General V. I. Shcherbakov, a veteran of the Russian Civil War and the 1939 Finnish conflict, headed 14th Army, controlling Meretskov's maneuver elements.

Meretskov aimed the main attack at the German 2nd Mountain Division on Rendulac's southern flank, with the intent of bypassing and encircling the entire German force. The attack plan included all the elaborate preparations typical of a 1944 Soviet penetration: 2,100 artillery tubes, half of them mortars, plus 750 aircraft of 7th Air Army to support the offensive. The preparatory artillery fires included 140,000 rounds of conventional artillery and 97 tons of multiple-rocket launcher ammunition. Shcherbakov even had 110

tanks and assault guns despite the difficult terrain and the total absence of German armor in the region. Overall, 14th Army outnumbered the German XIX Mountain Corps, the target of the offensive, by 113,200 to 45,000.⁴⁶

Despite these preparations, the initial attack on 7 October was hampered by poor visibility, making air and artillery support difficult. The 131st Rifle Corps quickly achieved a bridgehead over the Titovka River in the German center, but 99th Rifle Corps, responsible for the main attack against 2nd Mountain Division in the south, found that its planned fire support had not suppressed the German guns. By the time that the 99th had reorganized to continue the attack, the Germans had withdrawn behind the Titovka and blown their bridges. The absence of roads hampered the forward displacement of supplies and artillery, so that the Soviet troops rapidly outran their support. Meanwhile, on the night of 9–10 October small elements of the 63rd Naval Infantry Brigade landed at three points along the German left flank. These landings threatened to cut the main highway along the coast.

On the morning of 13 October, the Soviets were poised to attack the northern anchor of the German defenses, the port of Petsamo, Finland, from three sides. Meanwhile, 126th Light Rifle Corps had established a weak blocking position across the only escape road to the west, behind XIX Mountain Corps. Rendulic authorized XIX Mountain Corps to withdraw, and 2nd Mountain Division was able to break through the Soviet roadblock on 14 October. Petsamo fell to the Soviets the following day, but the Soviet troops were so exhausted that Shcherbakov had to order a three-day pause.

The rest of the Petsamo-Kirkenes campaign was a race along the northern coast of Norway. Time after time, the light rifle corps or other small Soviet units outran the Germans and established roadblocks, only to be so short of food and ammunition that they were unable to hold their positions. Aerial resupply alleviated some of these problems, but the bulk of the German forces escaped. Soviet armor was restricted to the coastal road and played a very limited role. German rearguard actions, supported by artillery and (as they withdrew into Norway) by aircraft, repeatedly delayed the Soviets. Finally, on 29 October, with the polar night approaching, Meretskov halted all operations except reconnaissance.

The Petsamo-Kirkenes operation freed the Soviet Arctic flank and eventually denied the Germans the nickel and iron supplies from several mines in the region. On the negative side, despite all their effort to anticipate problems, the Soviet commanders had underestimated the difficulties of moving on such terrain. The light infantry forces involved on both sides encountered the inherent limitations of physical exhaustion. It is not surprising, however, that Meretskov and his staff were among those sent to the Far East in the summer of 1945. There, they applied the lessons of Petsamo-Kirkenes in their plans to defeat the Japanese in the equally harsh terrain of Manchuria.

CONCLUSIONS

Overall, the summer and fall of 1944 entailed an unmitigated string of disasters for the German forces. The summer offensives alone cost the Axis forces an estimated 465,000 soldiers killed or captured. Between 1 June and 30 November, German losses on all fronts totaled 1,457,000, of which the Soviets inflicted 903,000 (62 percent). Equally important for an army with few motor vehicles outside of the panzer units, the Germans lost 254,000 additional horses and other draft animals.⁴⁷ Moreover, no matter how much they criticized their allies, the outnumbered Germans could not replace the satellite armies they lost during this period. By the end of 1944, only the puppet government of Hungary remained at Germany's side. The Germans felt besieged and isolated, with the Red Army lodged in East Prussia in the north, along the Vistula River in Poland, and across the Danube into Hungary and with Allied armies within striking distance of Germany's western borders. Perhaps the only advantage of this contraction was one of interior lines, with the Germans now shifting forces within much shorter defensive perimeters, but even this was hampered by a shift in Allied bombing to focus on the railway system.

Some of these defeats can be attributed directly to errors not only by Hitler but also by his generals, who were defeated by the imaginary forces in Soviet deception plans almost as often as they were overwhelmed by the increasingly sophisticated actual soldiers of the Red Army.

The Soviet Union also suffered heavily during this period, moving ever closer to the bottom of its once limitless barrel of manpower. In an effort to compensate for this, Soviet plans used steadily increasing amounts of artillery, armor, and airpower to reduce manpower losses. In the process, the Soviet commanders had the opportunity to test their operational theories within a variety of tactical and terrain considerations. Their commanders, like all generals, still made occasional mistakes, but they entered 1945 at the top of their form.

By the end of 1944, the Red Army was strategically positioned to conquer the remainder of Poland, Hungary, and Austria in a single campaign. It had already gained control of most of the Baltic and Balkan regions, thereby achieving one of Stalin's postwar security objectives. Soviet-style shadow governments had followed the Red Army into each conquered capital. The Yalta Conference, to be held in February 1945, would tacitly legitimize these regimes, while creating new opportunities for expanding Soviet control over most of central Europe.

The only questions that remained were whether this last strategic thrust would propel Soviet forces to Berlin and, if so, where the Western Allies would be when the Soviets reached the German capital. Where the contending

armies advanced in 1945 would have a decisive influence over the political complexion of postwar central and western Europe. This stark fact underscored the importance of subsequent operations during the race for Berlin. Coincidentally, it generated considerable suspicion in the respective Allied camps, even as it impelled the Red Army to alter its strategic plans and suffer more casualties.

CHAPTER FIFTEEN

Battles in the Snow, Winter 1944–1945

THE ARDENNES AND HUNGARY

The first shots that led to the Soviet occupation of Poland were actually fired in the Ardennes Forest, 800 kilometers to the west of the Vistula River. On 16 December 1944, Hitler launched a major offensive in the Ardennes region, committing much of his available mechanized forces in an effort to knock the Western Allies out of Europe before the next Soviet blow fell in the East. General von Manteuffel's Fifth Panzer Army and SS-*Obergruppenführer* "Sepp" Dietrich's Sixth SS Panzer Army, supported on the flanks by two infantry armies, attempted to rush through the region as they had done in 1940, seizing the Meuse River bridges and ultimately dividing the Allied front. In weeks of desperate fighting, the German offensive fell short of its goal, halted by a combination of skillful armored maneuvers, stubbornly held road junctions, and, when the skies cleared, overwhelming Allied tactical airpower.

In the crisis of the Bulge, the Western governments asked Stalin to take the pressure off them by resuming the offensive. As will be described, Stalin responded by launching his next major offensive eight days ahead of schedule. This episode only reinforced the Soviets' belief that they were carrying the brunt of the war. It is worth noting, however, that the growing concentration of German mechanized forces and logistical support in the West made the Soviet task in the East far easier than it would otherwise have been; after three years of complaints, the Soviets had finally gotten a true "Second Front."

Similarly, continued Soviet operations in Hungary had the desired effect of drawing off German forces from Poland. In late December, Marshal Malinovsky's 2nd Ukrainian Front and Marshal Tolbukhin's 3rd Ukrainian Front had renewed their offensive, penetrating the imposing German Margarethe defenses located between Lake Balaton and the southern outskirts of the capital and thereby encircling three SS divisions, 13th Panzer Division, and numerous Hungarian units in the city itself. These trapped units totaled approximately 50,000 ill-trained Hungarian and 45,000 German troops, with perhaps 500 artillery pieces and 220 tanks and assault guns. Beginning on 29 December, Fourth Air Fleet attempted to resupply the city by air, but even when supplemented by teenagers flying gliders, this operation averaged only 47 tons per day, far less than the requirement.¹

The task of capturing the city was no mean feat, and the initial Soviet attacks into Budapest vividly demonstrated that seizure of the city would require considerable time and effort. To do so, Malinovsky created an ad hoc group consisting of three rifle corps (the 23rd, 10th Guards, and 37th Guards) of 46th Army to reduce Buda (on the western bank of the Danube) and 18th Separate Guards Rifle Corps, Romanian 7th Army Corps, and 30th Guards Rifle Corps from 7th Guards Army to seize Pest.² This divided command structure made little progress in the final days of December. The veterans of city fighting at Stalingrad were few and far between in the Red Army of 1944, and the Germans did their usual systematic job of organizing a defense. Moreover, the commitment of large Soviet forces inside the city weakened the outer encirclement line 40 kilometers west of Buda, thereby providing an opportunity for the Germans to mount a relief effort for their beleaguered garrison.

On Christmas Day, Hitler responded to the southern threat by directing the redeployment of IV SS Panzer Corps from the area north of Warsaw to Hungary.³ The full-strength SS divisions *Totenkopf* and *Wiking* detrained northwest of Budapest and launched a surprise night attack early on New Year's Day. They hit 4th Guards Army of Tolbukhin's *front* on its vulnerable western flank, just south of the Danube River. This violent attack, which nearly destroyed 18th Tank Corps, finally ground to a halt only 20 kilometers west of Budapest, blocked by redeployed reserves from 46th and 4th Guards Armies. On 6 January, a *Stavka*-directed counterattack by 6th Guards Tank Army jumped off north of the Danube in an effort to encircle the attackers, but it made little headway. The next day, III Panzer Corps launched a second German attack north of Székesfehérvár. Designed to take advantage of IV SS Panzer Corps' success in the north, it was halted by 4th Guards Army after only limited gains. This assault did indicate that Soviet defenses southwest of Budapest were relatively weak and perhaps could be crumbled by a larger German force.⁴

The German tactical commanders now showed flashes of their old brilliance. After conducting one more lunge toward Budapest from the northwest (10–12 January), which again alarmed the Soviets and drew more forces to that region, SS-*Obergruppenführer* Herbert Gille suddenly disengaged his IV SS Panzer Corps late on the 12th, redeployed to the Székesfehérvár area, and launched a renewed attack (Operation Konrad III) eastward, along with III Panzer Corps, on 18 January. To their good fortune, the Germans struck 135th Rifle Corps on 4th Guards Army's weakened left flank at a time when all supporting tanks and self-propelled guns had been withdrawn for maintenance. Within two days, Gille had brushed aside four Soviet corps and reached the Danube River. He then turned northward, striking back toward Budapest from the Soviet rear area. By 24 January, the SS panzers were

within 25 kilometers of the southern suburbs of the capital. However, Hitler would not permit the city garrison to break out, insisting that the attackers relieve the siege in place. At the same time, Malinovsky shifted large forces (the 18th and 23rd Tank, 1st Guards Mechanized, 5th Guards Cavalry, and 30th Guards and 133rd Rifle Corps) into blocking positions south of the city, gradually absorbing the German attack. After a final attempt to reach the city, on 27 January German forces began withdrawing to their initial positions.⁵

Soviet troops continued to inch forward into the city of Pest. On 10 January, the *Stavka* urged Malinovsky to establish more centralized control, and the next day, he appointed Major General I. M. Afonin, commander of 18th Guards Rifle Corps, to head the Budapest Operational Group. Afonin launched an attack to split Pest in two, reaching the Danube River on 14 January. In a world of snow and mist, Soviet assault squads and German defenders fought a deadly battle, block by block. The Red Army brought up artillery to use in the direct-fire mode, and the Red Air Force paralyzed German movements in daylight. As the defenders ran short of fuel and ammunition, their tanks and other heavy weapons gradually fell silent. On 12 January, the attackers seized the racetrack that had served as the last emergency landing strip for resupply aircraft. By the 17th, the remaining German defenders fell back to the river, only to find that the Soviets had used the sewers to reach the bank ahead of them. At least half of IX SS Mountain Corps ceased to exist; the Soviets claimed to have killed more than 36,000 defenders and captured 63,000 by 18 January. The misery of the remaining German defenders continued west of the river, in Buda.⁶

At this point, the *Stavka* instructed Malinovsky's 2nd Ukrainian Front to clear the western bank of the river, leaving Tolbukhin's 3rd Ukrainian Front to defend the outer encirclement against continuing German relief efforts. When Afronin was wounded in close-in fighting on 22 January, Colonel General I. M. Managarov, commander of 53rd Army and an experienced urban fighter, succeeded him in command of the assault group, which now consisted of 75th Rifle and 37th Guards Rifle Corps.

Both sides continued to suffer heavy casualties, with the fighting in Budapest approaching that of Stalingrad in ferocity. The struggle went on until 12 February, when half of the remaining German garrison of 26,000 men, as well as those Hungarians still opposing the Soviets, attempted to break out. In bloody and desperate fighting, this force perished, and on the following day, Buda fell.⁷ Loss of the city did not, however, end Hitler's fixation on operations in Hungary.

The Soviet Union could ill afford the losses suffered around Budapest, but the Germans could afford their own losses even less, especially the drain on armor that was critically needed elsewhere. Moreover, Soviet-German combat in Hungary throughout December 1944 and January 1945 served a

crucial strategic purpose for the Soviets by keeping Hitler's attention riveted to the south rather than focusing on the East. Most damaging to the German cause was Hitler's decision on 16 January to commit Sixth SS Panzer Army, belatedly withdrawn from the Ardennes, to Hungary rather than Poland. Hitler hoped to protect the oil field and shock the Soviets by a sudden defeat that would give Germany breathing space, but this was clearly a desperate gamble. The decision seemed even more incomprehensible coming as it did after the Red Army had renewed its offensive on the Vistula. Nonetheless, newly released comments by Hitler indicate he had genuine concerns about a major Soviet advance west of Budapest.⁸ In the meantime, bereft of additional strategic reserves, Germany's remaining eastern armies waited for the inevitable renewal of Soviet attacks along the crucial Warsaw-Berlin axis.

PLANNING FOR THE WINTER CAMPAIGN

Planning for this renewed offensive had begun in late October 1944. The victories of the summer and fall had created a much more favorable situation for Soviet offensive action: the overall front had been shortened from 4,450 kilometers to 2,250 kilometers, significant German forces were locked into the Courland, and the Soviet Union clearly held the strategic initiative. Soviet intelligence estimates indicate that during 1944, the Red Army had captured or destroyed ninety-six German divisions and weakened another thirty-three so significantly that they had to disband.⁹ New equipment, including the Iosif Stalin (IS) heavy tank, the SU-122 and SU-152 self-propelled assault guns, and newer models of multiple-rocket launcher, had also improved the technical capabilities of the Red Army. Still, even the seemingly inexhaustible strength of the Soviet Union had its limits, and the planners sought a means to achieve a rapid and relatively bloodless victory.

Once again, the *Stacka* evaluated the entire front to determine the locations and goals of the next offensive.¹⁰ In East Prussia, thirteen German divisions occupied as many as six successive defensive belts, some dating back to prewar times, to a depth of 120 kilometers. The previous Soviet attempt in October had indicated that any assault on these fortifications would become a slow, grinding, and expensive advance. Indeed, Marshals Zhukov and Rokossovsky had to persuade Stalin not to persist in the fall offensive in that area, where Soviet armies, weakened after a long advance, were suffering heavy casualties for little result.

At the other end of the front, the Soviets might have reinforced 2nd and 3rd Ukrainian Fronts, launching the main advance on Germany from Hungary. This would have been consistent with Stalin's continuing interest in controlling the Balkans, as shown at Tirgu Frumos in May 1944, Iasi-Kishinev

in August 1944, and Debrecen in October 1944. Like the Germans before them, however, the Soviet troops in the Balkans were operating on a logistical shoestring over difficult terrain and a limited rail and road network. At least for a time, the Hungarian-Austrian region was more useful as a means to divert German reserves than as a major strategic axis in its own right. But that would change in February.

Some 400 kilometers northeast of Budapest, the Soviet line jutted westward across the Vistula River around Sandomierz, where Konev's 1st Ukrainian Front had seized a bridgehead at the end of the 1944 summer offensives. West of this bridgehead lay the industrial regions of Katowice and Silesia, a tempting target for a Soviet state that had lost much of its own industry in the war. Yet, the factories and mines of these regions could easily become a trap, forcing the attackers to root out German defenders while destroying much of what they wanted to seize. Stalin therefore planned to bypass and encircle Silesia rather than assault it frontally.

The remaining avenues of advance led through central Poland. The most obvious axis ran from the Vistula River around Warsaw westward to Berlin, via the Oder River. The rolling terrain here seemed designed for a rapid mechanized exploitation, although its western reaches were traversed by the German Meseretz Fortified Region. Even against the seven understrength German armies defending from the Baltic to the Carpathians, a successful campaign across Poland would require long and careful preparation, especially for logistics.

While the Soviet engineers and rear services rebuilt the shattered communications leading to the Vistula River, operational planners sketched the outline of the coming campaign. On 28–29 October 1944, senior commanders met with Stalin. After considerable wrangling, the Soviet dictator agreed to go on the defensive in preparation for the next attack. In addition, Stalin and Zhukov concluded that the shorter front lines made it possible to control the entire front directly from the *Stavka*, dispensing with the *Stavka* representatives and coordinators who had represented the high command in the field during the previous three years. Instead, the forces for the new offensive would be restructured into a smaller number of extremely powerful *fronts*, and Stalin himself would nominally coordinate the battle from Moscow. Stalin gave Zhukov the plum assignment to command 1st Belorussian Front, which was to advance directly on Berlin, while Konev's 1st Ukrainian Front followed a parallel course just to the south. Rokossovsky's 2nd Belorussian Front would also advance westward north of the Vistula River toward Danzig, covering Zhukov's right flank. The usual Soviet security measures were employed to conceal from the Germans the reinforcement of these three *fronts*.

Stalin's decision to assume direct control was obviously intended to enhance his postwar prestige and reduce that of his most prominent marshals,

especially Zhukov. Yet, he was also entrusting his reputation to those same commanders, reflecting his growing confidence in them. Like Hitler, Stalin increasingly showed the strains of prolonged overwork; he relied heavily on General Antonov, who as operations chief of the General Staff had effectively headed the *Stavka* for the preceding two years while Chief of Staff Marshal Vasilevsky had acted as a *Stavka* coordinator in the field. In fact, Vasilevsky was now relegated to the largely nominal role of coordinator for 1st and 2nd Baltic Fronts on the northern flank.

As eventually developed, the *Stavka* plan envisaged a two-stage operation (see Map 24). During November and December, as described earlier, the 2nd and 3rd Ukrainian Fronts would continue to advance in Hungary, drawing off German reserves. Then, the main offensive, tentatively scheduled to begin between 15 and 20 January 1945, would shatter the German Vistula and East Prussia defenses in two large-scale operations. The lesser of these attacks, assigned to Cherniakhovsky's 3rd and Rokossovsky's 2nd Belorussian Fronts, had the onerous task of clearing Army Group Center from East Prussia. Cherniakhovsky was to bull his way westward through the German defenses toward Königsberg (now Kaliningrad), and Rokossovsky would envelop East Prussia from the south and protect Zhukov's flank as 1st Belorussian Front made the main attack. To accomplish this, 2nd Belorussian Front was expanded to a total of seven combined-arms armies, plus Colonel General V. T. Vol'sky's 5th Guards Tank Army and several mobile corps. Marshal K. A. Vershinin's 4th Air Army would provide air support.

At the same time, Zhukov and Konev would launch the main offensive across Poland against German Army Group A. Zhukov arrayed a total of eight combined-arms armies, two tank armies, two guards cavalry corps, and an air army to launch three major penetration operations. The main attack would come from the Magnuszew bridgehead, a 24 by 1-kilometer bulge over the Vistula just south of Warsaw, opposite the German Ninth Army. Here, Colonel General Chuikov's 8th Guards Army, once the heroes of Stalingrad, in concert with Colonel General P. A. Belov's 61st Army and Lieutenant General N. E. Bezarin's 5th Shock Army, would attack, seeking to advance up to 30 kilometers on the first day. Their purpose was to open the German lines for exploitation by Colonel General Katukov's 1st Guards Tank Army, Colonel General Bogdanov's 2nd Guards Tank Army, and Lieutenant General V. V. Kriukov's 2nd Guards Cavalry Corps.

Simultaneously, the right flank divisions of 61st Army were to turn northward toward Warsaw. This advance was intended to facilitate Zhukov's second penetration, on his extreme northern flank. Here, Major General F. I. Perkhovich's 47th Army, supported by Lieutenant General S. G. Poplavsky's 1st Polish Army, would cooperate with the southern flank of Rokossovsky's 2nd Belorussian Front to encircle German forces in the Warsaw area.



Map 24. Winter Campaign to April 1945

In the southern portion of 1st Belorussian Front, a third attack would debouch from the smaller Pulawy bridgehead. Colonel General V. Ia. Kolpakchi's 69th and Colonel General V. D. Tsvetaev's 33rd Armies, each with a separate tank corps under its control, would penetrate the German defenses on a 13-kilometer front, thereby creating tactical encirclements on both flanks.

Konev, by contrast, had a simpler plan, concentrated almost entirely on the Sandomierz bridgehead. Colonel General N. P. Pukhov's 13th, Colonel General K. A. Koroteev's 52nd, and Colonel General A. S. Zhadov's 5th Guards Armies, with flanking support from Colonel General V. N. Gordov's 3rd Guards Army in the north and Colonel General P. A. Kurochkin's 60th Army in the south, were to conduct the penetration. Konev could not hope to conceal the site of his attack; instead, he tried to deceive the Germans as to his objectives by creating a concentration of over 400 dummy tanks and self-propelled guns behind 60th Army, with a full network of newly constructed supply routes, to foster the impression that he would advance westward toward Krakow. In fact, Konev planned to commit Rybalko's 3rd Guards Tank Army and Leliushenko's 4th Tank Army on the first day of the operation, attacking northwest in cooperation with 1st Belorussian Front. Colonel General A. S. Zhadov's 5th Guards Army also received control of 4th Guards and 31st Separate Tank Corps, with orders to seize or bypass Krakow and exploit toward the upper Oder River. Lieutenant General I. T. Korovnikov's 59th Army in second echelon would eventually reduce Krakow itself, while Colonel General D. H. Gusev's 21st Army followed the main Sandomierz attack as a second-echelon force and two separate mobile corps were in *front* reserve.¹¹

Both *fronts* created extreme concentrations to achieve penetration with minimum loss of time and life. In the Magnuszew bridgehead, for example, Zhukov crowded in more than 50 percent of his rifle forces and 70 percent of all artillery and tanks, creating a local superiority of ten to one. Virtually all heavy infantry support tanks and self-propelled guns were attached to assault battalions of rifle divisions, and the number of artillery tubes was as high as 250 per kilometer of the penetration sector. To achieve such concentrations, of course, the Soviet commanders spread their few remaining forces, including 119th and 115th Fortified Regions, very thinly to cover the rest of the front.¹²

The Allied request for assistance during the later stages of the Battle of the Bulge accelerated the planned beginning of the offensive. On 8 January, Antonov instructed Konev to launch his attack on the 12th, eight days prior to the original timetable. This last-minute change placed even greater stress on staff officers and logisticians, so it is not surprising that the Vistula-Oder and East Prussian operations developed in a staggered pattern. Konev's 1st Ukrainian Front attacked as directed on 12 January, followed the next day by

Cherniakhovsky's 3rd Belorussian Front on the northern flank in East Prussia. Not until 14 January did Zhukov's 1st Belorussian and Rokossovsky's 2nd Belorussian Fronts launch their own assaults. The net effect of this staggered schedule was to further confuse the defenders, keeping German reserves stationary at the flanks when the main assaults began in the center.

THE VISTULA-ODER OPERATION

In fact, OKW and the two German army group headquarters had anticipated a repetition of the Bagration offensive, with the main Soviet spearheads striking at the northern and southern flanks in preparation for an operational encirclement of the center. For this reason, defensive positions and reserves were concentrated on the flanks, in East Prussia and east of Krakow. These reserves were inadequate to the task in any case. Only twelve and a half understrength panzer divisions remained in the two army groups. Guderian's efforts to transfer four additional divisions from the West failed when OKW redirected those divisions to Hungary.¹³

With the exception of elite units, such as the Hermann Göring and *Grossdeutschland* (both of which had been expanded to panzer corps) as well as some portions of the *Waffen SS*, virtually every German division was severely understrength in both men and equipment by January 1945. German tank production peaked in December 1944 at 1,854 armored vehicles that month, but much of this production had to replace equipment squandered in the Ardennes and Hungary. Aircraft production had already crested in September, and the *Luftwaffe* had severe shortages of fuel and trained pilots; it was in full retreat, both in the East and in the West.¹⁴ Shortages of raw materials made it increasingly difficult to meet the needs of the front. In January, the number of trucks authorized in motorized and mechanized formations was reduced by 25 percent. More importantly, the loss of Romania and the frequent bombings of synthetic fuel plants were seriously reducing available fuel. Even on its new, reduced tables of organization, the German Army was 800,000 men understrength.¹⁵

Guderian, his intelligence officer Reinhard Gehlen, and the field commanders in the East all anticipated the approximate date of the coming offensive, even if Soviet deception measures once again concealed the locations and total strength of the attacks. Allowing for the self-serving nature of most postwar memoirs, these professional soldiers undoubtedly tried and failed to convince Hitler of the need to reinforce Poland;¹⁶ the *Führer* was aware of the threat but still hoped for a surprise victory elsewhere. The most that the German commanders could aspire to was to prolong the war, although Hitler by this time was most concerned about not losing his own nerve. In fact, his

tendency to defend every inch of ground once again played into Soviet hands. At the dictator's insistence, the second and main German defensive positions were constructed within a few thousand meters of the forward lines. This faulty positioning made them vulnerable to devastating initial Soviet artillery bombardment, especially where the Red Army followed its doctrine of occupying the German outposts prior to the main attack. Similarly, the scant German reserves were concentrated too far forward. For instance, the two panzer divisions (16th and 17th) of XXIV Panzer Corps were situated close to the Sandomierz bridgehead rather than farther back where they could maneuver to outflank Soviet attackers. More to the north, Fourth Panzer Army had located a pair of panzer-grenadier divisions in immediate support between the two major Soviet bridgeheads. In theory, such positions made sense when the enemy's airpower could disrupt the movement of reserves. In practice, though, such reserves often became decisively engaged from the very start of the Soviet offensive (see Table 15-1).

At 0500 hours on 12 January 1945, Konev's forward battalions attacked after a fifteen-minute artillery preparation. They occupied the first and in some instances the second line of German positions, eliminating key strongpoints in accordance with the 1944 regulations.¹⁷ Then, at 1000 hours a second artillery preparation began. Because the winter mists hampered close air support, this second bombardment went on for 107 minutes. Some thirty minutes before the scheduled end of the preparation, Soviet rifle platoons began to advance in gaps carefully left in the barrage. The Germans, believing this to be the main attack, rushed out of their bunkers to occupy their firing positions. The leading Soviet riflemen then lay down, and another fifteen minutes of artillery shelling followed, ending with a volley of multiple-rocket launchers. The Soviet infantry and support tanks advanced together, preceded by a rolling barrage.

This elaborate scheme was sufficient for the Soviets to penetrate through two defensive lines to depths of as much as 8 kilometers within three hours. By 1400 on 12 January, the 3rd Guards and 4th Tank Armies, plus the two separate tank corps, passed through the attacking infantry. Once the poor weather cleared after noon, 2nd Air Army flew 466 sorties. Frequently, a designated air division operated in direct support of a tank army, with forward air controllers on location with the leading tank and mechanized brigade headquarters.¹⁸

By the end of the first day, 1st Ukrainian Front had pierced the German defenses on a 35-kilometer-wide front, advancing up to 20 kilometers. The three defending infantry divisions of XXXXVIII Panzer Corps (a panzer corps in name only), occupying forward defenses facing the bridgehead, were vaporized by the initial assault and virtually ceased to exist. The 16th and 17th Panzer Divisions of XXIV Panzer Corps found themselves fighting

Table 15-1. Order of Battle, Vistula-Oder Operation

German Forces	Soviet Forces
Army Group Center Col. Gen. Hans Reinhardt	3rd Belorussian Front Col. Gen. I. D. Cherniakhovsky 39th, 5th, 28th, 2nd Gds, 11th Gds, 31st, and 1st Air Armies; 1st Tank and 2nd Guards Tank Corps
Third Panzer Army	2nd Belorussian Front MSU K. K. Rokossovsky 50th, 49th, 3rd, 48th, 2nd Shock, 65th, 70th Armies
Fourth Army	5th Gds Tank and 4th Air Armies 8th Gds Tank, 8th Mechanized, and 3rd Gds Cavalry Corps
Second Army	1st Belorussian Front MSU G. K. Zhukov 47th, 1st Polish, 61st, 5th Shock, 3rd Shock, 8th Gds, 69th, and 33rd Armies 1st Gds and 2nd Gds Tank Armies
Army Group A Col. Gen. Josef Harpe	16th Air Army 9th and 11th Tank Corps 2nd Gds and 7th Gds Cavalry Corps
Ninth Army	1st Ukrainian Front MSU I. S. Konev 6th, 3rd Guards, 13th, 52nd, 5th Gds, 60th, 21st, and 59th Armies 3rd Gds and 4th Tank Armies
Fourth Panzer Army	2nd Air Army 4th Gds, 25th, and 31st Tank Corps 7th Gds Mechanized, 1st Gds Cavalry Corps
Seventeenth Army	4th Ukrainian Front Col. Gen. I. E. Petrov 38th, 1st Gds, and 18th Armies 8th Air Army
First Panzer Army	

Sources: Earl F. Ziemke, *Stalingrad to Berlin: The German Defeat in the East* (Washington, DC: Office of the Chief of Military History, U.S. Army, 1968), and a truncation of *Boevoi sostav Sovetskoi Armii, Chast' 5 (Ianvar'-sentyabr' 1945 g.)* [The combat composition of the Soviet Army, pt. 5 (January–September 1945)] (Moscow: Voenizdat, 1990), 7–39.

in their assembly areas before they had received any orders to counterattack. Soviet forward detachments continued to press forward all night.¹⁹

By evening on 13 January, the penetration was 60 kilometers wide and 40 kilometers deep. The badly shaken and damaged 16th and 17th Panzer Divisions dug in to defend the road hub at Kielce, between the two main Soviet bridgeheads, but by 18 January, 3rd Guards Army and 4th Tank Army had surrounded these two divisions, forcing them to break out to the west. The remnants of this panzer corps, together with survivors of XXXXVIII Panzer Corps and the relatively intact but outflanked divisions of XXXXII Corps,

made their way northwestward, forming a large bubble in a sea of advancing Soviet forces. Repeatedly assaulted by ground and air but bypassed by the main Soviet forces as they raced westward, this German bubble shrank and broke up into smaller groups as it strove to escape the expanding torrent of Soviet troops. Most of these bubbles were destroyed, but a few thousand men finally rejoined German lines ten days later, far to the northwest.²⁰

By 18 January, Konev was five days ahead of schedule. Rybalko's tank army had seized Czestochowa, and Lieutenant General P. P. Poluboiarov's 4th Guards Tank Corps, supported by 59th Army, had encircled Krakow. The ancient city fell with surprisingly little resistance on the 19th as German Seventeenth Army pulled back to meet newly arrived reserves and establish a front east of Upper Silesia. This withdrawal did not save the Seventeenth, however, for its northern flank was left open after the virtual destruction of the neighboring Fourth Panzer Army. On the evening of 20 January, Konev turned Rybalko's 3rd Guards Tank Army ninety degrees southward to envelop this open flank, while 21st Army and 1st Guards Cavalry Corps engaged the Germans frontally to pin them. Within hours, Rybalko redirected his forward detachments along the new direction of attack, forcing the Germans to abandon their defensive bastion around the Katowice industrial region. As Rybalko and elements of the 4th Ukrainian Front closed on Silesia in late January, they deliberately left an escape route to the south, squeezing the Germans out of the region and avoiding a major struggle.²¹

Meanwhile, at first light on 14 January, Zhukov's 1st Belorussian Front fell upon the German Ninth Army. Soviet reconnaissance units moved forward after a twenty-five-minute artillery preparation. The sheer scale of this reconnaissance effort far exceeded any previous German experience of such probes. Following the 1944 Regulations, Zhukov launched twenty-two reinforced rifle battalions and twenty-five other rifle companies to eliminate specific strongpoints on a 100-kilometer front. This effort so unhinged the German defenses that a planned artillery preparation of seventy minutes' duration was canceled except in 61st Army's sector. Elsewhere, the German first defensive positions were in Soviet hands by 1000 hours on 14 January; by the end of the day, the *front* had penetrated 12 kilometers, leaving the badly damaged remnants of two German divisions in its wake. In a master stroke of daring, 5th Shock Army's 26th Guards Rifle Corps seized a heavy bridge over the Pilitsa River before the German engineers could detonate their charges.²² This allowed the armored vehicles of Bogdanov's 2nd Guards Tank Army to move forward much earlier than expected, although they still did not enter the battle. Meanwhile, Zhukov's secondary attack by 69th and 33rd Armies advanced up to 22 kilometers on the first day. Their separate tank corps passed through the assault troops and began exploitation at 1400 hours that same day (14 January), racing toward Radom in the rear of the LVI Panzer Corps.

On 15 January, XXXX Panzer Corps' 19th and 25th Panzer Divisions made a determined counterattack to back up the shattered infantry defending at the Magnuszew bridgehead, but Soviet fighter-bombers and antitank gunners broke up the attack quickly. With the assault riflemen 15 kilometers into the German positions, Katukov's 1st Guards Tank Army entered the battle on schedule through 8th Guards Army, aiming for Lodz, 130 kilometers northwest of Magnuszew. North of Warsaw, 47th Army also assaulted across the Vistula River to help encircle the Polish capital with forces of 1st Polish Army, which were following Zhukov's advance out of the Magnuszew bridgehead.

In turn, Bogdanov's 2nd Guards Tank Army and 2nd Guards Cavalry Corps entered the fray from the Pilitsa River bridgehead and penetrated up to 80 kilometers to complete the encirclement of German units in the Warsaw area. By 17 January, this encirclement had been reduced and 1st Polish Army had occupied its capital.²³

By the evening of 18 January, both 1st Belorussian and 1st Ukrainian Fronts were in full pursuit toward the Oder River, having destroyed the German forward defenses and counterattack forces. The *Grossdeutschland* Panzer Corps, sent by train from East Prussia with orders to "restore the situation," had begun disembarking at Lodz on 16 January. Portions of the Hermann Göring Panzer Corps (now with 1st and 2nd Parachute Panzer Divisions) also went into action the following day against the spearheads of the Soviet 11th Tank Corps and accompanying 8th Guards Army. In the days that followed, advancing troops from 2nd Guards Tank Army intercepted and destroyed follow-on trains of the *Grossdeutschland* north of Lodz, while the Hermann Göring Parachute Panzer and Brandenburg Panzer-Grenadier Divisions and remnants of 19th and 25th Panzer Divisions (the latter with eighty-two and seventy-six tanks, respectively) formed defensive hedgehogs south of Lodz. There, they attempted to fend off Soviet attacks and to rescue fleeing infantry units.²⁴ From 21 through 28 January, this mass of soldiers and fugitives, numbering in the thousands and loosely organized into Groups Nehring and von Sauchen, fought desperately to survive, cut through the advancing Soviets, and regain German lines. On 29 January, the pitiful remnants of what had been Ninth and Fourth Panzer Armies reached friendly lines along the Oder River. The situation was so dire that these survivors were immediately thrown back into combat to shore up sagging defenses along the Oder, which had already been breached in numerous sectors. Follow-on Soviet forces mopped up numerous other encircled units that were less fortunate than these two groups.²⁵

While encircled Germans fought for their survival, Soviet tank armies and corps operated up to 100 kilometers ahead of the rest of 1st Belorussian Front and 35 kilometers in front of 1st Ukrainian Front. Some forward

detachments covered up to 70 kilometers in twenty-four hours, fighting meeting engagements and seizing river crossings to facilitate the advance of their parent units.

The belated German response to the Vistula breakthroughs involved the movement of up to forty divisions from other sectors of the front. Hitler authorized five divisions and a corps headquarters to evacuate Courland by sea. Angered by the fall of Warsaw, on 18 January he also ordered the arrest of a number of OKH officers whom he suspected of deceit. He brought General Ferdinand Schörner, his favorite defensive commander, from Courland to assume command of Army Group A (soon renamed Army Group Center) from the hapless Colonel General Joseph Harpe. Schörner in turn appointed a new commander for Ninth Army and began to issue optimistic situation reports.²⁶

The Soviet pursuit continued. Following close behind the armored forward detachments and the mobile formations, Chuikov's 8th Guards Army showed almost as much initiative and dash as the tank armies. On 19 January, Chuikov seized the industrial city of Lodz intact. Three days later, following the path of Katukov's 1st Guards Tank Army, he surrounded 60,000 Germans in Poznan, another 120 kilometers to the northwest, although a long siege ensued before the Germans surrendered.²⁷ Meanwhile, on 20 January elements of Rybalko's 3rd Guards Tank Army and Koroteev's 52nd Army crossed the German frontier as they maneuvered against the enemy in Upper Silesia.

By 31 January, lead elements of Bogdanov's 2nd Guards Tank Army had reached the Oder River near Küstrin, over 400 kilometers from its starting position two weeks earlier. The following day, 1st Guards Tank Army broke through the Meseretz Fortified Zone and reached the Oder just north of Frankfurt. As if by habit, this group immediately dispatched assault parties to secure bridgeheads on the far bank. Within days, they were joined by lead divisions of 5th Shock, 8th Guards, and 69th Armies. Unlike previous bridgeheads, however, these were only 60 kilometers from Berlin. And all that was between these bridgeheads and Berlin were forces hastily assembled from scratch.²⁸

As always, these spearheads supposedly halted because they were at the limit of their logistical umbilical, strung out and understrength. The 2nd Guards Tank Army had a 160-kilometer-long open right flank that was subject to counterattack by the newly created Army Group Vistula in Pomerania. This was one of Hitler's most desperate creations, consisting entirely of SS administrative staffs, the hastily assembled Eleventh SS Army, and home guard forces under the command of *Reichsführer-SS* Heinrich Himmler. The second-echelon Soviet combined-arms armies (the 61st, 47th, and 1st Polish) easily contained Himmler's first hesitant attacks from Pomerania in early February, but further Soviet advances across the Oder toward Berlin would no doubt be more challenging. In addition to overstretched logistics, the Soviet assault into East Prussia had drawn Rokossovsky's 2nd Belorussian

Front northward toward the Baltic Sea and away from Zhukov's right flank, which Rokossovsky was supposed to protect.

THE ASSAULT ON EAST PRUSSIA

The *Stavka* concept required Cherniakhovsky's 3rd and Rokossovsky's 2nd Belorussian Fronts to launch coordinated assaults to cut off the German forces in East Prussia from those in Poland and pin them against the shores of the Baltic.²⁹ In subsequent operations, Cherniakhovsky's *front* and Bagramian's 1st Baltic Front would chop up and destroy the encircled force. After reaching the Vistula River south of Danzig, Rokossovsky's *front*, in coordination with Zhukov's 1st Belorussian Front, would continue its advance along the main axis across the Vistula and through eastern Pomerania to Stettin on the Oder River.

Cherniakhovsky planned his main attack with four combined-arms armies (the 39th, 5th, 28th, and 2nd Guards) and two tank corps (the 1st Tank and 2nd Guards Tank) directly into the teeth of the main German defenses through Insterberg toward Königsburg, moving along the boundary between the defending Third Panzer and Fourth Armies. A fifth army (11th Guards) would exploit from the second echelon, the 31st Army would cover the *front*'s extended left flank, and Bagramian's 1st Baltic Front would protect the right flank. Rokossovsky planned his main attack with five armies (the 3rd, 48th, 2nd Shock, 65th, and 70th) from two bridgeheads over the Narew River through the German Fourth Army toward Mlawa and Marienburg. Vol'sky's 5th Guards Tank Army, secretly shifted from Lithuania only days before the assault, would exploit westward toward Elbing, and the *front*'s right flank armies would brush past and isolate German forces in East Prussia. The sizable redeployments prior to the attack gave the Soviets significant force superiority, but elaborate German defenses reduced this advantage.³⁰

Cherniakhovsky's forces struck defenders on the Königsburg axis early on 13 January 1945. The advance quickly turned into a prolonged penetration, limiting the utility of the two tank corps assigned to these armies. Unwittingly, however, OKH assisted the Soviets when it ordered the principal reserve force in East Prussia, Hermann Göring Panzer Parachute Division and Panzer Corps *Grossdeutschland*, southward to meet the developing threat in central Poland. Deprived of reserves, the German defense sagged dangerously and then gave way on 18 January as Cherniakhovsky committed 11th Guards Army and 1st Tank Corps against the vulnerable German left flank. With their defense unhinged, the Germans began a slow but steady withdrawal toward the outer lines of the Königsberg fortress and the Heilberg Fortified Region.

Farther south, Rokossovsky's troops had attacked on 14 January, the same day that Zhukov launched the main offensive in central Poland. Rokossovsky's army commanders quickly penetrated the defenses opposite both bridgeheads and unleashed their operational maneuver units into the German rear area. With 8th Mechanized Corps, 8th Guards Tank Corps, and 1st Guards Tank Corps already beginning their exploitation, Vol'sky's 5th Guards Tank Army entered the fray on 16 January. The 7th Panzer Division, the only significant German mobile reserve, was quickly overwhelmed, and together with German infantry, it began a painful and increasingly rapid withdrawal westward.³¹ The commitment of the Soviet armored host split the German defenders, driving XXIII and XXVII Corps westward and the remainder of Second and Fourth Armies northward into southern East Prussia. Vol'sky's army and the cooperating mobile corps drove in an immense wedge to the outskirts of the Marienburg fortress, the banks of the Vistula River near Grudziaga, and the shores of the Baltic.

Still, fanatical resistance drew Soviet rifle forces into fierce battles with Germans conducting a fighting withdrawal into East Prussia. Soon, these Soviet forces had to contend with German attempts to break through the Red cordon separating the encircled Army Group Center from the main German front lines along the west bank of the Vistula. This was the intense fighting that caused Rokossovsky's thrust to diverge from that of Zhukov, as previously noted.

By 2 February, Cherniakhovsky's 3rd Belorussian Front had bottled up Third Panzer Army in Königsberg and the adjacent Samland Peninsula. Having failed to break out to the west, the German Fourth Army was hemmed into a hedgehog defensive position anchored to the Heilberg Fortified Region. This beleaguered force, renamed Army Group North on 26 January and reinforced by a German corps from Memel', was essentially immobilized and ripe for future destruction.³² However, the continued resistance of this army group disrupted existing Soviet plans and helped forestall an immediate advance on Berlin.

THE FEBRUARY DILEMMA

In late January and early February, because of the rapid progress of Zhukov's and Konev's forces, the *Stavka* still planned to continue the advance on Berlin. Reports from Zhukov, Konev, and their army commanders, especially Chuikov, encouraged that intention.

Accordingly, 1st Belorussian and 1st Ukrainian Fronts' forces resumed offensive operations on 8 February and were joined two days later by 2nd Belorussian Front, which attacked German forces in Pomerania. Anticipating a

possible threat against Zhukov's right wing as his forces advanced on Berlin, on 8 February the *Stavka* had ordered Rokossovsky's *front* "to go on the offensive westward from the Vistula River on 10 February with the *front's* center and left wing (2nd Shock and 65th, 49th, and 70th Armies, 1st Guards Tank, 8th Mechanized, and 3rd Guards Cavalry Corps, and no fewer than four artillery penetration divisions) to capture positions from the mouth of the Vistula River southward through Dirschau, Berent, and Rummelsburg to Neustettin." Subsequently, when the reinforcing 19th Army arrived, the *front* was to "develop the offensive in the general direction of Stettin, capture the Danzig and Gdynia regions, and clear the enemy from the coast up to the Pomeranian Bay."³³ The 2nd Belorussian Front began its new offensive on the morning of 10 February.

On the same day, Zhukov sent another report to Stalin regarding his offensive intentions. Pointing out that "the enemy is carrying out a regrouping of Army Group Vistula, with the aim to organize a firm defense on the approaches to Stettin and on the Oder River line," Zhukov said he intended to disrupt the enemy's operational concentration and capture Berlin; he dispatched orders for that to his subordinate armies early on 13 February.³⁴ These required his combined-arms armies to penetrate German defenses west of the Oder River beginning on 20 February and 1st and 2nd Guards Tank Armies to envelop and capture Berlin by month's end.³⁵

Thus, as of 13 February, it appeared to most Soviet officers and soldiers that the final offensive of the war was at hand. This was not to be. Before Zhukov's and Konev's *fronts* could begin their offensive, sometime on 13 or 14 February Stalin postponed the offensive. The next day, the dictator directed both *front* commanders to prepare plans for clearing German forces from Pomerania and Silesia and submit them to him by 16 February. Zhukov's proposal called for a local offensive on his *front's* right wing by 61st Army, 2nd Guards Tank Army, and 7th Guards Cavalry and 9th Tank Corps "to throw back the enemy toward the north and reach the Lubow, Tempelburg, Falkenburg, Dramburg, Wangerin, Massow, Gollnow, and Stettin line . . . , cut the communications of the enemy's Pomeranian grouping, and assist the advance by 2nd Belorussian Front's left wing to the Stettin region." The proposed offensive was to begin on 19 February and last six to seven days.³⁶

Konev's plan called for his *front's* main shock group (the 3rd Guards, 13th, and 52nd Armies, spearheaded by 4th Tank Army) to reach the Neisse River, capture bridgeheads on its western bank, and dig in; 3rd Guards Tank Army was to seize the Görlitz region, and 5th Guards Army would also dig in. Meanwhile, Konev's left wing (the 21st, 59th, and 60th Armies, supported by 4th Guards and 31st Tank Corps and part of 5th Guards Army), was "to throw the enemy back to the Sudeten Mountains and protect that mountain flank with 59th and 60th Armies." Konev's plan left 6th Army to contain German forces encircled in Breslau.³⁷

Stalin approved both of these proposals on 17 February.³⁸ As 1st Belorussian Front fortified its bridgeheads across the Oder River and shifted forces northward to join 2nd Belorussian Front's offensive in Pomerania, 1st Ukrainian Front was to clear Lower Silesia and reach the Neisse River line by 24 February. Simultaneously, 3rd Belorussian Front would continue clearing in East Prussia.³⁹

On 17 February, the *Stavka* added an entirely new dimension to these operations, thereby explaining Stalin's mid-February decision to postpone the offensive toward Berlin. Now, Moscow directed 2nd and 3rd Ukrainian Fronts to plan an offensive to capture Vienna and the eastern half of Austria.⁴⁰ At the same time, the *Stavka* approved a plan for 4th Ukrainian Front to conquer the Moravska-Ostrava industrial region at the headwaters of the Oder and Vistula Rivers.⁴¹ These directives instructed the three *fronts* as summarized here:

2nd Ukrainian Front—Prepare and conduct an offensive to occupy Bratislava by an attack north of the Danube River in the general direction of Nové Zámky, Malacky, and Znojmo, with a simultaneous offensive of the front's left wing along the southern bank of the Danube, capture Brno and Znojmo no later than the twentieth day of the operation, and, in cooperation with 3rd Ukrainian Front, capture Vienna. Subsequently, develop the offensive in the general direction of Pilsen (Plzeň).

3rd Ukrainian Front—Prepare and conduct an offensive to destroy the enemy grouping north of Lake Balaton by an attack from the Szekésferhérvár region in the general direction of Papa and Szombathely and reach the Austro-Hungarian border no later than the fifteenth day of the operation.

4th Ukrainian Front—Capture the Moravska-Ostrava industrial region. Use 126th and 127th Mountain Rifle Corps (from the *Stavka* Reserve) for the penetration on the main axis. Begin the operation no later than 10 March.⁴²

These directives indicate a sharply altered military strategy for ending the war in Europe. Instead of ending it abruptly in February 1945 by destroying Hitler and the remainder of the Wehrmacht in the ruins of Germany's capital city, Stalin delayed the Berlin operation for two months, probably to consolidate his military and political aims in the Danube basin region.

For more than sixty years after the war's end, the Soviets postulated and the world accepted the rationale that Stalin and most of his senior marshals advanced for postponing the February offensive to capture Berlin. This rationale claimed that:

- German forces in Pomerania posed a serious threat to 1st Belorussian Front's right flank in early February;
- German forces defending along the Oder River were sufficient to severely hinder any Soviet advance across the water barrier;

- The Red Army was critically short of supplies, and its forces and their supply lines were woefully overextended;
- German forces encircled in 1st Belorussian and 1st Ukrainian Fronts' rear areas threatened the two *fronts'* lines of communications; and
- The two attacking *fronts* were too weak to accomplish the overly ambitious objectives of seizing Berlin immediately.⁴³

Only once during the postwar period did any senior Soviet commander seriously challenge this explanation. In 1964–1965, Marshal V. I. Chuikov, the former commander of 62nd Army at Stalingrad and the 1st Belorussian Front's 8th Guards Army at Berlin, broke ranks with his colleagues and sharply criticized Stalin's and Zhukov's decision to postpone the Berlin offensive. In an article published in the journal *Novaia i noveishchaia istoriia* (New and recent history) in February 1964 and more thoroughly in a subsequent book, Chuikov asserted that "Berlin could have been taken in February. And that, of course, would have hastened the end of the war. And the victims claimed would have been fewer than those we lost in April."⁴⁴

After an ensuing vicious literary debate, Soviet censors ripped the offending chapter from all future editions of Chuikov's book. Led by Zhukov in April 1965, the famous marshals who participated in the battle for Berlin published articles strongly refuting Chuikov's charges.⁴⁵ Thereafter, the justifications they advanced for the two-month halt at the Oder River's western bank persisted for almost fifty years.

There was another simple but even more cogent reason why Stalin postponed the advance on Berlin on 13 or 14 February. The reason was inherently political. Between 4 and 11 February 1945, the leaders of the Big Three Allied powers—President Franklin Delano Roosevelt of the United States, General Secretary Joseph Stalin of the Soviet Union, and Prime Minister Winston Churchill of Great Britain—met at Yalta to confer on the future of the war and the postwar world.⁴⁶ Among the most sensitive matters this conference addressed was the postwar configuration of Europe, especially the administration of Nazi-controlled regions and the occupation of defeated Germany itself. This determined the degree of influence each of the Big Three would exercise over territories and states that they liberated, including the postwar administration of Germany.

A protocol signed at London on 12 September 1944 had divided Germany into distinct sectors controlled by the United States, Great Britain, and the USSR; the conferees at Yalta gave their final approval to this protocol at the meeting.⁴⁷ The protocol itself divided Germany, together with Berlin, into separate sectors to be occupied and administered by each of the Big Three powers (a fourth sector was added for the French by virtue of the Yalta

Conference). The problem was that since this protocol pertained only to "traditional" Germany, it did not apply to Austria (*Ostmark*), which Germany had annexed in 1938. An always-astute Stalin recognized this omission and immediately realized both its political implications and its associated military opportunities.

The Yalta Conference adjourned late on 11 February. Within days after returning to Moscow, Stalin issued his halt order to Zhukov. Simply stated, the London protocol, confirmed at Yalta, granted the Soviet Union what would become the Soviet occupation zone in eastern Germany, together with the city of Berlin. The Soviet dictator apparently reasoned that he should therefore plan a major offensive that could expand Soviet control to include Vienna and the entire Danube basin. Thus, on 17 February Stalin directed 2nd and 3rd Ukrainian Fronts to plan for an offensive on 15 March aimed at driving Axis forces from western Hungary and capturing Vienna and eastern Austria. The same day, he also ordered 4th Ukrainian Front to seize the vital Moravsko-Ostrava industrial region in northern Slovakia. Thereafter and through mid-March, while 1st Belorussian and 1st Ukrainian Fronts cleared their flanks in Pomerania and Silesia, the bulk of the *Stavka*'s available reserves, especially the powerful 9th Guards Army, flowed southward to the plains of Hungary.⁴⁸

After a difficult beginning on 16 March, 2nd and 3rd Ukrainian Fronts' Vienna strategic offensive developed successfully and with relative ease. Soviet troops captured Vienna on 13 April and ended their offensive two days later. The very next day, 16 April 1945, 1st and 2nd Belorussian and 1st Ukrainian Fronts attacked along the Oder and Neisse Rivers to seize the prize of Berlin. Consequently, because the Allies had granted the Soviet Union an occupation zone including Berlin, the Red Army spent two months fulfilling Stalin's dream of also capturing Vienna and the remainder of the Danube basin. The *Stavka* considered the cost of just over 38,000 Soviet dead on the road to Vienna as minimal. However, as Chuikov well understood, the real cost of this strategic gain encompassed the 352,000 casualties (including about 80,000 dead) that 1st and 2nd Belorussian and 1st Ukrainian Fronts suffered when they finally occupied Berlin in April and May 1945.

In short, though the classic explanation advanced by Soviet historians for the halt on the Oder may still be correct, it is possible that Yalta was the real reason. It seems clear that as the Red Army conducted its final campaign in eastern and central Europe to defeat Germany, Stalin manipulated his military strategy not only to capture Berlin but also to secure Vienna and the Danube basin. By skillfully shifting the center of gravity of his operations and his forces between the central and southern axes, as he had done in 1944, he was able to achieve victory along both. As a result, when the war ended on 26 May 1945, in addition to the Baltic region and those parts of Karelia the

Soviet Union had lost in 1941, Stalin controlled not only Poland, Romania, Hungary, Bulgaria, Czechoslovakia, and about one-third of Germany but also Vienna and the Danube basin. In the “baggage” of the Red Army were indigenous military forces for each country, as well as Communist governments in waiting. The politically motivated military strategy that Stalin and his *Stavka* embarked on during the winter campaign of 1944 bore fruit by April 1945.

AGAIN TO THE FLANKS

Once the *Stavka* made the decision to halt on the Oder River, the flank problem took on two aspects. The first and more important task for the Red Army was to secure the Danube basin and prevent the Germans from reinforcing their Oder front. This required mounting a formidable offensive against Army Group South in western Hungary and continuing the liquidation of German forces in the Königsberg and Samland regions of East Prussia. The second and less pressing task was to clear German forces from the flanks of the projected drive on Berlin, especially those in Silesia and Pomerania. This would involve three preparatory operations: into Lower Silesia (already under way on 8 February), Upper Silesia, and Pomerania.

These flank-clearing moves took place in two stages: the first occurred in February, immediately after the decision to halt the advance on Berlin, to deal with the most pressing threats to the future strategic advance; the second, in March, was the defeat of Hitler's final offensive in the Balaton region of Hungary and the launch of the climactic drive on Vienna as prelude for the offensive to Berlin.

On 8 February, Konev's 1st Ukrainian Front struck along the Oder River north and south of Breslau.⁴⁹ Rybalko's 3rd Guards Tank and Leliushenko's 4th Tank Armies, after a scant week to refit, attacked from the Keban bridgehead and advanced westward against stiffening German resistance, as 5th Guards Army, supported by 31st and 4th Guards Tank Corps, thrust in the same direction south of Breslau. This advance encircled the German garrison, which nevertheless held out stubbornly. By 25 February, the Soviet advance had closed up on the Neisse River and joined with Zhukov's right flank at the junction of the Neisse and Oder Rivers. Despite the hard fighting and heavy tank losses, 1st Ukrainian Front emerged from the struggle with more than 1,000 tanks and SP guns.

Meanwhile, on 10 February Rokossovsky's 2nd Belorussian Front attacked northwestward into Pomerania from positions west of Grudziaga. Five days later, the Eleventh SS Panzer Army launched a premature, hopelessly piecemeal counteroffensive farther west (Operation *Sonnenwende* [Solstice]).⁵⁰ This attack struck the Soviet 47th and 61st Armies near Stargard,

just east of the Oder. The 1st Belorussian Front easily parried this threat, but the Stargard offensive prompted the *Stavka* to accelerate its plans to clear Pomerania. Additional formations, including 19th Army and its attached 3rd Guards Tank Corps, arrived from Finland to assault northward, aiming for the coast. Soviet operations security was so effective and the German preoccupation with defending Berlin so great that the Germans failed to detect any preparations until just before the renewed Pomeranian offensive began on 24 February.

Because of the weak German defenses in this area, Zhukov was able to commit 1st and 2nd Guards Tank Armies within hours of the initial assault.⁵¹ Katukov's 1st Guards Tank Army linked up with 2nd Belorussian Front elements on 4 March and was then transferred to Rokossovsky's control to continue clearing the coastline to Danzig. The result was a huge gap in German defenses from the Oder River east to Danzig. Most of Army Group North (as Army Group Center had been redesignated on 26 January) was trapped in East Prussia, where Cherniakhovsky's 3rd Belorussian Front continued to press forward toward Königsberg.

The final battle against Army Group North in early April was an extension of the heavy fighting throughout the preceding two months. It took the form of a reduction of the Königsberg fortress (5–9 April) and the remaining German forces in the Samland Peninsula (13–25 April).⁵² In the savage fighting at Königsberg, the Soviets claim to have killed 32,000 Germans and captured another 92,000.⁵³ The Samland operation pushed the defenders onto the narrow spit of land between the Frisches Haff (Frisches Bay) and the Baltic, where, on 8 May, 22,000 surviving Germans surrendered.⁵⁴

The bitter battles in the German heartland of East Prussia claimed many casualties, among them the youngest *front* commander in the Red Army. Thirty-nine-year-old Ivan Danilovich Cherniakhovsky, leading from the front as always, was fatally wounded by artillery fire at Mehlsack, East Prussia, and died on 19 February. This unexpected loss brought Marshal Vasilevsky back to command at the *front*. Stalin had promised his chief of staff that he would command the follow-on operation against Japanese Manchuria, but in the interim, he had served as *Stavka* representative for the East Prussian offensive. After Cherniakhovsky's death, Vasilevsky voluntarily resigned as Chief of the General Staff so that Antonov might get the title for the position that he had effectively held for many months. In turn, Stalin appointed Vasilevsky as Cherniakhovsky's successor, while retaining him as deputy defense commissar and a member of the *Stavka*. Such actions, including Stalin's similar moves to favor Konev, were again intended to limit the prestige of Deputy Supreme Commander Zhukov.⁵⁵

Even as the Red Army was securing the immediate flanks along the Berlin axis, the *Stavka* focused the bulk of its attention on the Danube basin,

ironically just as Hitler was doing the same, possibly because he divined Stalin's intentions. Moscow mandated the conduct of two massive operations: the left wing of Konev's 1st Ukrainian Front was to clear German forces from the salient anchored on Oppeln along the Oder River in Upper Silesia, and Malinovsky's 2nd and Tolbukhin's 3rd Ukrainian Fronts were to complete the liberation of Hungary and seize Vienna, Austria. These twin operations would complete the Soviet occupation of the Danube basin, tie down German forces in their respective locations to prevent reinforcement of the defenses east of Berlin, and facilitate future operations against the last German bastions in Bohemia and Slovakia. Both operations were to commence on 15 March.

Konev's Upper Silesian operation began as planned on that date, when 21st and 4th Tank Armies thrust southwestward to the west of Oppeln.⁵⁶ Within days, they linked up near Neustadt with 59th Army and 7th Guards Mechanized and 31st Tank Corps, which had attacked westward from the Oder, thereby encircling a portion of German Seventeenth Army. The Soviet forces reduced this pocket in heavy fighting and closed up to the Slovak border by the end of March.⁵⁷ Although the operation placed Soviet forces in a better position from which to launch new offensives toward Dresden and Prague, it also forced Konev to conduct complicated redeployments before his forces could participate in the conquest of Berlin.

Simultaneously, Malinovsky and Tolbukhin planned to commence their Vienna operation.⁵⁸ Tolbukhin's 3rd Ukrainian Front was to smash German defenses west of Budapest with Lieutenant General N. D. Zakhvataev's 4th Guards Army and Colonel General V. V. Glagolev's elite, largely airborne 9th Guards Army. Thereafter, Kravchenko's 6th Guards Tank Army would exploit into Austria. On the right, Malinovsky's 46th and 7th Guards Armies were to join the attack north and south of the Danube River, and Pliev's 1st Guards Cavalry-Mechanized Group, supported by Malinovsky's center and right flank armies, would advance on Bratislava. Farther south, Tolbukhin's 57th Army and the Bulgarian 1st Army would crush Second Panzer Army's defenses south of Lake Balaton and advance into southern Austria.

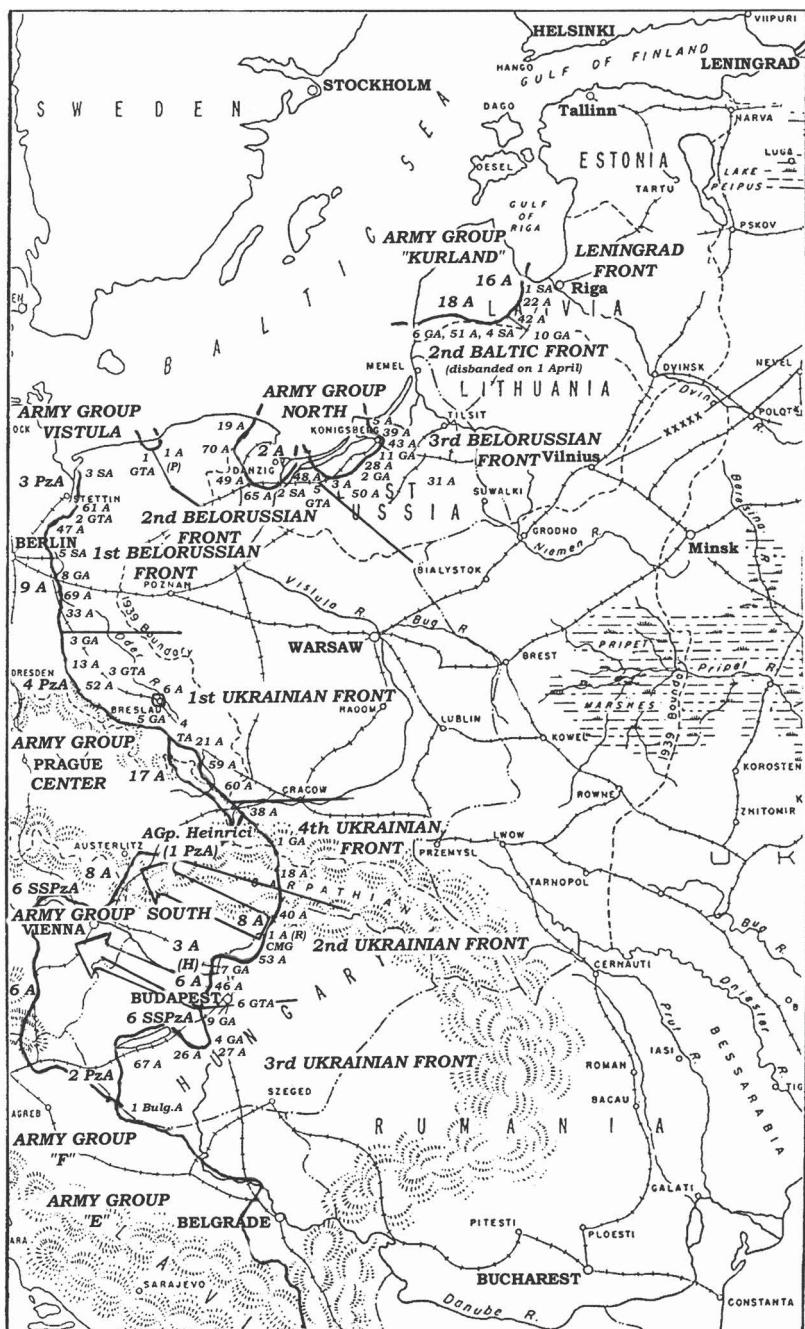
In the midst of these offensive preparations, Soviet intelligence reported that the Germans were planning their own counteroffensive in the Balaton region.⁵⁹ Although the German defenses crumbled in the East, Hitler planned one more desperate offensive in Hungary, prompted by IV SS Panzer Corps' previous successes there. For this purpose, he used his last major armored reserve, *Obergruppenführer* Dietrich's Sixth SS Panzer Army, dispatched to Hungary from the Ardennes in late January. The *Stavka* knew of Germany's offensive intentions and had a good picture of the enemy order of battle but nonetheless prohibited Tolbukhin from diverting to the defense any of the forces earmarked for the advance on Vienna. In essence, Tolbukhin was to

conduct a vigorous defense while continuing his preparations for his own offensive, just as the Red Army had done eighteen months earlier at Kursk. In 1945, the *Stavka* planners entertained no doubts about the viability of the defense.

On 6 March 1945, the German Sixth and Sixth SS Panzer Armies launched a major pincer movement north and south of Lake Balaton.⁶⁰ Ten panzer divisions, including large numbers of the new heavy King Tiger tanks, were involved: Balck's Sixth Army had III Panzer and IV SS Panzer Corps with a total of four German and one weak Hungarian panzer divisions plus one infantry division, and Dietrich commanded I SS Panzer, II SS Panzer, and I Cavalry Corps, with a total of five panzer, two cavalry, and two infantry divisions.⁶¹ Their goal was to cut 3rd Ukrainian Front in half, reach the Danube River south of Budapest, and link up with Second Panzer Army attacking south of Lake Balaton. The initial German assault in the north drove a wedge between the Soviet 26th and 27th Armies, but this success was short-lived. The terrain was a mass of canals and mud, and Tolbukhin had created a deeply echeloned and complex defense system, integrating such novel techniques as electrified barbed wire for infantry and antitank barriers. Minefields, antitank strongpoints and regions, effective fire control, and quickly repositioned tactical reserves plugged the holes in the defense and took a devastating toll on the attackers. Tolbukhin was sufficiently alarmed by the German progress to request release of some of the armies earmarked for the offensive phase, but the *Stavka* categorically refused. The Soviet defenses bent but did not break. By 15 March, the German advance had expired after tremendous losses to both sides.⁶² Once again, the Red Army demonstrated how much it had learned in four years of war, and it absorbed its losses without allowing the designated offensive force to be damaged.

From 14 through 16 March, while fighting still raged east of Lake Balaton, four Soviet armies secretly redeployed west of the city, adjacent to the left flank and rear of the attacking Germans. On the 16th, only one day behind schedule, the 46th, 4th Guards, and 9th Guards Armies struck German defenses in the area, followed on 19 March by Kravchenko's 6th Guards Tank Army.⁶³ Within days, all of 2nd and 3rd Ukrainian Fronts' armies joined the offensive, and German defenses as well as morale visibly began to crack. The Germans barely escaped being pinned against the shore of Lake Balaton, and 6th Guards Tank Army exploited the confusion to burst through the German lines.

The same bad weather and terrain that had hindered the German offensive now slowed the initial Soviet advance, allowing Sixth SS Panzer Army to avoid entrapment. The Soviet advance subsequently accelerated as declining morale and the wear and tear of weeks of heavy combat eroded German strength. In cooperation with 4th Guards and 9th Guards Armies,



Map 25. Vienna Offensive

Kravchenko's tanks entered Vienna on 13 April 1945, two days before Soviet guns opened a barrage of unprecedented fury along the Oder River east of Berlin.⁶⁴

CONCLUSIONS

Soviet operations in the late fall and early winter of 1944–1945 had slashed the German strategic flanks and reached both the Baltic coast and Budapest. German forces dispatched to meet these crises on the flanks were barely sufficient to stem the Soviet tide. Then, in less than two months the Soviets tore German defenses in Poland and East Prussia asunder and advanced up to 700 kilometers westward, to within 60 kilometers of Berlin. In the process, German Army Groups A and Center were decimated. After the Germans dispatched reinforcements to the Oder front to defend their capital, in February and March the Soviets again struck on the flanks, battering Army Group Vistula and consuming Germany's last strategic reserves in Army Group South. By mid-April, Soviet forces had reached the Oder-Neisse River line on a broad front from Stettin in the north to Görlitz on the Czech border and farther to the outskirts of Graz and the Czech border north of Vienna. As in 1944, the baggage of these Soviet armies contained the nuclei of governments that would ensure Soviet political dominance over central and eastern Europe for decades to come.

These catastrophic defeats also deprived Germany of the industry that it had dispersed in Poland to shield production from Allied bombing. The Soviets estimated that these operations had cost Germany 60 divisions, 1,300 tanks, and a similar number of aircraft; such calculations are undoubtedly simplistic, given that many small units survived and exfiltrated from the battlefield. Moreover, although Germany lost more than 660,000 soldiers in the process, replacements and transfers from other fronts meant that German troop strength in the East declined by only some 30,000, from 2.3 million (with 190,000 allies) on 1 November to just under 2 million at the end of March. However, 556,000 of these troops were isolated in Courland and East Prussia; except for tying down some Soviet troops opposite them, they were virtually irrelevant to future operations. The German front was now shorter, but it had consequently lost any opportunity for large-scale panzer maneuver. The Soviets had concentrated 6,461,000 troops on the most critical axis.⁶⁵ For over a third of these soldiers, the next stop would be Berlin.

CHAPTER SIXTEEN

End Game

WAITING FOR THE STORM

Most operational studies of the Great Patriotic War prepared by the Soviet General Staff are candid and objective, limited only by the political sensitivity of certain subjects. Subconsciously, therefore, the reader develops an image of the Soviet leaders as cold-blooded and calculating as they closed in for the kill. In fact, everyone from Stalin down to the lowest soldier was emotionally and mentally preoccupied with seizing Berlin. After more than three years of enormous destruction and horrendous casualties, the Soviet forces were determined to destroy the enemy regime and bring the war to an end. Moreover, having expended so much blood and energy to defeat the German Army in the field, Soviet commanders were in no mood to allow their Western Allies to seize the final triumph. Quite apart from Stalin's desire to dominate postwar central Europe and the Allied agreement that the Soviets should seize the city, this emotional preoccupation drove the Red Army forward toward Berlin, albeit in April rather than February.

The German defenders were equally determined and desperate. Only the most fanatical of adherents of National Socialism retained any hope of ultimate victory, but the brutality of the Red Army in the eastern provinces boded ill for the safety of anyone, civilian or soldier, who fell into Soviet hands. Indeed, German accounts of the final campaigns have given the Red Army a justified reputation for atrocities. Indiscipline became so rampant that the invaders even raped Soviet women who were in Germany as slave laborers.¹ The equal, if not greater, horrors perpetrated by the Wehrmacht in Russia—horrors that help explain but do not excuse Soviet vengefulness—have been all but forgotten in the West.

Hitler's regime made a final convulsive effort to gather strength for its own defense. Leaving only limited forces to face the Western Allies, OKW assembled an estimated eighty-five divisions and numerous smaller units for the final struggle on the Eastern Front.² Many of these organizations were composed of old men, boys, and soldiers whose wounds or ailments made them unsuited for active service. *Volkssturm* (Home Guard) troops of this kind had only limited training and fighting capacity and had significant shortages in heavy weapons and communications. Moreover, even though

Germany could still muster thousands of aircraft and armored vehicles, the Allied air superiority and shortages of fuel limited the effectiveness of these weapons. Still, the defenders were well equipped with small arms and short-range antitank weapons such as the *panzerfaust*. As the Allies closed in, the Germans were also able to divert thousands of antiaircraft guns, previously aimed skyward at B-17 and Lancaster bombers, to ground defense.

Perhaps most significantly, the vastly shortened front and the wealth of half-trained infantry troops formed around a core of hardened veterans permitted the German commanders to man two and even three successive defensive lines simultaneously. This proved to be a significant advantage, especially because, on 30 March, Adolf Hitler approved an OKH decision specifically authorizing a defense in depth rather than the stand-fast orders of the previous months.³ During the battles of 1944 and early 1945, Soviet commanders had acquired a habit of breaking through a thin German defensive crust and exploiting so rapidly that, even when Hitler authorized a withdrawal, the enemy was unable to pull his troops back to the next defensive line in time. Now, however, the Red Army lacked the operational depth in which to maneuver. With the city of Berlin only 60 kilometers to their front and with the forward lines of their Allies only 100 kilometers beyond Berlin, the Soviets faced the unwelcome prospect of conducting repeated penetration attacks against successive, fully manned defensive lines anchored on increasingly urbanized terrain.

Neither side remained passive while the Red Army built up supplies and forces for the inevitable assault on Berlin. In early March, hard on the heels of the Soviet Lower Silesian operation, Field Marshal Ferdinand Schörner, commander of Army Group Center, launched a series of local counterattacks in Silesia. Schörner concentrated particularly at Lauban, where a multidivision attack on 2–5 March took the city back from Rybalko's surprised 3rd Guards Tank Army. However, Schörner lacked both the time and the forces needed to achieve significant results against Konev's 1st Ukrainian Front. In addition, heightened Soviet activity in Silesia and Hungary prompted Hitler to assess correctly that the next Red offensive would be in the south, most dangerously in Hungary but also a drive from the Ostrava and southern Slovakian regions into western Czechoslovakia. Nonetheless, on 15 March, after his offensive in the Balaton region failed, Hitler again focused on the Oder front and ordered Ninth Army to smash the Soviet bridgeheads between Küstrin and Frankfurt.⁴

Hitler's sudden concern for the Berlin axis was prompted by the collapse of German defenses in Pomerania and forward of the lower Oder River and by the knowledge that the Courland Pocket, which the Soviets had been attacking since 27 February, might not hold out much longer. His concerns were valid. Throughout March, the three Soviet Belorussian *fronts* hammered

away at the remaining German enclaves along the Baltic coast, taking Danzig on 28 March. As a consequence of the disasters in Pomerania and Hitler's desire for a credible defense along the Oder, Heinz Guderian as OKH chief of staff persuaded Heinrich Himmler to resign his command of Army Group Vistula. Colonel General Gotthard Heinrici, a noted defensive expert and former commander of First Panzer Army, replaced Himmler.

As soon as he arrived at Himmler's headquarters, however, Heinrici found himself thrust into a desperate battle for control of the island fortress of Küstrin, one of the few frontline locations with intact bridges, at the confluence of the Oder and Warta Rivers. Beginning on 22 March, Chuikov's 8th Guards Army had isolated the fortress in an effort to widen its bridgehead over the Oder. At Hitler's instigation, on 27 March the German Ninth Army launched a four-division counterattack from Frankfurt-am-Oder northward toward Küstrin. The 20th and 25th Panzer-Grenadier Divisions, the Führer Escort Division, and the Panzer Division *Müncheberg* caught the Soviets by surprise and advanced to the outskirts of Küstrin, briefly restoring communications with the garrison. General Chuikov found himself bracketed by German artillery that killed an aide and wounded one of his principal staff officers. Yet, the attack rapidly lost momentum, and the Germans were decimated in open terrain.⁵

This fresh disaster cost Germany one of its best remaining military leaders. In talks with Hitler, Guderian vigorously defended the commanders involved in the failed Küstrin attack, General of Infantry Theodor Busse of Ninth Army and General Heinrici. This argument marked the culmination of months of similar disagreements, proving to be the final straw in the stormy relationship between dictator and general. On 28 March, Guderian suddenly found himself placed on leave for "ill health." In his place, General of Infantry Hans Krebs became the last chief of the German General Staff.⁶

PLANNING FOR BERLIN

The *Stavka* painstakingly prepared for the Berlin operation. It recalled the fate of earlier Russian armies at the gates of Berlin in 1760 and Warsaw in 1920, when excessive optimism and unfortunate circumstances had thwarted their hopes. The Soviets were determined that history would not repeat itself in 1945. The Soviet command estimated that the Germans would field a force of 1 million men—the desperate remnants of the German Army—and they were unsure of how many Germans in the West might join their comrades along the Oder to face the dreaded invader. Experience had demonstrated that a million-man force, anchored behind a formidable river battle, could render credible resistance even against a foe twice its size. Thus, the Soviets

prepared an offensive fitting to the task—an offensive whose conduct would also impress the Western Allies.

The *Stavka*'s strategic aims were to destroy German forces defending along the Berlin axis, seize the capital, and link up with advancing Allied forces on the Elbe River. In early April 1945, American and British forces were closing on that river, only 100 to 120 kilometers from the German capital, and there were growing Soviet concerns that, despite agreements to the contrary, the Allied armies themselves might advance to the city.⁷ This concern, together with the prospect that German troops might gravitate eastward, accelerated Soviet attack preparations.

German forces defending the approaches to Berlin included Army Group Vistula (Third Panzer and Ninth Armies), commanded by Heinrici; Fourth Panzer Army of Schörner's Army Group Center; and the ill-defined Berlin Garrison. Army Group Vistula consisted of six corps (twenty-five divisions) and a large number of separate and specialized units; Army Group Center defended the Neisse River-Dresden axis with two corps, and the Berlin Garrison included LVI Panzer Corps (equivalent to five or six divisions) and more than fifty *Volkssturm* battalions. The combined force numbered about 800,000 men of various combat capacities.⁸

The German defenses along the Berlin axis were deep but only partially occupied by troops. These defenses consisted of the fully occupied Oder-Neisse defense line to a depth of up to 40 kilometers, including three defensive belts, and the Berlin defense region of three additional defensive rings (external, internal, and city.) For control purposes, the Nazi regime had further subdivided the city into nine sectors. The central sector, including governmental and administrative organs such as the Reichstag and the Imperial Chancellery, was thoroughly prepared for defense. All the defensive positions were interconnected by integrated communications systems. The subway system was used to conceal the movement of troops. In an engineering sense, German defenses were strongest opposite the Küstrin bridgehead and from that bridgehead through the Seelow Heights overlooking the Oder to the outskirts of Berlin.⁹ This, unfortunately for them, was precisely the route followed by the soldiers of Zhukov's 1st Belorussian Front.

Formal planning for the operation commenced on 1 April, the day after Konev's *front* finished clearing Upper Silesia and three days before Rokossovsky's and Zhukov's *fronts* completed operations in Pomerania. That day, Zhukov and Konev met in Moscow with Stalin, the *Stavka*, and the General Staff to present their operational concepts. Rokossovsky joined them the next day. At this conference, the *Stavka* approved their concepts and set the tentative attack date at 16 April. This left a scant two weeks for detailed preparations, which may explain some of the difficulties that the Red Army experienced in the ensuing operation.¹⁰

Throughout March and early April, Soviet rear services troops assembled the masses of matériel needed for the next push, while Soviet commanders attempted to prepare their troops for a final effort. As the defenders of Stalingrad, the headquarters of 8th Guards Army retained a special expertise on the problems of urban warfare. Chuikov's staff produced a pamphlet that Zhukov distributed throughout his *front*, and each rifle division formed a special unit to train in city fighting. Given the time constraints, however, it is unclear how much actual training took place. Moreover, in German-held territory the Soviets often lacked the detailed intelligence that partisans had previously provided. Still, Soviet forces along the entire front tried to conduct similar detailed preparations.¹¹

The plan that finally emerged involved the delivery of several powerful blows along a broad area by three *fronts*—Rokossovsky's 2nd Belorussian in the north, Zhukov's 1st Belorussian in the center, and Konev's 1st Ukrainian in the south—to encircle and dismember the Berlin group of forces and destroy each segment individually. Subsequently, within twelve to fifteen days, Soviet forces were to capture Berlin and advance to the Elbe.

Zhukov's *front* consisted of seven Soviet and one Polish combined-arms armies, two tank armies, two air armies, and four separate mobile corps. It would launch the main attack from the Küstrin bridgehead with four armies (the 47th, 3rd and 4th Shock, and 8th Guards) and 9th Tank Corps. On the first day, these armies, supported by 731 infantry-support tanks and self-propelled guns, were to penetrate the strong German tactical defenses and overcome the terrain disadvantage of the Seelow Heights, permitting the commitment of 1st and 2nd Guards Tank Armies. The two tank armies, numbering 1,373 tanks and self-propelled guns, would then advance in tandem through German Ninth Army directly into Berlin, which was expected to fall on the sixth day of battle.¹² Unfortunately for these tankers, the point designated for them to pass through the breakthrough forces was not at the rear of the German defenses, as was the usual practice, but roughly between the first and second German defensive lines, condemning them to a grinding penetration battle of their own.¹³

Zhukov planned two secondary attacks: one north of Küstrin with two armies (the 1st Polish and 61st) and one south of Küstrin with two armies (the 69th and 33rd) as well as 2nd Guards Cavalry Corps. It was impossible to conceal the fact that Küstrin was the main effort, although Soviet *maskirovka* attempted to depict the northern axis as an equal attack, intended to form the other arm of a pincer. Zhukov also planned to achieve tactical surprise by beginning the assault two hours before dawn, using 143 searchlights to illuminate the terrain and disorient the enemy.

On Zhukov's left flank, Konev's 1st Ukrainian Front included five Soviet and one Polish combined-arms armies, two tank armies, an air army, and

four mobile corps. Konev would make his main attack with three armies (the 3rd Guards, 13th, and 5th Guards) across the Neisse River toward Cottbus against the remnants of Fourth Panzer Army and the southern wing of Ninth Army. Lead forces were to reach the Spree River by the end of the second day and protect the commitment to combat of the 963 tanks and self-propelled guns of 3rd and 4th Guards Tank Armies. These two armies would then exploit toward Brandenburg, Dessau, and the southern outskirts of Berlin.¹⁴ Konev also planned a secondary attack with elements of two armies (the 52nd and 2nd Polish) and two mobile corps (the 7th Guards Mechanized and Polish 1st Tank) toward Dresden to cover his left flank and prepare for future operations into Czechoslovakia. A reserve army (28th) would reinforce Konev while his advance was in progress. In theory, Konev was to reach the Elbe River and Dresden twelve days into the operation. But he had the option of swinging northward toward Berlin if Zhukov's advance was delayed. In anticipation of such a development, Stalin rather pointedly failed to define the boundary line between their two *fronts* beyond the initial stage of the operation—an obvious challenge to a race but also another gesture to reduce the prestige of his deputy supreme commander.

On Zhukov's northern (right) flank, Rokossovsky and his 2nd Belorussian Front, consisting of five combined-arms armies, one air army, and five separate mobile corps, would attack two to three days after his fellow *front* commanders. Supported by armor, three armies (the 65th, 70th, and 49th) were to advance in the Stettin-Schwedt sector, destroy German forces around Stettin, prevent Third Panzer Army from reinforcing Berlin, and then occupy northern Brandenburg and link up with British forces along the Elbe.¹⁵

The Soviet forces earmarked to launch this offensive numbered 2.5 million troops (2,062,100 combat, including 155,900 Polish forces), 6,250 tanks and self-propelled guns, 41,600 guns and mortars, and 7,500 combat aircraft. This host ultimately opposed up to 1 million Germans (766,750 first-line combat forces, according to somewhat inflated Soviet estimates), supported by 1,519 tanks and assault guns, and 9,303 guns and mortars.¹⁶ The *Luftwaffe* had 3,000 aircraft available on the entire Eastern Front but was severely hampered by a lack of aviation fuel.¹⁷

The creation of shock groups to launch the attack was a major challenge for Soviet planners, for it required extensive redeployments over long distances during an exceedingly short time period. On 1 April, for example, the bulk of 2nd Belorussian Front was located in the Danzig region, over 400 kilometers from the Oder front, and Konev's forces were concentrated on 1st Ukrainian Front's center and left flank in Silesia. A total of twenty-nine armies had to reposition themselves—fifteen of them at a distance up to 385 kilometers and three between 385 and 530 kilometers—at the same time that the rail network was struggling to build up fuel and ammunition stores

sufficient to sustain the operation. The logisticians and troop commanders had to complete all these movements within fifteen days, as compared to the twenty-two to forty-five days available to move forces prior to the Belorussian, East Prussian, and Vistula-Oder operations.¹⁸

Once all these elements deployed into forward assembly areas, the operational plan required extensive tactical concentration of forces to penetrate such formidable and deep defenses. To sustain the penetration, all first-echelon combined-arms armies and their constituent rifle corps and divisions arrayed themselves in two echelons. Thus, a typical division would attack with two rifle regiments on line and a third behind them, whereas a corps would attack with three or four divisions on line and one or more divisions in second echelon. The result was extremely narrow penetration frontages: 2.5 to 10 kilometers for an army and only 35 to 44 kilometers for an entire *front*. A typical kilometer of this penetration sector would average 1.5 to 2.5 rifle divisions, 260 guns, and up to 30 infantry-support tanks or self-propelled guns. In addition, 8th Guards Army, responsible for one of the main attacks out of the Küstrin bridgehead, had direct control over the 9th Assault Aviation Corps to support river crossings, help the penetration of forward defenses, accompany the armored exploitation units, and prevent the movement of German reserves.¹⁹

Extensive specialized support operations preceded the offensive. On six occasions, reconnaissance aircraft prepared aerial photo surveys of Berlin, the approaches to the city, and the defensive belts. On the basis of these surveys, captured documents, and POW interrogations, Soviet intelligence analysts produced detailed diagrams and maps of the defenses, which were distributed to all commanders and staffs. Meanwhile, 1st Belorussian Front's engineers constructed twenty-five bridges and forty ferry crossings over the Oder River. For the crossing of the Neisse River, 1st Ukrainian Front prepared 2,440 wooden sapper boats, 750 assault bridges, and more than 1,000 wooden bridge segments.²⁰ Within the time available, assault forces conducted special training to sharpen their skills in river crossing and in urban, forest, and night fighting. In particular, small combined-arms task forces and combat teams were designated in advance for street fighting.

Despite these extensive preparations, the Soviet timetable, which called for the entire operation to be completed within fifteen days, proved too optimistic. The terrain was heavily urbanized and industrialized, and it was cross-hatched with villages, rivers, and canals. Although some Germans had lost heart, others were prepared to fight with a superhuman desperation. The Berlin operation would not be a walkover.

Just as in the timing of the Vistula-Oder offensive, the assault on Berlin was made more difficult by a last-minute decision to accelerate the attack. Until early March, the Western Allies were still west of the Rhine River,

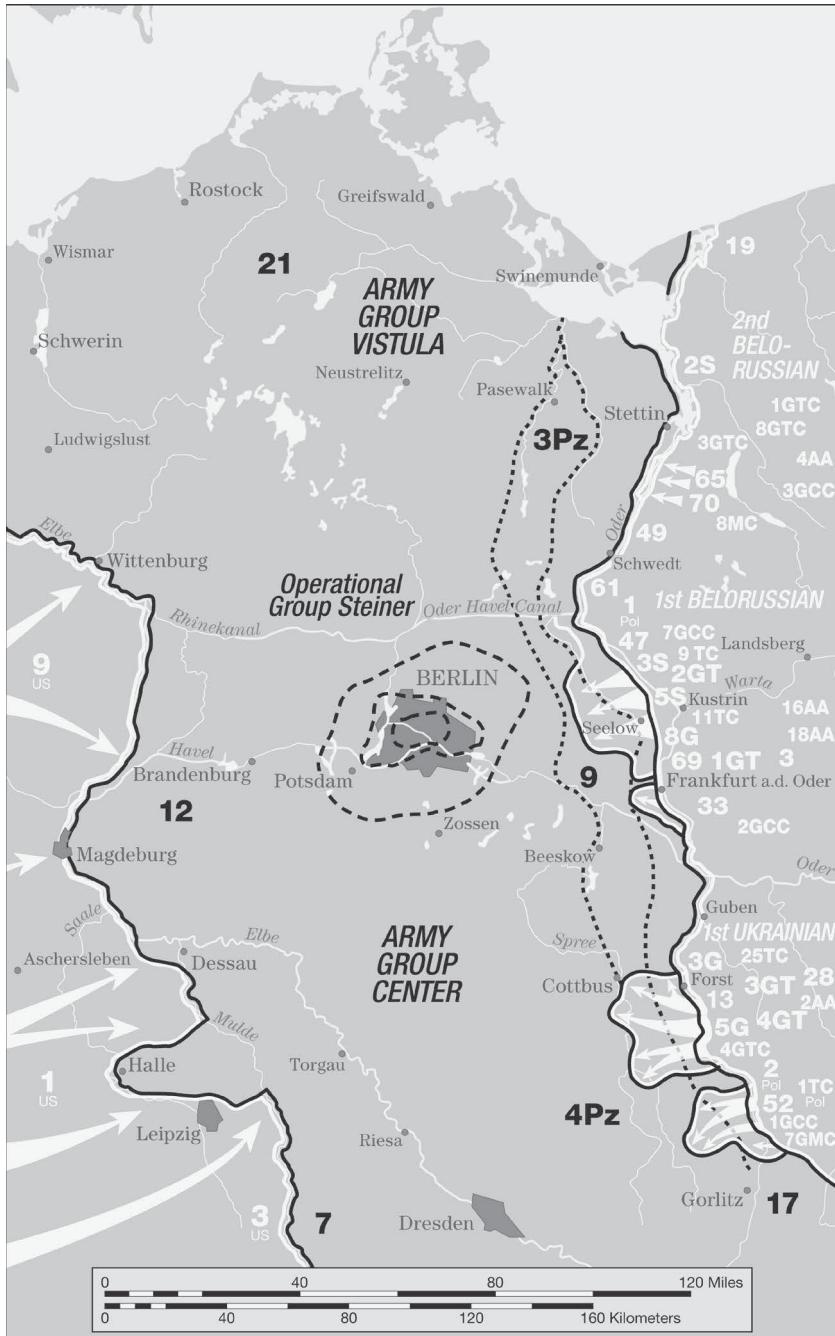
and Stalin obviously felt that he had ample time to take Berlin. Then, as the Germans crumbled in the West, the possibility that the British and Americans might capture Berlin suddenly seemed very real. On 31 March 1945, General Dwight Eisenhower sent representatives to the *Stavka* to coordinate the junction of the two forces. Based on political guidance from the Yalta Conference, Eisenhower proposed to divide Germany by linking up with Soviet forces along the general north-south axis of Leipzig-Dresden, which represented the agreed boundary for postwar occupation zones. Stalin hastily agreed to this proposal, claiming mendaciously that Berlin no longer had much strategic significance. In reality, though, Eisenhower's advance in early April increased Soviet suspicions of Allied intentions and prompted the *Stavka* to accelerate the timetable for the Berlin offensive.

THE PENETRATION

At 0530 hours Berlin time on 14 April 1945, after a fifteen- to twenty-minute fire raid, reinforced rifle battalions from 1st Belorussian and 1st Ukrainian Fronts' first-echelon rifle divisions began reconnaissance-in-force on the main attack axes (see Map 26). Zhukov's *front* alone employed thirty-eight battalions and various reinforced companies in this role. A typical battalion task force was supported by a company of tanks and a battery of self-propelled guns as well as artillery and engineers.²¹ In some sectors, first-echelon regiments joined to exploit local successes. In two days of combat, some of these forces wedged themselves up to 5 kilometers deep into the German defenses. By this time, however, the German defenders were familiar with this tactic; prisoners confidently told their Soviet captors that the main attack would come two or three days later. Rather than lose more troops in the coming barrage, on the evening of 15 April Hitler approved Heinrici's request to withdraw all but a skeleton force from the forward positions.²²

The Soviet air offensive began that same evening in 1st Belorussian and 1st Ukrainian Fronts' sectors when 150 night bombers from the 4th and 16th Air Armies began pounding the Germans' first defensive belt. As the ground offensive commenced the next day, the four assault aviation corps of 18th Air Army shifted their attacks to targets in the German second defensive belt. In the first day alone, these three air armies flew 6,548 sorties.²³

Based on the results of the reconnaissance attacks, Soviet commanders adjusted the amount of preparatory fires planned for each sector; under Zhukov, for instance, 47th Army reduced its bombardment from thirty minutes to twenty-five, whereas the neighboring 5th Shock Army, which had experienced the greatest success in preliminary advances, planned for only twenty minutes of fires before shifting to deeper targets.²⁴ The 1st Belorussian Front began the general artillery preparation at 0300 on 16 April. This preparation



Map 26. Berlin Operation I, 16–19 April 1945

was so excessive that in many areas it created more obstacles than it destroyed, without clearing the German second defensive line on the Seelow Heights. Dust and smoke filled the predawn air. Zhukov's surprise tactic of employing searchlights only added to the confusion without penetrating the smoke clouds in front of the attackers. The few roads near the Oder River soon became congested, and the shoulders of these roads were too swampy to permit vehicles to bypass each other. Blinded or disoriented, the infantry floundered forward 1.5 to 2 kilometers to the Haupt Canal, which ran along the foot of the Seelow Heights. The Soviet troops had great difficulty in crossing this barrier. Even where supporting armor was able to approach the heights, the slopes were too steep for the vehicles to accompany the infantry. By late morning, Chuikov's 8th Guards Army had made only limited progress, and Colonel General V. Ia. Kolpakchi's 69th Army to its south was completely stalled.²⁵

Zhukov, who was observing from a forward command post adjacent to that of 8th Guards Army, lost control of his iron nerve. He resorted to the type of error that had often plagued Soviet commanders during 1942–1943, including Zhukov himself at Rzhev in November 1942. The marshal committed his armored exploitation forces prematurely in an effort to complete the initial penetration of the still-intact German second defensive belt. Katukov's 1st Guards and Bogdanov's 2nd Guards Tank Armies became hopelessly entangled in the artillery and supply vehicles of the assaulting rifle divisions. The 11th Tank Corps of 1st Guards Tank Army halted a counterattack by the Panzer Division *Müncheberg*, but the two tank armies were unable to perform their deep exploitation mission. Each time they attempted to move forward through the maze of fortified villages, German infantry with *panzerfausts* ambushed them at close range. Ultimately, 1st Guards Tank's constituent brigades and corps became dispersed to support different elements of 8th Guards and 5th Shock Armies in a very slow, grinding advance.²⁶

It took two days for 1st Belorussian Front to penetrate the Seelow Heights defenses and reach its initial objectives. Nine understrength German divisions had opposed 8th Guards Army's penetration attempt. Chuikov's attacks bogged down so badly that most of the defenders were able to extricate themselves and withdraw to the next defensive line. Another German counterattack on 17 April covered this withdrawal, with three divisions attempting to cut the Berlin–Küstrin highway behind the spearheads of Katukov's tank army. The next day, Chuikov was forced to conduct a second penetration attack against the German third defensive line, which had not been identified in prebattle reconnaissance. Still, even the most determined defenders ran short of manpower and ammunition. By 20 April, Lieutenant General N. E. Berzarin's 5th Shock and Chuikov's 8th Guards Armies had penetrated the fourth German defensive line, and they began an agonizingly slow and

costly advance into Berlin's eastern suburbs. Throughout this period, an impatient Stalin alternately threatened and cajoled Zhukov. Meanwhile, on Zhukov's right flank, Major General F. I. Perkhorovich's 47th Army and Colonel General V. I. Kuznetsov's 3rd Shock Army developed the offensive more successfully and began to envelop Berlin from the north and northwest. On the left flank, Kolpakchi's 69th and Colonel General V. D. Tsvetaev's 33rd Armies cut off the German Ninth Army's center and right wing from Berlin and paved the way for the future envelopment of Ninth Army from the north.

Fortunately for the Soviet advance, Konev's forces on Zhukov's left (southern) flank made better progress, even though they also encountered a German defense of unparalleled ferocity. Konev's artillery had fired a much longer preparation than Zhukov had planned but avoided the disastrous side effects. The guns plastered the German defenders for forty minutes before troops began the assault crossing of the Neisse River, then conducted suppressive fire against German artillery for an hour during the actual crossing; they finally shelled the defenders for an additional forty-five minutes after the assault elements were across the river. At the end of the first day, Konev's infantry forces, supported by 25th and 4th Guards Tank Corps and forward detachments from Rybalko's 3rd and Leliushenko's 4th Guards Tank Armies, had forced the Neisse River, penetrated the German main defensive belt, and wedged their way up to 1.5 kilometers into the second belt. On the following day, German counterattacks failed to blunt the Soviet advance, which penetrated to a depth of 18 kilometers. By the end of 18 April, Konev's forces had completely penetrated the Neisse defensive line and crossed the Spree River south of Berlin, creating conditions to encircle the city from the south.²⁷ On the Dresden axis, Colonel General K. A. Koroteev's 52nd Army continued its advance, along with Lieutenant General K. K. Sverchekovsky's 2nd Polish Army, and repelled increasingly intense German counterattacks from the Görlitz area.²⁸

To the north, on 18 and 19, April Rokossovsky's 2nd Belorussian Front went into action by forcing the eastern channel of the Oder River and occupying starting positions on river islands, suitable for the subsequent forcing of the western channel.

DEATH KNELL

Given the poor progress of 1st Belorussian Front, Stalin encouraged a race between his two major commanders, as we have seen. In dramatic telephone conversations with Zhukov and Konev late on 17 April, he amended the *Stavka* operational map by erasing the *front* boundary between them in the vicinity of Berlin, leaving the capture of the capital to whoever got there first.

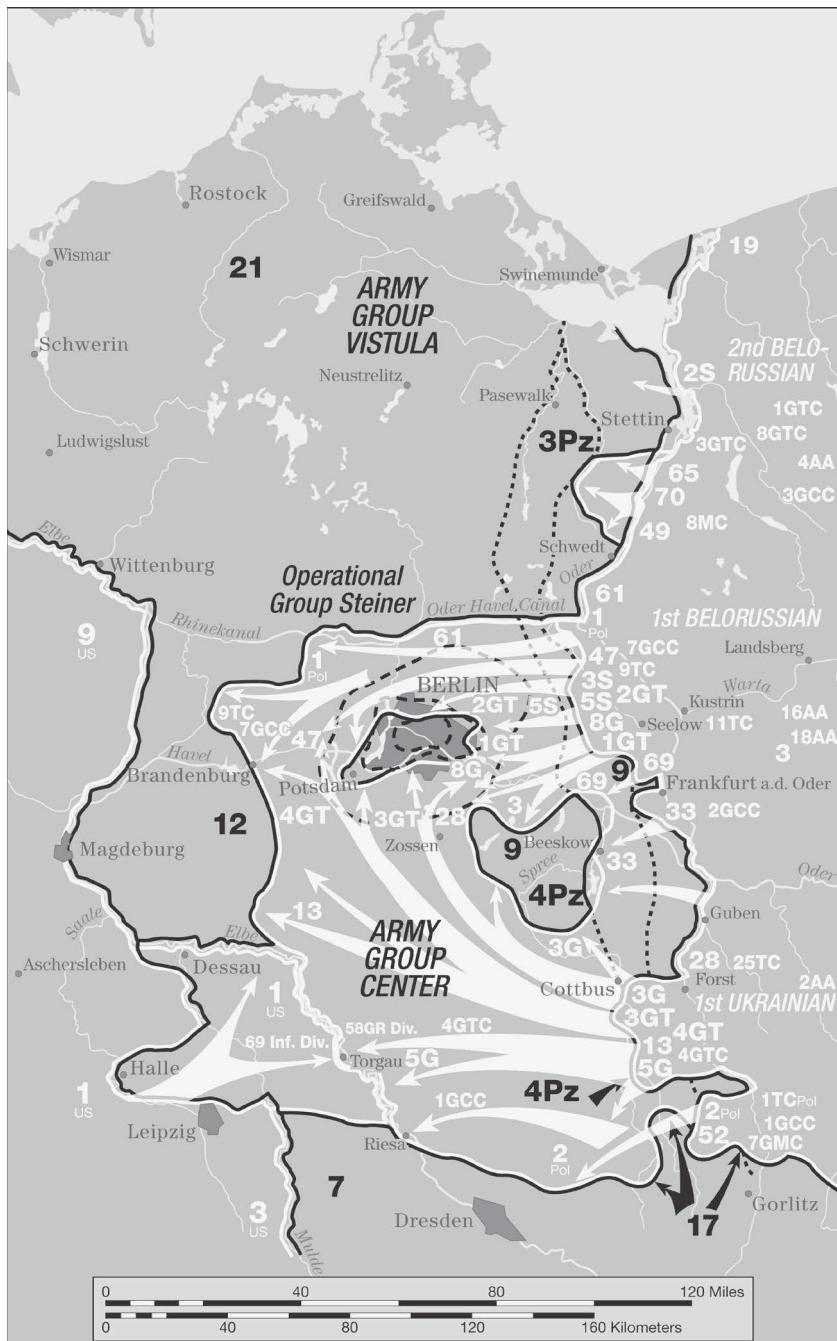
This action increased the danger of one unit firing at another by mistake, but it certainly encouraged the advance (see Map 27).²⁹

On 20 April, Zhukov's forces accelerated their advance. Long-range artillery of 3rd Shock Army's 79th Rifle Corps was the first to fire on Berlin. The following day, intermixed elements of 3rd Shock, 2nd Guards Tank, 47th, 8th Guards, and 1st Guards Tank Armies penetrated into the capital's suburbs and began days of difficult conflict. In the heavily urbanized terrain of this area, the Soviet armies had to perform multiple functions simultaneously: changing direction to encircle the city; bringing up supplies and artillery to sustain the attack; reorganizing assault troops into small, combined-arms teams for city fighting; and moving the bridging necessary to cross the many canals and rivers in the Berlin area. To do all this while continuing the advance against heavy opposition was a masterpiece of staff work and cooperation, an example of the sophistication achieved by Soviet forces during the Third Period of War.³⁰

Meanwhile, Konev's *front* maneuvered to complete the envelopment of German Ninth Army from the south and simultaneously reach the southern outskirts of the city. On 19–20 April, 3rd and 4th Guards Tank Armies advanced 95 kilometers. The following day, elements of Rybalko's 3rd Tank seized the OKH headquarters in Zossen, 30 kilometers south of central Berlin, eliminating any remaining effective control over German operations. The 3rd Guards Tank Army also penetrated into the southern suburbs, and Le-liushenko's lead elements reached the southern approaches to Potsdam. The combined-arms armies of the *front*'s shock group rapidly advanced westward; in the process, they engaged Lieutenant General Walter Wenck's Twelfth Army, which the OKH had ordered eastward from the Western Front to link up with Ninth Army and save Berlin.³¹ Between 20 and 26 April, 52nd and 2nd Polish Armies on Konev's extended left flank repelled German counter-attacks from the Görlitz area. Army Group Center had ordered these attacks to break through and relieve Ninth Army.

In the central sector, at dusk on the 22nd, three forward detachments of 8th Guards Army made hasty crossings of the Spree River, south of Berlin, before the defenders realized their presence. On 24 April, Chuikov's 8th Guards and Katukov's 1st Guards Tank Armies linked up with the spearheads of Rybalko's 3rd Guards Tank and Lieutenant General A. A. Luchinsky's 28th Armies southeast of Berlin.³² The next day, the 58th Guards Rifle Division of Colonel General A. S. Zhadov's 5th Shock Army met with elements of the U.S. First Army's 69th Infantry Division at Torgau on the Elbe.³³ Soon, similar festive meetings took place along the entire front as Soviet forces advanced to the prearranged demarcation dividing the two Allied forces.

As these meetings occurred, Rokossovsky's 2nd Belorussian Front forced the western channel of the Oder River, penetrated German defenses on its



Map 27. Berlin Operation II, 19–25 April 1945

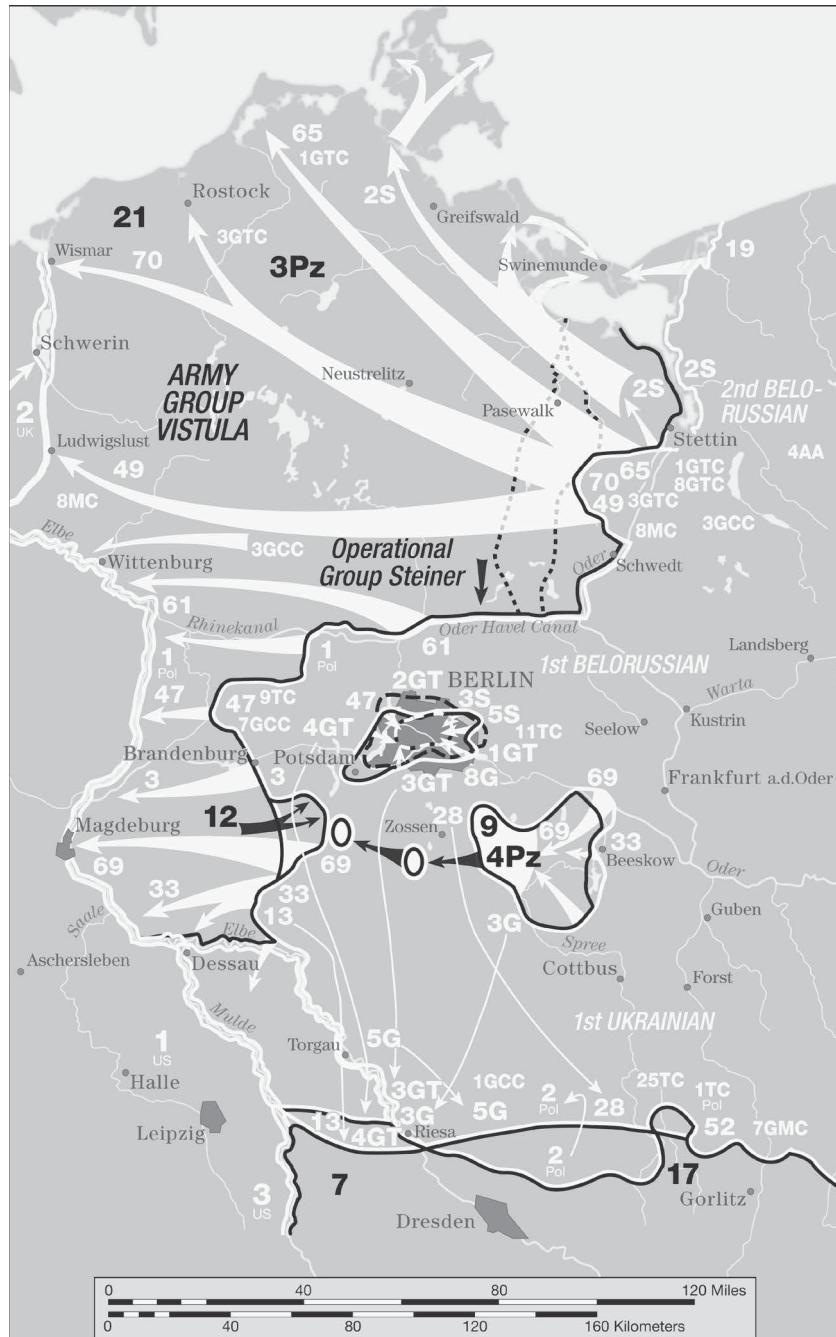
western bank, and pinned down Third Panzer Army, preventing it from delivering a counterblow against the Soviet forces north of Berlin. This was the long-anticipated attack by the so-called Group Steiner, built around SS-*Obergruppenführer* Felix Steiner's III SS Panzer Corps, which Hitler had hoped would save Berlin.

Even Hitler now acknowledged that the war was lost, although he continued in vain to issue orders for Busse's Ninth Army (to the east), Wenck's phantom Twelfth Army (to the west), and Group Steiner (to the north) to break through to the capital (see Map 28). Any units that retained sufficient combat power to break out of the Soviet encirclements were melting away, fleeing westward toward the Allies rather than advancing into Berlin.

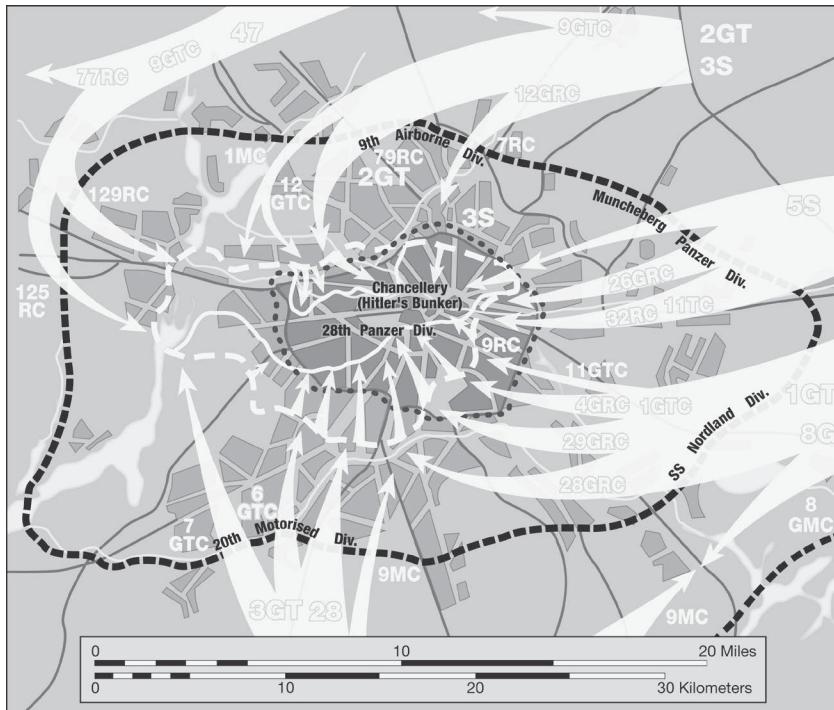
Lacking any effective command and control structure, the remnants of the Wehrmacht floundered spasmodically like a chicken with its spinal cord severed. Zhukov began the formal assault of Berlin on 26 April, and the battle raged block by block for the next week (see Map 29). By 30 April, Soviet forces had cut the defending Germans into four isolated pieces, and they set about smashing each section separately. That same day, Hitler committed suicide, but the carnage continued for several days. Soviet assault teams cleared the German defenders from more than 300 city blocks.³⁴ Task-organized assault groups, made up of infantry, tanks, and direct-fire artillery plus sappers armed with explosives, took each building separately. Particularly heavy fighting raged in the subway and in underground communications and headquarters facilities.

On 29 April, against fanatical resistance, 79th Rifle Corps of 1st Belorussian Front's 3rd Shock Army began the symbolic struggle for the Reichstag. The following day, scouts from the 150th Rifle Division hoisted the Red Banner over the building, although the struggle there continued until the morning of 1 May as Soviets rooted bedraggled but stubborn groups out of the cellars. On 1 May, forces of Kuznetsov's 3rd Shock Army attacking from the north linked up, just south of the Reichstag, with 8th Guards Army troops advancing from the south. German resistance finally ceased on the evening of 2 May, and remnants of the Berlin garrison, commanded by General of Artillery Helmut Weidling, surrendered.³⁵

As the German garrison was capitulating, Konev's forces were already redeploying to prepare for an advance into Czechoslovakia along the Prague axis. Meanwhile, 1st Belorussian Front's combined-arms armies continued their westward advance. On 7 May, they linked up with Allied forces on a broad front along the Elbe. The 2nd Belorussian Front's forces reached the shores of the Baltic Sea and the Elbe River line, contacting elements of British Second Army. At the same time, Soviet forces accepted the surrender of German forces in Courland and on the Samland Peninsula, west of Königsberg.



Map 28. Berlin Operation III, 25 April–8 May 1945



Map 29. Assault on Berlin, 21 April–5 May 1945

During the course of the Berlin Operation, Soviet forces crushed the remnants of the Wehrmacht and captured 480,000 prisoners (see Table 16-1). The cost, however, had been great: 361,367 Soviet and Polish casualties, 81,116 of them irrevocable. The cost of victory was highest for Chuikov, whose 8th Guards Army lost 24,484 men (4,145 irrevocably) from 11 April through 1 May and another 4,189 men (662 irrevocably) through 9 May. This explains Chuikov's regret over the delay from mid-February to mid-April.³⁶

The Berlin Operation was prepared in a relatively short time period, and its main aims—the encirclement and destruction of the German Berlin grouping and the capture of the enemy capital—were achieved in seventeen days. Thereafter, the Soviet military considered the operation to be a classic example of an offensive by a group of *fronts* conducted for decisive aims in an almost ceremonial fashion. The nearly simultaneous offensives by three *fronts* in a 300-kilometer sector with the delivery of six blows tied down German reserves, disorganized enemy command and control, and in some instances achieved operational and tactical surprise. The Berlin Operation—in

**Table 16-1. Count of Enemy Losses and Trophies by Soviet Fronts
(Berlin Operation)**

Front	Killed	POWs	Tanks and Assault Guns	Guns and Mortars	Aircraft
1st Belorussian	218,691	250,534	1,806	11,680	3,426
2nd Belorussian	49,770	84,234	280	2,909	1,462
1st Ukrainian	189,619	144,530	2,097	6,086	1,107
Total	458,080	479,298	4,183	20,675	5,995

Source: *Berlinskaia operatsiia 1945 goda* [The Berlin Operation, 1945] (Moscow: Voenizdat, 1950), 616–618, reprinted as V. Goncharov, ed., *Bitva za Berlin: Zavershajushchee srazhenie Velikoi Otechestvennoi voiny* [The battle for Berlin: The final battle of the Great Patriotic War] (Moscow: “AST,” 2007), 730–732.

particular the poor initial performance of Zhukov’s *front*—was instructive in other ways as well. As determined after the war by high-level conferences held to study this operation, its nature and course were markedly different from the heavy combat the Soviets had experienced on the more open terrain to the east.³⁷ Combat in the heavily urban and wooded terrain near Berlin, with engagements at short ranges, exacted a far greater toll on the attackers than Soviet planners had anticipated. These experiences formed the basis for the postwar restructuring of the Soviet Union’s Armed Forces.

As a reward for their performance during combat on the main axes to Berlin, six Soviet armies (3rd Shock, 8th Guards, and 1st, 2nd, 3rd, and 4th Guards Tank Armies) composed the Soviet occupation forces in East Germany. More than forty years later, the first of these armies to enter Berlin would be the last to depart German soil.

PRAGUE

The fall of Berlin did not end the fighting. With victory in sight, Stalin and his senior commanders became more concerned than ever about the possibility that their Western Allies would play them false. At the time and long afterward, the Soviet participants took seriously the German offer to surrender in the West while continuing to fight in the East. Of course, Eisenhower insisted on total German surrender on all fronts, but the Soviet leaders could not overcome their fear of treachery or, at the very least, of being cheated out of their hard-won triumph.

Thus, when General Omar Bradley offered to assist in the occupation of Czechoslovakia, Stalin responded with another order to accelerate the advance. With Berlin and the Danube basin already in his hands, Stalin was resolved to cement the Soviet Union’s hold over central Europe at all costs.

Accordingly, on 1 May the *Stavka* directed 1st Belorussian Front to relieve all elements of 1st Ukrainian Front engaged in mopping up in Berlin so that Konev could turn southwestward and, in conjunction with Marshal R. Ia. Malinovsky's 2nd and General A. I. Eremenko's 4th Ukrainian Fronts, advance on Prague.

The Soviets' old nemesis, Army Group Center, which for over two years had been poised threateningly on the approaches to Moscow, now became the final target. In May 1945, more than 600,000 men of this army group, now commanded by Field Marshal Ferdinand Schörner, awaited their inevitable destruction—ironically, not in Germany but in Czechoslovakia, which had been one of Hitler's initial victims.³⁸

While the Reichstag was still under assault, between 1 and 6 May the forces commanded by Konev, Malinovsky, and Eremenko prepared to launch an offensive of overwhelming proportions against Schörner's force. This attack was in conjunction, if not in competition, with General Patton's Third Army, which was poised to enter Czechoslovakia from Bavaria. The combined force of over 2 million Soviet and Polish soldiers relied on heavy armored forces, including three tank armies and a cavalry-mechanized group, to spearhead a rapid thrust to the Czech capital of Prague.³⁹

Konev's hastily approved plan called for Colonel General N. P. Pukhov's 13th Army and Colonel General V. N. Gordov's 3rd Guards Army to attack west of Dresden, penetrate the Erzgeberge Mountain passes in southeastern Germany, and facilitate the subsequent commitment of 3rd and 4th Guards Tank Armies for the exploitation to Prague.⁴⁰ Polish and Soviet forces would launch a supporting attack in 1st Ukrainian Front's Görlitz sector. Simultaneously, in a wide arc covering the eastern and southern borders of Czechoslovakia, Eremenko and Malinovsky were to mount similar offensives spearheaded by tank forces.

The advance was to begin on 7 May, but at noon two days earlier the population of Prague launched an uprising and appealed by radio for Allied help. This brief struggle with the German occupation forces cost the Czechs at least 3,000 killed and 10,000 wounded. Stalin again hurried the attack and ordered that it commence on the afternoon of 6 May.

Spurred on by Stalin and taking advantage of local German withdrawals, Konev struck from the north on 6 May. He launched his main attack from the Riesa area with three combined-arms armies (13th and 3rd and 5th Guards) and the 3rd and 4th Guards Tank Armies. The next day, he added two secondary attacks with slightly smaller forces, including 2nd Polish Army, farther to the east. Malinovsky's 2nd Ukrainian Front attacked northward from Brno toward Olomouc and Prague with four combined-arms armies (the 53rd, 7th Guards, 9th Guards, and 46th), Kravchenko's 6th Guards Tank Army, and Pliev's 1st Guards Cavalry-Mechanized Group. Between Konev's

and Malinovsky's forces, Eremenko also pressured German defenses across his entire *front*.

Within two days, Konev's troops occupied Dresden, Bautzen, and Görlitz against dwindling German resistance, and 4th Ukrainian Front seized Oломоуц; a day later, it linked up with the advancing elements of 2nd Ukrainian Front for a combined drive on Prague. To accelerate his advance, on the night of 8–9 May Konev ordered Rybalko's and Leliushenko's tank armies to make a dash for Prague. At first light, these two armies, spearheaded by specially tailored forward detachments, began an 80-kilometer race. In the city, they linked up with mobile detachments of the 2nd and 4th Ukrainian Fronts, which included the 1st Separate Czech Tank Brigade. During the following two days, the Soviets liquidated or accepted the surrender of more than 600,000 remaining German forces.⁴¹ On 11 May, advancing elements of 4th Guards Tank Army linked up with the U.S. Third Army east of Pilsen, ending the major wartime field operations of the Red Army.

By early May, the surviving German military leaders were more than ready to comply with Allied demands for general and unconditional surrender. Eisenhower's threat to break off negotiations and seal the front against refugees, in essence turning them over to the Soviets, was the final argument. Yet, the Soviet representative to Eisenhower's headquarters, Major General I. A. Susloparov, had no instructions on the matter. When his counterpart in Moscow, Major General John Deane, inquired about coordinating the announcement of the surrender, Antonov and his staff again suspected that the Allies were seeking to grab all the credit. Meanwhile, in Rheims the surrender ceremony had been arranged for the early morning of 7 May, and Susloparov still had no instructions. Afraid to sign without orders, he was even more afraid to have the Soviet Union left out of the surrender. Finally, Susloparov nerved himself to sign the surrender document, annotating it with a qualifier that would allow Moscow to renegotiate later if necessary. No sooner had he reported his actions than he received a frantic telegram from the *Stavka* ordering, "Don't sign any documents!"⁴²

CONCLUSIONS

The eighteen months of the Third Period of War accorded a gruesome symmetry to the horrors of the Soviet-German conflict. The first eighteen months of war had witnessed the unprecedented catastrophes that beset the Red Army and the titanic defensive battles at Moscow and Stalingrad, punctuated by periodic Soviet counteroffensive attempts. The Germans had advanced to the gates of Moscow, the banks of the Volga, and the northern slopes of the Caucasus Mountains, only to fall short. At a cost of over 10 million military

casualties and uncounted civilian fatalities, the Red Army had halted the *blitzkrieg* and turned the tide of almost unending German victories.

During the twelve months of the Second Period of War, beginning with the catastrophic German defeat on the Volga and ending with the victorious Soviet drive to the Dnepr after the equally costly German defeat at Kursk, the Red Army had destroyed *blitzkrieg* as a viable military concept. Unlike Hitler's previous foes, the Soviet Union possessed sufficient depth of terrain and manpower to develop an effective counter to the panzer forces. At a cost of nearly 10 million additional military casualties, the Soviets began the liberation of their territories. Unlike the First Period of War, during the second phase the Germans and their allies themselves suffered losses numbering in the hundreds of thousands. More devastating for the German cause was the slow realization that this process of attrition would accelerate toward inevitable and total defeat.

This process reached fruition in the Third Period of War. A seemingly unending procession of Soviet victories tore the heart out of the Wehrmacht, inexorably propelled Soviet forces into central Europe, and climaxed in the total defeat of Nazi Germany. The cost to the Red Army was a final 9 million casualties.

Part of the ghastly symmetry of this war was the fact that the German people now suffered all the sins visited upon their foes in 1941–1942. Although it is impossible to measure accurately, between 1944 and 1948 almost 12 million ethnic Germans either fled or were expelled from their homes in central and eastern Europe; perhaps 1.5 million of these people died in the process. Rape, theft, and forced labor were common experiences. Within Germany, air and ground attacks displaced a further 4 million.⁴³ Not all of this suffering can be blamed on the Red Army, as the local non-German populations sought their own revenge. In addition to the Soviet and Polish annexations in East Prussia and Silesia, the restored government of Czechoslovakia expelled the Sudeten Germans who had provided Hitler with the pretext to dismember the Czech state in 1938. By 1950, 16.5 percent of the West German population was refugees, further burdening the recovery of a shattered economy.⁴⁴

The military consequences of operations in the spring of 1945 were clear. The remaining forces of the once-proud armies of Germany were crushed by the combined efforts of Allied forces assaulting from the East and West. Nazi Germany had built its empire and conducted genocide on the foundations of warfare of unprecedented violence and destructiveness; the Soviet Union felled it in equally violent and decisive fashion. The colossal scale of the Berlin operation, resulting in appalling Soviet casualties and equally massive destruction of the German capital, was a fitting end to a war that was so unlike previous conflicts. As more than one German veteran observed, war in

the West was proper sport and war in the East was unmitigated horror. This final defeat eliminated the remaining 2 million men of the Wehrmacht and reduced Germany to ashes.

The political consequences of these final operations reflected a process that had been going on for over a year and to which the Soviet Union's Allies had turned a blind eye in their search for victory. That process became crystal clear during the peace that followed. In the train of the victorious Red Army came political power in the guise of newly formed national armies and pro-Communist governments for the liberated states. Two Polish, three Romanian, and two Bulgarian armies fought and bled alongside the Red Army, together with a Czech corps and other, smaller national formations. Once returned to their liberated lands, these forces cooperated with local partisan formations, many of which the Soviet Union had also sponsored and equipped. Under the protection of the Red Army, these armed forces and governments-in-exile quickly transformed military power into political control. The Soviet government did this in the spirit of spreading Communism and even more as a natural right of the victor and a precaution against any future invasion.

Slowly, in mid-May 1945 the firing died out and the war in Europe came to an end. Having, at great human cost, captured Bucharest, Belgrade, Warsaw, Budapest, Vienna, Berlin, and Prague from the shattered Wehrmacht and its satellites, the Soviets had undisputed claim to the lion's share of the spoils of this victory over Nazi Germany. In Western eyes, however, the political consequences deprived the Soviet Union of that right. Within a few short years, the horrors of war were replaced by totalitarianism and the menace of the Cold War. Such suspicions soon obscured the unprecedented suffering, contributions, and triumph of the Soviet peoples.

CHAPTER SEVENTEEN

Conclusion

POSTSCRIPT: ENCORE PERFORMANCE IN MANCHURIA

Although the defeat of Nazi Germany ended the Soviets' self-proclaimed Great Patriotic War, it did not end Soviet participation in World War II. Just as the other Allied powers had to turn their attention to Germany's undefeated Axis ally, Japan, the Soviet Union also looked east to eradicate a latent threat that had existed since 1939. Soviet motives for intervening in the Asian war were varied. First, Stalin was determined to play the full role of a world power and valuable ally to the West. Second, he wanted to signal the Soviet intention to fulfill its role in East Asia and, not coincidentally, to reap whatever spoils were possible from the ruins of the Japanese Empire. This included recovering the territories Russia had lost to Japan in 1905.¹ Operations in Manchuria also offered the Red Army the opportunity to apply and perfect skills learned in four years of combat against the Germans to battle with the Japanese.

After the undeclared war at Khalkhin-Gol in 1939, both the Soviet Union and the Japanese Empire had turned away from their confrontation on the Manchurian border. In April 1941, they reached a truce that gave some measure of reassurance against surprise attack. This truce permitted Stalin to focus his efforts against the Germans while the Japanese concentrated on conquests in China, Southeast Asia, and the Pacific. Nevertheless, throughout World War II trust never characterized Soviet-Japanese relations. Both countries maintained considerable forces facing each other in northeast Asia while drawing off their best troops to fight elsewhere. The Japanese Kwantung Army in Manchuria remained a formidable fighting force well into 1944. During the crisis periods in the fall of 1941 and 1942, the *Stavka* withdrew some of its most experienced and capable Far Eastern divisions for service in the West, as described in chapter 6.² However, newer, less capable formations, especially fortified regions designed for defense, replaced the prewar divisions, so that on paper, the Soviet capability did not change significantly. Soviet intelligence probably knew that the Japanese Kwantung Army did not shift its planning from offensive to defensive orientation until the summer of 1944.³

By 1944–1945, Japan's only hope of avoiding total defeat was to prolong the Pacific conflict while inflicting maximum American casualties, forcing Washington to settle for a compromise peace. Not only were such casualties politically unpopular in the United States, they also played on a particular vulnerability: the shortage of ground troops. In order to staff its armament factories and man the largest air force and navy in history, the Roosevelt administration had fielded only eighty-nine army and six marine divisions—a huge force by American standards but far short of the armies of the USSR, Germany, and (proportionally) Japan and Britain. By the end of 1944, American casualties had already exceeded available replacements, forcing the U.S. Army to cannibalize nonessential units to keep its rifle companies up to strength.

As the United States closed in on the home islands, fanatical Japanese defenders inflicted a rising toll on their opponents. In conjunction with the conquest of Germany, the United States suffered nearly 1 million combat and combat-related casualties between June 1944 and June 1945. Increasingly concerned by these losses, Secretary of War Henry L. Stimson commissioned a detailed study, which projected that the invasion of Japan would cost the United States at least 1.7 million casualties, including 400,000 to 800,000 dead, thus doubling or tripling the combat fatalities of the war. The conquest of the home islands would also kill 5 to 10 million Japanese civilians and soldiers.⁴ It was this dire prospect that drove the American decisions to seek Soviet support in the war and to employ the atomic bomb.

On numerous occasions during the conflict, British, American, and Soviet leaders discussed Moscow's involvement in the Pacific, subject always to first defeating Germany. In early October 1944, Winston Churchill visited Moscow and discussed postwar spheres of influence with Joseph Stalin. As part of that meeting, known as the Fourth Moscow Conference, Major General Deane, head of the U.S. military mission to the Soviets, briefed Stalin and his operations officer, General Antonov, on the American strategy for terminating the Pacific War. In return, on 18 October Antonov provided an outline of the *Stavka* plan to build up Soviet forces in the Far East in preparation for an attack on Manchuria and the northern Japanese islands. In conjunction with this, the Soviet side presented a detailed and ambitious list of Lend-Lease supplies, totaling more than a million tons of shipping, needed specifically for the war against Japan. In addition to tanks, trucks, aircraft, uniforms, food, fuel, and railroad supplies, the Soviet side requested 180 vessels, both cargo ships and smaller combatants. On 13 December 1944, the Soviet navy chief of staff presented the navy's request to the U.S. military mission in detail, including warships such as submarine chasers, minesweepers, PT boats, and landing craft. To provide time for training the crews of these vessels, Deane

recommended that Washington start this program before the fighting ended in Europe.⁵ Eager to get Soviet participation, the United States eventually filled virtually all of these requests, despite the fact that in May 1945, President Harry S. Truman terminated all other Lend-Lease aid to Moscow. Just prior to Soviet intervention, the U.S. Army also provided the Soviets with its Japanese order of battle information on Manchuria, Korea, and Japan, including the products of MAGIC signals intelligence.⁶

Such preparations were well in hand before the Yalta Conference in February 1945, when Stalin committed his war-weary state to attack Japan approximately three months after a German surrender. In return for his participation, as had been the case in Europe, Stalin was to receive his own sphere of influence in Manchuria, northern Korea, half of the Kurile Islands, and southern Sakhalin Island. Stalin also intended to seize Hokkaido Island in Japan itself.⁷

Japanese intelligence learned of the Yalta commitment, but like the Americans and British, leaders in Tokyo were skeptical of Stalin's ability to meet that promise. On 5 April, two months after Yalta, the Soviet Union notified the Japanese government that it was providing the required one-year notice to abrogate the 1941 Soviet-Japanese nonaggression agreement. By that time, the Japanese had imitated the Soviet Far Eastern troop exchanges of 1941–1942. During 1943 and 1944, twelve of the best Kwantung Army divisions had been sucked into island combat in the Pacific, replaced by less ready garrison divisions. The Japanese detected a steady buildup in forces opposite Manchuria but generally misinterpreted their data in the same way they had done prior to Khalkhin-Gol, underestimating Red military strength and overestimating their own ability to conduct a prolonged defense if the Soviets invaded. Although some Japanese staff officers expected an attack in high summer, most thought that Moscow would not be ready until late September 1945. Such a delay would allow the Kwantung Army to contain the initial assault until the rainy season and thus defer the main battle until the following spring. Higher Japanese headquarters not only failed to provide strategic warning to their subordinates but also neglected even basic information such as vehicle identification for the potential enemy.⁸

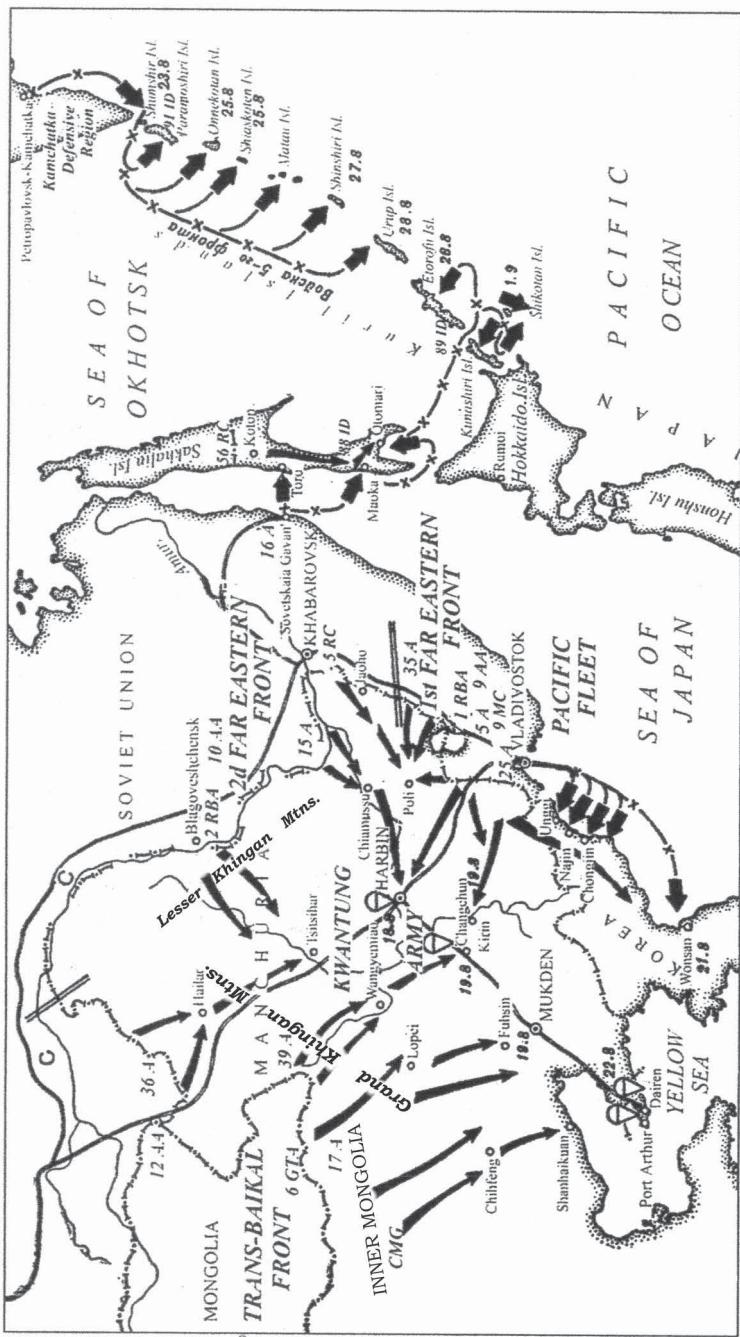
Lieutenant General Fedor Ivanovich Shevchenko, chief of staff of the Far Eastern Front (after 5 August, chief of staff of 2nd Far Eastern Front), provided the planning data for the Soviet intervention. The limiting factor on the Soviet buildup was the capacity of the Trans-Siberian Railway, one of the reasons why Japan did not expect an early offensive. In reality, however, the *Stavka* planned for a mid-August attack and had carefully concealed the buildup to ninety divisions.⁹ Some Soviet units left most of their equipment behind in the West, traveling the railway as compact groups of soldiers and then reequipping with Lend-Lease weapons and vehicles when they reached

the Soviet Far East. Nonetheless, it was an extraordinary effort for a nation that had barely survived four years of terrible struggle with Germany. Many of the troop trains rolling east were filled with old men and boys. In the meantime, Marshal Vasilevsky lobbied to begin the invasion earlier in August in order to capitalize on good weather. Washington's use of the atomic bomb on 6 August reinforced this argument, prompting the *Stavka* to accelerate its preparations and attack on 9 August, before the troops were fully concentrated for the attack.¹⁰

In August 1945, the Kwantung Army consisted of thirty-one infantry divisions and twelve separate brigades. All but six of these divisions had been created during the spring and summer of 1945 as part of a last-ditch mobilization of men who were previously exempt or deemed unsuited for service. These divisions had an average strength of 12,500, or about two-thirds of their authorized size, and were far below their official establishment of artillery and heavy weapons. Half were garrison divisions intended for rear area security, without significant artillery or antitank capabilities.¹¹ Still, Japanese divisions with 9,000 to 18,000 soldiers were larger than their Soviet counterparts. By 1945, the Soviet rifle division was authorized 11,700 men but often had less than half that number present for duty.

The terrain of Manchuria inspired Japan's confidence in its ability to defend against any attack. The province consists of a huge central plain, containing almost all of the region's agriculture and industry, surrounded on three sides by forbidding mountain and forest barriers. To the west, the Grand Khingan mountain range reaches heights of 1,900 meters (6,200 feet), with the vast, semidesert expanses of Inner Mongolia beyond the mountains. Even the few mountain passes were swampy, particularly during the summer monsoon season, when humidity and mud made operations even more difficult. In addition to poor trafficability, the sheer scale of Manchuria should have daunted any potential attacker. The distance from the northern tip of the province to the Yellow Sea is almost equal to the distance between Normandy in France and Minsk in Belorussia. Nor did the Soviet force have an overwhelming advantage in numbers. The overall force ratio was 1 Japanese to 2.2 Soviets; including the puppet troops of the Manchukuo government, this ratio fell to 1 to 1.5.¹² The Soviets had a much greater superiority in tanks and artillery, but the defenders' terrain advantage offset this strength. It was not numbers but surprise, training, equipment, and tactics that produced the Soviet victory.

Based on the almost impassable terrain in the west, the defenders of Manchuria concentrated most of their forces along the rail lines in the east, north, and northwest. Japanese borders in these areas were protected by massive permanent fortifications, although the Japanese 1st Area Army, headquartered at Mutanchiang, chose to hold many of its units back for a defense in



Map 30. Manchurian Operation, August 1945

depth. The 3rd Area Army, responsible for the western portion of Manchuria, was scattered over a much wider area deep within the province's central valley. The Japanese defensive plan called for a delaying action to draw the Soviets in and then destroy them as they became overextended logistically. The final battle was to be in the Japanese defensive redoubt in southern Manchuria along the Korean border.

Under the supervision of Antonov and Shevchenko, the Soviet General Staff's Operations Directorate began planning for this campaign in late September 1944.¹³ The final plan organized the attackers into Marshal R. Ia. Malinovsky's Trans-Baikal Front to the west, Colonel General M. A. Purkaev's 2nd Far Eastern Front in the north, and Marshal K. A. Meretskov's 1st Far Eastern Front in the eastern portions of Manchuria. Marshal A. M. Vasilevsky was the overall head of the forthcoming operation, first as a *Stavka* representative and then, in July, as the first true theater commander. Many of his subordinate commanders (Meretskov, Malinovsky, Kravchenko, Pliev, Krylov, Liudnikov, and others) and subordinate units were chosen because of their prior experience in similar terrain.

Although the 1st Far Eastern Front had to prepare for an initial penetration of the Japanese fortifications along the eastern borders, all three *fronts* planned the campaign as if it were one continuous exploitation, one "deep operation" from beginning to end. This was especially true of the Trans-Baikal Front in the west, which controlled Colonel General Kravchenko's 6th Guards Tank Army and two mixed Soviet-Mongolian cavalry-mechanized groups. This plan accepted an enormous logistical risk by concentrating such large forces in the barren reaches of Manchuria. Indeed, just as in 1939, Japanese intelligence analysts did not believe that the Soviets could support a mechanized operation in such a remote area. The *Stavka* concept was to have these mobile organizations bypass any isolated Japanese resistance, cross the desert regions as rapidly as possible, and force the Grand Khingan Mountain passes before the defender recognized the threat.

Soviet military organizations were heavily task organized to conduct this exploitation. In many instances, a rifle division had attachments that included a separate tank brigade, a self-propelled assault gun regiment, and one or more additional artillery regiments. The presence of this armor allowed every rifle division to form its own forward detachment for deep penetrations. In effect, the typical Soviet rifle division in Manchuria was a test case for the heavier 1946 reorganization of all rifle divisions.

Similarly, the larger military organizations were modified for Manchuria based on earlier experience. The 6th Guards Tank Army was completely restructured to conduct its operational-strategic level penetration from the west. One of its two tank corps was replaced by a second mechanized corps, and two motorized rifle divisions, remnants of the large 1941 mechanized

corps, were attached to this army. In addition, two self-propelled assault gun brigades, two light artillery brigades, a motorcycle infantry regiment, and a variety of support units made 6th Guards Tank a much more robust and balanced force than any tank army of the German conflict. Ultimately, 6th Guards Tank Army included twenty-five armored and 44 motorized rifle battalions with a total of 1,019 tanks and self-propelled guns. This structure was much closer to both the 1941 mechanized corps and the 1946 Soviet mechanized army than to the tank forces that had recently defeated Germany. With peace in Western Europe, the Red Army had sufficient weapons, equipment, and men to construct ideal military teams for postwar use. In essence, the *Stavka* used Manchuria as a live-fire experiment, testing a variety of new organizations and concepts that later became standard.¹⁴

In western Manchuria, 6th Guards Tank Army moved across the virtually uninhabited border in the predawn hours of 9 August 1945. In three days, its forward detachments covered 450 kilometers, meeting problems of rough terrain and fuel resupply but only nominal enemy resistance. The leading element of this army, Lieutenant General M. V. Volkov's 9th Guards Mechanized Corps, found that its Lend-Lease Sherman tanks were ill equipped to traverse the swampy passes of the Grand Khingan Mountains. As a result, the T-34s and BT-7s of Lieutenant General M. I. Savelev's 5th Guards Tank Corps assumed the lead during the final advance. The 6th Guards Tank Army was flanked by Colonel General I. I. Liudnikov's 39th Army, which bypassed and rooted out Japanese forces along the rail line from the west, and by Colonel General Pliev's cavalry-mechanized group, which marched across seemingly endless expanses of desert to emerge west of what is now Beijing. By 15 August, the spearhead armored units had penetrated the mountain barrier and raced into the central valley of Manchuria, paralyzing the remnants of Japanese 3rd Area Army. By this time, Kravchenko's advance consisted only of forward detachments that received fuel resupply by air.¹⁵ The bypassed Japanese forces in the west fought desperate but irrelevant battles in total isolation.

Farther to the north, Lieutenant General A. A. Luchinsky's 36th Army was less fortunate. At 0020 hours on 9 August, two rifle battalions of that army seized bridgeheads over the rain-swollen Argun' River, scattering the Japanese security platoons in the area. By the end of the day, 36th Army, with 205th Tank Brigade leading as its forward detachment, was closing on the fortified town of Hailar. Luchinsky attempted to seize the town by a sudden night attack from the north but was stopped cold by the Japanese 80th Independent Mixed Brigade. For nine days, an entire Soviet rifle corps was tied down clearing Hailar house by house, overcoming determined Japanese resistance. This did not prevent Luchinsky from bypassing the town with his 2nd Rifle Corps, which continued the exploitation. The 205th Tank Brigade

and 2nd Rifle Corps battered away at the Japanese 119th Infantry Division in the high passes of the Grand Khingans. The Soviets finally broke through into the central plains on 17 August, just as the local Japanese commanders began to obey their Emperor's cease-fire order.¹⁶

On the eastern side of Manchuria, Meretskov's 1st Far Eastern Front had a much more difficult task against prepared defenses, something that Meretskov had excelled at ever since the Finnish war. To achieve surprise, the Soviet 5th Army dispensed with the usual artillery preparation. Instead, the first reconnaissance battalions crossed the border in terrible thunderstorms at 0030 hours on 9 August. Half an hour later, the main assault units began to clear lanes through the border obstacles. By 0500 hours, these sophisticated infiltration tactics had disrupted the Japanese forward defense scheme, and the Soviet troops shifted to the exploitation.¹⁷ At the end of the first day, the tank brigades attached to each rifle division were as much as 22 kilometers into Manchuria, leaving follow-on units to reduce the bypassed Japanese forts.

The 5th Army commander, Colonel General N. I. Krylov, sent a reinforced tank brigade rushing toward the Japanese army group headquarters in the city of Mutanchiang, 60 kilometers from the border. Early on 12 August, the Japanese 135th Infantry Division halted this advance with a violent counterattack. Within hours, Krylov had brought up two rifle divisions, organized a thirty-minute artillery barrage, and disrupted the Japanese defenses in a hasty attack. By the next day, four other rifle divisions, each led by a tank brigade, were closing in on Mutanchiang. For two days, five Japanese regiments held the city in ferocious house-to-house fighting, during which one regiment was destroyed almost to a man.

The advance was by no means bloodless for the Red Army—2,031 Soviet troops died and 24,425 were wounded in the eleven days between 9 and 20 August.¹⁸ During the first three days of the campaign, 257th Tank Brigade, which acted as a forward detachment for Colonel General A. P. Beloborodov's 1st Red Banner Army in eastern Manchuria, dwindled from an authorized strength of sixty-five tanks to only nineteen but continued to advance.¹⁹ If a forward detachment were halted by the defenders, the parent headquarters organized another such detachment and bypassed the resistance. Everywhere, the experienced Soviet commanders used maneuver and subordinate initiative in a manner that stunned the Japanese, who still retained their 1930s stereotype, reinforced by biased German reports, of a “clumsy” opponent.

The Soviet campaign did not occur in a vacuum, and it probably profited from the rapid unraveling of the Japanese Empire. The American submarine blockade and firebombing raids had already severely weakened Japan before the two atomic bomb attacks of 6 and 9 August. Still, the Soviet invasion, in the one Japanese imperial region that had previously seemed secure,

undoubtedly contributed to Emperor Hirohito's decision to end the war before it destroyed his imperial institution.²⁰

This decision, plus a sharp warning from U.S. president Harry Truman to desist, came just in time to force Stalin to halt a joint airborne and amphibious operation against Hokkaido, thereby sparing Japan the postwar ordeal experienced by a divided Germany.²¹ Such an invasion might well have been expensive for the invaders. The Soviets had already encountered ferocious resistance as they advanced down Sakhalin and the other islands in the area toward Hokkaido from the north. On 18 August, for example, a Soviet force of more than thirty ships conducted a landing on the island of Shumishu, in the Kurile Islands chain. The Japanese defenders sank a patrol craft and four landing boats, and the troops experienced considerable difficulty in unloading heavy equipment through the surf under enemy fire. Resistance on these islands did not cease until after Japan formally surrendered on 2 September. Thus, a Soviet amphibious landing on Hokkaido might well have been as costly as American landings elsewhere.²²

LOSERS AND WINNERS

During much of the Cold War, a combination of ideology, great power politics, and language barriers caused most Westerners to dismiss the preceding Soviet account of the Great Patriotic War as self-serving and fanciful. Instead, most Western soldiers and civilians tended to accept German explanations for the Soviet victory, even though those explanations were at best simplified and incomplete.

Foremost among these explanations was the bitter critique of German officers who blamed their failure on Adolf Hitler, the universal alibi for everything that happened in Germany between 1933 and 1945. In the concluding passage of his suggestively titled memoirs, *Lost Victories (Verlorene Siege)*, Erich von Manstein complained of "a dictator who believed in the power of his will not only to nail down his armies wherever they might be but even to hold the enemy at bay. . . . For all his talent, [Hitler] lacked the groundwork of real military ability."²³ Manstein insisted that, without the interference of this bungling amateur, the German officer corps could have achieved at least a compromise peace with the Soviet Union.

There is no question that Hitler was insane and that as the war went on he increasingly insisted upon defending every inch of ground, if only to keep his own nerve in the face of adversity. However, this study should illustrate that his generals did not have a monopoly on sound military judgment. Hitler frequently erred precisely because he followed their professional advice, as when Germany attacked the Kursk bulge in 1943 or redeployed

its counterattack reserve away from the Soviet Bagration offensive in 1944. When Hitler overruled the professionals, he was sometimes correct, as in his refusal to withdraw outside Moscow in 1941. Moreover, as historian Howard Grier observed, “Hitler permitted more retreats than previously assumed. The major retreats in France, Finland, and the Balkans from August through October 1944 provide convincing evidence that Hitler would sanction major withdrawals when he thought they were necessary.”²⁴ It is worth noting in this regard that although Hitler closely supervised the final defense along the Oder River, he repeatedly approved commanders’ decisions to use the sophisticated tactics of defense in depth, including evacuating covering forces before the Soviet artillery preparation. Although Hitler notoriously used temper tantrums to impose his will, he could also be courteous and generous even to those who disagreed with him, such as Manstein and Richthofen. More generally, the dictator appeared to have an instinctive sense of what was important in an attritional war, focusing on economic resources to sustain Germany when his commanders were still seeking quick victories on the battlefield. It might be more accurate to observe that in operational matters, Hitler, like Hamlet, was only mad when the wind was from the north-northwest.

A second explanation for German defeat emphasizes the vast distances, difficult terrain, and harsh climate of European Russia. There is certainly some truth to this, but these factors affected both adversaries and were self-evident long before Barbarossa began. Indeed, in the fall of 1940 German staff planners had identified all of these problems, predicting the point of logistical failure with phenomenal accuracy. Given Germany’s limited weapons inventory, the problem was arguably that the *blitzkrieg* tactics used in Poland and France were not scalable to the larger-than-life challenge of conquering one of the biggest states in the world. Unlike Hitler’s previous adversaries, the Soviet Union had the space, resources, and trained manpower to absorb the best that Germany could throw at it, even as it prepared for the day when it could defeat the overextended invader. Once the Germans failed to achieve ill-defined objectives with their fragile panzer divisions, they were forced to fight an attritional conflict for which they were never prepared, using weapons that were poorly suited to the environment.

This, of course, leads to the third reason that German commanders cited to explain their defeat: the idea that the Wehrmacht was simply overwhelmed by hordes of robotic opponents. Such an image appealed to both the German veterans and their postwar American allies, who hoped, like the Germans, to use superior training, tactics, and motivation to overcome a larger foe. Again, however, this is only a half-truth. Germany knew from the moment it attacked in 1941 that it was outnumbered two to one, but numerical ratios at first appeared unimportant given the German tactical and operational advantages.

The enormous losses that the surprised Red Army absorbed only confirmed the Germans' belief in their own racial and tactical superiority. The defeats of 1941–1942 reinforced the stereotype of the inflexible peasant soldier who displayed no initiative, perhaps because the Germans were unaware of the penalties that initiative often provoked.²⁵

As the war dragged on, the Red Army became increasingly proficient in planning and executing its own complex form of mechanized warfare, while the level of training among German troops declined quickly in the face of heavy casualties. Those German officers who had made their names in the glory days of 1941–1942 often failed to recognize this shift in the relative training and ability of the opposing armies. Indeed, their contempt for their supposedly primitive foe only made them more vulnerable to the *maskirovka* efforts of 1944, such as the Soviet deception efforts at Korsun'-Shevchenkovskii and prior to Operation Bagration. More than one of the "hordes" that defeated Germany were populated by phantoms.

CONTRIBUTIONS AND COSTS

Quite apart from these facile German explanations, many Westerners quickly forgot the enormous contributions that the Soviet peoples had made to the Allied victory. On the fiftieth anniversary of the Normandy invasion, a U.S. news magazine featured a cover photo of General Dwight D. Eisenhower, who was labeled as the man who defeated Hitler. If any one man deserved that label, it was not Eisenhower but Zhukov, Vasilevsky, or perhaps Stalin himself. The Red Army and the Soviet citizenry of many nationalities bore the lion's share of the struggle against Germany from 1941 to 1945. Only China, which suffered almost continuous Japanese attack from 1931 onward, matched the Soviet level of suffering and effort. In military terms, moreover, the Chinese participation in the war was almost insignificant in comparison with that of the Soviets, who engaged and absorbed well over half of all German forces.

From June until December 1941, only Britain shared with the Soviet Union the trials of war against the Germans. More than 3 million German troops fought in the East, and less than 1 million served elsewhere, occupied conquered territories, or rested in the homeland (see Table N in the Appendix). For the following year, through November 1942, over 9 million troops on both sides fought in the East, but the only significant ground action in the western theater took place in North Africa. There, relatively small British and Commonwealth forces engaged Rommel's Africa Corps and its Italian allies. In November 1942, the British triumphed at El Alamein, defeating four German divisions and a somewhat larger Italian force and inflicting 60,000

Axis losses. That same month, around Stalingrad the Soviets encircled the German Sixth Army, damaged Fourth Panzer Army, and smashed Romania's Third and Fourth Armies, eradicating over 50 divisions and 300,000 men from the Axis order of battle. By May 1943, the Allies had pursued Rommel's slightly enlarged panzer army across Africa into Tunisia, where, after heavy fighting, the German and Italian force of 250,000 surrendered. Meanwhile, in the East the Red Army finished off German Sixth Army, severely mauled another German army (the Second), and destroyed the Italian Eighth and Hungarian Second Armies, more than doubling Axis losses in Tunisia.

By 1 October 1943, some 2,565,000 soldiers—63 percent of the Wehrmacht's total strength—were fighting in the East, as were the bulk of the 300,000 *Waffen SS* troops. In the meantime, far smaller German forces had stalemated the British-American advance in Italy. On 1 June 1944, a total of 239 German division equivalents, or 62 percent of the entire force, were on the Eastern Front; the Germans still considered the West to be a semirest area.²⁶ Even in August 1944, after the Allies opened a Western Front in Normandy, the Germans still had 2.1 million soldiers in the East as opposed to 1 million in France.

Relative casualty figures reinforce this image of the Eastern Front as the principal German theater of war. Between 1 September 1942 and 20 November 1943, the German Army lost 2,077,000, or 30 percent, of the total force committed, as killed, wounded, or missing in the East (see Table O and Table R in the Appendix for Soviet weapons production, strengths, and losses during wartime). From June through November 1944, when Germany was losing on both fronts, 903,000 (62 percent) of the 1,457,000 irrevocable losses were again in the East.²⁷ Finally, after losing 120,000 men to the Western Allies in the Battle of the Bulge, the Germans suffered another 2 million losses, two-thirds of them at Soviet hands, from 1 January to 30 April 1945.

For the war as a whole, total Wehrmacht losses to 30 April 1945 amounted to 11,135,500, including 6,035,000 wounded. Of these, almost 9 million fell in the East. Total German losses including prisoners number 13,488,000 men, representing 75 percent of all mobilized forces and 46 percent of the 1939 adult male population of Germany. Of these, 10,758,000 fell or were taken prisoner in the East.²⁸ Today, the stark inscription "Died in the East," carved on countless thousands of headstones in German cemeteries, bears mute witness to the carnage in the East, where the will and strength of the Wehrmacht perished.

Both during and after the war, Soviet officials complained bitterly about the absence of a true "Second Front" before June 1944. The suspicion that their allies deliberately allowed the USSR to bear the brunt of the war helped limit popular criticism for the terrible casualties involved, and this suspicion about the West endures even in the post-Soviet Russian Federation. Yet, the

Allies had ample reason to defer that invasion. The botched Canadian-British raid on Dieppe (in August 1942) and the American defeat at Kasserine Pass (in February 1943) indicated that the Western Allies were not ready to operate in France until at least mid-1943, and in any event, there were insufficient landing craft and other equipment available before 1944. Even the June 1944 landing was a close call, with victory due in part to major German misperceptions. Once they landed and then broke out of Normandy, the Western Allies inflicted grievous losses on the defending Germans—100,000 at Falaise and a total of 400,000 Germans by the end of 1944. In the subsequent Battle of the Bulge (16 December 1944 to 31 January 1945), the Germans lost an additional 120,000 men.²⁹ These losses in the West, combined with more than 1.2 million lost in the East during the same period, broke the back of the Wehrmacht and prepared Germany for final destruction in 1945.

The Allies did, of course, contribute to victory in ways other than ground combat. The Dieppe raid and the Sicilian invasion seemed like pinpricks, but they prompted Hitler to redeploy valuable units to the West, indirectly aiding the Red Army. As remarked earlier, the Allied strategic bombing campaign of 1943–1945 first drew the bulk of German airpower and antiaircraft guns home to defend the Reich and then shattered the *Luftwaffe* fighter force irrevocably. The same bombing campaign also did significant damage to German industrial strength and civilian morale, although Germany was limited more by labor and material shortfalls than by available machine tools.

Equally disastrous for the Germans were the losses of tactical fighters in the bombing campaign and in combat in France in 1944. These losses were so devastating that the *Luftwaffe* was no longer a factor in the East after mid-1944.

Another controversial Allied contribution was the Lend-Lease program to supply the Soviet Union. During the Cold War, Soviet accounts consistently understated the significance of this program for the Soviet war effort.³⁰ Lend-Lease aid did not arrive in sufficient quantities to make a major difference between defeat and victory in 1941 and early 1942; that achievement must be attributed solely to the Soviet peoples and to the iron nerve of Stalin, Zhukov, Shaposhnikov, Vasilevsky, and their subordinates. As the war continued, however, the United States and Britain provided many of the implements of war and raw materials necessary for Soviet victory. Without Lend-Lease food, clothing, and raw materials, especially metals, the Soviet economy would have been even more heavily burdened by the war effort. In particular, Lend-Lease trucks, railroad engines, and railroad cars sustained the exploitation phase of each Soviet offensive; without such transportation, every offensive would have stalled out at an early stage, outrunning its logistical tail. In turn, this would have allowed the German commanders to escape at least some encirclements, and it would have forced the Red Army to prepare and conduct many more deliberate penetration attacks to advance the

same distance. If the Western Allies had not provided equipment and invaded northwest Europe, Stalin and his commanders might have taken twelve to eighteen months longer to finish off the Wehrmacht. The result would probably have been the same, except that Soviet soldiers would have waded at France's Atlantic beaches rather than meeting the Allies at the Elbe. Thus, although the Red Army shed the bulk of Allied blood, it would have bled even more intensely and for a longer time without Allied assistance.

As indicated in Tables P and Q in the Appendix, the Great Patriotic War cost the Soviet Union at least 29 million military casualties. The exact numbers can never be established; some revisionists are trying to put the number as high as 50 million. Uncounted millions of civilians also perished or suffered permanent injury; the dislocation of the Soviet population was comparable to the effect of an enemy occupation of the United States from the Atlantic coast to west of the Mississippi River. Millions of soldiers disappeared into German detention camps and slave labor factories, where they died at a rate higher than that suffered by German POWs in Siberia. Millions of other Soviets suffered permanent physical and mental damage.

Economic dislocation was equally severe. Despite the prodigious feats of moving factories east of the Urals, the losses in resources and manufacturing capacity were catastrophic in western Russia and the Ukraine. The heavy industry in the Donbas, Leningrad, Kiev, and Khar'kov regions fell under German control, along with key mineral deposits and most of the Soviet Union's prime agricultural regions. This stark context underscores the importance of Lend-Lease.

Coming on top of World War I, the Russian Civil War, forced collectivization, and the purges of the 1930s, this staggering butcher's bill left the Soviet population and economy weakened for decades to come. Working seventy-four-hour weeks, the Soviet worker did not regain the 1940 standard of living (for a much smaller population) until at least 1952.³¹ Understandably, the Soviet government and population were determined to eliminate any possibility of another such catastrophe. This fostered a paranoid concern with national security that ultimately contributed to the bankruptcy and destruction of the state.

THE TWO ARMIES

Although most historians have recognized the scale of Soviet sacrifice and achievement, stereotypes persist as to *how* the Wehrmacht and the Red Army fought. The Red Army never slavishly copied the Germans but in fact followed its own traditions in matters of organization, doctrine, and leadership. Still, it learned much from its more skilled opponents. During wartime,

it built upon its own rich theoretical base and implemented what theorists had advocated but been unable to realize in the 1930s. Necessity drove that education, and the cost of failure was high. In a strange sort of reciprocity, as the war dragged on the German Army came to resemble its 1941 opponents, whereas the Red Army came closer to the essence of the original *blitzkrieg*, now under the rubric of the “deep operation.”

In 1941, the German Army prided itself on *Auftragstaktik*, relying on all leaders to understand the commander’s overall concept and to cooperate in a flexible, decentralized manner that allowed considerable scope for individual initiative. German army units, especially the panzer forces, were already famous for their ability to reorganize as required by the situation, to bypass centers of enemy resistance, and to continue the exploitation far into the enemy rear areas. The professional officers at the top considered themselves to be trusted subordinates of the state, divorced from the Nazi Party and its ideology, although in practice most of them accepted those ideological views. If the Wehrmacht had a limitation during 1941–1942, it was in the area of logistics. The scope of the Russian campaign was probably beyond German capability from the start, and many of the early German offensives came to a halt for lack of supplies rather than because of Soviet resistance.

By contrast, the Red Army during the first year of the war was a victim of Stalin’s dictatorship. Its troops lacked experience and equipment, it had abandoned its advanced operational and tactical doctrine, its brain had been lobotomized by the purges, and its officer corps was decimated and demoralized. Commanders tended to ignore the terrain and the enemy situation, distributing their forces evenly across the front and failing to accomplish the most elementary coordination between infantry and artillery. The more unscrupulous political officers second-guessed tactical leaders to advance their own careers, and summary imprisonment or execution awaited those commanders who failed.

Stunned by the disaster of 1941, Stalin did not trust even his few competent generals and attempted to manage the war personally. On occasion, such as in the defense of Leningrad, Moscow, and Stalingrad, the dictator’s stubbornness was an asset that motivated his subordinates to make extreme sacrifices. At other times, however, his demands to counterattack at the frontiers, to defend Kiev, or to resume the offensive in May 1942 reflected a complete misunderstanding of the military situation. Even when Soviet arms achieved initial successes during the winter campaigns of 1941–1942 and 1942–1943, Stalin was too ambitious, attempting to win the war in one all-out advance instead of a series of successive, cautious operations.

Beginning in the fall of 1942, the Wehrmacht began to lose many of its distinctive advantages and to acquire some of the weaknesses of its opponent. Continuous casualties meant a decline in training standards and therefore in

tactical proficiency. Equipment wore out, and despite prodigies of effort, the German economy was no longer able to provide quality weapons in sufficient quantities to maintain the previous technological edge.

The key issue, of course, was German leadership, as Adolf Hitler began to resemble the Joseph Stalin of 1941. As remarked previously, German officers blamed their *Führer* for actually trying to lead his armies in the field, relieving subordinates to the point where he was at one time absentee commander of an army group. The traditional explanation for this is that, having been correct to forbid withdrawals during the first Soviet winter offensive, Hitler thereafter interfered increasingly in field decisions. There is some truth to that assertion, and his instinctive response to all crises was to stand and fight rather than allow flexible, maneuver responses. Beyond that, one may conjecture that Hitler saw two reasons for changing the leadership climate of his armies. First, because the Red Army had become increasingly proficient during 1942, German commanders at field army level and below tended to move more cautiously and achieve fewer successes than they had done previously. Not understanding this change in his enemy, Hitler believed that this caution was unjustified and perhaps even deliberately obstructionist, and he sought to hurry his units along to achieve the kind of encirclement victories that had been so common between 1939 and 1942. The German commanders who had received promotions, landed estates, and cash rewards when they succeeded now began to suffer when they failed.

In addition, the dictator had a legitimate criticism of his subordinates, complaining that their preferred method of operations involved sharing the plans of higher and adjacent headquarters to the point that they almost guaranteed the inadvertent disclosure of their intentions. This sharing, in defiance of Hitler's express instructions, resulted in a series of spectacular compromises, beginning in January 1940 with the loss of the invasion plan for France (*Fall Gelb*) and culminating in June 1942 with the disclosure of Plan *Blau*. Small wonder, then, that Hitler sought to restrict this promiscuous flow of information even if it meant reducing the tactical flexibility that his armies had shown in earlier efforts.

This change in leadership was never absolute; a few brilliant commanders were permitted to make their own decisions as late as 1945, but if they failed, they were soon replaced by men too timid to even request the authority to maneuver. *Führungssoffiziere*, the Nazi equivalent of political commissars, began to appear in German headquarters, and commanders who suffered defeat or deviated from their orders for any reason were lucky to escape with their lives. Under these circumstances, the German soldier's principal motivation became simple survival. At the tactical level, only the most fanatical Nazis had any faith in ultimate victory, but every German feared capture by a seemingly inhuman enemy.

The Red Army painfully developed effective leaders, organizations, weapons, and tactics, in the process returning to its prewar concepts of warfare. Recognizing this, Stalin began to accord trust and freedom to his subordinates at precisely the same time, and for many of the same reasons, that Hitler tightened control. A shared experience of many midlevel Soviet commanders was being summoned to the Kremlin not for punishment but rather to give their candid assessments to their leader, who was seeking to understand and improve the army; none ever reported retribution for voicing their opinions. During the Second Period of War, from late 1942 through 1943, that army blossomed into a force that not only could halt the *blitzkrieg* but also could conduct its own offensives and deceptions in all types of weather and terrain. As a result, the Red Army was able to decimate the Wehrmacht, establishing the overall numerical superiority that characterized the final two years of the war. Even then, however, Soviet manpower was not inexhaustible, and the Soviet commanders increasingly attempted to avoid expensive frontal assaults whenever possible.³²

Red Army commanders continued to make costly mistakes as late as the Battle of Berlin, but this represented the inevitable waste of warfare rather than any tactical incompetence. The officer corps became steadily more competent and trusted from 1942 onward. Political officers confined themselves to matters of morale and propaganda, and Stalin gradually widened the circle of those he trusted. The few all-powerful “representatives of *Stavka*” gave way to separate *front* or multi-*front* headquarters and finally to decentralized authority throughout the chain of command. It is true that during the last few campaigns of 1945, Stalin inserted himself as overall field commander to improve his political status. Yet even this action was a vote of confidence for his officers. Except for key political, strategic, and operational decisions, Stalin could and did leave the conduct of these campaigns to the *front* commanders and their staffs. He had sufficient faith in the Red Army to allow it to conclude the war, knowing that his own prestige would only be enhanced by his superbly competent subordinates.

These subordinates had developed their own procedures for conducting mechanized warfare on a massive scale. By 1944, the typical Soviet offensive was preceded by careful planning and deception measures designed to concentrate forces at the designated breakthrough point. The attack would begin with a wave of reconnaissance battalions that infiltrated the German forward defenses and seized key positions, thereby dislocating the rest of the German defense and rendering it untenable. This infiltration was accompanied or followed by massive, carefully orchestrated air and artillery preparations. When the whirlwinds of artillery fire shifted from the front lines toward the German rear areas, infantry supported by heavy armor and engineers conducted the conventional assault to eliminate remaining centers of German resistance.

Until the final attack along the Oder River, the German defenses were usually so thin that this three-stage process of reconnaissance, fire preparation, and combined-arms assault was sufficient to create a penetration. As quickly as possible, therefore, senior Soviet commanders committed their mobile forces through the resulting gaps. Although the tank armies and separate mobile corps were large formations commanded by experienced general officers, much of their tactical success depended on the work of the young captains and majors who commanded the leading forward detachments. These highly mobile, combined-arms groups of 800 to 2,000 soldiers avoided pitched battles whenever possible, bypassing German defenders to establish large encirclements and seize bridgeheads over the next water obstacle, bridgeheads that then became the starting points for the next offensive operation. Follow-on rifle forces, supported by the increasingly powerful Red Air Force, then reduced the German encirclements as the mobile forces continued their exploitation. Throughout these offensives, centrally directed Rear Services performed prodigious feats of improvisation to keep the spearheads supplied even 400 kilometers behind enemy lines. Just as in the German offensives of 1941–1942, the later Soviet attacks often came to a halt due to logistical overextension rather than enemy action.

Thus, in June 1941 one of Newton's laws of physics met its ultimate test when the supposedly irresistible force of the Wehrmacht struck the seemingly immovable Red Army. Recent research suggests that, within a month of the surprise German attack, not only did the immovable object not break or buckle, it also began to seriously impede the German advance. In four years of combat that consumed immense resources and energy, the Red Army survived, improved, and prevailed. In a struggle whose effects Stalin later likened to an atomic war, the irresistible force of the Wehrmacht was totally destroyed.

WAR AND THE SOVIET STATE

This enormously sophisticated war-fighting capability redounded to the credit of Stalin and of his entire government and party as well. The German invasion gave the Communist regime unprecedented legitimacy as the organizer of victory. Men and women who had been apathetic about the regime could not avoid physical and emotional involvement in the struggle against the invader. In the occupied territories, German racial and economic policies drove most potential recruits into the arms of the partisans. By emphasizing patriotism rather than Marxist purity, the Communists identified themselves with the survival of the entire nation. In the process, soldiers found it much easier to obtain membership in the Communist Party and the *Komsomol*.

Membership became the ultimate reward to recognize the bravery and efficiency of 6 million troops.³³ This gave the Communists a more pervasive, if less obtrusive, hold on the army and the entire country. During and even after the war, virtually the entire Soviet population was united by the drive to expel the Germans and the determination to prevent any possible repetition of the horrors of 1941 and 1942.

Yet, after 1945, the Soviet leaders became, in some sense, prisoners of their own wartime success. Although the Red Army (renamed the Soviet Army in 1946) was scaled back in numbers, it still occupied pride of place in the Soviet government, and all postwar leaders in the Kremlin struggled in vain to limit the political and budgetary impact of the defense forces. The Soviet economy, already stunted by wartime experiences, was forced to allocate its most valuable resources to defense; as General William Odom observed in analyzing the regime's collapse, "Soviet socialism required a permanent war economy."³⁴

More generally, the German occupation had reinforced the traditional and justified Russian fear of invasion, as signified by the ubiquitous postwar Russian slogan, "*Nikto ne zabyt, nicheto ne zabyto*" (No one has forgotten, nothing has been forgotten). The Great Patriotic War, with its devastation and suffering, colored the strategic thinking of an entire generation of Soviet leaders during the next four decades. Postwar Soviet governments created an elaborate system of buffer and client states, designed to insulate the Soviet Union from any possible future attack. Although the Warsaw Pact countries contributed to Soviet defense and the Soviet economy, their rebellious populations were a recurring threat to the regime's sense of security. Outposts such as Cuba and Vietnam might have appeared to be useful gambits in the Cold War struggle with the West, but they actually represented further drains on the Soviet economy. In the long run, that economy probably lost as much as it gained from the buffer and client states.

In retrospect, the determination to preserve the fruits of victory and preclude any future attack was a dangerous burden for the Moscow government. This determination, accompanied by huge military spending and ill-conceived foreign commitments, was a permanent handicap that helped doom the Soviet economy and, with it, the first Marxist state.

Appendix: Statistical Tables

Table A. Composition of Opposing Forces, 22 June 1941

Types of Forces	Germany			Soviet Union		
	Army Groups	OKH Reserve	Total	Field Army	Stavka Reserve	Total
Army Groups (<i>Fronts</i>)	3	—	3	3	—	3
Armies	8	1	9	15	6	21
Panzer Groups	4	—	4	—	—	—
Corps	40	7	47	58	19	77
	AC—28	AC—6	AC—34	RC—32	RC—14	RC—46
	MotC—10	MotC—1	MotC—11	MC—20	MC—5	MC—25
	MtnC—2		MtnC—2	CC—3		CC—3
				AbnC—3		AbnC—3
Divisions	125	27	152	163	57	220
	ID—78	ID—23	ID—101	RD—97	RD—42	RD—139
	PzD—17	PzD—2	PzD—19	TD—40	TD—10	TD—50
	MotD—9	MotD—1	MotD—10	MD—20	MD—5	MD—25
	JägD—4	MtnD—1	JägD—4	CD—6		CD—6
	MtnD—3		MtnD—4			
	CD—1		CD—1			
	PolD—1		PolD—1			
	SecD—9		SecD—9			
	SSMotD—3		SSMotD—3			
Brigades	4	1	5	11	—	11
	CavB—1	LehrB—1	CavB—1	RB—2		RB—2
	SSMotB—2		LehrB—1	AbnB—9		AbnB—9
			SSMotB—2			
Regiments	1	—	1	20	5	25
	MotIR—1		MotIR—1	MtcR—20	MtcR—5	MtcR—25
Fortified regions	—	—	—	41	—	41

Table A (continued)

Romania			
Types of Forces	Army Groups	OKH Reserve	Total
Armies	—	2	2
Corps	2	4	6
	MtnC—1 CC—1	AC—4	AC—4 MtnC—1 CC—1
Divisions	4	10	14
	ID—4	ID—9 AD—1	ID—13 AD—1
	6	3	9
Brigades	MtnB—3 CB—3	FB—2 CB—1	MtnB—3 CB—4 FB—2

Sources: *Boevoi sostov Sovetskoi armii, Chast' 1 (Iyun'–dekabr' 1941 goda)* [The combat composition of the Soviet Army, pt. 1 (June–December 1941)] (Moscow: VAGSh, 1964), 7–14; Horst Boog, Jurgen Förster, Joachim Hoffmann, Ernst Klink, Rolf-Dieter Müller, and Gerd R. Ueberschär, *Germany and the Second World War*, vol. IV, *The Attack on the Soviet Union*, trans. Dean S. McMurry, Ewald Osers, and Louise Willmot (Oxford: Clarendon Press, 1999), 222–224; Mark Axworthy, Cornel Scafeş, and Cristian Craciunoiu, *Third Axis, Fourth Ally: Romanian Armed Forces in the European War, 1941–1945* (London: Arms & Armour Press, 1995), 45–46.

Note: Romanian forces came under German operational control after they had reconquered lost Romanian territory. “OKH Reserves” includes Romanian forces committed on or shortly after 2 July. Romanian Armored Division was brigade-sized.

German	Romanian	Soviet
AC – army corps	MtnC – mountain corps	RC – rifle corps
MotC – motorized corps	AC – army corps	MC – mechanized corps
MtnC – mountain corps	CC – cavalry corps	CC – cavalry corps
ID – infantry division	ID – infantry division	AbnC – airborne corps
PzD – panzer division	AD – armored division	RD – rifle division
MotD – motorized division	MtnB – mountain brigade	TD – tank division
JägD – jäger (light) division	CB – cavalry brigade	MD – motorized division
MtnD – mountain division	FB – fortress brigade	CD – cavalry division
CD – cavalry division	RB – rifle brigade	
PolD – police division	AbnB – airborne brigade	
SecD – security division	MtcR – motorcycle regiment	
SSMotD – SS motorized division	FB – fortified region	
CavB – cavalry brigade		
SSMotB – SS motorized brigade		
LehrB – training brigade		
MotR – motorized regiment		

Table B. Comparative Strengths of Opposing Forces, 22 June 1941

- **Germany**—3,050,000 men organized into 8 armies, 45 corps, 148 divisions, and 5 brigades assigned to Army Groups North, Center, and South and the OKH, which were deployed from the southern shore of the Baltic Sea into Romania, plus 67,000 men organized into 2 corps, 4 divisions, and 1 combat group deployed in Finland (with 2 corps consisting of 2 mountain divisions, 1 infantry division, and an SS combat group in northern Finland, as well as 1 division in reserve in southern Finland on 30 June).¹
- **Romania**—325,685 men organized into 2 armies, 6 corps, 14 divisions, and 9 brigades, of which roughly 150,000 men in 4 divisions and 6 brigades were committed to action on 22 June and the remainder on or after 2 July.²
- **Finland**—500,000 men organized into 4 corps, 1 group, 14 divisions, and 3 brigades, with 1 corps and 2 divisions in northern Finland and 4 corps, 1 group, and 14 divisions and 3 brigades in southern Finland.³
- **Soviet Union**—Soviet military forces immediately available to counter Germany's Barbarossa invasion included Red Army Field (Operating) forces stationed in the western border military districts (the Baltic, Western, and Southwestern Military Districts, which became the Northwestern, Western, and Southwestern Fronts on 22 June, plus the Leningrad Military District, which formed the Northern Front on 24 June), Red Army forces in the Reserve of the High Command (*Stavka*), Air Forces assigned to the Field forces and *Stavka* Reserve, and military forces subordinate to the Soviet People's Commissariat of Internal Affairs (NKVD).⁴ These forces included:
 - *The Field (Operating) Army (Deistvuiushchaya armiya)*—2,313,414 men, supported by 12,683 tanks (10,508 operable), assigned to 3 fronts, 15 armies, 58 corps, 163 divisions, 11 brigades, and 41 fortified regions.
 - *The Stavka Reserve (RVK)*—618,745 troops, supported by 3,160 tanks (2,858 operable) assigned to 6 armies, 19 corps, and 57 divisions. This meant the Red Army had a ground force of 2,931,159 men supported by 13,366 operable tanks. Of these 13,366 tanks were 1,301 operable KV and T-34 models (469 and 832, respectively) available to counter Germany's Barbarossa invasion.
 - *The Air Force (VVS)*—213,589 men assigned to aircrews and ground support organizations and 8,974 aircraft (7,593 operable), including 8,815 combat (7,451 operable), organized into 4 bomber aviation corps, 47 aviation divisions (3 PVO fighter, 11 fighter, 19 mixed, and 14 bomber), and 10 separate aviation regiments (3 PVO fighter and 7 reconnaissance) subordinate to the Field Army, which increased the manpower strength of the Field Army and *Stavka* Reserve to a total of 3,144,748 men.⁵
 - *NKVD forces*—127,300 troops manning 8 border guards districts, 47 ground and 6 naval border guards detachments, 9 separate border guards commands, and 11 regiments of operational forces.⁶

Source: *Boevoi i chislennyi sostav vooruzhennykh sil SSSR v period Velikoi Otechestvennoi voiny (1941–1945): Statisticheskii sbornik No. 1 (22 iyunia 1941 g.)* [The combat and numerical composition of the armed forces of the USSR in the period of the Great Patriotic War (1941–1945): Statistical collection No. 1 (22 June 1941)] (Moscow: Institute of Military History of the Russian Federation, 1994), 55–59.

Notes:

1. Horst Boog, Jurgen Förster, Joachim Hoffmann, Ernst Klink, Rolf-Dieter Müller, and Gerd R. Ueberschär, *Das Deutsche Reich und der Zweite Weltkrieg: Der Angriff auf der Sowjetunion*, trans. Dean S. McMurry, Ewald Osers, and Louise Willmot (Oxford: Clarendon Press, 1999), vol. IV, 270, and “Schematische Kriegsgleiderung, Stand: B-Tag 1941 (22.6) ‘Barbarossa,’” in *Das Deutsche Reich und der Zweite Weltkrieg*, vol. 4, *Der Angriff auf die Sowjetunion*, Beiheft, 2. Russian sources show higher German strength figures, such as:
- V. A. Zolotarev et al., eds., *Velikaia Otechestvennaia voina 1941–1945, Kniga 1: Surovye ispytaniia* [The Great Patriotic War 1941–1945, bk. 1: A severe ordeal] (Moscow: “Nauka,” 1998), 113, which asserts that German strength was 4.1 million men, 4,170 tanks and assault guns, and 3,613 combat aircraft.

Table B (continued)

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- Mikhail Mel'tiukhov, *Upushchennyi shans Stalina: Skhvatka za Evropu 1939–1941 gg.* [The lost chance of Stalin: The fight for Europe 1939–1941] (Moscow: "Veche," 2008), 355, claims the German Army fielded 4,050,000 men (3.3 million men in the ground forces, 650,000 in the *Luftwaffe*, and 100,000 in the Navy), 4,408 tanks and assault guns, and 3,909 aircraft.
 - 2. Boog et al., *Das Deutsche Reich und der Zweite Weltkrieg*; "Schematische Kriegsgliederung Stand: B-Tag (22.6) 'Barbarossa'"; and Mark Axworthy, Cornel Scafeş, and Cristian Craciunoiu, *Third Axis, Fourth Ally: Romanian Armed Forces in the European War, 1941–1945* (London: Arms & Armour Press, 1995), 45–46.
 - V. A. Zolotarev et al., eds., *Velikaia Otechestvennaia voina 1941–1945, Kniga 1*, 113, assert that Romanian strength was 384,000 men, 60 tanks, and 393 combat aircraft.
 - Mel'tiukhov, *Upushchennyi shans Stalina*, 355, claims that the Romanian Army fielded 380,400 men, 60 tanks, and 423 combat aircraft.
 - 3. Boog et al., *Das Deutsche Reich und der Zweite Weltkrieg*, 398–399.
 - V. A. Zolotarev et al., eds., *Velikaia Otechestvennaia voina 1941–1945, Kniga 1*, 113, assert that Finnish strength was 470,000 men, 86 tanks, and 307 combat aircraft.
 - Mel'tiukhov, *Upushchennyi shans Stalina*, 355, claims that the Finnish Army counted 340,600 men, 86 tanks, and 307 combat aircraft.
 - 4. Russian sources, official and unofficial, display relatively minor differences when calculating Soviet military strength on the eve of Operation Barbarossa, based primarily on the date these sources were published and the diverse calculating methods they employed. Examples of these differences include the following:
 - Mel'tiukhov, *Upushchennyi shans Stalina*, 359, places Soviet manpower strength on 22 June 1941 at 3,061,160 men, including 2,691,674 in the Red Army, 215,878 in the Soviet Navy, and 153,608 NKVD troops, supported by 13,924 tanks (11,135 operable) and 8,974 aircraft (7,593 operable).
 - M. E. Morozov et al., eds., *Velikaia Otechestvennaia voina 1941–1945 gg.: Kampanii i strategicheskie operatsii v tsifrakh, Tom I* [The Great Patriotic War 1941–1945: Campaigns and strategic operations in figures, vol. I] (Moscow: Combined editorship of the MVD of Russia and the Main Archival Directorate of the city of Moscow, 2010), 5, indicate Soviet strength of 2,743,000 men, 12,782 tanks (468 KV and 832 T-34), and 10,266 combat aircraft (8,698 operable) on 22 June 1941.
 - The four-volume official history, Zolotarev et al., eds., *Velikaia Otechestvennaia voina 1941–1945, Kniga 1*, 123, places Soviet military strength at 3 million men, 11,000 tanks, and 9,100 combat aircraft but does not include NKVD forces. Despite these differences, these sources generally agree with the numbers in Table B.
 - 5. *Boevoi i chislennyi sostave vooruzhennykh sil SSSR v period Velikoi Otechestvennoi voiny (1941–1945): Statisticheskii sbornik No. 1 (22 iunia 1941 g.)* [The combat and numerical composition of the armed forces of the USSR in the period of the Great Patriotic War (1941–1945): Statistical collection no. 1 (22 June 1941)] (Moscow: Institute of Military History of the Russian Federation, 1994), 55–59.
 - 6. David M. Glantz, *Colossus Reborn: The Red Army at War, 1941–1943* (Lawrence: University Press of Kansas, 2005), 159–164.

Table C. Soviet Armies Destroyed or Disbanded in 1941

Month	Army (date)	Subordination (where destroyed)
July	10th Army (5 July)	Western Front (Bialystok/Minsk)
	4th Army (26 July)	Western Front (Smolensk)
August	16th Army (8 August)	Western Front (Smolensk)
	6th Army (10 August)	Southern Front (Uman')
	12th Army (10 August)	Southern Front (Uman')
	28th Army (10 August)	Reserve Front (Roslavl')
September	48th Army (14 September)	Leningrad Front (Chudovo)
	26th Army (25 September)	Southwestern Front (Kiev)
	5th Army (25 September)	Southwestern Front (Kiev)
	37th Army (25 September)	Southwestern Front (Kiev)
October	24th Army (10 October)	Reserve Front (Viaz'ma)
	31st Army (12 October)	Reserve Front (Viaz'ma)
	32nd Army (12 October)	Western Front (Viaz'ma)
	10th Army (2nd formation) (17 October)	Southwestern axis
	19th Army (20 October)	Western Front (Viaz'ma)
	20th Army (20 October)	Western Front (Viaz'ma)
	26th Army (2nd formation) (25 October)	Briansk Front (Briansk)
November	19th Army (2nd formation) (23 November)	<i>Stavka</i> Reserve (converted to 1st Shock Army on 25 November)
December	26th Army (3rd formation) (25 December)	Volkhov Front (converted to 2nd Shock Army)
	27th Army (25 December)	Northwestern Front (converted to 4th Shock Army)

Source: V. A. Zolotarev, ed., *Velikaia Otechestvennaia voina 1941–1945 gg.: Deistvuiushchaia armiiia* [The Great Patriotic War 1941–1945: The operating army] (Moscow: Kuchkovo pole, 2005), 77–221 and 265–274.

Table D. Soviet Armies Mobilized in 1941

Month	Army (date)	Where Formed/Deployed
June	9th Separate Army (22 June) 18th Army (22 June) 24th Army (24 June)	Odessa MD/Southern Front Khar'kov, Kiev MD/Southern Front Siberian MD/Front of Reserve Armies (disbanded on 10 October)
July	28th Army (1 July) 29th Army (12 July) 30th Army (13 July) 31st Army (16 July) 32nd, 33rd, 34th Armies (16 July) Coastal Army (20 July)	Arkhangel'sk MD/Front of Reserve Armies (disbanded on 10 August) Moscow MD/Front of Reserve Armies <i>Stavka</i> Reserve/Front of Reserve Armies Moscow MD/Front of Reserve Armies Moscow MD/Mozhaisk Defense Line
	35th Army (22 July) 43rd Army (31 July)	Southern Front/Odessa Defensive Region on 20 August, to Crimea (Sevastopol') on 16 October
August	36th Army (1 August) 44th, 45th, 46th, 47th Armies (1 August) 38th Army (4 August) 54th Army (5 August) 48th Army (7 August) 49th Army (7 August)	Far Eastern Front Reserve Front Trans-Baikal MD Transcaucasus MD
	37th Army (10 August) 16th Army (2nd formation) (10 August) 50th Army (16 August) 51st Separate Army (20 August) 3rd Army (2nd formation) (25 August) 6th Army (2nd formation) (25 August) 12th Army (2nd formation) (25 August) 53rd Separate Army (25 August) 40th Army (26 August) 52nd Separate Army (28 August)	Southwestern Front Moscow MD (Separate in Volkov region on 5 September) Northwestern Front Reserve Front (designated 35th Army until 12 August) Southwestern Front Western Front
	50th Army (16 August) 51st Separate Army (20 August) 3rd Army (2nd formation) (25 August) 6th Army (2nd formation) (25 August) 12th Army (2nd formation) (25 August) 53rd Separate Army (25 August) 40th Army (26 August) 52nd Separate Army (28 August)	Briansk Front Crimea Briansk Front
September	42nd, 55th Armies (1 September) 54th Separate Army (5 September) 4th Separate Army (26 September) 52nd Separate Army (28 September)	Southern Front/Southwestern Front on 27 September
October	10th Army (2nd formation) (1 October) 5th Army (11 October) 56th Separate Army (17 October) 26th Army (2nd formation) (10 October) 31st Army (2nd formation) (21 October) 57th Separate Army (27 October) 26th Army (3rd formation) (30 October)	Southern Front Central Asia MD (Iran border) Southwestern Front Volkov region (converted to 4th Separate Army on 26 September) Leningrad Front Volkov region Volkov region Volkov region ("Separate" 28 September–17 November) Southwestern axis (disbanded 17 October) Western Front North Caucasus MD/Southern Front on 22 October Moscow MD (disbanded 25 October)
	Kalinin Front	North Caucasus MD/Southwestern Front on 10 December
	Volga MD/Volkov Front (converted to 2nd Shock Army on 25 December)	Volga MD/Volkov Front (converted to 2nd Shock Army on 25 December)

Table D (continued)

Month	Army (date)	Where Formed/Deployed
November	10th Army (3rd formation) (1 November)	Volga MD/Western Front on 1 December
	58th Army (10 November)	Siberian MD/to Lake Onega region in November–December (converted to 3rd Tank Army on 25 May 1942)
	28th Army (2nd formation) (15 November)	Moscow MD/Iaroslavl' Fortified Region/ Southwestern Front on 10 April 1942
	37th Army (2nd formation) (15 November)	Southern Front
	39th Army (15 November)	Arkhangel'sk MD/Stavka Reserve/ Kalinin Front on 22 December
	19th Army (2nd formation) (20 November)	Stavka Reserve (converted to 1st Shock Army on 25 November)
	59th Army (15 November)	Siberian MD/Arkhangel'sk MD in November–December and Volkov Front on 18 December
	60th Army (15 November)	Volga MD/Moscow Defense Zone on 5 December and converted to 3rd Shock Army on 25 December
	61st Army (15 November)	Volga MD/Moscow region in early December and Southwestern Front on 9 December
	1st Shock Army (25 November)	Western Front/from 19th Army (2nd formation)
December	20th Army (2nd formation)	Western Front (30 November)
	24th Army (2nd formation) (8 December)	Moscow MD/Moscow Defense Zone
	2nd Shock Army (25 December)	Volkov Front/from 26th Army (3rd formation)

Source: V. A. Zolotarev, ed., *Velikaia Otechestvennaia voina 1941–1945 gg.: Deistvuiushchaia armia* [The Great Patriotic War 1941–1945: The operating army] (Moscow: Kuchkovo pole, 2005), 77–221 and 265–274.

Table E. Soviet Weapons Production, 22 June–31 December 1941

Weapon	Production	Ratio of Soviet Production to German Production
Rifles and carbines	1,567,141	2.0
Machine pistols/machine guns	89,665	0.3/1.7
Mortars	39,801	11.2
Guns of all caliber	15,543	2.0
Tanks of all types	4,742	0.8
Combat aircraft of all types	8,033	2.1

Sources: O. Iu. Vasil'eva, ed., *Skrytaia pravda voiny: 1941* [The hidden truth of war: 1941] (Moscow: "Russkaia kniga," 1992), 349; and Mark Harrison, "Industry and the Economy," in David R. Stone, ed., *The Soviet Union at War* (Barnsley, South Yorkshire, UK: Pen & Sword Military, 2010), 17. For estimated German production, see David Stahel, *Kiev 1941: Hitler's Battle for Supremacy in the East* (Cambridge: Cambridge University Press, 2012), 39–40, and http://en.wikipedia.org/wiki/German_armored_fighting_vehicle_production_during_World_War_II.

Table F. The Correlation of Forces Opposite the Western Front's Armies on 15 November 1941**Right Wing:**

- Volokolamsk and Klin axis:
 - Soviet (30th Army)—23,000 men and 56 tanks.
 - German (XXVII Army and LVI and XXXXI Motorized Corps, with the 129th, 162nd, and 86th Infantry, 14th Motorized, and 6th and 7th Panzer Divisions)—39,000 men and 300 tanks.
- Novo-Petrovskoe and Istra axis:
 - Soviet (16th Army)—50,000 men and 338 tanks.
 - German (V Army and XXXXVI and XXXX Motorized Corps, with the 106th, 35th, and 87th Infantry, SS “DR,” and 2nd, 5th, 10th, and 11th Panzer Divisions)—44,000 men and 400 tanks.
- Ruza-Zvenigorod (Mozhaisk) axis:
 - Soviet (5th Army)—31,000 men and 91 tanks.
 - German (IX and VII Army Corps, with the 78th, 267th, 197th, and 7th Infantry Divisions)—30,000 men and no tanks.

Center:

- Naro-Fominsk axis:
 - Soviet (33rd Army)—30,000 men and 37 tanks.
 - German (XX Army Corps, with the 292nd, 183rd, and 258th Infantry, 3rd Motorized, and 20th Panzer Divisions)—29,000 men and 100 tanks.
- Malojaroslavets axis:
 - Soviet (43rd Army)—34,000 men and 121 tanks.
 - German (XII Army and LVII Motorized Corps, with the 98th, 15th, 34th, and 137th Infantry, and 19th Panzer Divisions)—29,000 men and 100 tanks.

Left Wing:

- Serpukhov and Alekxin axes:
 - Soviet (49th Army)—44,000 men and 251 tanks.
 - German (XIII and XXXIII Army Corps, with the 260th, 52nd, 131st, and 31st Infantry Divisions)—24,000 men and no tanks.
- Tula axis:
 - Soviet (50th Army)—28,000 men and 45 tanks.
 - German (LIII Army and XXIV and XXXVII Motorized Corps, with the 112th and 267th Infantry, 10th Motorized, and 3rd, 4th, 17th and 18th Panzer Divisions)—38,000 men and 400 tanks.

Sources: B. M. Shaposhnikov, ed., *Razgrom nemetskikh voisk pod Moskvou (Moskovskaya operatsiya Zapadnogo fronta, 16 noiabria 1941 g.–31 ianvaria 1942 g.), Chast' pervaia* [The defeat of German forces at Moscow (the Western Front's Moscow operation, 16 November 1941–31 December 1941), pt. 1] (Moscow: Voenizdat, 1943), 22, prepared by the Military-Historical Department of the Red Army General Staff and classified secret; Maksim Kolomiets, *Bitva za Moskvu 30 sentiabria–5 dekabria 1941 goda* [The battle for Moscow 30 September–5 December 1941], in *Frontovaia illiustratsiia* [Front illustrated] (Moscow: “Strategiia KM,” 1999), 45–64.

Table G. The Correlation of Forces along the Kalinin, Western, and Southwestern Fronts' Main Attack Axes on 6 December 1941

- Kalinin axis:
 - Soviet (29th Army)—15,000 men and no tanks; (31st Army)—30,000 men and no tanks; Total—45,000 men and few if any tanks.
 - German (VI and XXVII Army Corps, with the 6th, 110th, 162nd, 161st, 129th, and 86th Infantry Divisions)—45,000 men and few if any tanks.
- Klin axis:
 - Soviet (30th Army)—40,000 men and 35 tanks; (1st Shock Army)—28,000 men and 50 tanks; Total—68,000 men and 85 tanks.
 - German (LVI and XXXXI Motorized and V Army Corps, with the 36th and 14th Motorized, 6th and 7th Panzer, and 23rd Infantry Divisions, and 900th *Panzer Lehr* Brigade)—32,000 men and 130 tanks.
- Solnechnogorsk axis:
 - Soviet (20th Army)—29,000 men and 60 tanks.
 - German (V Army and XXXXI Motorized Corps, with the 1st and 2nd Panzer and 35th and 106th Infantry Divisions)—18,000 men and 120 tanks.
- Istra axis:
 - Soviet (16th Army)—55,000 men and 125 tanks.
 - German (XXXVI and XXXX Motorized Corps, with the 11th, 5th, 19th, and SS “DR” *Panzer* Divisions)—20,000 men and 130 tanks.
- Zvenigorod axis:
 - Soviet (5th Army)—35,000 men and 90 tanks.
 - German (IX and VII Army Corps, with the 252nd, 87th, 78th, 267th, 197th, and 7th Infantry Divisions and the French Legion)—34,000 men and 130 tanks.
- Naro-Fominsk axis:
 - Soviet (33rd Army)—26,000 men and 40 tanks.
 - German (XX Army and LVII Motorized Corps, with the 292nd and 258th Infantry, 3rd Motorized, 183rd Infantry, and 20th Panzer Divisions)—24,000 men and 50 tanks.
- Malojaroslavets axis:
 - Soviet (43rd Army)—35,000 men and 50 tanks.
 - German (XII Army and LVII Motorized Corps, with the 19th Panzer, 98th, 15th, 34th, 137th, and 263rd Infantry Divisions)—27,000 men and 40 tanks.
- Serpukhov and Aleksin axes:
 - Soviet (49th Army)—40,000 men and 40 tanks.
 - German (XII and XIII Army Corps, with the 268th, 260th, 52nd, and 17th Infantry Divisions)—24,000 men and no tanks.
- Tula and Kashira axes:
 - Soviet (50th Army and Group Belov)—49,000 men and 60 tanks.
 - German (XXXXIII Army and XXIV and XXXVII Motorized Corps, with the 131st and 31st and 296th Infantry Divisions, “GD” Motorized Regiment, 3rd, 4th, and 17th Panzer Divisions, and 167th Infantry Division)—33,000 men and 240 tanks.
- Mikhailov axis:
 - Soviet (10th Army)—60,000 men and no tanks.
 - German (LIII Army and XXXVII Motorized Corps, with the 10th and 29th Motorized Divisions, half of the 25th Motorized Division, the 112th Infantry Division, and the 18th Panzer Division)—23,000 men and 60 tanks.
- Elets axis:
 - Soviet (3rd and 13th Armies and Group Kostenko)—40,000 men and 16 tanks.
 - German (XXXV and XXXIV Army and XXXVIII Motorized Corps, with the 262nd, 134th, 45th, and 95th Infantry Divisions)—31,500 and up to 30–40 tanks.

Table G (continued)

Sources: A. A. Zabaluev and S. G. Goriachev, *Kalininskaia nastupatel'naia operatsiia* [The Kalinin offensive operation] (Moscow: Voroshilov Academy of the General Staff, 1942), 49–50; Boris M. Shaposhnikov, ed., *Razgrom nemetskikh voisk pod moskvoi (Moskovskaia operatsiia zapadnogo fronta 16 noiabria 1941 g.–31 ianvaria 1942 g.) v trekh chastiakh* [The destruction of German forces at Moscow (The Moscow operation of Western Front, 16 November 1941–31 January 1942)] in 3 parts (Moscow: Voenizdat, 1943), pt. 1, 6, 12, 60, 62, and 72–74; I. V. Parot'kin, ed., *Eletskaia operatsiia (6–16 dekabria 1941 g.): Operativnyi ocherk* [The Elets operation (6–16 December 1941): An operational survey] (Moscow: Voenizdat, 1943), 9–10, 62–63, and 74–75; *Boevoi sostav Sovetskoi armii, chast' 1 (Iun'-dekabr' 1941 goda)* [The combat composition of the Soviet Army, part 1 (June–December 1941)] (Moscow: Voroshilov Academy of the General Staff, 1964); and V. V. Beshanov, *Tankovyi pogrom 1941 goda* [Tank massacre 1941] (Moscow: “AST,” 2001), 503–504.

Note: These comparative tank strengths, which are classified Red Army General Staff estimates, indicate that the Germans fielded roughly 940 tanks on 6 December and the Red Army roughly 566, meaning the Germans outnumbered the Soviets by roughly two to one in armor. However, German records show that many of their tanks were inoperable due to maintenance problems and cold weather, and recent Russian records indicate that Zhukov's Western Front ultimately committed a total of up to 1,068 tanks during its December counterstrokes. Thus, depending on the specific operational axis, it is likely the Red Army enjoyed tank parity with the Germans and superiorities of up to two to one along specific axes during the battle around Moscow.

Table H. Soviet Armies Mobilized or Redesignated in 1942

Month	Army (date)	Where Formed/Deployed
COMBINED-ARMS AND TANK ARMIES		
March	32nd Army (2nd formation) (10 March)	Karelian Front
April	19th Army (3rd formation) (4 April)	Karelian Front
	26th Army (4th formation) (4 April)	Karelian Front
	48th Army (2nd formation) (20 April)	Briansk Front
	1st Reserve Army (26 April from 24th Army)	Stalinogorsk, <i>Stavka</i> Reserve (64th Army on 12 July)
	2nd Reserve Army (26 April from 27th Army)	Vologda, <i>Stavka</i> Reserve (Efremov by 22 July, Liubertsy on 3 August, and formed 1st Guards Army, 1st formation, on 6 August)
	3rd Reserve Army (26 April from 41st Army)	Tambov, <i>Stavka</i> Reserve (formed 60th Army, 2nd formation, on 10 July)
May	53rd Army (2nd formation) (1 May)	Northwestern Front
	41st Army (16 May)	Kalinin Front
	24th Army (3rd formation) (20 May)	Southern Front (disbanded 28 August, with HQ forming HQ, 58th Army)
	3rd Tank Army (25 May)	Tula, <i>Stavka</i> Reserve (Chern' on 8 July, Western Front on 22 August, <i>Stavka</i> Reserve on 19 September, and Voronezh Front on 1 January 1943)
June	27th Army (2nd formation) (1 June)	Northwestern Front
	5th Tank Army (5 June)	Moscow MD (to the Briansk Front on 16 June but disbanded on 17 July, with HQ to the <i>Stavka</i> Reserve)
	4th Reserve Army (10 June)	Kalinin, <i>Stavka</i> Reserve (Lev Tolstoi by 22 July and formed 38th Army, 2nd formation, on 3 August)
	5th Reserve Army (10 June)	Novo-Annenskaia, <i>Stavka</i> Reserve (formed 63rd Army on 10 July)
	6th Reserve Army (10 June)	Novokhopersk, <i>Stavka</i> Reserve (formed 6th Army on 10 July)
	7th Reserve Army (10 June)	Stalingrad, <i>Stavka</i> Reserve (formed 62nd Army on 10 July)
	8th Reserve Army (10 June)	Saratov, <i>Stavka</i> Reserve (formed 66th Army on 27 August)
	58th Army (2nd formation) (25 June)	Kalinin Front (redesignated 39th Army on 8 August)
July	9th Reserve Army (1 July)	Gorki, <i>Stavka</i> Reserve (formed 24th Army, 4th formation, on 1 September)
	10th Reserve Army (1 July)	Ivanovo, <i>Stavka</i> Reserve (formed 5th Shock Army on 9 December)
	6th Army (3rd formation) (7 July from 6th Reserve Army)	<i>Stavka</i> Reserve (Voronezh Front on 9 July)

Table H (continued)

Month	Army (date)	Where Formed/Deployed
	60th Army (2nd formation) (10 July from 3rd Reserve Army)	Voronezh Front
	62nd Army (10 July from 7th Reserve Army)	Stalingrad Front (Southeastern Front on 30 August and Stalingrad Front, 2nd formation, on 30 September)
	63rd Army (10 July from 5th Reserve Army)	Stalingrad Front (Don Front on 30 September, SWF, 2nd formation, on 20 October, reorganized as 1st Guards Army on 4 November, and renamed 3rd Guards Army on 5 December)
	64th Army (12 July from 1st Reserve Army)	Stalingrad Front (Southeastern Front on 30 August and Stalingrad Front, 2nd formation, on 30 September)
	1st Tank Army (26 July from 38th Army)	Stalingrad Front (disbanded on 6 August)
August	4th Tank Army (1 August from 28th Army)	Stalingrad Front (redesignated 65th Army on 22 October)
	38th Army (2nd formation) (3 August from 4th Reserve Army)	Briansk Front (Voronezh Front on 2 September)
	1st Guards Army (6 August from 2nd Reserve Army)	Disbanded on 25 October, with HQ forming SWF, 2nd formation)
	39th Army (2nd formation) (8 August from 58th Army, 2nd formation)	Kalinin Front
	66th Army (27 August from 8th Reserve Army)	Stalingrad Front (Don Front on 30 September)
	58th Army (3rd formation) (30 August from HQ, 24th Army)	Transcaucasus Front (2nd formation)
	1st Reserve Army (2nd formation) (15 September)	Tambov, <i>Stavka</i> Reserve (formed 2nd Guards Army on 2 December)
	2nd Reserve Army (2nd formation) (15 September)	Vologda, <i>Stavka</i> Reserve (Special Group Khozin on 3 February 1943, to Reserve Front on 13 March, to Livny and Elets on 23 March, and formed 63rd Army, 2nd formation, on 27 April 1943)
	3rd Reserve Army (2nd formation) (15 September)	Kalinin, <i>Stavka</i> Reserve (formed HQ, 2nd Tank Army on 1 February 1943)
	4th Reserve Army (2nd formation) (15 September)	Borisoglebsk, <i>Stavka</i> Reserve (formed 1st Guards Army, 3rd formation, on 8 December)
	10th Reserve Army (2nd formation) (15 September)	Kamyshev, <i>Stavka</i> Reserve (sent 7 RDs to Don Front on 1 October and formed 5th Shock Army on 9 December)

Table H (continued)

Month	Army (date)	Where Formed/Deployed
September	24th Army (4th formation) (1 September from 9th Reserve Army)	Stalingrad Front
	5th Tank Army (2nd formation) (3 September)	<i>Stavka</i> Reserve (Briansk Front on 22 September and Southwestern Front, 2nd formation, on 29 October)
	28th Army (3rd formation) (9 September from Stalingrad MD)	Southeastern Front (Stalingrad Front on 30 September)
October	67th Army (10 October)	Leningrad Front
	65th Army (22 October from 4th Tank Army)	Don Front
	Separate NKVD Army (October)	
November	2nd Guards Army (2 November from 1st Reserve Army, 2nd formation)	Sverdlovsk, <i>Stavka</i> Reserve (redesignated 70th Army on 7 February 1943)
	1st Guards Army (2nd formation) (5 November from 63rd Army)	Stalingrad Front
December	3rd Guards Army (5 December from 1st Guards Army)	Southwestern Front (renamed 3rd Guards Army on 5 December)
	1st Guards Army (3rd formation) (8 December from 4th Reserve Army, 2nd formation, and 1st Guards Army's operational group)	Southwestern Front
	5th Shock Army (9 December from 10th Reserve Army, 2nd formation)	Stalingrad Front (Southwestern Front on 26 December)
AIR ARMIES		
May	1st Air Army (10 May)	Western Front
	2nd Air Army (12 May)	Briansk Front (to the Voronezh Front on 9 July)
June	3rd Air Army (16 May)	Kalinin Front
	4th Air Army (22 May)	Southern Front
	5th Air Army (6 June)	North Caucasus Front
	8th Air Army (13 June)	Southwestern Front
July	6th Air Army (14 June)	Northwestern Front
	1st Bomber Aviation Army (1 July)	<i>Stavka</i> Reserve (disbanded 10 September 1942)
	2nd Fighter Aviation Army (1 July)	<i>Stavka</i> Reserve (disbanded 10 September 1942)
August	15th Air Army (29 July)	Briansk Front
	16th Air Army (10 August)	Stalingrad Front
	14th Air Army (15 August)	Volkhov Front
November	17th Air Army (15 November)	Southwestern Front (2nd formation)
	13th Air Army (25 November)	Leningrad Front
December	7th Air Army (1 December)	Karelian Front

Source: V. A. Zolotarev, ed., *Velikaia Otechestvennaia voina 1941–1945 gg.: Deistvuiushchaisia armiiia* [The Great Patriotic War 1941–1945: The operating army] (Moscow: Kuchkovo pole, 2005), 77–221.

Table I. Soviet Armies Destroyed or Disbanded in 1942

Month	Army (date)	Subordination (where destroyed)
May	44th, 47th, 51st Armies (10 May)	Crimean Front (Kerch') (essentially destroyed but re-formed in the North Caucasus Front in June)
	57th Army (23 May)	Southern Front (Khar'kov) (essentially destroyed but re-formed by 12 July)
June	6th Army (10 June)	Southwestern Front (Khar'kov)
	Coastal Army (7 July)	Crimea (Sevastopol')
	5th Tank Army (17 July)	Briansk Front (forces to Briansk and Voronezh Fronts, HQ to <i>Stavka Reserve</i>)
July	38th Army (23 July)	Southwestern Front (Donbas) (remnants to 21st Army, HQ formed HQ, 1st Tank Army on 9 August)
	28th Army (31 July)	Southwestern Front (Donbas)
	39th Army (31 July)	Kalinin Front (Viaz'ma)
August	9th Army (1 August)	Southern Front (Donbas) (remnants to 37th Army, but reactivated in the Transcaucasus Front on 6 August)
	62nd Army (6 August)	Stalingrad Front (Great Bend in the Don) (remnants withdrew into Stalingrad where it was re-formed to wage a battle of attrition)
	1st Tank Army (6 August)	Stalingrad Front (Great Bend in the Don) (HQ formed HQ of Southeastern Front)
	24th Army (28 August)	Southern Front (Donbas)
	12th Army (20 September)	Southern Front (Donbas) (forces to 58th Army)
October	1st Guards Army (16–25 October)	<i>Stavka Reserve</i> (forces to 24th Army, HQ formed HQ, Southwestern Front)
December	1st Guards Army (2nd formation) (5 December)	Southwestern Front (renamed 3rd Guards Army)

Source: V. A. Zolotarev, ed., *Velikaia Otechestvennaia voina 1941–1945 gg.: Deistvuiushchaia armiiia* [The Great Patriotic War 1941–1945: The operating army] (Moscow: Kuchkovo pole, 2005), 77–221 and 265–274.

Table J. Soviet Armies Mobilized or Redesignated in 1943

Month	Army (date)	Where Formed/Deployed
January	2nd Tank Army (15 January from 3rd Reserve Army, 2nd formation)	<i>Stavka</i> Reserve (Central Front on 15 February)
February	68th Army (1 February from 57th Army) 69th Army (1 February from 18th Separate Rifle Corps) 70th Army (7 February from Sep. NKVD Army) 1st Tank Army (2nd formation) (7 February from HQ, 29th Army) 5th Guards Tank Army (25 February)	Special Group Khozin (Northwestern Front) Voronezh Front Central Front <i>Stavka</i> Reserve (Special Group Khozin on 15 February and Voronezh Front on 28 April) <i>Stavka</i> Reserve (Reserve Front on 6 April)
April	3rd Reserve Army (3rd formation) (15 April from HQ, 4th Tank Army) 12th Army (3rd formation) (20 April from 5th Tank Army) 57th Army (2nd formation) (27 April from 3rd Tank Army) 63rd Army (2nd formation) (27 April from 2nd Reserve Army, 2nd formation)	Kaluga, <i>Stavka</i> Reserve (soon ceased with formation of only HQ, 4th Tank Army) Southwestern Front (2nd formation) Southwestern Front (2nd formation) Briansk Front (3rd formation)
May	3rd Reserve Army (4th formation) (by 1 May) 6th Guards Army (1 May from 21st Army) 7th Guards Army (1 May from 64th Army) 10th Guards Army (1 May from 30th Army) 11th Guards Army (1 May from 16th Army, 2nd formation) 4th Guards Army (5 May from 24th Army, 4th formation) 5th Guards Army (5 May from 66th Army) 8th Guards Army (5 May from 62nd Army) 3rd Guards Tank Army (14 May)	Kaluga, <i>Stavka</i> Reserve (to south of Iukhnov on 28 May and redesignated 21st Army, 2 formation, on 12 July) Voronezh Front Western Front Western Front Steppe Military District (<i>Stavka</i> Reserve on 3 July) Steppe Military District (Voronezh Front on 10 July) Southwestern Front (2nd formation) <i>Stavka</i> Reserve (Briansk Front, 2nd formation, on 14 July)
July	21st Army (2nd formation) (12 July from 3rd Reserve Army, 4th formation) 4th Tank Army (2nd formation) (15 July from 19th Cavalry Corps)	<i>Stavka</i> Reserve (Western Front on 1 August) <i>Stavka</i> Reserve (Western Front on 30 July)
November	Separate Coastal Army (2nd formation) (20 November from HQ, North Caucasus Front, and 56th Army's forces)	<i>Stavka</i> Reserve
December	67th Army (2nd formation) (25 December from 55th Army)	Leningrad Front

Source: V. A. Zolotarev, ed., *Velikaia Otechestvennaia voina 1941–1945 gg.: Deistviuushchaisa armiiia* [The Great Patriotic War 1941–1945: The operating army] (Moscow: Kuchkovo pole, 2005), 77–221.

Table K. Soviet Armies Destroyed or Disbanded in 1943

Month	Army (date)	Subordination (where disbanded or redesignated)
February	57th Army (1 February)	<i>Stavka</i> Reserve (disbanded, with forces assigned to other armies and HQ forming HQ, 68th Army)
	29th Army (3 February)	<i>Stavka</i> Reserve (disbanded, with forces assigned to 5th and 20th Armies and HQ forming HQ, 1st Tank Army, on 10 February)
March	41st Army (20 March)	Kalinin Front (disbanded, with forces assigned to 39th and 43rd Armies and HQ to the <i>Stavka</i> Reserve to form HQ, Reserve Front on 9 April)
April	5th Tank Army (2nd formation) (20 April)	Southwestern Front (2nd formation) (re-designated 12th Army, 3rd formation)
	3rd Tank Army (26 April)	Southwestern Front (2nd formation) (Donbas) (disbanded, with HQ forming HQ, 57th Army (2nd formation))
November	68th Army (5 November)	Western Front (disbanded, with forces assigned to 5th Army)
	9th Army (6 November)	North Caucasus Front (disbanded, with forces to other armies)
	44th Army (9 November)	4th Ukrainian Front (disbanded because Stalin believed its commander deserted and forces assigned to other armies)
December	12th Army (3rd formation) (10 November)	3rd Ukrainian Front (disbanded, with forces assigned to 6th Army)
	58th Army (3rd formation) (15 November)	<i>Stavka</i> Reserve (disbanded, with HQ forming HQ, Volga Military District)
	34th Army (20 November)	Northwestern Front (forces assigned to 1st Shock Army and HQ to the <i>Stavka</i> Reserve)
December	4th Army (2nd formation) (25 November)	Volkhov Front (disbanded, with forces assigned to other formations)
	11th Army (18–20 December)	Belorussian Front (disbanded, with forces assigned to 48th and 63rd Armies)
	55th Army (25 December)	Leningrad Front (disbanded, with forces and HQ assigned to 67th Army)

Source: V. A. Zolotarev, ed., *Velikaia Otechestvennaia voina 1941–1945 gg.: Deistvuiushchaia armiiia* [The Great Patriotic War 1941–1945. The operating army] (Moscow: Kuchkovo pole, 2005), 77–221.

Table L. Soviet Armies Mobilized or Redesignated in 1944 and 1945

Month	Army (date)	Where Formed/Deployed
1944		
January	4th Army (3rd formation) (15 January from 34th Army)	Transcaucasus Front (for duty in Iran)
	6th Tank Army (25 January from 5th Guards Tank and 5th Guards Mechanized Corps)	1st Ukrainian Front
April	1st Guards Tank Army (25 April from 1st Tank Army, 2nd formation)	1st Ukrainian Front (1st Belorussian Front on 22 November, 2nd Belorussian Front on 8 March 1945, and 1st Belorussian Front on 28 March 1945)
September	6th Guards Tank Army (12 September from 6th Tank Army)	2nd Ukrainian Front (3rd Ukrainian Front on 17 March 1945 and 2nd Ukrainian Front on 17 April 1945)
November	2nd Guards Tank Army (20 November from 2nd Tank Army)	1st Belorussian Front
December	18th Air Army (6 December from Long-Range Aviation) 37th Separate Army (15 December from 37th Army, 2nd formation)	Stavka Reserve Stavka Reserve (for duty in Bulgaria)
1945		
January	9th Guards Army (5 January from HQ, 7th Army and Sep. Guards Airborne Army)	Stavka Reserve (2nd Ukrainian Front on 27 February)
March	4th Guards Tank Army (18 March from 4th Tank Army, 2nd formation)	1st Ukrainian Front

Source: V. A. Zolotarev, ed., *Velikaia Otechestvennaia voina 1941–1945 gg.: Deistvuiushchaya armiya* [The Great Patriotic War 1941–1945: The operating army] (Moscow: Kuchkovo pole, 2005), 77–221.

Table M. Soviet Armies Disbanded in 1944 and 1945

Month	Army (date)	Subordination (where disbanded or redesignated)
1944		
February	63rd Army (2nd formation) (18 February)	Belorussian Front (2nd formation) (disbanded with forces to 3rd and 48th Armies)
April	10th Army (3rd formation) (23 April)	Western Front (disbanded, with HQ, forming HQ, 2nd Belorussian Front, 2nd formation, and forces to other armies)
	20th Army (2nd formation) (24 April)	Leningrad Front (disbanded, with HQ, forming HQ, 3rd Baltic Front and forces to other armies)
December	54th Army (31 December)	3rd Baltic Front (forces to 1st Shock and 61st Armies on 10 October and HQ disbanded on 31 December)
1945		
January	7th Army (5 January)	<i>Stavka</i> Reserve (disbanded, with HQ, to 9th Guards Army and forces to other armies)

Source: V. A. Zolotarev, ed., *Velikaia Otechestvennaia voina 1941–1945 gg.: Deistviushchaia armia* [The Great Patriotic War 1941–1945: The operating army] (Moscow: Kuchkovo pole, 2005), 77–221.

Table N. Comparative Strengths of Combat Forces, Soviet-German Front, 1941-1945

Date	Soviet Soviet Allies	Correlation of Forces <i>Soviet : German</i> (Overall)	German	German Allies
22 June 1941	Western Military Districts: 2,743,000 Total: 4,901,800 (12 million when mobilized)	1 : 1.14 (1 : 1.44)	3,050,000 (Eastern Front); 67,000 (northern Norway) 1,910 Slovaks	470,000 Finns 325,000 Romanians 44,000 Hungarians Total: 3,957,910
11 Sept. 1941	Front: 3,463,000 Total: 7,400,000 (7,606,500 on 1.9) (443,111 in hospital)	1.02 : 1 (1 : 1.22)	3,315,000 (Eastern Front); 67,000 (northern Norway)	480,000 Finns 250,000 Romanians 25,000 Hungarians 62,000 Italians 16,147 Slovaks Total: 4,215,147
1 Nov. 1941	Front: 2,200,000 Total: (6,983,814) (440,279 in hospital)	1 : 1.3 (1 : 1.59)	2,800,000 (Eastern Front); 67,000 (northern Norway)	450,000 Finns 100,000 Romanians 60,000 Italians 18,000 Spanish 8,400 Slovaks Total: 3,503,400
1 Dec. 1941	Front: 4,197,000 Total: (7,733,345) (494,695 in hospital)	1.52 : 1 (1.25 : 1)	2,700,000 (Eastern Front); 67,000 (northern Norway)	450,000 Finns 55,000 Romanians 58,000 Italians 18,000 Spanish 16,000 Slovaks Total: 3,364,000
7 Mar. 1942	Front: 4,663,697 397,978 (hospital) Total: 9,597,802 (9,314,719 on 1.3) (983,500 in hospital)	1.8 : 1 (1.47 : 1)	2,500,000 (Eastern Front); 80,000 (northern Norway)	450,000 Finns 55,000 Romanians 58,000 Italians 17,000 Spanish 16,200 Slovaks Total: 3,176,200

Table N (continued)

Date	Soviet Alies	Soviet Alies	Correlation of Forces <i>Soviet : German</i> (Overall)	German	German Allies
5 May 1942	Front: 5,449,898 414,400 (hospital) Total: 8,950,000 (10,177,305 on 1.5) (1,040,817 in hospital)		2.07 : I (1.57 : 1)	2,550,000 (Eastern Front); 80,000 in northern Norway	450,000 Finns 55,000 Romanians 250,000 Hungarians (en route) **
					54,000 Italians 17,000 Spanish 16,700 Slovaks Total: 3,472,700
7 June 1942	Front: 5,313,000 383,000 (hospital) Total: 9,350,000 (10,459,113 on 1.6) (901,222 in hospital)		1.98 : I (1.48 : 1)	2,600,000 (Eastern Front); 90,000 (northern Norway)	430,000 Finns 120,000 Romanians 250,000 Hungarians 54,000 Italians 18,000 Spanish 16,000 Slovaks Total: 3,578,000
					430,000 Finns 120,000 Romanians 250,000 Hungarians 235,000 Italians (en route) 18,000 Spanish 16,000 Slovaks Total: 3,759,000
5 July 1942	Front: 5,647,000 298,480 (hospital) Total: 9,205,000 (10,363,890 on 1.7) (813,976 in hospital)		2.I : I (1.5 : 1)	2,600,000 (Eastern Front); 90,000 (northern Norway)	400,000 Finns 250,000 Romanians 230,000 Hungarians 230,000 Italians, 18,000 Spanish 16,000 Slovaks Total: 3,744,000
6 Aug. 1942	Front: 5,772,000 301,960 (hospital) Total: 9,332,000 (9,671,141 on 1.8) (730,412 in hospital)		2.22 : I (1.54 : 1)	2,500,000 (Eastern Front); 100,000 (northern Norway)	400,000 Finns 250,000 Romanians 230,000 Hungarians 230,000 Italians, 18,000 Spanish 16,000 Slovaks Total: 3,744,000

Date	Soviet	Soviet Allies	Correlation of Forces		
			Soviet <i>German</i> (Overall)	German	German Allies
7 Oct. 1942	Front: 5,912,000 476,670 (hospital) Total: 9,254,000 (9,716,877 on 1.10) (990,415 in hospital)		2.28 : 1 (1.62 : 1)	2,490,000 (Eastern Front); 100,000 (northern Norway)	390,000 Finns 230,000 Romanians 220,000 Hungarians 185,000 Italians 17,000 Spanish 16,052 Slovaks Total: 3,648,052
1 Nov. 1942	Front: 6,124,000 Total: (9,974,443) (872,688 in hospital)		2.45 : 1 (1.73 : 1)	2,400,000 (Eastern Front); 100,000 (northern Norway)	390,000 Finns 230,000 Romanians 205,000 Hungarians 180,000 Italians 17,000 Spanish 16,000 Slovaks Total: 3,538,000
2 Feb. 1943	Front: 6,101,000 659,000 (hospital) Total: 9,455,000 (9,981,609 on 2.1) (1,131,040 in hospital)		2.77 : 1 (2.04 : 1)	2,100,000 (Eastern Front); 100,000 (northern Norway)	390,000 Finns 141,000 Romanians 106,000 Hungarians 120,000 Italians 17,000 Spanish 14,000 Slovaks Total: 2,998,000
3 Apr. 1943	Front: 5,792,000 674,000 (hospital) Total: 9,486,000 (10,333,958 on 1.4) (1,174,986 in hospital)		2.05 : 1 (1.71 : 1)	2,732,000 (Eastern Front); 100,000 (northern Norway)	310,000 Finns 110,191 Romanians 108,000 Hungarians 13,000 Slovaks 15,000 Spanish Total: 3,388,191

Table N (continued)

Date	Soviet	Soviet Allies	Correlation of Forces			German Allies
			Soviet Allies	Soviet : German (Overall)	German	
9 July 1943	Front: 6,724,000 446,445 (hospital) Total: 10,300,000 (10,363,890 on 1.7) (813,976 in hospital)		1.93 : 1 (1.67 : 1)	3,403,000 (Eastern Front); 80,000 (northern Norway)	330,000 Finns 110,000 Romanians 80,000 Hungarians Total: 4,018,000	330,000 Finns 110,000 Romanians 80,000 Hungarians Total: 4,018,000
27 July 1943	Front: 6,903,000 354,500 (hospital) Total: 10,547,000 (10,946,611 on 1.8) (881,451 in hospital)		2.2 : 1 (1.88 : 1)	3,064,000 (Eastern Front); 80,000 (northern Norway)	330,000 Finns 110,000 Romanians 70,000 Hungarians 15,000 Spanish Total: 3,669,000	330,000 Finns 110,000 Romanians 70,000 Hungarians 15,000 Spanish Total: 3,669,000
14 Oct. 1943	Front: 6,600,000 (est.) (6,165,000 on 1.1.44) Total: (10,199,616 on 1.10) (1,239,156 in hospital)		2.57 : 1 (2.17 : 1)	2,498,000 (Eastern Front); 70,000 (northern Norway)	350,000 Finns 106,578 Romanians 14,000 Spanish Total: 3,038,578	350,000 Finns 106,578 Romanians 14,000 Spanish Total: 3,038,578
12 Mar. 1944	Front: 6,394,000 727,000 (hospital) Total: 10,980,000 (10,322,066 on 1.4) (1,306,932 in hospital)		2.66 : 1 (2.3 : 1)	2,336,000 (Eastern Front); 70,000 (northern Norway)	304,000 Finns 64,712 Romanians Total: 2,774,712	304,000 Finns 64,712 Romanians Total: 2,774,712
1 May 1944	Front: 6,750,240 (1.6) Total: (10,690,041 on 1.5) (11,073,675 on 1.6) (1,153,498 in hospital on 1.5)		2.68 : 1 (2.04 : 1)	2,460,000 (Eastern Front); 60,000 (northern Norway)	304,000 Finns 322,000 Romanians 167,000 Hungarians Total: 3,313,000	304,000 Finns 322,000 Romanians 167,000 Hungarians Total: 3,313,000

Date	Soviet Allies	Soviet Allies	Soviet : German (Overall)	Correlation of Forces Soviet : German (Overall)	German	German Allies
1 July 1944	Front: 6,800,000 (est.) Total: (11,047,090) (915,244 in hospital)	79,900 Poles	3.31 : 1	1,996,000 (Eastern Front); 60,000 (northern Norway)	528,000 Finns 405,000 Romanians 196,000 Hungarians	
		Total: 6,879,900	(2.16 : 1)		Total: 3,185,000	
1 Sept. 1944	Front: 6,600,000 (est.) Total: (10,674,798) (1,098,548 in hospital)	100,000 Poles 138,073 Romanians 16,248 Czechs	3.15 : 1	2,042,000 (Eastern Front); 50,000 (northern Norway)	225,000 Hungarians	
		Total: 6,654,321	(2.87 : 1)		Total: 2,317,000	
1 Oct. 1944	Front: 6,600,000 (est.) Total: (10,700,061) (1,045,844 in hospital)	210,000 Poles 187,500 Romanians 156,000 Bulgarians 130,000 Yugoslavians 16,000 Czechs	3.69 : 1	1,790,138	280,000 Hungarians	
		Total: 7,229,500	(3.49 : 1)		Total: 2,070,138	
1 Nov. 1944	Front: 6,500,000 (est.) Total: (10,538,993) (1,080,384 in hospital)	210,000 Poles 130,000 Romanians 156,000 Bulgarians 130,000 Yugoslavians 70,000 Albanians (29.11) 11,476 Czechs	3.2 : 1	2,030,000	170,000 Hungarians	
		Total: 7,207,476	(3.6 : 1)		Total: 2,200,000	
1 Jan. 1945	Front: 6,750,149 Total: (11,084,086) (915,328 in hospital)	129,900 Poles 101,500 Romanians 83,650 Bulgarians 116,000 Yugoslavians 18,785 Czechs	3.3 : 1	2,230,000	300,000 Hungarians	
		Total: 7,199,984	(2.85 : 1)		Total: 2,530,000	

Table N (continued)

Date	Soviet Allies	Soviet Allies	Soviet German (Overall)	Correlation of Forces	German Allies
1 Mar. 1945	Front: 6,332,000 Total: (10,432,852) (1,180,684 in hospital)	155,000 Poles 66,280 Romanians 78,588 Bulgarians 18,000 Czechs Total: 6,649,868	3.17 : 1	2,000,000	100,000 Hungarians Total: 2,100,000
1 Apr. 1945	Front: 6,410,000 Total: (10,239,126) (1,234,045 in hospital)	155,000 Poles 65,000 Romanians 75,000 Bulgarians 18,000 Czechs Total: 6,723,000	3.5 : 12	1,960,000	Total: 1,960,000
8 May 1945	Front: 5,700,000 Total: (10,102,267 on 1.5) (1,262,434 in hospital)	155,000 Poles 139,500 Romanians 70,000 Bulgarians 48,400 Czechs Total: 6,112,900	3.77 : 1	1,510,000	Total: 1,510,000

Axis Sources: Earl F. Ziemke, *Stalingrad to Berlin: The German Defeat in the East* (Washington, DC: OCMH, 1968), 9, 18–19, 144, 412–413, 457, 498; *Freunde Heere Ost* comparative strength reports for 1.4.43, 20.7.43, 14.10.43, 1.5.44, 1.6.44, 1.8.44, 1.9.44, and 1.11.44; and Mark Aworthy, Cornel Scaife, and Cristian Craciunoi, *Third Axis, Fourth Ally: The Romanian Armed Forces in the European War, 1941–1945* (London: Arms & Armour Press, 1995).

Soviet Sources: G. F. Krivosheev, *Grif sekretnosti sniat: Poteri Voinuzhemykh sli SSSR v voynakh boevykh deistviyakh i voennykh konfliktakh* [The secret classification is removed: The losses of the Armed Forces of the USSR in wars, military actions and military conflicts] (Moscow: Voenizdat, 1993), 152–153; Krivosheev, ed., *Velikaya Otechestvennaya vojna: grifa sekretnosti: Kniga pover*—*Novishchae spravochnoe izdanie* [The Great Patriotic (War) without the secret classification: A book of losses—The newest investigative edition] (Moscow: "Vecher," 2009), 25 and 39–40; *Voennoe iskusstvo v vtoroi mirovoi voine* (Moscow: Voenizdat, 1973), 171 (a textbook for internal use by the Voroshilov Academy of the General Staff, showing accurate Soviet strength data but grossly inflating German strengths); *Velikaya Otechestvennaya voina 1941–1945 gg.: Kampanii i strategicheskie operatsii v tsifrakh—Tom II* [The Great Patriotic War 1941–1945: Campaigns and strategic operations—vol. II] (Moscow: Glavarkhiv goroda Moskvy, 2010); and TsPA UML (Central Party Archives of the Institute of Marxism and Leninism), which include:

- State Committee of Defense (GKO) Decree of 11.9.41 (f. 644, op. 1, d. 9)
- GKO Decree of 7.3.42 (f. 644, op. 1, d. 23, 1, 127–129)
- GKO Decree of 5.5.42 (f. 644, op. 1, d. 33, 1, 48–50)

GKO Decree of 7.6.42 (f. 644, op. 1, d. 39, l. 74–78, 170)

GKO Decree of 5.7.42 (f. 644, op. 1, d. 41, l. 163–165)

GKO Decree of 6.8.42 (f. 644, op. 1, d. 50, l. 71–74)

GKO Decree of 7.10.42 (f. 644, op. 1, d. 61, l. 88–91)

GKO Decree of 2.2.43 (f. 644, op. 1, d. 85, l. 95)

GKO Decree of 3.4.43 (f. 644, op. 1, d. 100, l. 117–118)

GKO Decree of 9.6.43 (f. 644, op. 1, d. 125, l. 35–36)

GKO Decree of 27.7.43 (f. 644, op. 1, d. 138, l. 205–206, 208)

GKO Decree of 12.3.44 (f. 644, op. 1, d. 218, l. 1, 49, 101–104)

Notes: Soviet figures show the strength of the Operating Army (operating fronts and armies), whereas those in parentheses include the Army, Navy, NKVD, and PVO air defense forces. NKVD forces include border guards, internal (operational) forces, and railroad security, convoy, and installation security forces. These forces increased in strength from 334,900 men on 22 June 1941 to 493,379 men on 7 March 1942, 516,000 men on 2 February 1943, and 540,000 men on 12 March 1944 to more than 600,000 men by war's end. Roughly two-thirds of these forces were deployed in the West.

In addition to Finnish, Romanian, Hungarian, Italian, Slovak, and Spanish forces, Axis forces also included small contingents of Croatians (the Croat Legion and 369th Infantry Regiment) and a small number of Latvian and Estonian Police Battalions fighting as far afield as the Stalingrad region. Waffen SS divisions and brigades also included volunteer or conscript forces from all over Axis-occupied Europe. Finally, during the course of the war the Germans permitted the organization of the Armed Forces of the Committee of the Liberation of the People of Russia (*Voruzhennyye Sily Komiteta Osvobozhdeniya Naroda Rossii* —VS KONR), known popularly as the Russian Liberation Army (ROA) and commanded by Lieutenant General Andrei Andreevich Vlasov, who had surrendered to the Germans in July 1942, together with the remnants of his encircled 2nd Shock Army. Made up primarily of former Red Army prisoners of war, by April 1945 the VS KONR consisted of 124,000 men, organized into a staff, three infantry divisions (German numbered 600th, 650th, and 700th Infantry), an antitank brigade, several schools, and four separate corps (including the 18,000-man 15th Cossack Cavalry Corps), deployed in various regions throughout the Reich. Few of these formations saw active combat because of Hitler's distrust of or bias toward Slavs. Above and beyond the formally organized VS KONR were numerous Russian HiWis (*Hilfswilligen*), or volunteer helpers, who served in various capacities within German divisions and other units at the front. These numbered roughly 200,000 men in April 1942, 600,000 men by June 1943, and as many as 180,000 in the *Lufwaffe*. During the height of the Battle of Stalingrad, many of Sixth Army's divisions had more HiWis than they did combat soldiers. Finally, many *Freiwilligen*, or simply volunteers, also served within German divisions, in a few cases amounting to up to 40 percent of their complement. For details, see K. M. Aleksandrov, *Oifiserskii korpus armii General-Leitenta A. A. Vlasova 1944–1945* (St. Petersburg, Russian Federation: "BLTS," 2001).

* As is the case with Hungary, Italy, and Slovakia, the table shows only the estimated portion of Romanian forces employed at the front; the overall size of Romania's armed forces was far larger. For example, according to Mark Axworthy, Cornel Scates, and Cristian Craciunoiu, *Third Axis, Fourth Ally: Romanian Armed Forces in the European War, 1941–1945* (London: Arms & Armour Press, 1995), 216, the Romanian Army's overall strength ranged from 585,930 men in 1941, 472,269 men in mid-1942, and 393,470 men in mid-1943 to 466,766 men in mid-1944.

** The 250,000 Hungarian forces sent to the Eastern Front in summer 1942 included roughly 200,000 combat soldiers and 50,000 Jewish forced-laborers. The Hungarian 2nd Army's official combat strength in mid-1942 was 209,000, which decreased to 203,000 by 1 January 1943 and 108,000 by 1 April 1943.

Table O. Wehrmacht Casualties in World War II

<i>Permanent Losses (dead, missing, or disabled)</i>	
1 Sept. 1939–1 Sept. 1942	922,000 (14% of total force, over 90% in the East) [*]
1 Sept. 1942–20 Nov. 1943	2,077,000 (30% of total force, over 90% in the East) [*]
20 Nov. 1943–June 1944	1,500,000 (estimated, 80% in the East)
June–Nov. 1944	1,457,000 (903,000 or 62% in the East) [*]
Dec. 1944–30 Apr. 1945	2,000,000 (67% in the East) ^{**}
<i>Casualties</i>	
Total to 30 Apr. 1945	11,135,800, including 6,035,000 wounded ^{**}
Total Armed Forces losses to war's end	13,448,000, including wounded (75% of mobilized force and 46% of 1939 male population) ^{**}
Permanent losses on Eastern Front	6,923,700

G. F. Krivosheev, *Grif sekretnosti sniat: Poteri Vooruzhennykh sil SSSR v voinakh, boevykh deistviyah i voennyykh konfliktakh* [The secret classification is removed: The losses of the Armed Forces of the USSR in wars, military actions and military conflicts] (Moscow: Voenizdat, 1993), 391, places Eastern Front losses of Germany's allies at 1,725,000, as follows:

Nation	Dead and Missing	POWs	Total
Finland	84,000	2,400	86,400
Hungary	350,000	513,700	863,700
Italy	45,000	48,900	93,900
Romania	480,000	201,800	681,800
Total	959,000	766,800	1,725,800

Krivosheev (392) acknowledges Soviet POW figures and deaths (in Soviet captivity) as follows:

Germany	2,389,600	450,600
Austria	156,000	N/A
Hungary	513,700	54,700
Romania	201,800	40,000
Italy	48,975	N/A
Finland	2,400	N/A
Others (French, Czech, Slovak, Belgian, Spanish in SS and auxiliary formations)	464,147	N/A
Total	3,777,290	>545,300

Sources:

^{*}Earl F. Ziemke, *Stalingrad to Berlin: The German Defeat in the East* (Washington, DC: OCMH, 1968), 213–214 and 412.

^{**}G. F. Krivosheev, *Grif sekretnosti sniat: Poteri Vooruzhennykh sil SSSR v voinakh, boevykh deistviyah i voennyykh konfliktakh* [The secret classification is removed: The losses of the Armed Forces of the USSR in wars, military actions and military conflicts] (Moscow: Voenizdat, 1993), 391–392, which places German dead at 3,888,000 and POWs (including Austrians, SS, and foreign auxiliaries of the German Army) at 3,035,700.

Table P. Red Army and Air Force Personnel Losses, 22 June 1941–9 May 1945

Period	Average Strength (monthly)	Killed or Missing	Wounded and Sick	Total
1941, 3rd Quarter	3,334,400	2,067,801	676,964	2,744,765
1941, 4th Quarter	2,818,500	926,002	637,327	1,563,329
Yearly Total	3,024,000	2,993,803	1,314,291	4,308,094
1942, 1st Quarter	4,186,000	619,167	1,172,274	1,791,441
1942, 2nd Quarter	5,060,300	776,578	702,150	1,478,728
1942, 3rd Quarter	5,664,000	1,141,991	1,276,810	2,418,801
1942, 4th Quarter	6,343,000	455,800	936,031	1,391,831
Yearly Total	5,313,600	2,993,536	4,087,265	7,080,801
1943, 1st Quarter	5,892,800	656,403	1,421,140	2,077,543
1943, 2nd Quarter	6,459,800	125,172	471,724	596,896
1943, 3rd Quarter	6,816,800	694,465	2,053,492	2,747,957
1943, 4th Quarter	6,387,200	501,087	1,560,164	2,061,251
Yearly Total	6,389,200	1,977,127	5,506,520	7,483,647
1944, 1st Quarter	6,268,800	470,392	1,565,431	2,035,823
1944, 2nd Quarter	6,447,000	251,745	956,828	1,208,573
1944, 3rd Quarter	6,714,300	430,432	1,541,965	1,972,397
1944, 4th Quarter	6,770,100	259,766	1,026,645	1,286,411
Yearly Total	6,550,100	1,412,335	5,090,869	6,503,204
1945, 1st Quarter	6,461,100	468,407	1,582,517	2,050,924
1945, 2nd Quarter	6,135,300	163,226	609,231	772,457
Yearly Total	6,330,880	631,633	2,191,748	2,823,381
Wartime Totals	5,778,500	10,008,434	18,190,693	28,199,127

Source: G. F. Krivosheev, ed., *Velikaia Otechestvennaia bez grifa sekretnosti: Kniga poter'—Noveishee spravochnoe izdanie* [The Great Patriotic (War) without the secret classification: A book of losses—The newest investigative edition] (Moscow: “Veche,” 2009), 69.

Table P (continued)

Total Armed Forces Losses by Category

	Number	(%)
Irrevocable		
Killed in battle or died during evacuation	5,187,190	(17.5)
Died of wounds in hospital	1,100,327	(3.7)
Died of nonbattle illness	541,920	(1.8)
Missing in action or captured	4,455,620	(15.1)
Total	11,285,057	(38.1)
Sanitary		
Wounded	15,205,592	(51.3)
Sick	3,047,675	(10.3)
Frostbitten	90,881	(0.3)
Total	18,344,148	(61.9)
Total Armed Forces losses	29,629,205	(100)

Source: G. F. Krivosheev, ed., *Velikaia Otechestvennaia bez grifa sekretnosti: Kniga poter'—Noveishee spravochnoe izdanie* [The Great Patriotic (War) without the secret classification: A book of losses—The newest investigative edition] (Moscow: “Veche,” 2009), 54–56.

Note: The loss calculations in Krivosheev’s book include only the losses reported by operating fronts and separate armies and do not include losses suffered by replacements deployed to the front in march battalions and companies. According to L. N. Lovpukhovsky and B. K. Kavalarchik, “Kogda my uznaem real’niui tsenu razgroma gitlerovskoi germanii?” [When will we know the real cost of the defeat of Hitlerite Germany?], in “Umylis’ krov’iu”? *Lozh’ i pravda o poteriakh v Velikoi Otechestvennoi voine* [“Washed with blood”? The falsehood and the truth about losses in the Great Patriotic War] (Moscow: “Iauza” “Eksmo,” 2012), the total irrevocable losses of the Soviet Armed Forces, including march units, were calculated at 14.6 million. S. A. Il’enkov, “Concerning the Registration of Soviet Armed Forces Wartime Irrevocable Losses, 1941–1954,” *Journal of Slavic Military Studies* 9, no. 2 (June 1996): 440–442, tangentially endorses this view.

Table Q. Soviet Wartime Strength and Losses

Operation	PERSONNEL LOSSES				MATÉRIEL LOSSES		
	Initial Strength	Killed or Missing	Sick or Wounded	Total	Tanks and SP Guns	Artillery	Aircraft
<i>First Period of War (22 June 1941–18 November 1942)</i>							
Baltic Strategic Defensive (22 June–9 July 41)	498,900	75,202	13,284	88,486	2,523	3,561	990
Belorussian Strategic Defensive (22 June–9 July 41)	627,300	341,073	76,717	417,790	4,799	9,427	1,777
L'vov-Chernovtsi (Western Ukraine) Strategic Defensive (22 June–6 July 41)	864,600	172,323	69,271	241,594	4,381	5,806	1,218
Strategic Defense in the Polar Region and Karelia (29 June–10 Oct. 41)	358,390	67,265	68,448	135,713	546	540	64
Kiev Strategic Defensive (7 July–26 Sept. 41) Defense in Moldavia (1–26 July 41)	628,500	616,304	84,240	700,544	411	28,419	343
364,700	8,519	9,374	17,893				
Leningrad Strategic Defensive (10 July–30 Sept. 41) Defense of Odessa (5 Aug.–16 Oct. 41)	517,000	214,078	130,848	344,926	1,492	9,885	1,702
34,500	16,578	24,690	41,268				
581,600	486,171	273,803	759,974	1,348	9,290	903	
Tiraspol'-Meliitopol' Defensive (Ukraine) (27 July–28 Sept. 41)	280,510	74,424	46,226	121,650			
El'nia Offensive (30 Aug.–8 Sept. 41) Siniavino Offensive (Leningrad) (10 Sept.–28 Oct. 41)	103,200	10,701	21,152	31,853			
71,270	22,211	32,768	54,979				
147,110	75,720	20,789	96,509				
541,600	143,313	17,263	160,576	101	3,646	240	
Donbas-Rostov Strategic Defensive (29 Sept.–16 Nov. 41) Tikhvin Defensive (16 Oct.–18 Nov. 41)	135,700	22,743	17,846	40,589			
235,600	48,438	15,422	63,860				
1,250,000	514,338	143,941	658,279	2,785	3,832	293	
192,950	17,924	30,977	48,901	70	2,293	82	
346,000	15,264	17,847	33,111	42	1,017	42	
Defense of Sevastopol' (30 Oct. 41–4 July 42)	52,000	156,880	43,601	200,481			

Table Q (continued)

Operation	PERSONNEL LOSSES				MATERIEL LOSSES		
	Initial Strength	Killed or Missing	Sick or Wounded	Total	Tanks and SP Guns	Artillery	Aircraft
Moscow Strategic Offensive (5 Dec. 41–7 Jan. 42)	1,021,700	139,586	231,369	370,955	429	13,350	140
Kerch'-Feodosia (Crimea) Amphibious Operation (25 Dec. 41–2 Jan. 42)	82,500	32,453	9,482	41,935	35	133	39
Kursk-Oboi'an Defensive (3–26 Jan. 42)	121,920	10,586	19,996	30,582			
Liuhan' Offensive (Leningrad) (7 Jan.–30 Apr. 42)	325,700	95,064	213,303	308,367			
Demiansk Offensive (7 Jan.–20 May 42)	105,700	88,908	156,603	245,511			
Bolkov Offensive (8 Jan.–20 Apr. 42)	317,000	21,319	39,807	61,126			
Rzhev-Viaz'ma Strategic Offensive (8 Jan.–20 Apr. 42)	1,056,200	272,320	504,569	776,889	957	7,296	550
Toropets-Kholm Offensive (9 Jan.–6 Feb. 42)	122,100	10,400	18,810	29,210			
Kerch' Offensive (Crimea) (14 Jan.–12 Apr. 42)	181,680	43,248	67,091	110,339			
Barvenkovo-Lozovaia Offensive (Khar'kov) (18–31 Jan. 42)	361,690	11,095	29,786	40,881			
Kerch' Defensive (Crimea) (8–19 May 42)	249,800	162,282	14,284	176,566			
Khar'kov Offensive (12–29 May 42)	765,300	170,958	106,232	277,190			
Destruction of 2nd Shock Army at Liuban' (Leningrad) (13 May–10 July 42)	231,900	54,774	39,977	94,751			
Belyi Defensive (2–27 July 42)	187,690	7,432	12,928	20,360			
Voronezh-Voroshilovgrad Strategic Defensive (28 June–24 July 42)	1,310,800	370,522	197,825	568,347	2,436	13,716	783
Stalingrad Strategic Defensive (17 July–18 Nov. 42)	547,000	323,856	319,986	643,842	1,426	12,137	2,063
North Caucasus Strategic Defensive (25 July–31 Dec. 42)	603,200	192,791	181,120	373,911	990	5,049	644
Rzhev-Sychevka Offensive (30 July–23 Aug. 42)	345,100	51,482	142,201	193,683			
Siniavino Offensive (Leningrad) (19 Aug.–10 Oct. 42)	190,000	40,085	73,589	113,674			
Sukhimichi-Kozel'sk Offensive (22–29 Aug. 42)	218,412	12,134	22,415	34,549			

PERSONNEL LOSSES

Operation	Initial Strength	Killed or Missing	Sick or Wounded	Total	Tanks and SP Guns	Artillery	Aircraft
Second Period of War (19 November 1942–31 December 1943)							
Stalingrad Strategic Offensive ("Uranus") (19 Nov. 42–2 Feb. 43)	1,143,500	154,885	330,892	485,777	2,915	3,591	706
Velikiye Luki Offensive (24 Nov. 42–20 Jan. 43)	86,700	31,674	72,348	104,022			
Rzhev-Sychevka Offensive ("Mars") (25 Nov.–20 Dec. 42)	545,070	70,373	145,301	215,674	1,847	1,100	120
North Caucasus Strategic Offensive ("Don") (1 Jan.–4 Feb. 43)	1,145,300	69,627	84,912	154,539	220	895	236
Millerovo-Voroshilovgrad Offensive (1 Jan.–22 Feb. 43)	265,180	38,049	63,684	101,733			
Rostov Offensive (1 Jan.–18 Feb. 43)	259,440	9,809	18,422	28,231			
Raising the Leningrad Blockade ("Iskra" [Spark]) (12–30 Jan. 43)	302,800	33,940	81,142	115,082	41	417	41
Voronezh-Khar'kov Strategic Offensive (13 Jan.–3 Mar. 43)	502,400	55,475	98,086	153,561	1,023	2,106	307
Malo-Arkhangelsk Offensive (Orel) (5 Feb.–2 Mar. 43)	240,160	19,684	34,615	54,299			
Krasnodar Offensive (9 Feb.–24 May 43)	390,000	66,814	173,902	240,176			
Demiansk Offensive (15–28 Feb. 43)	327,600	10,016	23,647	33,663			
Sevsk-Orel Offensive (25 Feb.–28 Mar. 43)	256,820	30,439	39,968	70,407			
Rzhev-Viaz'ma Offensive (2–31 Mar. 43)	876,000	38,862	99,715	138,577			
Staraya Russa Offensive ("Polar Star") (4–19 Mar. 43)	401,190	31,789	71,319	103,108			
Ryl'sk-Suny-Defensive (4–28 Mar. 43)	93,770	2,643	4,891	7,534			
Khar'kov Defensive (4–25 Mar. 43)	345,900	45,219	41,250	86,569	322	3,185	
Kursk Strategic Defensive (5–23 July 43)	1,272,700	70,330	107,517	177,847	1,614	3,929	110
Orel Strategic Offensive ("Kutuzov") (12 July–18 Aug. 43)	1,287,600	112,529	317,361	429,890	2,586	892	459
Izium-Barvenkovo Offensive (17–27 July 43)	202,430	10,310	28,380	38,690			
Mius Offensive (17 July–2 Aug. 43)	271,790	15,303	45,767	61,070			
Mga Offensive (Leningrad) (22 July–22 Aug. 43)	255,300	20,890	59,047	79,937			
Belgorod-Khar'kov Strategic Offensive ("Rumiantsev") (3–23 Aug. 43)	1,144,000	71,611	183,955	255,566	1,864	423	153

MATÉRIEL LOSSES

Table Q (continued)

Operation	PERSONNEL LOSSES				MATÉRIEL LOSSES		
	Initial Strength	Killed or Missing	Sick or Wounded	Total	Tanks and SP Guns	Artillery	Aircraft
Smolensk Strategic Offensive ("Suvorov") (7 Aug.-2 Oct. 43)	1,252,600	107,645	343,821	451,466	863	243	303
Donbas Strategic Offensive (13 Aug.-22 Sept. 43)	1,011,900	66,166	207,356	273,522	886	814	327
Chernigov-Poltava Strategic Offensive (26 Aug.-30 Sept. 43)	1,581,300	102,957	324,995	427,952	1,140	916	269
Briansk Offensive (1 Sept.-3 Oct. 43)	530,000	13,033	43,624	56,657	65,510	111	70
Novorossiisk-Taman' Strategic Offensive (10 Sept.-9 Oct. 43)	317,400	14,564	50,946	65,510	65,510	70	240
Lower Dnepr Strategic Offensive (26 Sept.-20 Dec. 43)	1,506,400	173,201	581,191	754,392	2,639	3,125	430
Melitopol' Offensive (26 Sept.-5 Nov. 43)	555,300	42,760	155,989	198,749	198,749		
Liutezh Offensive (Kiev) (1 Oct.-2 Nov. 43)	253,830	24,422	60,642	85,064	85,064		
Nevel'-Gorodok Offensive (Vitebsk) (6 Oct.-31 Dec. 43)	198,000	43,551	125,351	168,902	168,902		
Zaporozhe Offensive (10-14 Oct. 43)	150,500	3,443	14,265	17,708	17,708		
Bukrin Offensive (Kiev) (12-24 Oct. 43)	185,960	6,498	21,440	27,938	27,938		
Orsha Offensive (12 Oct.-2 Dec. 43)	310,900	24,553	79,867	104,420	104,420		
Kerch'-El'tigen Offensive (Crimea) (31 Oct.-11 Dec. 43)	150,000	6,985	20,412	27,397	27,397		
Kiev Strategic Offensive (3-13 Nov. 43)	671,000	6,491	24,078	30,569	271	104	125
Gomel'-Rechitsa Offensive (10-30 Nov. 43)	761,300	21,650	66,556	88,206			
Kiev Defensive (13 Nov.-22 Dec. 43)	730,000	26,443	61,030	87,473			
Novosokol'niki Pursuit (30 Dec. 43-8 Jan. 44)	199,700	2,574	9,821	12,395			

PERSONNEL LOSSES

Operation	Initial Strength	Killed or Missing	Sick or Wounded	Total	Tanks and SP Guns	Artillery	Aircraft
<i>Third Period of War (1 January 1944–9 May 1945)</i>							
Dnepr-Carpathian Strategic Offensive (24 Dec. 43–17 Apr. 44)	2,406,100	270,198	839,330	1,109,528	4,666	7,532	676
Including:							
Zhitomir-Berdichev Offensive (24 Dec. 43–14 Jan. 44)	831,000	23,163	76,855	100,018			
Korsen'-Shevchenkovskii Offensive (24 Jan.–17 Feb. 44)	336,700	24,286	55,902	80,188			
Kalinkovichi-Mozyr' Offensive (8–30 Jan. 44)	232,600	12,350	43,807	56,157			
Vitebsk Offensive (3 Feb.–13 Mar. 44)	236,180	27,639	107,373	135,012			
Rogachev-Zhlobin Offensive (21–26 Feb. 44)	232,000	7,164	24,113	31,277			
Leningrad-Novgorod Strategic Offensive (14 Jan.–1 Mar. 44)	822,100	76,686	237,367	313,953	462	1,832	260
Pskov Offensive (9 Mar.–15 Apr. 44)	173,120	10,453	31,680	42,133			
Crimean Strategic Offensive (8 Apr.–12 May 44)	462,400	17,754	67,065	84,819	171	521	179
Vyborg-Petrozavodsk Strategic Offensive (10 June–9 Aug. 44)	451,500	23,674	72,701	96,375	294	489	311
Belorussian Strategic Offensive ("Bagration") (23 June–29 Aug. 44)	2,411,600	180,040	590,848	770,888	2,957	2,447	822
Rezekne-Dvinsk Offensive (Latvia) (10–27 July 44)	391,200	12,880	45,115	57,995			
Pskov-Ostrov Offensive (11–31 July 44)	258,400	7,633	25,951	33,584			
Lvov-Sandomierz Strategic Offensive (13 July–29 Aug. 44)	1,002,200	65,001	224,295	289,296	1,269	1,832	289
Narva Offensive (Estonia) (24–30 July 44)	136,830	4,685	18,602	23,287			
Madona Offensive (Latvia) (1–28 Aug. 44)	390,000	14,669	50,737	65,406			
Tartu Offensive (Estonia) (10 Aug.–6 Sept. 44)	272,800	16,292	55,514	71,806			
Iasi-Kishinev Strategic Offensive (20–29 Aug. 44)	1,314,200	13,197	53,933	67,130	75	108	111
Lonzhza-Ruzhany Offensive (Bialystok) (30 Aug.–2 Nov. 44)	153,760	11,771	45,850	57,621			

MATERIEL LOSSES

Table Q (continued)

Operation	PERSONNEL LOSSES				MATERIEL LOSSES		
	Initial Strength	Killed or Missing	Sick or Wounded	Total	Tanks and SP Gns	Artillery	Aircraft
Serotsk Offensive (Narew River) (30 Aug.-2 Nov. 44)	265,500	23,090	78,355	101,445			
Bucharest-Arad Offensive (30 Aug.-3 Oct. 44)	681,556	8,447	46,839	55,286			
Sandomierz Bridgehead (30 Aug.-2 Nov. 44)	205,160	5,279	20,744	26,023			
Kandekaska-Kestingen (Polar region) (5 Sept.-5 Oct. 44)	89,100	2,550	7,281	9,831			
Eastern Carpathian Strategic Offensive (8 Sept.-28 Oct. 44)	378,000	28,473	103,437	131,910			
Baltic Strategic Offensive (14 Sept.-24 Nov. 44)	1,546,400	61,468	218,622	280,090	522	2,593	779
Belgrade Strategic Offensive (28 Sept.-20 Oct. 44)	300,000	4,350	14,488	18,838	53	184	66
Persano-Kirkennes (Norway) Strategic Offensive (7-29 Oct. 44)	133,500	6,084	15,149	21,233	21		40
Debrecen Offensive (Hungary) (6-28 Oct. 44)	698,200	19,713	64,297	84,010			
Gumbinnen-Goldap Offensive (East Prussia) (16-30 Oct. 44)	404,500	16,819	62,708	79,527			
Budapest Strategic Offensive (29 Oct.-4-13 Feb. 45)	719,500	80,026	240,056	320,182	1,766	4,127	293
Apatin-Kaposvár Offensive (Hungary) (7 Nov.-10 Dec. 44)	205,370	6,790	25,460	32,250			
Ondava Offensive (Czech) (20 Nov.-15 Dec. 44)	131,750	4,096	16,472	20,568			
Vistula-Oder Strategic Offensive (12 Jan.-3 Feb. 45)	2,203,600	43,476	150,715	194,191	1,267	374	343
Western Carpathian Strategic Offensive (12 Jan.-18 Feb. 45)	593,000	19,080	72,852	91,932	359	753	94
East Prussian Strategic Offensive (13 Jan.-25 Apr. 45)	1,669,100	126,464	458,314	584,778			
Kaijeda (Memel) Offensive (Lithuania) (25 Jan.-4 Feb. 45)	56,200	403	1,066	1,469			
Küstrin Bridgehead (Oder River) (3 Feb.-30 Mar. 45)	151,600	15,466	46,333	61,799			
Lower Silesian Offensive (8-24 Feb. 45)	980,000	23,577	75,809	99,386			
East Pomeranian Strategic Offensive (10 Feb.-4 Apr. 45)	996,100	55,315	179,045	234,360	1,027	1,005	1,073

Courland Offensives (16 Feb.–8 May 45)	429,230	30,501	130,447	160,948
Balaton Defensive (6–15 Mar. 45)	465,000	8,492	24,407	32,899
Banská-Bystrička Offensive (Czech) (10–30 Mar. 45)	79,780	2,104	9,033	11,137
Morava-Ostrava Offensive (Czech) (10 Mar.–5 May 45)	317,300	23,964	88,657	112,621
Upper Silesian Offensive (15–31 Mar. 45)	408,400	15,876	50,925	66,801
Vienna Strategic Offensive (16 Mar.–15 Apr. 45)	745,600	41,359	136,386	177,745
Bratislava-Bruno Offensive (Czech) (25 Mar.–5 May 45)	272,200	16,933	62,663	79,596
Graz-Amstettin Offensive (Austria) (15 Apr.–9 May 45)	294,760	2,173	6,552	8,725
Berlin Strategic Offensive (16 Apr.–8 May 45)	2,062,100	81,116	280,251	361,367
Prague Strategic Offensive (6–11 May 45)	2,028,100	11,997	40,501	52,496
Manchurian Strategic Offensive (9 Aug.–2 Sept. 45)	1,685,500	12,103	24,550	36,653

Sources: G. F. Krivosheev, ed., *Velikaiia Otechestvennaia bez grifa sekretnosti: Kniga poter’—Noteeshee spravochnoe izdanie* [The Great Patriotic (War) without the secret classification: A book of losses—The newest investigative edition] (Moscow: “Vechе,” 2009), 75–184, and Krivosheev, ed., *Soviet Casualties and Combat Losses in the Twentieth Century*, trans. Christine Barnard (Mechanicsburg, PA: Stackpole Books, 1983), 107–161.

Table R. Soviet Weapons Production, Strength, and Losses, 1941–1945

Soviet Weapons Production					
Year	Rifles	Tanks and SP Guns	Guns and Mortars	Aircraft Total (Combat)	Ships
1941	1,760,000	4,700	53,600	11,500 (8,200)	35
1942	5,910,000	24,500	287,000	25,400 (21,700)	15
1943	5,920,000	24,100	126,000	34,900 (29,900)	14
1944	4,860,000	29,000	47,300	40,200 (33,200)	4
1945 (to April)	1,380,000	16,000	11,300	10,100 (8,200)	2
<i>Total</i>	<i>19,830,000</i>	<i>98,300</i>	<i>525,200</i>	<i>122,100 (101,200)</i>	<i>70</i>

Red Army Weapons Strength, 1941–1945						
	Tanks and SP Guns		Guns and Mortars (over 50mm)		Combat Aircraft	
Date	Total	Field Forces	Total	Field Forces	Total	Field Forces
22 June 41	22,600	14,200	76,500	32,900	20,000	9,200
1 Jan. 42	7,700	2,200	48,600	30,000	12,000	5,400
1 Jan. 43	20,600	8,100	161,600	91,400	21,900	12,300
1 Jan. 44	24,400	5,800	244,400	101,400	32,500	13,400
1 Jan. 45	35,400	8,300	244,400	114,600	43,300	21,500
9 May 45	35,200	8,100	239,600	94,400	47,300	22,300

Red Army Weapons Losses			
Year	Tanks and SP Guns (%)	Guns and Mortars (over 50mm) (%)	Combat Aircraft (%)
1941	20,500 (72.7)	63,100 (50)	17,900 (34.4)
1942	15,100 (42.3)	70,300 (32)	12,100 (22.9)
1943	23,500 (49.1)	25,300 (9)	22,500 (20.4)
1944	23,700 (40.1)	43,300 (15)	24,800 (14.2)
1945	13,700 (28)	16,000 (4)	11,000 (7)
<i>Total</i>	<i>96,500 (73.3)</i>	<i>218,000 (48)</i>	<i>88,300 (31.8)</i>

Source: G. F. Krivosheev, *Grif sekretnosti sniat: Poteri Vooruzhennykh sil SSSR v voinakh, boevykh deistviakh i voennyykh konfliktakh* [The secret classification is removed: The losses of the Armed Forces of the USSR in wars, military actions and military conflicts] (Moscow: Voenizdat, 1993), 349–350 and 356–358.

Notes

Chapter 1. The Red Army

1. B. I. Kuznetsov, “Eshelonnaia voina” [Echelon war], *Sovetskaia voennaia entsiklopedii*, t. 8 [Soviet military encyclopedia, vol. 8, hereafter cited as SVE] (Moscow: Voenizdat, 1980), 619, and “Eshelonnaia voina,” *Voennaia entsiklopedii*, t. 8 [Military encyclopedia, vol. 8, hereafter cited as VE] (Moscow: Voenizdat, 2004), 524.
2. Jacob W. Kipp, “Mass, Maneuver, and the Red Army’s Road to Operational Art, 1918–1936” (Fort Leavenworth, KS: Soviet Army Studies Office [hereafter cited as SASO], 1988); A. Ekimovskiy and A. Tonkikh, “Red Army Tactics in the Civil War,” translated from *Voennyi vestnik* [Military Herald, hereafter cited as VV] 1 (January 1967): 9–15; and K. A. Meretskov, *Serving the People* (Moscow: Progress Publishers, 1971), 36–45. Stalin’s close association with 1st Cavalry Army veterans (Budenny, Voroshilov, etc.) produced a clique of favorite officers who dominated the Red Army command well into World War II.
3. David M. Glantz, *The Military Strategy of the Soviet Union: A History* (London: Frank Cass, 1992), 46–53. For the most detailed account of developments in this period, see N. F. Kuz’min, *Na strazhe mirnogo truda (1921–1940 gg.)* [In defense of peaceful work (1921–1940)] (Moscow: Voenizdat, 1959), 10–32.
4. Hans W. Gatzke, “Russo-German Military Collaboration during the Weimar Republic,” *American Historical Review* 63, no. 3 (April 1958): 565–597; A. Zdanovich, “Sekretnye laboratorii reikhsvera v Rossii” [Reichswehr’s secret laboratories in Russia], *Armiia* [Army] 1 (January 1992): 62–68, 2 (January 1992): 59–64, 3–4 (February 1992): 67–71, and 6 (March 1992): 67–71; and S. A. Gorlov, “Voennoe sotrudничество СССР и Германии в 20-e gody” [Military cooperation of the USSR and Germany in the 1920s], *Voenno-istoricheskii zhurnal* [Military-Historical Journal, hereafter cited as VIZh] 9 (September 1991): 4–11.
5. Whereas Western soldiers tend to use the term *doctrine* to describe specific principles applicable to all levels of war, Frunze used this term to describe abstract concepts of the state use of military power. The ensuing discussion therefore uses the Soviet terminology of strategic, operational, and tactical concepts and theories as analogous to Western doctrine. For an assessment of Frunze’s reforms, see M. A. Gareev, *M. V. Frunze, Military Theorist* (Washington, DC: Pergamon-Brassey’s, 1988).
6. R. Savushkin, “K voprosu o zarozhdenii teorii posledovatel’nykh nastupatel’nykh operatsii, 1921–1929 gg.” [On the question of the origin of the theory of successive operations, 1921–1929], *VIZh* 5 (May 1983): 77–83. See Triandafillov’s original study in V. K. Triandafillov, *The Nature of the Operations of Modern Armies*, ed. Jacob W. Kipp, trans. William A. Burhans (London: Frank Cass, 1994).

7. A. A. Svechin, quoted in *Voprosy strategii i operativnogo iskusstva v sovetskikh voennnykh trudakh, 1917–1940 gg.* [Questions of strategy and operational art in Soviet military works, 1917–1940] (Moscow: Voenizdat, 1965), 238, and Svechin, *Strategia* [Strategy], 2nd ed., 1927, quoted in *The Evolution of Soviet Operational Art 1927–1991: The Documentary Basis*, vol. I, *Operational Art, 1927–1964*, trans. Harold S. Orenstein (London: Frank Cass, 1995), 9–15. See a complete translation of Svechin's 1927 work in Aleksandr A. Svechin, *Strategy*, ed. Kent D. Lee (Minneapolis, MN: East View Publications, 1992). See a brief history of Operational Art in David M. Glantz, *Soviet Military Operational Art: In Pursuit of Deep Battle* (London: Frank Cass, 1991).

8. Quoted in A. Riazansky, "The Creation and Development of Tank Troop Tactics in the Pre-war Period," VV 11 (November 1966): 27. See also George F. Hoffman, "Doctrine, Tank Technology, and Execution: I. A. Khalepskii and the Red Army's Fulfillment of Deep Offensive Operations," *Journal of Slavic Military Studies* (hereafter cited as *JSMS*) 9, no. 2 (June 1996): 283–334. The most comprehensive study of the theory of the Deep Operation, as described by its proponent G. S. Isserson, is found in Richard W. Harrison, *Architect of Soviet Victory in World War II: The Life and Theories of G. S. Isserson* (Jefferson, NC: McFarland, 2010). See also Richard W. Harrison, *The Russian Way of War: Operational Art, 1904–1940* (Lawrence: University Press of Kansas, 2001).

9. These three tank echelons were known as direct infantry support (*neposredstvennoi podderzhki pekhoty*, or NPP), long-range support (*dal'nei podderzhka pekhoty*, or DPP), and long-range action (*dal'nego deistvia*, or DD) groups. The latter, depending on their size, soon became forward detachments (*peredovye otriady*), which were formed to conduct tactical maneuver, and mobile groups (*podvizhnye gruppy*), which could conduct operational exploitations. The mobile group was the ancestor of the Soviet operational maneuver group (OMG) of the late 1970s and 1980s, and the forward detachment was the antecedent to the twenty-first-century Russian combined-arms brigade or battalion. See the subsequent evolution of mobile groups and forward detachments in Glantz, *Soviet Military Operational Art*, and Glantz, *The Soviet Conduct of Tactical Maneuver: Spearhead of the Offensive* (London: Frank Cass, 1991).

10. A. Iovlev, "Tekhnicheskoe perevooruzhenie Krasnoi Armii v gody pervoi pialtinki" [The technical rearment of the Red Army during the first five-year plan], *VIZh* 12 (December 1964): 4–13, and David M. Glantz, *The Motor-Mechanization Program of the Red Army during the Inter-war Years* (Fort Leavenworth, KS: SASO, 1990). On the nature of and reasons for this rearment, see Sally W. Stoecker, *Forging Stalin's Army: Marshal Tukhachevsky and the Politics of Military Innovation* (Boulder, CO: Westview Press/HarperCollins, 1998), esp. 31–50 and 64, and David R. Stone, *Hammer & Rifle: The Militarization of the Soviet Union, 1926–1933* (Lawrence: University Press of Kansas, 2000). The documentary basis for this reform is in V. A. Polonsky et al., eds., *Glavnoe avtobronetankovoe upravlenie: Liudi, sobytiia, fakty, 1929–1941 gg.* [The Main Auto-armored Directorate: People, events, and facts, 1929–1941] (Moscow: Ministry of Defense of the Russian Federation, 2004).

11. The Soviets had formed the 3rd Tank Regiment in Moscow in 1924, but they abolished it a year later. The 1927 regiment also contained six armored car

battalions and about thirty armored trains. A. Ryzhakov, “K voprosy o stroitel'stve bronetankovykh voisk Krasnoi Armii v 30-e gody” [Concerning the formation of Red Army armored forces in the 1930s], *VIZh* 8 (August 1968): 105, and Glantz, “Motor-Mechanization Program.”

12. Ryzhakov, “K voprosy o stroitel'stve,” 106. The new brigade consisted of 4,700 men, 119 tanks, 100 tankettes (small, machine gun-armed tanks), 15 armored cars, and a variety of supporting weaponry. Find a comprehensive treatment of the evolution of Soviet mechanized forces from the early 1930s through 1941 in Evgenii Drig, *Mekhanizirovannye korpusa RKKA v boiu: Istorija avtomobilotankovych voisk Krasnoi Armii v 1940–1941 godakh* [The mechanized corps of the RKKA in battle: A history of the Red Army's auto-armored forces in 1940–1941] (Moscow: “AST,” 2005).

13. S. A. Tiushkevich, ed., *Sovetskie vooruzhennye sily* [The Soviet Armed Forces] (Moscow: Voenizdat, 1978), 236; A. A. Volkov, *Kriticheskii prolog* [Critical prologue] (Moscow: “Aviar,” 1992), 27; and R. A. Savushkin, *Razvitiye Sovetskikh vooruzhennykh sil i voennogo iskusstva v mezvoennyyi period (1921–1941 gg.)* [The development of the Soviet Armed Forces and military art in the interwar period (1921–1941)] (Moscow: Military-Political Department of the Orders of Lenin and October Revolution and Red Banner V. I. Lenin Academy, 1989).

14. Karl-Heinz Frieser, *The Blitzkrieg Legend: The 1940 Campaign in the West*, trans. John T. Greenwood (Annapolis, MD: Naval Institute Press, 2005), 4–5 and 100–107.

15. *Izvestiia TsK KPSS* [News of the Central Committee of the Communist Party of the Soviet Union] 4 (April 1989): 43, and O. F. Suvenirov, *Tragediya RKKA 1937–1938* [The tragedy of the RKKA 1937–1938] (Moscow: “TERRA,” 1998).

16. For the debate on causes of the military purge, see Peter Whitewood, “Towards a New History of the Purge of the Military, 1937–1938,” *JSMS* 24, no. 4 (December 2011): 605–620.

17. Dimitri Volkogonov, *Stalin: Triumph and Tragedy*, trans. and ed. Harold Shukman (Rocklin, CA: Prima Publishing, 1992), 47, 250–252, and 319–324.

18. This section is based on David M. Glantz, *Stumbling Colossus: The Red Army on the Eve of World War* (Lawrence: University Press of Kansas, 1998), 26–33; Roger R. Reese, *Red Commanders: A Social History of the Soviet Army Officer Corps, 1918–1991* (Lawrence: University Press of Kansas, 2005), 121–124; and Geoffrey Roberts, *Stalin’s Wars: From World War to Cold War, 1939–1953* (New Haven, CT: Yale University Press, 2006), 15–18. See also O. F. Suvenirov, “Vsearmeiskaia tragediia” [An armywide tragedy], *VIZh* 3 (March 1989): 42. Reese argues that the purge has been exaggerated, contending that personnel documents reflect dismissal of about 11.4 percent of officers in 1937–1938.

19. See Michael Parrish, *The Lesser Terror: Soviet State Security, 1939–1953* (Westport, CT: Praeger, 1996), esp. 1–50 and 69–94.

20. S. S. Biriuzov, *Sovetskii soldat na Balkanakh* (Moscow: Voenizdat, 1963), 137–143. For an English translation, see Seweryn Bialer, ed., *Stalin and His Generals: Soviet Military Memoirs of World War II* (Boulder, CO: Westview Press, 1984), 84–86.

21. Harold Shukman, ed., *Stalin’s Generals* (New York: Grove Press, 1993), 289. See also the careers of the so-called Generals of the Class of 1940 as described

in I. I. Kuznetsov, *Marshaly, generaly i admiraly 1940 goda* [The marshals, generals and admirals of 1940] (Irkutsk, Russian Federation: Eastern Siberian Publishing, 2000), and Kuznetsov, *Sud'by general'skie: Vysshie komandnie kadry Krasnoi Armii v 1940–1953 gg.* [The fate of the generals: The highest command cadre of the Red Army in 1940–1953] (Irkutsk, Russian Federation: Irkutsk University Press, 2000).

22. Three typescript copies of Tukhachevsky's landmark 1928 work, *Budushchaya voina* [Future war], survived, buried in the archives. When released at the end of the Soviet era, the cover sheet showing controlled access to this document contained only thirteen signatures, all after 1955.

23. Cynthia A. Roberts, "Planning for War: The Red Army and the Catastrophe of 1941," *Europe-Asia Studies* 47, no. 8 (December 1995): 1295.

24. During the later 1930s, both *VIZh* and the Soviet General Staff journal *Voennaia mysl'* [Military thought] published numerous articles on the war in Spain that reflected Soviet doubts about the Deep Operation. The documentary evidence for these conclusions is contained in S. Lobarsky, *Nekotorye operativno-takticheskie vyvody iz opyta voina v Ispanii* [Some operational-tactical conclusions from the experiences of the war in Spain] (Moscow: State Military Press of the People's Commissariat of Defense of the USSR, 1939), prepared by the Academy of the General Staff of the Workers' and Peasants' Red Army (RKKA). See also David M. Glantz, "Observing the Soviets: U.S. Military Attachés in Eastern Europe during the 1930s," *Journal of Military History* (hereafter cited as *JMH*) 5, no. 2 (April 1991): 153–183, and Steven J. Zaloga, "Soviet Tank Operations in the Spanish Civil War," *JSMS* 12, no. 3 (September 1999): 134–162. The best of many descriptions of wartime operations are S. Iu. Danilov, *Grazhdanskaia voina v Ispanii* [The Civil War in Spain] (Moscow: "Veche," 2004); V. L. Goncharov, *Grazhdanskaia voina v Ispanii: Tsentral'nyi front i Brunetskaia operatsiia* [The Civil War in Spain: The central front and the Brunete operation] (Moscow: "Veche," 2010); and P. Samoilov, *Gvadalakhara: Deistviia na tsentral'nom front (oktiabr' 1936–april 1937 goda)* [Guadalahara: Operations on the central front (October 1936–April 1937)] (St. Petersburg, Russian Federation: St. Petersburg University, 2006).

25. Jonathan M. House, *Combined Arms Warfare in the Twentieth Century* (Lawrence: University Press of Kansas, 2001), esp. 70–103.

26. See details in "Doklad narkoma oborony SSSR K. E. Voroshilova v Politburo TsK VKP (B)—I. V. Stalinu i v SNK SSSR—V. M. Molotovu ob osnovakh reorganizatsii Krasnoi Armii" [Report of the People's Commissar of Defense of the USSR, K. E. Voroshilov—to I. V. Stalin in the Politburo of the Central Committee of the All-Union Communist Party (Bolshevik) and, in the Council of People's Commissars of the USSR—to V. M. Molotov about the bases for reorganizing the Red Army]," in *Glavnyi voennyi sovet RKKA: 13 marta 1938 g.–20 iiunia 1941 g.: Dokumenty i materialy* [The Main Military Council of the RKKA: 13 March 1938–20 June 1941: Documents and materials] (Moscow: Russian Political Encyclopedia [ROSSPEN], 2004), 440–452.

27. For changes in the 15 November "report," see Drig, *Mekhanizirovannye korpusa RKKA*, 12–17; Ryzhakov, "K voprosy o stroitel'stve," 105–111; and Glantz, "Observing the Soviets," 43–45.

28. The Soviet and Japanese casualty figures are from G. F. Krivosheev et al., *Rossiya i SSSR v voinakh XX veka: Statisticheskoe issledovanie* [Russia and the USSR in wars of the twentieth century: A statistical analysis] (Moscow: “Olma-Press,” 2001), 170–175. This revises the figures contained in the 1993 edition of Krivosheev’s book, which was published in English as *Soviet Casualties and Combat Losses in the Twentieth Century* (Mechanicsburg, PA: Stackpole Books, 1993), 48–51. For specifics of the engagement, see Kuz’min, *Na strazhe mirnogo truda*, 199–228; I. N. Shkalov, *Ozero Khasan, god 1938* [Lake Khasan, 1938] (Moscow: Voenizdat, 1988); and V. Ezhakov, “The Battles at Lake Khasan (on the 30th Anniversary of the Defeat of the Japanese Troops),” *VIZh* 7 (July 1968): 124–128.

29. Casualty figures are from Krivosheev et al., *Rossiya i SSSR v voinakh*, 176–184, also an update of 1993 figures. The best of many studies of Khalkin-Gol are P. A. Zhilin, ed., *Pobeda na reke Khalkhin-Gol* [Victory on the Khalkhin-Gol River] (Moscow: “Nauka,” 1981); Edward J. Drea, *Nomonhan: Japanese-Soviet Tactical Combat*, 1939, Leavenworth Papers no. 2 (Fort Leavenworth, KS: U.S. Army Command and General Staff College [hereafter cited as USACGSC], 1981); and Stuart D. Goldman, *Nomonhan, 1939: The Red Army’s Victory That Shaped World War II* (Annapolis, MD: Naval Institute Press, 2012). See also Oleksiy Nozdrachov, “Application of the Soviet Theory of ‘Deep Operation’ during the 1939 Soviet-Japanese Military Conflict in Manchuria” (MMAS thesis, USACGSC, 2010), esp. 61–62 and 80 on air actions.

Chapter 2. Armed Truce

1. For Soviet military preparations, see Glantz, *Soviet Military Strategy*, 69–72.

2. Gabriel Gorodetsky, *Grand Delusion: Stalin and the German Invasion of Russia* (New Haven, CT: Yale University Press, 1999), 4–15; Geoffrey Roberts, “The Soviet Decision for a Pact with Nazi Germany,” *Soviet Studies* 44, no. 1 (1992): 57–71; and Mikhail Mel’tiukhov, *Upushchennyi shans Stalina: Skhvatka za Evropu 1939–1941 gg.* [The lost chance of Stalin: The fight for Europe 1939–1941] (Moscow: “Veche,” 2008). On the contents of these agreements, see Iu. Fel’shtinsky, ed., *Oglasheniiu podlezhit: SSSR-Germania 1939–1941: Dokumenty i materialy* [Subject to publication: USSR-Germany 1939–1941: Documents and materials] (Moscow: “TERRA”—Knizhnyi klub, 2004); A. Chubar’ian, “V preddverii vtoroi mirovoi voiny” [On the threshold of the Second World War], *Kommunist* 14 (September 1988): 102–112; D. A. Volkogonov, “Drama reshenii 1939 goda” [Drama of the 1939 decision], *Novaia i noveishaiia istoriia* [New and newest history] 4 (July–August 1989): 3–26; and “Na rokovom poroge (iz arkhivnykh materialov 1939 goda)” [On a fateful threshold (from archival materials of 1939)], *Voprosy istorii* [Questions of history] 11 (December 1989): 87–112, and 3 (March 1990): 13–39.

3. Roberts, “Soviet Decision for a Pact,” 70–72.

4. Sergei M. Shtemenko, *The Soviet General Staff at War, 1941–1945* (Moscow: Progress Publishers, 1985), 1:15–18. On the 1939 mobilization and operations, see a detailed account in Mel’tiukhov, *Upushchennyi shans Stalina*, 67–98, and a briefer survey in I. E. Shavrov et al., eds., *Istoriia voin, voennogo iskusstva i voennoi nauki: Uchebnik dlja voennoi akademii general’nogo shtaba vooruzhennykh sil*

SSSR [A history of warfare, military art, and military science: Textbook for the Military Academy of the General Staff of the Armed Forces of the USSR] (Moscow: Voroshilov Academy of the General Staff, 1977), 530–553. This section was translated by Harold Orenstein in *JSMS* 6, no. 1 (March 1993): 86–141.

5. Mel'tiukhov, *Upushchennyi shans Stalina*, 81–83, and Shavrov et al., *Istoriia voin*, 107–108.

6. Andrei I. Eremenko, *The Arduous Beginning* (Moscow: Progress Publishers, 1974), 15–19.

7. Loss figures are from Krivosheev et al., *Rossiia i SSSR v voinakh*, 184–188, which claims the Soviets committed 466,516 troops to the operation. Citing documentary evidence, Mel'tiukhov's more detailed account, *Upushchennyi shans Stalina*, 84–85, cites the same number of Soviet casualties but asserts that the Red Army concentrated a force of 2,421,300 men and 5,467 tanks in its two *fronts*; employed a force of 617,588 men and 4,736 tanks in the operation; and took 454,700 Polish prisoners of war, 125,803 of whom ended up in NKVD camps.

8. Volkogonov, *Stalin: Triumph and Tragedy*, 359–360. The Yeltsin government of the Russian Federation provided full documentation to the Polish government, which in turn released the documents (in the possession of David Glantz).

9. “Dopustit’ razmeshchenie voisk . . . (O vvode chastei Krasnoi Armii na territorii Livy, Latvii, Estonii v 1939–1940 gg.)” [Permit stationing of troops . . . (Concerning the introduction of Red Army forces in the territory of Lithuania, Latvia, and Estonia in 1939–1940)], *VIZh* 4 (April 1990): 31–39.

10. For a detailed account of the Soviet invasion and occupation, see Mel'tiukhov, *Upushchennyi shans Stalina*, 129–157, and M. I. Mel'tiukhov, *Pribaltiskii platsdarm (1939–1940 gg.): Vozvrashchenie Sovetskogo Soiuza na berega Baltiskogo moria* [Baltic bridgehead (1939–1940): Return of the Soviet Union to the Baltic Sea’s shores] (Moscow: Algoritm, 2014). The Soviets supposedly suffered 58 killed and 158 wounded in the operations. For the Estonian and Latvian view, see Toomas Hiio, Meelis Maripuu, and Indrek Paavle, eds., *Estonia 1940–1945: Reports of the Estonian International Commission for the Investigation of Crimes against Humanity* (Tallinn: Tallinna Raamatutükkikoda, 2006), and Paula Kovalevskis, Oskars Noritis, and Mike-lis Goppers, eds., *Latvia: Year of Horror* (Riga: Zelta Abele, 1942).

11. For details of the invasion and its consequences, see Mel'tiukhov, *Upushchennyi shans Stalina*, 157–190, and, with fewer details, Shavrov et al., *Istoriia voin*, 116–118.

12. Gorodetsky, *Grand Delusion*, 29–33.

13. For the diplomatic antecedents to the war, see H. M. Tillotson, *Finland at Peace and War, 1918–1993* (Norwich, UK: Michael Russell, 1993), 96–117, and Mel'tiukhov, *Upushchennyi shans Stalina*, 99–110.

14. For the conduct of the war, see Eloise Engle and Lauri Paananen, *The Winter War: The Russo-Finnish Conflict, 1939–40* (New York: Scribners, 1973); Carl van Dyke, *The Soviet Invasion of Finland 1939–40* (London: Frank Cass, 1997); Mel'tiukhov, *Upushchennyi shans Stalina*, 110–128; and Pavel Aptekar', *Sovetsko-Finskie voiny: Samye pozornye v istorii Russkogo oruzhia* [The Soviet-Finnish war: The most infamous in the history of Russian arms] (Moscow: “Iauza” “Eksmo,” 2004). A Soviet and Finnish documentary record of the war is in T. Vikhavainen et al., eds., *Zimnaia voina 1939–1940 gg.: Issledovaniia, dokumenty, kommentarii—K*

70-letiiu sovetsko-finliandskoi voiny [The winter war 1939–1940: Studies, documents, commentary—On the 70th anniversary of the Soviet-Finnish war] (Moscow: IKTs “Akademkniga,” 2009). An English translation of Stalin’s after-action review of the war in April 1940 is Alexander O. Chubaryan and Harold Shukman, eds., *Stalin and the Soviet-Finnish War 1939–40* (London: Frank Cass, 2002). In regard to the strengths of opposing forces, Krivosheev et al., *Rossiia i SSSR v voinakh*, 191–193, list Finnish strength as up to 600,000 men organized into 7 infantry divisions and 5 separate brigades and Soviet strength on 1 January 1940 as 550,757 men organized into 21 rifle divisions, 1 tank corps, and 3 tank brigades, which increased to 916,613 men by early March. By contrast, Mel’tiukhov, *Upushchennyi shans Stalina*, 112, places Finnish strength on 30 November at 265,000 men, 26 tanks, and 270 combat aircraft opposing 425,640 Soviet soldiers, 2,289 tanks, and 2,446 combat aircraft, but he accepts Krivosheev’s Soviet strength figures for early March.

15. Roger Reese, *Why Stalin’s Soldiers Fought: The Red Army’s Military Effectiveness in World War II* (Lawrence: University Press of Kansas, 2011), 43–50.

16. Aptekar’, *Sovetsko-Finskie voiny*, 68, claims the defending Finns numbered about 100,000 men, 75 tanks, and 200 aircraft.

17. On 9th Army operations, see O. A. Dudorova, “Neizvestnye stranitsy ‘zimnei voiny’” [Little-known pages of the “Winter War”], *VIZh* 9 (September 1991): 12–23.

18. Harrison, *Architect of Soviet Victory*, 219–223.

19. Military Intelligence Division, U.S. Army, *Soviet-Finnish War: Operations from November 30, 1939, to January 7, 1940* (Washington, DC: U.S. War Department, January 10, 1940). For more details, see Shavrov et al., *Istoriia voin*, 520–533.

20. Dudorova, “Neizvestnye,” 12–23, and Tillotson, *Finland at Peace and War*, 137–144.

21. Shtemenko, *Soviet General Staff at War*, 24–25.

22. Mel’tiukhov, *Upushchennyi shans Stalina*, 120, and Aptekar’, *Sovetsko-Finskie voiny*, 329. The official view in Krivosheev et al., *Rossiia i SSSR v voinakh*, 200–201, places Soviet losses at 333,084 (65,384 killed, 19,610 missing, 180,584 wounded, 9,614 frostbitten, and 51,892 sick).

23. Robert Edwards, *The Winter War: Russia’s Invasion of Finland, 1939–1940* (New York: Pegasus Books, 2008), 14–15.

24. For documents pertaining to these reforms, see “Zimnaia voina”: *Pabota nad oshibkami (aprel’–mai 1940 g.)—Materialy komissii Glavnogo voennogo soveta Krasnoi Armii po obobshcheniiu opyta finskoi kampanii* [“The Winter War”: Work on mistakes (April–May 1940)—Materials of a commission of the Main Military Council of the Red Army on the generalization of the experience of the Finnish campaign] (Moscow: SPB. Letnii sad, 2004).

25. Volkogonov, *Stalin: Triumph and Tragedy*, 367.

26. See numerous articles about the German invasion in the Soviet journals *Voennaia mysl'* [Military thought] and *VIZh*, which collectively lamented that the Germans succeeded in doing what the Soviets intended but failed to accomplish.

27. For details, see Drig, *Mekhanizirovannye korpusa RKKA*, 18–21.

28. Ibid., 50–59; Glantz, *Soviet Military Operational Art*, 96; and Glantz, “Motor-Mechanization Program,” 45–48.

29. Volkogonov, *Stalin: Triumph and Tragedy*, 269, and Kuznetsov, *Sud’by general’skie*, 17–41 and 242–273.

30. Analysis of this conference and war game is found in M. V. Zakharov, *General'nyi shtab v predvoennye gody* [The General Staff in the prewar years] (Moscow: Voenizdat, 1989), 239–250. A complete transcript of the conference is in V. A. Zolotarev et al., eds., “Nakanune voiny: Materialy soveshchaniia vysshego rukovodящego sostava RKKA 23–31 dekabria 1940 g.” [On the eve of war: Materials of a conference of the higher leadership of the RKKA 23–31 December 1940], in *Russkii arkhiv: Velikaia Otechestvennaia, t. 12 (1)* [The Russian archives: The Great Patriotic (War), vol. 12 (1)] (Moscow: “TERRA,” 1993).

31. Eremenko, *Arduous Beginning*, 22–43. On the parlous state of Soviet preparedness, see Iu G. Perechnev, “O nekotorykh problemakh podgotovki strany i Vooruzhennykh Sil k otrazheniiu fashistskoi agressii” [Concerning some problems in preparing the country and armed forces to repel fascist aggression], *VIZh* 4 (April 1988): 239–250. On Soviet war and mobilization planning on the eve of war within the context of Soviet force restructuring, see Glantz, *Stumbling Colossus*, and the classic work by John Erickson, *The Soviet High Command: A Military-Political History, 1918–1941* (London: Frank Cass, 2001), first published by Macmillan in 1962.

32. P. N. Bobylev, “For What Kind of War Was the Red Army General Staff Preparing in 1941?” *Russian Studies in History* 36, no. 3 (Winter 1997–1998): 53–55, originally published in *Otechestvennaia istoria* [The fatherland’s history] (March 1995): 3–20.

33. On the war game, see Glantz, *Soviet Military Strategy*, 81–86, and Mel'tiukhov, *Upushchennyi shans Stalina*, 283–285.

34. A. Filippi, *Pripiatskaia problema* [The Pripyat’ problem] (Moscow: Izdatel’stvo inostrannoi literatury [Foreign Language Publishing House], 1959), and Glantz, *Stumbling Colossus*, 82–108.

35. Zakharov, *General'nyi shtab*, 125–128, discusses defensive planning; see also Glantz, *Soviet Military Strategy*, 55–82.

36. Zakharov, *General'nyi shtab*, 248–250; David M. Glantz, “Soviet Mobilization in Peace and War,” *JSMS* 5, no. 3 (September 1992): 236–239.

37. David E. Murphy, *What Stalin Knew: The Enigma of Barbarossa* (New Haven, CT: Yale University Press, 2005), 36 and 125–129, although Murphy fails to mention Stalin’s mobilization measures. For Soviet intelligence reports, see “Nakanune voiny, 1940–41 gg.: O podgotovke germanii k napadeniiu na SSSR” [On the eve of war, 1940–41: Concerning the preparations of Germany for the attack on the USSR], *Izvestiia TsK KPSS* [News of the Central Committee of the Communist Party of the Soviet Union] 4 (April 1990): 251–264.

38. See Glantz, *Soviet Military Strategy*, 306–312; Glantz, *Stumbling Colossus*, 102–108; and Zakharov, *General'nyi shtab*, 258–262.

39. Zakharov, *General'nyi shtab*, 259, and A. G. Khor’kov, “Nekotorye voprosy strategicheskogo razvetyvaniia Sovetskikh Vooruzhennykh Sil v nachale Velikoi Otechestvennoi voiny” [Some questions concerning the strategic deployment of the Soviet armed forces in the beginning of the Great Patriotic War], *VIZh* 1 (January 1986): 11–12. For a more comprehensive examination of Soviet planning, see A. G. Khor’kov, *Analiz boevoi gotovnosti voisk zapadnykh prigranichnykh voennykh okrugov nakanune Velikoi Otechestvennoi voiny* [An analysis of the combat readiness of the western military districts on the eve of the Great Patriotic War] (Moscow:

Voroshilov Academy of the General Staff, 1985), and Khor'kov, *Boevaia i mobilizatsionnaia gotovnost' prigranichnykh voennikh okrugov nakanune Velikoi Otechestvennoi voiny* [The combat and mobilization readiness of the border military districts on the eve of the Great Patriotic War] (Moscow: Voroshilov Academy of the General Staff, 1985).

40. Rolf-Dieter Müller, in Horst Boog, Jürgen Förster, Joachim Hoffmann, Ernst Klink, Rolf-Dieter Müller, and Gerd R. Ueberschar, *Germany and the Second World War*, vol. IV, *The Attack on the Soviet Union*, trans. Dean S. McMurry, Ewald Osers, and Louise Willmot (Oxford: Clarendon Press, 1999), 118–131 and 174–177. On Hitler's view of the economy, see Adam Tooze, *The Wages of Destruction: The Making and Breaking of the Nazi Economy* (New York: Viking, 2006), esp. xxiii–xxiv, 429–432, and 461–464.

41. See, for example, the essay by Jürgen Förster in Boog et al., *Germany and the Second World War*, vol. IV, 13–30. On Brauchitsch's involvement in the decision, see Bryan I. Fugate, *Operation Barbarossa: Strategy and Tactics on the Eastern Front, 1941* (Novato, CA: Presidio Press, 1984), 61–62.

Chapter 3. Opposing Armies

1. On the evolution of German doctrine, see Robert M. Citino, *The German Way of War: From the Thirty Years' War to the Third Reich* (Lawrence: University Press of Kansas, 2005), esp. 237–269, and James S. Corum, *The Roots of Blitzkrieg: Hans von Seeckt and German Military Reform* (Lawrence: University Press of Kansas, 1992), esp. 25–67.

2. Frieser, *Blitzkrieg Legend*, 75–81 and 94–107.

3. For the evolution of German mechanized organization and doctrine, see House, *Combined Arms Warfare in the Twentieth Century*, 76–83, 111–112, and 128–130. The half-track battalions are described in Niklas Zetterling and Anders Frankson, *The Drive on Moscow, 1941: Operation Taifun and Germany's First Great Crisis in World War II* (Philadelphia: Casemate, 2012), 131–132.

4. Samuel J. Lewis, *Forgotten Legions: German Army Infantry Policy 1918–1941* (New York: Praeger, 1985), 59–60.

5. Timothy A. Wray, *Standing Fast: German Defensive Doctrine on the Russian Front during World War II, Prewar to 1943* (Fort Leavenworth, KS: Combat Studies Institute, 1986), 1–21.

6. Bernard R. Kroener, Rolf-Dieter Müller, and Hans Umbreit, *Germany and the Second World War*, vol. V, pt. I, *Wartime Administration, Economy, and Manpower Resources, 1939–1941*, trans. Ewald Osers et al. (Oxford: Clarendon Press, 2000), 860, lists the 1939 census of Germany as 79,529,975. The official census of the Soviet Union in the same year listed the population as 170.5 million before the Baltic annexations, although demographers estimate that this number was overcounted by 5 to 6 million because Stalin sought to conceal the deaths caused by collectivization. See Michael K. Roof, "The Russian Population Enigma Reconsidered," *Population Studies* 14, no. 1 (July 1960): 4.

7. For the problems of German military rearment and expansion, see Berenice A. Carroll, "Germany Disarmed and Rearming, 1925–1935," *Journal of Peace Research* 3, no. 2 (1966): 114–124, and Lewis, *Forgotten Legions*, 27–44, 57–58, 89–

- 90, 121, and 144. Kroener, Müller, and Umbreit, *Germany and the Second World War*, vol. V, pt. I, 939 and 984, list the replacement forces in June 1941. See Glantz, *Soviet Military Strategy*, 91–95, and Glantz, *Stumbling Colossus*, 9–24, for Soviet figures.
8. Kroener, Müller, and Umbreit, *Germany and the Second World War*, vol. V, pt. I, 982 and 839.
9. Zetterling and Frankson, *Drive on Moscow*, 28–30.
10. Ibid., 913. On labor shortages, see Tooze, *Wages of Destruction*, 358 and 361.
11. Klaus Reinhardt, *Moscow—The Turning Point: The Failure of Hitler's Strategy in the Winter of 1941–42*, trans. Karl B. Keenan (Oxford: Berg Publishing, 1992), 26–28.
12. Adam Tooze has argued against this interpretation in *Wages of Destruction* (429–432), contending that Germany was in fact seriously committed to war production. However, he arrives in effect at the same conclusion: that for various reasons, the German economy was unable to produce more in 1941 and lacked the capacity to counterbalance British, American, and Soviet production.
13. Richard L. DiNardo, *Mechanized Juggernaut or Military Anachronism? Horses and the German Army of World War II* (Westport, CT: Greenwood Press, 1991), 38, 40, and 49. See also Lewis, *Forgotten Legions*, 50–55.
14. Thomas L. Jentz, ed., *Panzertruppen: The Complete Guide to the Creation & Combat Employment of Germany's Tank Force, 1933–1945* (Atglen, PA: Schiffer Military History, 1996), vol. 1, 190–193.
15. Boog et al., *Germany and the Second World War*, vol. IV, 223. This table (222–223) identifies substitute equipment for every division invading the Soviet Union. The 11th later reequipped with German tanks.
16. Stephen G. Fritz, *Ostkrieg: Hitler's War of Extermination in the East* (Lexington: University Press of Kentucky, 2011), 118.
17. Robert M. Kennedy, *The German Campaign in Poland, 1939* (Washington, DC: Office of the Chief of Military History, 1956), 120. On the centralized maintenance system, see Kenneth Macksey, “The German Army in 1941,” in David M. Glantz, ed., *The Initial Period of War on the Eastern Front, 22 June–August 1941: Proceedings of the 4th Art of War Symposium* (London: Frank Cass, 1993), 64–65.
18. For a detailed discussion of the evolution of the Barbarossa Plan, see David Stahel, *Operation Barbarossa and Germany's Defeat in the East* (Cambridge: Cambridge University Press, 2009), 33–69, and Fugate, *Operation Barbarossa*, 61–93.
19. The complete Barbarossa directive is included as Appendix XXII to Heinz Guderian, *Panzer Leader*, trans. Constantine Fitzgibbon (New York: E. P. Dutton, 1952), 513–516. See also David M. Glantz, *Barbarossa Derailed: The Battle for Smolensk, 10 July–10 September 1941*, vol. 1, *The German Advance, the Encirclement Battle, and the First and Second Soviet Counteroffensives, 10 July–24 August 1941* (Solihull, UK: Helion, 2010), 17–21.
20. Franz Halder, *The Halder War Diaries, 1939–1942*, ed. Charles Burdick and Hans-Adolf Jacobsen (Novato, CA: Presidio Press, 1988), 294.
21. “Vortrag beim Führer am 5. Dezember 1940” [A talk with the Führer on 5 December 1940], *Kriegstagebuch des Oberkommandos der Wehrmacht (Wehrmacht-führungsstab)*, Band 1: 1. August 1940–31. Dezember 1941 [OKW War Diary (WFSt War Diary)], vol. 1, 1 August 1940–31 December 1941], compiled by Hans-Adolf

Jacobsen (Frankfurt am Main, Germany: Bernard & Graefe Verlag, 1965), 981–982. This talk is vital to understanding Hitler's insistence on clearing large Soviet forces from Army Group Center's flanks before advancing to capture Moscow.

22. The actual numbers included in the 1941 campaign remain the subject of debate, due largely to differences in counting units in Norway and second-echelon or rear security forces for the Germans. These figures are intended to reflect the entire theater of war, as indicated by Earl F. Ziemke and Magna Bauer, *Moscow to Stalingrad: Decision in the East* (Washington, DC: U.S. Army Center of Military History, 1987), 7–8, and Glantz, *Barbarossa Derailed*, vol. 1, 20.

23. For comparison's sake, the distance from Brest, on the Soviet Union's western border, to Moscow was about 1,020 kilometers.

24. On Wagner's estimates, see Boog et al., *Germany and the Second World War*, vol. IV, 140 and 293–297; on the railroad and road network, see Ziemke and Bauer, *Moscow to Stalingrad*, 14. See also Stahel, *Operation Barbarossa and Germany's Defeat in the East*, 127–138.

25. Tooze, *Wages of Destruction*, 453.

26. Stahel, *Operation Barbarossa and Germany's Defeat in the East*, 54–60.

27. Glantz, *Initial Period of War*, 185–187, and Glantz, *Stumbling Colossus*, 102–106 and 288–291.

28. Zetterling and Frankson, *Drive on Moscow*, 32–33.

29. See Gerd Niepold in Glantz, *Initial Period of War*, 66–70. See also Boog et al., *Germany and the Second World War*, vol. IV, 274–278.

30. James J. Schneider, "The Cobra and the Mongoose: Soviet Defensive Doctrine during the Interwar Period and the Problem of Strategic Dislocation," *JSMS* 19, no. 1 (January 2006): 57–66. For greater detail about Soviet military theory and planning, see Glantz, *Stumbling Colossus*; Glantz, *Soviet Military Strategy*, 60–91; and Mel'tiukhov, *Upushchennyi shans Stalina*, 221–313.

31. Glantz, *Stumbling Colossus*, 72–81, and Reese, *Why Stalin's Soldiers Fought*, 36–39 and 201–204.

32. Roberts, "Planning for War," 1299–1310.

33. See Mark Harrison, "Industry and the Economy," in David R. Stone, ed., *The Soviet Union at War, 1941–1945* (Barnsley, UK: Pen & Sword Books, 2010), esp. 29–30. The Germans overlooked some depots that provided equipment to early partisan groups.

34. Drig, *Mekhanizirovannye korpusa RKKA*, 51.

35. O. A. Losik, ed., *Stroitel'stvo i boevoe primenenie sovetskikh tankovykh voisk v gody Velikoi Otechestvennoi voiny* [The formation and combat use of Soviet tank forces in the years of the Great Patriotic War] (Moscow: Voenizdat, 1979), 44. For details, see Drig, *Mekhanizirovannye korpusa RKKA*, and Glantz, *Stumbling Colossus*, 116–125 and 154–155.

36. Drig, *Mekhanizirovannye korpusa RKKA*, 160.

37. The most exact figures are found in ibid., 135. See also Steven Zaloga, "Technological Surprise and the Initial Period of War: The Case of the T-34 Tank," *JSMS* 6, no. 4 (December 1994): 634–648, and Glantz, *Stumbling Colossus*, 116–145.

38. Drig, *Mekhanizirovannye korpusa RKKA*, 375.

39. Ibid., 469.

40. Konstantin K. Rokossovsky, *A Soldier's Duty* (Moscow: Progress Publishers, 1985), 12–15. Victor J. Kamenir gives a detailed inventory of the 19th as well as the other mechanized corps of the Southwestern Front in *The Bloody Triangle: The Defeat of Soviet Armor in the Ukraine, June 1941* (Minneapolis, MN: Zenith Press, 2008), 33–50.
41. Zaloga, “Technological Surprise.” Of these 1,831 new tanks, 1,475 (508 KV-s and 967 T-34s) were assigned to formations in the western military districts. Had they been massed, the new tanks together would have outgunned the 1,449 Panzer III and 517 Panzer IV medium tanks available to the German forces.
42. Glantz, *Stumbling Colossus*, 109–159, and S. Alferov, “Strategicheskoe razvityvanie sovetskikh voisk na Zapadnom TVD v 1941 gody” [The strategic deployment of Soviet forces in the western TVD—theater of war—in 1941], *VIZh* 6 (June 1981): 31. On equipment shortages, see Kamenir, *Bloody Triangle*, 48–50.
43. Jacob Kipp, “Soviet War Planning,” in Glantz, *Initial Period of War*, 53–54.
44. Anders Frankson, “Summer 1941,” *JSMS* 13, no. 3 (September 2000): 138.
45. Zaloga, “Technological Surprise,” 634–648.
46. Williamson Murray, *Luftwaffe* (Baltimore, MD: Nautical and Aviation Publishing, 1985), 79 and 83.
47. For details on the Soviet air force on the eve of the war, see Von Hardesty and Ilya Grinberg, *Red Phoenix Rising: The Soviet Air Force in World War II* (Lawrence: University Press of Kansas, 2012), 5–22 and Appendix 1; Glantz, *Stumbling Colossus*, 184–204; M. N. Kozhevnikov, *Komandovanie i shtab VVS Sovetskoi Armii v Velikoi Otechestvennoi voine 1941–1945 gg.* [The command and staff of the Soviet Army's VVS in the Great Patriotic War 1941–1945] (Moscow: “Nauka,” 1977), 15–35; and Mel'tiukhov, *Upushchennyi shans Stalina*, 264–271. For Soviet aircraft figures, see M. I. Mel'tiukhov, “22 iiunia 1941 g.: Tsifri svidetel'stvuiut” [22 June 1941: Numbers bear witness], *Istoria SSSR* 3 (March 1991): 16–28.
48. N. P. Zolotov et al., eds., *Boevoi i chislennyi sostav vooruzhennykh sil SSSR v periodie Velikoi Otechestvennoi voiny (1941–1945 gg.): Statisticheskii sbornik No. 1 (22 iiunia 1941 g.)* [Combat and numerical composition of the armed forces of the USSR in the period of the Great Patriotic War 1941–1945: Statistical collection No. 1 (22 June 1941)] (Moscow: Institute of Military History of the Russian Federation's Ministry of Defense, 1994), 11.
49. This section is based primarily on Hardesty and Grinberg, *Red Phoenix Rising*, 14–16. See also Volkogonov, *Stalin: Triumph and Tragedy*, 375.
50. Glantz, *Soviet Military Strategy*, 78–81; Glantz, *Stumbling Colossus*, 82–108; and Volkogonov, *Stalin: Triumph and Tragedy*, 396–398.
51. This section is based largely on Glantz, *Stumbling Colossus*, 12–13 and 102–107; David M. Glantz, *Operation Barbarossa: Hitler's Invasion of Russia 1941* (Stroud, UK: History Press, 2004), 15–16, and Ziemke and Bauer, *Moscow to Stalingrad*, 18–22, which cites S. P. Ivanov, *Nachalnyi period voiny* [The initial period of war] (Moscow: Voenizdat, 1974). See also Mel'tiukhov, *Upushchennyi shans Stalina*, 281–313; Jacob Kipp, “Barbarossa, Soviet Covering Forces, and the Initial Period of War: Military History and Airland Battle” (Fort Leavenworth, KS: SASO, 1989); and Iu. Ia. Kirshin and N. M. Ramanichev, “Nakanune 22 iiunia 1941 g. (po materi-

alam voennyykh arkhivov)" [On the eve of 22 June 1941 (according to military archival materials)], *Novaia i noveishaiia istoriia* [New and newest history] 3 (March–April 1991): 3–19.

52. Ivanov, *Nachalnyi period*, 101, 106–107, and 204, and Shtemenko, *Soviet General Staff at War*, vol. 1, 33.

53. Viktor Suvorov, *Icebreaker: Who Started the Second World War?*, trans. Thomas B. Beattie (London: Hamish Hamilton, 1990), esp. 25–114. Suvorov is supported by a number of authors, including Bobylev, "For What Kind of War," 50–67, and B. V. Sokolov, "Did Stalin Intend to Attack Hitler?" *JSMS* 11, no. 2 (June 1998): 113–141. For critical reviews of this issue, see Aleksei Isaev, *Anti Suvorov: Bol'shaia lozh' malen'kogo chelovechka* [Anti-Suvorov: The big lie of a little man] (Moscow: "Iauza" "Eksmo," 2004); Mel'tiukhov, *Upushchennyi shans Stalina*, 264 and 281–285; Glantz, *Stumbling Colossus*, 95 and 244–245; V. A. Nevezhin, *Sindrom nastupatel'noi voiny: Sovetskaia propaganda v preddverii "sviashchennykh boev" 1939–1941 gg.* [The syndrome of offensive war: Soviet propaganda on the threshold of "sacred battles" 1939–1941] (Moscow: "Airo-XX," 1997); Teddy J. Uldricks, "The Icebreaker Controversy: Did Stalin Plan to Attack Hitler?" *Slavic Review* 58, no. 3 (August 1999): 626–643; and Gorodetsky, *Grand Delusion*, 3–9. See also Alexander Hill, *The Great Patriotic War of the Soviet Union, 1941–45: A Documentary Reader* (London: Routledge, 2009), 23–37, and Iu. A. Gorkov, "Was Stalin Preparing a Preemptive Strike against Hitler in 1941?" *Russian Studies in History* 36, no. 3 (Winter 1997–1998): 22–46, originally published in *Novaia i noveishaiia istoriia* 3 (1993): 29–45.

54. The Timoshenko reforms were supposed to be completed in the summer of 1942.

55. For the argument that the Soviet military encouraged Stalin's aggressive tendencies, see Albert L. Weeks, *Stalin's Other War: Soviet Grand Strategy, 1939–1941* (Lanham, MD: Rowman & Littlefield, 2002), esp. 90–93 and 100–101.

56. See Alexander Hill, "The Icebreaker Controversy and Soviet Intentions in 1941: The Plan for the Strategic Deployment of Soviet Forces of 15 May and Other Key Documents," *JSMS* 21, no. 1 (2008): 119–128, and V. N. Kiselev, "Stubborn Facts Associated with the Beginning of the War," *Russian Studies in History* 36, no. 3 (Winter 1997–1998): 8–21, originally published in *VIZh* 2 (1992): 14–22.

57. It is the task of any general staff to develop a wide range of contingency plans, as unrealistic as some seem. For example, when the United States prepared its "color plans" in the late 1930s, they included one for war against Canada.

58. V. Karpov, "Zhukov," *Kommunist vooruzhennykh sil* [Communist of the armed forces] 5 (May 1990): 67–68.

59. This section is based primarily on Barton Whaley, *Codeword Barbarossa* (Cambridge, MA: MIT Press, 1973); Murphy, *What Stalin Knew*, esp. 65–83, 117–121, 127–132, and 173–179; and Glantz, *Stumbling Colossus*, 233–250. See also Robert Savushkin, "In the Tracks of a Tragedy: On the 50th Anniversary of the Start of the Great Patriotic War," *JSMS* 4, no. 2 (June 1991): 213–251; A. H. Khor'kov, "Nakanune groznykh sobitii" [On the eve of threatening events], *VIZh* 5 (May 1988): 42–49; and L. Dvoinskykh and N. Tarkhova, "What Military Intelligence Reported: Historians Have a Chance to Analyze Soviet Intelligence Dispatches on the Eve of the War,"

Russian Studies in History 36, no. 3 (Winter 1997–1998): 76–93, originally published in *Nauka i zhizn'* 3 (1995): 2–11.

60. Dvoinykh and Tarkhova, “What Military Intelligence Reported,” 81.
61. Alexander Werth, *Russia at War, 1941–1945* (New York: E. P. Dutton, 1964), 113.
62. Whaley, *Codeword Barbarossa*, 193–196. Golokov’s predecessor, Ivan I. Proskurov, had been more suspicious of the Germans, but he became a scapegoat for failures in the Finnish war. See Murphy, *What Stalin Knew*, 7 and 54–61.
63. Murphy, *What Stalin Knew*, 173–179.
64. The text of this message is reproduced in Savushkin, “In the Tracks of a Tragedy,” 221–222.

Chapter 4. The German Onslaught

1. From “A Collection of Combat Documents Covering Soviet Western Front Operations: 24–30 June 1941,” trans. Harold S. Orenstein, *JSMS* 4, no. 2 (June 1991): 334. Find a full collection of documents in “Dokumenty po boevym deistviyam voisk Zapadnogo fronta s 22 iunia po 4 iulija 1941 g.” [Documents on combat operations of the forces of the Western Front from 22 June through 5 July 1941], *Sbornik boevykh dokumentov Velikoi Otechestvennoi voiny*, no. 35 [Collection of combat documents of the Great Patriotic War, no. 35] (Moscow: Voenizdat, 1958), declassified in 1964. This series of documents at *front*, army, corps, and sometimes *Stavka* levels was issued in forty-three volumes from 1947 to 1961 (hereafter cited as *SBDVOV*, with appropriate volume and date). For a translation of these documents, see David M. Glantz, ed., *Documents of the Western Front’s Combat Operations, 22 June–5 July 1941* (Carlisle, PA: Self-published, 2006).
2. Hardesty and Grinberg, *Red Phoenix Rising*, 5.
3. Christian Ganzer, “German and Soviet Losses as an Indicator of the Length and Intensity of the Battle for the Brest Fortress,” *JSMS* 27, no. 3 (September 2014): 1–18, and Rostislav Apiev, *Shturm Brestskoi kreposti* [The storming of the Brest fortress] (Moscow: “Iauza” “Eksmo,” 2008). Based on archival documents, these studies date the battle from 22 to 29 or 30 June, whereas older Soviet sources claim the fighting lasted until 21 July.
4. Fugate, *Operation Barbarossa*, 54–55, and Glantz, *Initial Period of War*, 196–200.
5. “Counteractions” such as counterattacks, counterstrokes, and counteroffensives differed in terms of scale and importance. Tactical in nature, counterattacks were normally conducted locally by forces attempting to halt an enemy advance. Counterstrokes, the operational-level equivalent to counterattacks, were conducted to repel and drive back advancing enemy forces. Finally, counteroffensives were strategically important operations designed to alter the situation fundamentally by forcing the enemy to go over to the defense or withdraw.
6. “Collection of Combat Documents,” 329, and Glantz, *Initial Period of War*, 184–225. I. V. Boldin recounts the first days in *Stranitsy zhizni* [Pages of a life] (Moscow: Voenizdat, 1961). The best memoir of Western Front operations in the initial days is L. M. Sandalov, “Stoiali nasmert” [Stand to the death], *VIZh* 10 (October

1988): 3–13, 11 (November 1988); 3–10, 12 (December 1988); 13–22, 2 (February 1989); 32–41, and 6 (June 1989): 8–15. Sandalov was the chief of staff of 4th Army. For a graphic portrayal of the abortive Grodno counterattack, as well as details about the other border battles, see David M. Glantz, *Atlas and Operational Summary of the Border Battles, 22 June–1 July 1941* (Carlisle, PA: Self-published, 2003).

7. On Directive No. 3, see Glantz, *Operation Barbarossa*, 33 and Appendix II; John Erickson, *The Road to Stalingrad: Stalin's War with Germany*, vol. I (New York: Harper & Row, 1979), 132; and Shtemenko, *Soviet General Staff at War*, vol. I, 37–40. For details about the border battles, see Aleksei Isaev, *Chudo prigranichnogo srazheniya: Chto na samom dele proizoshlo v iune 1941 goda?* [The wonder of the border battles: What actually occurred in June 1941?] (Moscow: “Iauza” “Eksmo,” 2013).

8. This is from an interview with Helmut Ritgen, a lieutenant in 6th Panzer at the time. See also David M. Glantz, *The Battle for Leningrad, 1941–1944* (Lawrence: University Press of Kansas, 2002), 31–33; Glantz, *Initial Period of War*, 93–96 and 112–119; Drig, *Mekhanizirovannye korpusa, RKKA*, 136–139; and Vladimir Beshanov, *Tankovyj pogrom 1941 goda* [The tank massacre of 1941] (Moscow: AST, 2001), 222–225.

9. Hardesty and Grinberg, *Red Phoenix Rising*, 39–41. Fresh accounts of the air battles along the border include Dmitrii Khazanov, *1941: Bor'ba za gospodstvo v vozdukhе* [1941: The struggle for superiority in the air] (Moscow: “Iauza” “Eksmo,” 2008), and G. V. Korniukhin, *Vozdushnaia voina nad SSSR, 1941* [The air war over the USSR, 1941] (Moscow: “Veche,” 2008).

10. Drig, *Mekhanizirovannye korpusa, RKKA*, and Glantz, *Initial Period of War*, 87–100.

11. Erich von Manstein, *Lost Victories* (Novato, CA: Presidio Press, 1982), 178–185. See related Soviet documents in David M. Glantz, *Documents on the Northwestern Front's Combat Operations, 22 June–9 July 1941* (Carlisle, PA: Self-published, 2006).

12. “Collection of Combat Documents,” 339 and 343, and Glantz, *Initial Period of War*, 200–222. According to Drig, *Mekhanizirovannye korpusa, RKKA*, 239, the three surviving tanks (1 KV and 2 T-34s) were from 13th Regiment of 6th Mechanized Corps’ 7th Tank Division.

13. “Collection of Combat Documents,” 346.

14. Quoted in ibid., 344.

15. Ibid., 355–356.

16. On Pavlov’s execution, see “Delo No. P-24000 generala Pavlova Dmitriia Grigor’evicha” [Case No. P-24000 of General Pavlov, Dmitri Grigor’evich], *Kommunist vooruzhennykh sil* [Communist of the armed forces] 8 (April 1991): 70–75, 9 (May 1991): 68–73, 11 (June 1991): 54–60, 13 (July 1991): 63–68, and 14 (July 1991): 57–67. Pavlov’s reputation has recently been partially rehabilitated.

17. On 1 July, Marshal Timoshenko replaced Eremenko as commander of the Western Front, with Eremenko serving as his deputy. On 10 July, the *Stavka* appointed Timoshenko as commander in chief of the Main Command of the Western Direction (Axis), a strategic headquarters that ultimately controlled several fronts. See this and other orders and directives the *Stavka* issued in 1941 in V. A. Zolotarev,

ed., “Stavka VGK: Dokumenty i materialy 1941 god” [Stavka VGK: Documents and materials], in *Russkii arkhiv: Velikaia Otechestvennaia*, t. 16 (5-1) [The Russian archives: The Great Patriotic (War), vol. 16 (5-1)] (Moscow: “TERRA,” 1996), 62–63 (hereafter cited as Zolotarev, “*Stavka, 1941*,” with appropriate page[s]).

18. Krivosheev et al., *Rossiia i SSSR v voinakh*, 267–268 and 484, indicate that the Western Front began the war with 625,000 men but lost 417,729 killed, wounded, sick, or captured by 9 July, as well as 4,799 tanks. During the same period, the North-western Front lost 87,208 of 440,000 men and 2,523 tanks.

19. Halder, *Halder War Diary*, 432–435; on escapes from encirclements, see 465. Except for the Kaunas area, where a German intelligence network was active, the Germans had failed to detect the numerous mechanized corps in the forward areas. Glantz, *Initial Period of War*, 83.

20. Boog et al., *Germany and the Second World War*, vol. IV, 527–529, and Glantz, *Barbarossa Derailed*, vol. I, 42–43.

21. Kamenir, *Bloody Triangle*, 109–243. Russian (Soviet) sources on the South-western Front include: A. V. Isaev, *Ot Dubno do Rostova: Operatsii sovetskikh vooruzhennykh sil na iugo-zapadnom napravlenii v iune–noiubre 1941 goda* [From Dubno to Rostov: Operations of the Soviet Armed Forces on the southwestern axis in June–November 1941] (Moscow: AST, 2005), 113–254; R. S. Irinarkhov, *Kievskii osobyi . . .* [Kiev special . . .] (Moscow: AST, 2006), 296–587; and A. V. Vladimirsy, *Na kievskom napravlenii* [On the Kiev axis] (Moscow: Voenizdat, 1989). See also Rokossovsky, *Soldier’s Duty*, 14–24, and Glantz, *Initial Period of War*, 248–344. For documents, see *SBDVOV*, vol. 36 (1959).

22. The description of the armored fighting along the southwestern axis is drawn from Kamenir, *Bloody Triangle*, 107 and 128–144; Isaev, *Ot Dubno do Rostova*, 113–254; Glantz, *Initial Period of War*, 248–288; and Drig, *Mekhanizirovannye korpusa, RKKA*. For detailed maps of the engagements, see Glantz, *Atlas and Operational Summary of the Border Battles*, maps 111–190.

23. See Drig, *Mekhanizirovannye korpusa, RKKA*, 393–417, for details on 15th Corps’ strength and operations.

24. Ibid., 514–531. The 22nd Mechanized Corps’ 41st Tank Division had already been dispatched westward to protect the Kovel’ Fortified Region and counter the German assault on Vladimir-Volynskii. The 135th Rifle Division participated in 22nd Corps’ attack.

25. Ibid., 259–278.

26. Ibid., 278–295 and 465–479, respectively, provide details about 9th and 19th Mechanized Corps’ attacks.

27. Rokossovsky, *Soldier’s Duty*, 19–21. See an unexpurgated account in Rokossovsky, *Soldatskii dolg* [A soldier’s duty] (Moscow: Golos, 2000), 43–45.

28. Krivosheev et al., *Rossiia i SSSR v voinakh*, 268–269 and 484, reports that the Southwestern Front suffered 241,594 casualties out of an initial strength of 864,600 men and lost 4,481 tanks between 22 June and 6 July 1941.

29. See David Stahel, *Kiev 1941: Hitler’s Battle for Supremacy in the East* (Cambridge: Cambridge University Press, 2012), 77–87. For a graphic representation of the initial stages of the Kiev operation, see David M. Glantz, *Atlas of the Battle*

for Kiev, Part 1: Penetrating the Stalin Line and the Uman' Encirclement, 2 July–9 August 1941 (Carlisle, PA: Self-published, 2005).

30. Seventeenth Army reported taking 62,000 prisoners, with 100 tanks and 450 guns destroyed or captured, and the First Panzer Group reported taking 45,000 prisoners, with 186 tanks and 503 guns destroyed or captured; see *Seventeenth Army, AAR, First Pz Gp, KTB Nr. 2*, 7 Aug 41. The Soviet 6th Army supposedly lost ten divisions and the 12th Army thirteen divisions. See also *Lagebericht Ost, Nr. 54*, 8 Aug 41, AGp South 13941/2 file. See these and other documentary citations in “Army Group South: The Uman’ Encirclement (15 July–8 August 1941),” in David M. Glantz and Charles von Luttichau, “Operation Barbarossa,” in two volumes, U.S. Army Center for Military History, Washington, DC, 2007 but not yet published, vol. 1, chap. XIX, Series T-311 and T-312, National Archives Microfilm, Washington, DC (hereafter cited as NAM), and “Schlacht von Uman,” Anlage 9 zum Kriegstagebuch Nr. 1, AOK 17, Ia, 15 Jul 1941–9 Aug 1941, AOK 17, 14499/46 file, Series T-312, Roll 764, NAM. The actual count is from Beshanov, *Tankovyj pogrom*, 417, as confirmed by contemporary Soviet records.

31. This paragraph is based primarily on Stahel, *Kiev 1941*, 74–87. See also Evan Mawdsley, *Thunder in the East: The Nazi-Soviet War 1941–1945* (London: Hodder Arnold, 2005), 77–78, and David M. Glantz, *Atlas of the Battle for Kiev, Part 2: The German Advance to the Dnepr River, 9–26 August 1941* (Carlisle, PA: Self-published, 2005).

32. Omer Bartov, *The Eastern Front, 1941–45: German Troops and the Barbarization of Warfare* (New York: St. Martin’s Press, 1986), 51 and 66.

33. Ronald Smelser and Edward J. Davies II, *The Myth of the Eastern Front: The Nazi-Soviet War in American Popular Culture* (Cambridge: Cambridge University Press, 2008), esp. 66–119.

34. Felix Römer, “The Wehrmacht in the War of Ideologies: The Army and Hitler’s Criminal Orders on the Eastern Front,” in Alex J. Kay, Jeff Rutherford, and David Stahel, eds., *Nazi Policy on the Eastern Front, 1941: Total War, Genocide, and Radicalization* (Rochester, NY: University of Rochester Press, 2012), 85–88.

35. Marcel Stein, *Field Marshal von Manstein, a Portrait: The Janus Head*, ed. Gwyneth Fairbank (Solihull, UK: Helion, 2007), 37, 48–50, 60, and 286–304.

36. Boog et al., *Germany and the Second World War*, vol. IV, 470–471.

37. Bartov, *Eastern Front*, 153.

38. Ibid., 109. On atrocities, see also Werth, *Russia at War*, 208, 373–376, and 700–709. For food requisitions and looting, see Jeff Rutherford, “The Radicalization of German Occupation Policies: The *Wirtschaftsstab Ost* and the 121st Infantry Division in Pavlovsk, 1941,” in Kay, Rutherford, and Stahel, *Nazi Policy on the Eastern Front*, 130–146.

39. This account is based on Benjamin V. Shepherd, *War in the Wild East: The German Army and Soviet Partisans* (Cambridge, MA: Harvard University Press, 2004), esp. 48–74.

40. Cf. Richard Rhodes, *Masters of Death: The SS-Einsatzgruppen and the Invention of the Holocaust* (New York: Alfred A. Knopf, 2002), 38–45, and Mawdsley, *Thunder in the East*, 100–102.

41. Kay, Rutherford, and Stahel, *Nazi Policy on the Eastern Front*, 64, 130–154, and 318. For Bock's concern for rear area security, see Klaus Gerbet, ed., *Generalfeldmarschall Fedor von Bock: The War Diary 1939–1945*, trans. David Johnston (Atglen, PA: Schiffer Military History, 1996), 240.
42. Alex J. Kay, "The Purpose of the Russian Campaign Is the Decimation of the Slavic Population by Thirty Million," in Kay, Rutherford, and Stahel, *Nazi Policy on the Eastern Front*, 116, and Bartov, *Eastern Front*, 153. See chapter 14 for the fate of German and other Axis prisoners of war.
43. Bartov, *Eastern Front*, 111, and Reinhardt, *Moscow: The Turning Point*, 41 and 262–263. For the fate of inhabitants of Stalingrad, many of whom ended up as slave laborers in Germany, see David M. Glantz and Jonathan M. House, *Endgame at Stalingrad, Book Two: December 1942–February 1943*, vol. 3 in *The Stalingrad Trilogy* (Lawrence: University Press of Kansas, 2014), 584.
44. Kenneth Slepyan, *Stalin's Guerrillas: Soviet Partisans in World War II* (Lawrence: University Press of Kansas, 2006), 23–34. Prior to the war, Moscow had actively discouraged preparations for resistance, contributing to the poor showing during the first year of conflict.
45. Reese, *Why Stalin's Soldiers Fought*, 179–182, and Fugate, *Operation Barbarossa*, 292.
46. Halder, *Halder War Diaries*, 446.
47. This discussion of the German advance to Smolensk is based primarily on Glantz, *Barbarossa Derailed*, vol. 1, 58–361.
48. A. I. Evseev, "Manevr strategicheskimi rezervami v pervom periode Velikoi Otechestvennoi voiny" [Maneuver of strategic reserves in the first period of the Great Patriotic War], *VIZh* 3 (March 1986): 9–20.
49. For the condition of these forces, see Glantz, *Stumbling Colossus*, 109–232.
50. Glantz, *Barbarossa Derailed*, vol. 1, 70–78. Also see V. Butkov, "Kontrudar 5-iu mekhanirovannogo korpusa na lepel'skom napravlenii (6–11 iulia 1941 goda)" [The counterstroke of 5th Mechanized Corps on the Lepel axis (6–11 July 1941)], *VIZh* 9 (September 1971): 59–65. See also *SBDVOV*, vol. 37 (1959); David M. Glantz, "Forgotten Battles of the German-Soviet War (1941–1945), Part I," *JSMS* 12, no. 4 (December 1999): 157–158; and Gary A. Dickson, "The Counterattack of the 7th Mechanized Corps, 5–9 July 1941," *JSMS* 26, no. 2 (June 2013): 310–340.
51. Glantz, *Barbarossa Derailed*, vol. 1, 119–123 and 270–280.
52. Ibid., vol. 1, 101–105.
53. For the Sol'tsy and Korosten' counterstrokes, see Glantz, *Battle for Lenigrad*, 43–45; David M. Glantz, *Forgotten Battles of the German-Soviet War (1941–1945)*, vol. 1, *The Summer–Fall Campaign (22 June–4 December 1941)* (Carlisle, PA: Self-published, 1999), 19–43 and 44–47, and Isaev, *Ot Dubno do Rostova*, 262–264. The counterstroke at Sol'tsy was organized by Lieutenant General N. F. Vatutin, a promising officer Zhukov appointed as the Northwestern Front's chief of staff to stiffen its resolve.
54. Glantz, *Barbarossa Derailed*, vol. 1, 124–128.
55. Ibid., vol. 1, 113–118 and 256–264; Guderian, *Panzer Leader*, 167–174; K. Cheremukhin, "Na smolenskom-moskovskom strategicheskem napravlenii letom 1941 goda" [On the Smolensk-Moscow strategic axis in summer 1941], *VIZh* 10

(October 1966): 3–18; Fugate, *Operation Barbarossa*, 137–142; and Stahel, *Operation Barbarossa and Germany's Defeat in the East*, 260–261.

56. Glantz, *Barbarossa Derailed*, vol. 1, 161 and 186–187, and Fugate, *Operation Barbarossa*, 125–133.

57. To support the hastily fielded reserve armies, the *Stavka* converted tank divisions from mechanized corps that had avoided destruction in the first several weeks of war into a new 100 series of tank divisions. On paper at least, each of these divisions had 180 tanks. For details, see Drig, *Mekhanizirovannye korpusa, RKKA*, 632–661, and David M. Glantz, *Colossus Reborn: The Red Army at War, 1941–1943* (Lawrence: University Press of Kansas, 2005), 219–220.

58. Glantz, *Barbarossa Derailed*, vol. 1, 165–169, and Rokossovsky, *Soldier's Duty*, 27–31.

59. Stahel, *Operation Barbarossa and Germany's Defeat in the East*, 285–286 and 316–317.

60. For details on the encirclement battle through 31 July, see Glantz, *Barbarossa Derailed*, vol. 1, 224–255. See a graphic portrayal of the entire battle for Smolensk in David M. Glantz, *Atlas of the Battle of Smolensk, 7 July–10 September 1941* (Carlisle, PA: Self-published, 2002).

61. Glantz, *Barbarossa Derailed*, vol. 1, 193–223.

62. Fugate, *Operation Barbarossa*, 144–147 and 153, and Glantz, *Barbarossa Derailed*, vol. 2, esp. 186–188.

63. Bartov, *Eastern Front*, 20.

Chapter 5. Soviet Response

1. On changes in Soviet command structure, see V. D. Danilov, *Stavka VGK, 1941–1945 [Stavka of the Supreme High Command, 1941–1945]* (Moscow: “Znanie,” 1991), and Stephen J. Cimbala, “Intelligence, C3, and the Initial Period of War,” *JSMS* 4, no. 3 (September 1991): 397–447. See also Glantz, *Colossus Reborn*, 369–402.

2. Glantz, *Colossus Reborn*, 403–419, and Erickson, *Road to Stalingrad*, 172–173. See also Iu. A. Gor’kov, *Gosudarstvennyi Komitet Oborony postanovlaet (1941–1945): Tsifry, dokumenty* [The State Defense Committee decrees (1941–1945): Figures and documents] (Moscow: “Olma-Press,” 2002).

3. Roberts, *Stalin’s Wars*, 89–91, bases this account on the dictator’s appointments diary as well as testimony of personal assistants. See Stalin’s daily calendar in A. A. Chernobaev, ed., *Na prieme u Stalina: Tetradi (zhurnaly) zapisei lits, priniatykh I. V. Stalinyem (1924–1953 gg.)* [Invited by Stalin: The notebooks (journals) of entries of persons received by I. V. Stalin (1924–1953)] (Moscow: Novyi khronograf, 2008), 337–338, which shows that the dictator met with twenty-nine people on 22 June.

4. See this directive in Zolotarev, “*Stavka 1941*,” 62. See also S. P. Ivanov and N. Shekhovtsov, “Opyt raboty glavnykh komandovanii na teatrakh voennykh deistvii” [Experience of the work of main commands in theaters of military operations], *VIZh* 9 (September 1981): 11–18, and V. D. Danilov, “Glavnye komandovaniiia napravlenii v Velikoi Otechestvennoi voine” [Main commands of directions in the Great Patriotic War], *VIZh* 9 (September 1987): 17–23. The Northwestern Direction existed until 27 August 1941, the Western Direction until 27 September 1941 and again from

1 February to 5 May 1942, the Southwestern Direction until 21 June 1942, and the North Caucasus Direction from 21 April to 19 May 1942.

5. For example, former chief of staff and *front* commander Meretskov was imprisoned, interrogated by the NKVD, and later returned to command.

6. See the documents pertaining to OOIs in N. P. Patrushev, ed., *Organy gosudarstvennoi bezopastnosti SSSR v Velikoi Otechestvennoi voine: Sbornik dokumentov, Tom vtoroi, Kniga I, "Nachalo 22 iiunia–31 avgusta 1941 goda"* [Organs of state security of the USSR in the Great Patriotic War: A collection of documents, vol. II, bk. I, "The beginning 22 June–31 August 1941"] (Moscow: Rus', 2000), 337–338 and 346–347.

7. Reese, *Why Stalin's Soldiers Fought*, 228–232; Volkogonov, *Stalin: Triumph and Tragedy*, 423 and 427; and Mawdsley, *Thunder in the East*, 65.

8. See the People's Commissariat of Defense (NKO) order reorganizing the commissariat and creating the political directorate in V. A. Zolotarev, ed., "Prikazy Narodnogo komissara oborony SSSR, 1937–21 iiunia 1941 g." [Orders of the People's Commissariat of Defense of the USSR, 1937–21 June 1941], in *Russkii arkhiv: Velikaia Otechestvennaia, t. 13 (2-1)* [The Russian archives: The Great Patriotic (War), vol. 13 (2-1)] (Moscow: "TERRA," 1994), 284–298 (hereafter cited as Zolotarev, "NKO, 1937–1941," with appropriate page[s]).

9. These problems were candidly addressed in the General Staff war experience studies in the series *Sbornik materialov po izuchenii Velikoi Otechestvennoi voiny* (or SMPIOV) [Collection of materials for study of the experiences of the Great Patriotic War]. See also A. A. Strokov, *Istoriia voennogo iskusstva* [History of military art] (Moscow: Voenizdat, 1966), 388–392.

10. This circular and its changes are discussed in Iu P. Babich and A. G. Baier, *Razvitiye vooruzhenii i organizatsii sovetskikh sukhoputnykh voisk v gody Velikoi Otechestvennoi voiny* [Development of the armament and organization of the Soviet ground forces in the Great Patriotic War] (Moscow: Izdanie Akademii, 1990). See also Glantz, *Colossus Reborn*, 177–368, and David M. Glantz, *Red Army Ground Forces in June 1941* (Carlisle, PA: Self-published, 1997), which tracks formations established by 31 December 1941.

11. Babich and Baier, *Razvitie*, 41–42; Glantz, *Colossus Reborn*, 219–220; and Drig, *Mekhanizirovannye korpusa, RKKA*, 632–633.

12. Babich and Baier, *Razvitie*, 42, and Glantz, *Colossus Reborn*, 221–222.

13. A. I. Radzievsky, ed., *Taktika v boevykh primerakh, polk* [Tactics in combat examples, the regiment] (Moscow: Voenizdat, 1974), fig. 2.

14. Babich and Baier, *Razvitie*, 61; Glantz, *Colossus Reborn*, 237–241; and A. Ia. Soshnikov, ed., *Sovetskaia kavaleriia* [Soviet cavalry] (Moscow: Voenizdat, 1984), 163–198.

15. Glantz, *Colossus Reborn*, 311–315, and Kozhevnikov, *Komandovanie i shtab VVS*, 48–59. The best recent account is Korniukhin, *Vozhdushnaia voina nad SSSR, 1941*.

16. F. Utenkov, "Dokumenty sovetskogo komandovaniia po bor'be s tankami protivnika" [Documents of the Soviet commands concerning combat with enemy tanks], *VIZh* 8 (August 1976): 65–68. These documents are included in *SBDVOV*, vol. 16 (1952), 5–72, declassified in 1964, and Zolotarev, "Stavka 1941," 94–96.

17. David M. Glantz, “Soviet Mobilization in Peace and War, 1924–42: A Survey,” *JSMS* 5, no. 3 (September 1992): 351, revised as Glantz, *Soviet Mobilization in Peace and War, 1924–1942* (Carlisle, PA: Self-published, 1998).
18. V. A. Zolotarev, ed., *Velikaia Otechestvennaia voina 1941–1945 gg.: Deistviushchaia armiya* [The Great Patriotic War 1941–1945: The operating army] (Moscow: Kuchkovo pole, 2005), 77–221 and 265–274. The Soviets also formed ten so-called sapper (engineer) armies from October to December 1941. With an average strength of 50,000 men each, these formations were responsible for constructing fortified positions for field armies. For details, see Glantz, *Colossus Reborn*, 333–338.
19. Glantz, *Stumbling Colossus*, 14–17.
20. Ibid. See also Glantz, *Red Army Ground Forces in June 1941*; Evseev, “Manevr strategicheskimi rezervami,” 11–13; and V. Golubovich, “Sozdanie strategicheskikh rezervov” [The creation of strategic reserves], *VIZh* 4 (April 1977): 12–19. On the NKVD and navy (VMF) mobilization, see Glantz, *Colossus Reborn*, 165 and 182–183. Naval infantry brigades had four to six infantry battalions with supporting arms, whereas the naval rifle brigades had only three rifle battalions, plus supporting subunits.
21. Mark Harrison, “Industry and the Economy,” in David R. Stone, ed., *The Soviet Union at War* (South Yorkshire, UK: Pen & Sword Military, 2010), 25–26 and 29. For more detail, see Mark Harrison, *Accounting for War: Soviet Production, Employment, and the Defence Burden, 1940–1945* (London: Cambridge University Press, 1996).
22. To facilitate future economic mobilization and the ensuing evacuation, Stalin entrusted supervision of separate branches to his associates, including V. M. Molotov for the production of tanks; G. M. Malenkov for aircraft and aviation motors; N. A. Voznesensky for weapons and ammunition; A. I. Mikoyan for foodstuffs, fuel, and equipment; L. P. Beria for aircraft and rocket equipment; and L. M. Kaganovich and A. A. Andreev for transportation. See V. A. Zolotarev, ed., *Velikaia Otechestvennaia voina 1941–1945: Voenno-istoricheskie ocherki v chetyrekh knigakh, Kniga 1: Surovye ispytaniia* [The Great Patriotic War 1941–1945: Military-historical study in four books, bk. 1: A rigorous education] (Moscow: “Nauka,” 1998), 386.
23. Ibid., bk. 1, 385–423; Volkogonov, *Stalin: Triumph and Tragedy*, 415 and 418; G. A. Kumanov, ed., *Sovetskii tyl v pervyi period Velikoi Otechestvennoi voiny* [The Soviet rear in the first period of the Great Patriotic War] (Moscow: “Nauka,” 1988), 81–231; and I. M. Golushko, *Shtab tyla Krasnoi Armii v gody voiny 1941–1945* [The headquarters of the Red Army’s rear 1941–1945] (Moscow: Ekonomika i informatika, 1998), 18–120.
24. See, for example, Halder, *Halder War Diary*, 451.
25. Zolotarev, *Velikaia Otechestvennaia voina*, bk. 1, 405. Together, the Kirov Tank Factory in Leningrad and the Khar’kov Tank Factory produced 1,200 T-34 and KV tanks before being evacuated to Tankograd at Cheliabinsk and the Krasnoe Sormovo Factory at Nizhne Tagil in October.
26. Ibid., bk. 1, 393. For comparison’s sake, from 24 November 1941 through 24 April 1942 a total of 514,069 people and 354,200 tons of cargo were evacuated from Leningrad along the famous “Road of Life” that ran across the frozen surface of Lake Ladoga. For details, see Glantz, *Battle for Leningrad*, 129–145.

27. Walter S. Dunn, *The Soviet Economy and the Red Army, 1930–1945* (Westport, CT: Praeger, 1995), 33.
28. Zolotarev, *Velikaia Otechestvennaia voina*, bk. 1, 385–403, and G. A. Kumanev, *Voina i zheleznodorozhnyi transport SSSR 1941–1945* [War and rail transport in the USSR 1941–1945] (Moscow: “Nauka,” 1988), 97. The 824 arms factories included: 122 for aircraft, 43 for tanks, 71 for other weapons, 96 for ammunition, 199 for ferrous metals, 80 for mortars, 91 for chemicals, 65 for medium machinery, and 57 for heavy machinery. See also A. Nikitin, “Perestroika raboty promyshlennosti SSSR v pervom periode Velikoi Otechestvennoi voiny” [Rebuilding the work of military industry of the USSR during the first period of the Great Patriotic War], *VIZh* 2 (February 1963): 11–20.
29. Stahel, *Kiev 1941*, 39–40.
30. Harrison, in Stone, *Soviet Union at War*, 17, and Zolotarev, *Velikaia Otechestvennaia voina*, bk. 1, 405, who asserts that Soviet tank production in the second half of 1941 was “more than 4,700 tanks”; however, this did not make up for the loss of 20,500 tanks since the war began. Similarly, the 8,200 combat aircraft produced during the second half of 1941 did not replace the 17,900 aircraft (10,300 combat) lost in battle. For estimated German tank production in 1941, see http://en.wikipedia.org/wiki/German_armored_fighting_vehicle_production_during_World_War_II, accessed on 8 March 2015, and Stahel, *Kiev 1941*, 39–40.
31. Harrison, in Stone, *Soviet Union at War*, 26.
32. Robert Bidlack, “Propaganda and Public Opinion,” in Stone, *Soviet Union at War*, 55–58.
33. Reinhardt, *Moscow—The Turning Point*, 32 and 146–147.
34. Tooze, *Wages of Destruction*, 413.

Chapter 6. To Moscow

1. Stahel, *Operation Barbarossa*, 251–255. By contrast, between 22 June and 30 September the Red Army and Fleet suffered 2.8 million casualties, of which 2.1 million were irrevocable (KIA, MIA, POW), in excess of 50 percent of the soldiers and sailors committed.
2. Tooze, *Wages of Destruction*, 432–433 and 451.
3. Reinhardt, *Moscow—The Turning Point*, 26–27.
4. Halder, *Halder War Diaries*, 480 and 487–495. Hitler was unaware that OKH had already authorized the release of these engines.
5. Ibid., 506.
6. Guderian, *Panzer Leader*, 190.
7. For Hitler’s directives, see Glantz, *Barbarossa Derailed*, vol. I, 298–307.
8. Ibid., vol. I, 307–328.
9. For details on the encirclement battle, see ibid., vol. I, 328–370.
10. Ibid., vol. I, 360–384, and Stahel, *Operation Barbarossa*, 369–374.
11. The *Stavka* transferred the Reserve Front’s 34th Army to the Northwestern Front on 6 August and replaced it with a new 35th Army, which it renumbered 49th on 11 August, when it formed a new 35th Army in the Far East.

12. Glantz, *Barbarossa Derailed*, vol. I, 224. See the directive's contents in Zolotarev, "Stavka 1941," 98.
13. Glantz, *Barbarossa Derailed*, vol. I, 406–438 and 532–547.
14. Ibid., vol. I, 367–406.
15. Guderian's forces reportedly captured 16,000 Red Army troops and destroyed or captured 15 tanks in the Krichev region, and Weichs's forces took more than 25,000 en route to Gomel'.
16. Glantz, *Barbarossa Derailed*, vol. I, 393–394. The *Stavka* disbanded the Central Front on 25 August, assigning the headquarters of its 3rd Army, as well as 21st Army, to the Briansk Front and 3rd Army's divisions to 21st Army. The *Stavka* further complicated command and control by creating a new 40th Army on 26 August and assigning it to the Southwestern Front; this army was situated between 13th and 21st Armies, both of which were subordinate to the Briansk Front.
17. This unearned sobriquet apparently resulted from Eremenko's experiences while leading a cavalry-tank group in the September 1939 Polish campaign.
18. For details, see Glantz, *Barbarossa Derailed*, vol. I, 406–447, and David M. Glantz, *Barbarossa Derailed: The Battle for Smolensk, 10 July–1 September 1941*, vol. 2, *The German Advance on the Flanks and the Third Soviet Counteroffensive, 25 August–10 September 1941* (Solihull, UK: Helion, 2012), 162–497.
19. See Gebert, *Generalfeldmarschall Fedor von Bock*, 482 and 495.
20. Stahel, *Kiev 1941*, 212.
21. This discussion of El'nia is based on ibid., 322–366; Fugate, *Operation Barbarossa*, 167–183; and Glantz, *Barbarossa Derailed*, esp. vol. I, 532–581. See also Lewis, *Forgotten Legions*, 138–144, and Bryan Fugate and Lev Dvoretsky, *Thunder on the Dnepr: Zhukov–Stalin and the Defeat of Hitler's Blitzkrieg* (Novato, CA: Presidio Press, 1997), 162–199.
22. Casualties are calculated by Glantz in *Barbarossa Derailed*, vol. II, 357.
23. Because of Zhukov's influence, after 1964 Soviet historiography credited him for achieving a signal victory at El'nia but ignored Timoshenko's feats at Dukhovshchina. Yet Stalin not only appointed Timoshenko to command the Southwestern Front during its crisis at Kiev but also allowed Timoshenko to organize the offensive at Khar'kov in May 1942. Unfortunately for the troops involved, this resulted in fresh disaster.
24. For a graphic depiction of the battle for Kiev, together with a summary and orders of battle, see David M. Glantz, *Atlas of the Battle for Kiev, Part III: The Encirclement and Destruction of the Southwestern Front, 25 August–26 September 1941* (Carlisle, PA: Self-published, 2005).
25. Glantz, *Barbarossa Derailed*, vol. II, 123–129.
26. Ibid., vol. II, 389–399. See also Stahel, *Kiev 1941*, 164.
27. Stahel, *Kiev 1941*, 265–267, and Fugate, *Operation Barbarossa*, 265–272.
28. Stahel, *Kiev 1941*, 145–149.
29. The *Stavka* reinforced Eremenko with 450 aircraft, including the new Il-2 *Sturmovik* ground attack planes, and in early September, the Germans for the first time encountered serious aerial opposition. For details, see Glantz, *Barbarossa Derailed*, vol. II, 425–488.

30. Beginning on 30 August, one of the few surviving Soviet tank divisions, the 108th, struck Guderian's left flank guard, Lemelsen's XXXXVII Motorized Corps. The 108th fielded 62 tanks, including 5 KV-1s and 32 T-34s. These counterattacks forced Lemelsen to withdraw to the west bank of the Desna. The 108th escaped from encirclement with 16 surviving tanks (2 KV-1s, 10 T-34s, and 4 light T-40s). This discussion of Guderian's southward turn is based on Glantz, *Barbarossa Derailed*, vol. II, 373 and 425–488; Stahel, *Kiev 1941*, 117–126, 141–149, and 164–165; and Fugate, *Operation Barbarossa*, 247–276. See 108th Tank Division's after-action report in David M. Glantz, *Barbarossa Derailed: The Battle for Smolensk, 10 July–10 September 1941*, vol. 3, *The Documentary Companion: Tables, Orders and Reports by Participating Red Army Forces* (Solihull, UK: Helion, 2014), 587–591.

31. Glantz, *Barbarossa Derailed*, vol. II, 541. During the same period, Second Panzer Group's armor strength fell from 2,075 to 746 tanks.

32. Stahel, *Kiev 1941*, 207–217, and Glantz, *Barbarossa Derailed*, vol. II, 488–493.

33. Stahel, *Kiev 1941*, 218–219, and Fugate, *Operation Barbarossa*, 265–272.

34. V. A. Zolotarev, ed., *Velikaia Otechestvennaia voina 1941–1945: Voennoi-storicheskie ocherki, Kniga pervaia, Surovye ispytaniia* [The Great Patriotic War 1941–1945: Military-historical surveys, bk. 1, A severe education] (Moscow: "Nauka," 1998), 190–194 (hereafter cited as VOV), blames Stalin for the Kiev disaster. See the war diaries of the Southwestern Front forces in "Dokumentov po boevym deistviiam voisk Iugo-Zapadnogo napravleniia na pravoberezhnoi i levoberezhnoi Ukraine s 6 avgusta po 25 sentiabria 1941 g." [Documents on the combat activities of Southwestern Direction forces on the right bank and left bank of the Ukraine from 6 August to 25 September 1941], *SBDVOV*, vol. 40 (1960), classified secret but declassified in 1964.

35. A. A. Volkov, *Kriticheskii prolog: Nezavershennye frontovye nastupatel'nye operatsii pervykh kampanii Velikoi Otechestvennoi voiny* [Critical prologue: Incomplete front offensive operations in the initial campaigns of the Great Patriotic War] (Moscow: Aviar, 1992), 76. Southwestern Front losses from 7 July though 26 September were 585,598 out of 627,000 engaged. The Central Front's 21st Army lost 35,585 in the operation, and Southern Front's 6th and 13th Armies lost another 79,220 in the Uman' encirclement. See also Zolotarev, VOV, bk. 4, 195, and Krivosheev, *Soviet Casualties and Combat Losses*, 114.

36. Soviet losses in the Donbas-Rostov defensive operation were 160,567 of 541,600 engaged. See Krivosheev, *Soviet Casualties and Combat Losses*, 117. See a summary and daily maps of these operations in David M. Glantz, *Atlas of the Battles for Khar'kov and the Donbas: 26 September–31 October 1941* (Carlisle, PA: Self-published, 2005), and Glantz, *Atlas of the Battle for Rostov: 5 November–5 December 1941* (Carlisle, PA: Self-published, 2005).

37. Richard L. DiNardo, *Germany and the Axis Powers: From Coalition to Collapse* (Lawrence: University Press of Kansas, 2005), 96–101 and 110–118, and J. Lee Ready, *The Forgotten Axis: Germany's Partners and Foreign Volunteers in World War II* (Jefferson, NC: McFarland, 1987), 148.

38. Casualty figures are from Mark Axworthy, Cornel Scafaș, and Cristian Craciunoiu, *Third Axis, Fourth Ally: Romanian Armed Forces in the European War, 1941–1945* (London: Arms & Armour Press, 1995), 52 and 56. See also DiNardo,

Germany and the Axis Powers, 118–120, and daily maps of these operations in David M. Glantz, *Atlas of the Siege of Odessa (20 August–16 October 1941) and the Conquest of the Crimea (8 September–28 November 1941)* (Carlisle, PA: Self-published, 2007).

39. Wendy Lower, “Axis Collaboration, Operation Barbarossa, and the Holocaust in the Ukraine,” in Kay, Rutherford, and Stahel, *Nazi Policy on the Eastern Front, 1941*, 190–192.

40. Tillotson, *Finland at Peace and War*, 200–206, and Boog et al., *Germany and the Second World War*, vol. IV, 468–469.

41. David M. Glantz, “Forgotten Battles of the German-Soviet War (1941–1945), Part II,” *JSMS* 13, no. 1 (March 2000): 175–177.

42. Glantz, *Battle for Leningrad*, 54–71 and 128–133, and David M. Glantz, *Atlas of the Battle of Leningrad: Soviet Defense and the Blockade, July 1941–December 1942* (Carlisle, PA: Self-published, 2001). See also Richard Bidlack and Nikita Lomagin, *The Leningrad Blockade, 1941–1944: A New Documentary History from the Soviet Archives* (New Haven, CT: Yale University Press, 2012); Michael Jones, *Leningrad: State of Siege* (New York: Basic Books, 2008); and Anna Reid, *Leningrad: The Epic Siege of World War II, 1941–1944* (New York: Walker, 2011).

43. Stahel, *Kiev 1941*, 283, 251, and 319, and Boog et al., *Germany and the Second World War*, vol. IV, 317.

44. Boog et al., *Germany and the Second World War*, vol. IV, 668–669. These figures count SS *Das Reich* as a motorized division.

45. For detailed tank strengths, see Stahel, *Kiev 1941*, 324–325 and 338–339.

46. Ibid., 241–242, and Fugate, *Operation Barbarossa*, 272.

47. Boog et al., *Germany and the Second World War*, vol. IV, 668–669 and 677.

48. Konev received his new command as a reward for the performance of his 19th Army during the Dukhovshchina offensive. See also Lev Lopukhovsky, *The Viaz'ma Catastrophe, 1941: The Red Army's Disastrous Stand against Operation Typhoon*, trans. and ed. Stuart Britton (Solihull, UK: Helion, 2013).

49. I. Konev, “Nachalo Moskovskoi bitvy” [The beginning of the Battle of Moscow], *VIZh* 10 (October 1966): 56–57. According to Krivosheev, *Soviet Casualties and Combat Losses*, 118, Soviet strength on the Moscow axis on 30 September was 1,250,000, including 84 rifle, 1 tank, 2 motorized, and 9 cavalry divisions; 1 rifle brigade; 13 tank brigades; and 2 fortified regions.

50. See slightly different and more accurate strength figures for all three Soviet fronts in Lopukhovsky, *Viaz'ma*, 72–83. For example, he credits the Western Front with 477 tanks on 1 October, including 21 KV and 51 T-34 models.

51. Stahel, *Kiev 1941*, 336–338. For a summary, opposing orders of battle, and detailed maps of the Viaz'ma encirclement and subsequent German advance on Moscow, see David M. Glantz, *Atlas of the Battle of Moscow: The Defensive Phase: 1 October–5 December 1941* (Carlisle, PA: Self-published, 1997).

52. Mawdsley, *Thunder in the East*, 97–99. On VIII *Flieger Korps*, see James S. Corum, *Wolfram von Richthofen: Master of the German Air War* (Lawrence: University Press of Kansas, 2008), 274–275.

53. For the debate as to the causes of Soviet defeat at Viaz'ma, see David Stahel, *Operation Typhoon: Hitler's March on Moscow, October 1941* (Cambridge:

Cambridge University Press, 2013), 298–303. For a complete compilation of documents concerning the Viaz’ma operation and the subsequent battle for Moscow, see V. A. Zhilin, ed., *Bitva pod Moskvoi: Khronika, fakty, liudi v 2 books* [The battle at Moscow: Chronicles, facts, and people in 2 books] (Moscow: “Olma-Press,” 2001), which includes excerpts from the Red Army General Staff’s daily operational summaries. See also Zolotarev, VOV, bk. 1, 212–234.

54. The Viaz’ma encirclement contained 4 field army headquarters, 37 divisions, 9 tank brigades, and 31 separate artillery regiments. Personnel losses were heavy; only 681 soldiers of 19th Army’s 248th Rifle Division escaped. See B. I. Nevzorov, “Pylaiushchee Podmoskov’e” [The blazing approach to Moscow], *VIZh* 11 (November 1991): 18–25. Krivosheev, *Soviet Casualties and Combat Losses*, 118, places Western Front’s casualties at 310,240 and Reserve Front’s at 188,761 between 30 September and 5 December.

55. See also Erickson, *Road to Stalingrad*, 215, and Guderian, *Panzer Leader*, 230–232.

56. The Briansk encirclement cost the Soviets another 3 army headquarters, 27 divisions, 2 tank brigades, and 19 separate artillery regiments, together with 109,914 casualties suffered by 5 December. According to Nevzorov, “Pylaiushchee,” 24, the Soviets lost 252,600 killed or wounded at Viaz’ma and Briansk. See also Lopukhovsky, *Viaz’ma*, 396–407.

57. Boog et al., *Germany and the Second World War*, vol. IV, 665 and 673–676.

58. Guderian, *Panzer Leader*, 232–235, and D. Leliushenko, “Boi pod Mtsenskom” [The battle at Mtsensk], *VIZh* 12 (December 1960): 34–44. Zetterling and Frankson, *Drive on Moscow*, 99–100, downplay this incident, claiming that only two reinforced German battalions were involved and that they lost only six tanks irrevocably. For the Soviet side, see Lopukhovsky, *Viaz’ma*, 160–164, and Richard N. Armstrong, *Red Army Tank Commanders: The Armored Guards* (Atglen, PA: Schiffer Military/Aviation History, 1994), 39–44.

59. For a detailed description of the critical fighting in the Kalinin region, together with a discussion of German overreach, see Jack Radley and Charles Sharp, *The Defense of Moscow 1941: The Northern Flank* (Barnsley, UK: Pen & Sword Military, 2012).

60. Roberts, *Stalin’s Wars*, 108; Erickson, *Road to Stalingrad*, 216–221; Shtemenko, *Soviet General Staff at War*, vol. I, 49–50; and Werth, *Russia at War*, 234–241.

61. Hardesty and Grinberg, *Red Phoenix Rising*, 71, 73, and 80–87.

62. For details on the German offensive and Soviet counterstroke at Tikhvin, see Glantz, *Battle for Leningrad*, 94–111, and Zolotarev, VOV, bk. 1, 197–211.

63. Ziemke and Bauer, *Moscow to Stalingrad*, 42–46. At this conference, the army group chiefs of staff noted that transportation limitations prevented movement of winter clothing in favor of fuel and ammunition.

64. Halder, *Halder War Diaries*, 437.

65. Third Panzer Group ended its diversion to the Kalinin region by mid-November as Bock prepared for a drive on Moscow. For the consequences, see Radley and Sharp, *Defense of Moscow 1941*, 165–169.

66. Zhukov’s conversation with Stalin concerning these attacks is in G. Zhukov, “V bitva za stolitsy” [In the battle for the capital], *VIZh* 9 (September 1966): 62–63.

67. The operational group of Major General P. A. Belov consisted of his 2nd Cavalry Corps plus 112th Tank Division (Colonel A. L. Getman) and 173rd Rifle Division. See A. Getman, “112-ia tankovaia diviziia v bitve pod Moskvoi” [The 112th Tank Division in the Battle of Moscow], *VIZh* 11 (November 1981): 49, and B. M. Shaposhnikov, ed., *Razgrom nemetskikh voisk pod moskvoi (Moskovskaiia operatsiia zapadnogo fronta 16 noiaбря 1941 g.–31 Ianvaria 1942 g.) v trekh chastiakh* [The destruction of German forces at Moscow (The Moscow operation of Western Front, 16 November 1941–31 January 1942) in three parts] (Moscow: Voenizdat, 1943), classified secret, declassified in 1965, and republished by Izdatel’stvo Glavarkhiva Moskvy OAO “Moskovskie uchebniki” [The Press of the Moscow Main Archives OAO “Muscovite textbooks”] in 2006. An English translation is slated to be published by Helion in the future. The 112th also suffered heavy casualties in this encounter.

68. See Shaposhnikov, *Razgrom*, pt. 1, 44–46, and A. Ia. Soshnikov, ed., *Sovetskaiia kavaleriia* [Soviet cavalry] (Moscow: Voenizdat, 1984), 187, who acknowledges that the 44th, which had been formed in the Central Asian Military District in July, withdrew after suffering serious losses. Termed “Mongolian” by the Germans because of its Asiatic-looking personnel, the division probably included Tadzhiks and perhaps other minorities from Central Asia; see Paul Carell, *Hitler Moves East 1941–1943* (New York: Bantam Books, 1968), 177–178. The action occurred as part of 16th Army counterattacks that included Dovator’s cavalry group.

69. Although growing weaker every day, the Germans were still concentrating at narrow points, giving them local superiority. For details of the operation, see Shaposhnikov, *Razgrom*, pt. 1, 39 and 859. Zhukov’s *front* included 31 rifle, 3 motorized, 2 tank, and 9 cavalry divisions; 14 tank brigades; and 6 aviation divisions. In addition, Zhukov could call on 400 aircraft subordinate to the Moscow Defense Zone and *Stavka* Reserve.

70. See Glantz, *Atlas of the Battle for Moscow: The Defensive Phase*, for day-to-day maps of the German offensive.

71. Erickson, *Road to Stalingrad*, 257–258; Ziemke and Bauer, *Moscow to Stalingrad*, 49–53; and Boog et al., *Germany and the Second World War*, vol. IV, 700. On 30 November, 2nd Panzer Division seized the village of Krasnaia Poliana, near present-day Sheremetevko Airport, just north of Moscow’s suburb of Khimki.

72. P. A. Rotmistrov, “Bronetankovye voiska” [Armored troops], *VIZh* 1 (January 1982): 23.

73. Guderian, *Panzer Leader*, 242–256.

74. F. Gaivoronsky, “Razvitiie operativnogo iskusstva” [Development of Operational Art], *VIZh* 12 (December 1981): 24–29, and M. Sidorov, “Boevoe primenenie rodov voisk v bitva pod Moskvoi: Artilleriia” [Combat use of types of forces in the Battle of Moscow: The Artillery], *VIZh* 1 (January 1982): 11–17.

75. See the account of this action in P. A. Belov, *Za Nami Moskva* [Behind us, Moscow] (Moscow: Voenizdat, 1963). Belov’s force initially consisted of 129 tanks, mostly light. See also Shaposhnikov, *Razgrom*, pt. 1, 117–119.

76. Shaposhnikov, *Razgrom*, pt. 1, 91–95, and Boog et al., *Germany and the Second World War*, vol. IV, 700–701.

77. Boog et al., *Germany and the Second World War*, vol. IV, 619–621. See also a summary and graphic portrayal of this action in Glantz, *Atlas of the Battle for Rostov*.

78. Shaposhnikov, *Razgrom*, pt. 2, 6–8. Average Moscow temperatures in the winter of 1941–1942 were: in November, –5 degrees Celsius; in December, –12 degrees Celsius; and in January, –19 degrees Celsius, as opposed to normal temperatures of –3, –8, and –11 degrees, respectively. On several days in January, temperatures fell to –40 degrees, with snow reaching a depth of 50–65 centimeters (20–26 inches).

79. Zolotarev, VOV, bk. 1, 252. Shaposhnikov, in *Razgrom*, pt. 2, 5, is more realistic, listing Western Front numbers as 388,000 combat troops, 4,865 guns and mortars, 550 tanks, and 750 aircraft versus 240,000 combat effectives in Army Group Center, including 4,760 guns and mortars, 900 tanks, and 600 aircraft. Krivosheev, *Soviet Casualties and Combat Losses*, 120, asserts the defenders totaled 1,021,700 men in 105 divisions and 44 brigades, including 748,700 in Western Front, 192,200 in Kalinin Front, and 80,800 in the right wing of Southwestern Front. More recently, Zhilin, in *Bitva pod Moskvoi*, bk. 2, 9–11, has claimed Kalinin Front fielded 100,000 men and 67 tanks, Western Front 558,800 men and 624 tanks, and Southwestern Front 60,000 men and 30 tanks, for a total of 718,800 men and 721 tanks.

80. According to Shaposhnikov, *Razgrom*, pt. 2, 72, the Soviet forces on Western Front's right (northern) wing included 152,000 men, 2,295 guns and mortars, 360 antitank (AT) guns, and 270 tanks, as compared to German strengths of 75,000 men, 1,410 artillery pieces, 470 AT guns, and 380 tanks. On German estimates of Soviet strength, see Boog et al., *Germany and the Second World War*, vol. IV, 702.

81. For a summary and graphic portrayal of the Moscow counteroffensive, see David M. Glantz, *Atlas of the Battle of Moscow: The Soviet Offensive, 5 December 1941–20 April 1942* (Carlisle, PA: Self-published, 1998).

82. A. A. Zabaluev and S. G. Goriachev, *Kalininskaia nastupatel'naia operatsiia* [The Kalinin offensive operation] (Moscow: Voroshilov Higher Military Academy, 1942), and “Operativnye itogi razgrroma nemtsev pod Moskvoi” [Operational results of the destruction of the Germans at Moscow], *SBDVOV*, vol. 5 (1943), 3–22.

83. Shaposhnikov, *Razgrom*, pt. 2, 57–60. Katukov's 4th Tank Brigade performed similar heroics against Klin and Volokolamsk.

84. Near Elets, 13th Army and General F. Ia. Kostenko's operational group struck at the overextended German forces between 6 and 19 December. This group, formed around 5th Cavalry Corps and 129th Tank Brigade, inflicted an estimated 16,257 German casualties versus approximately equal Soviet casualties. I. V. Paročkin, *Eletskaia operatsiia (6–16 dekabria 1941 g.)* [Elets operation, 6–16 December 1941] (Moscow: Voenizdat, 1943).

85. The German command crisis is traced in Boog et al., *Germany and the Second World War*, vol. IV, 707–720. See also Halder, *Halder Diaries*, 571–574 and 486–592, and Bock, *War Diary*, 373–401.

86. Guderian, *Panzer Leader*, 262–271.

87. For the most detailed study about the destruction of 2nd Shock Army, see B. I. Gavrilov, *Dolina smerti: Tragediia i podvig 2-i udarnoi armii* [The valley of the dead: The tragedy and feat of 2nd Shock Army] (Moscow: Dubravva, 2006), and E. Klimchuk, “Vtoraia udarnaia i Vlasov ili pochemu odin predal, a v predateli popala vsia armiia” [The 2nd Shock Army and Vlasov, or why, because of one traitor, the blame was laid on the whole army], *Sovetskii voin* [Soviet soldier] 2 (February 1989):

76–81, translated into English in *Soviet Soldier* 4 (April 1990): 35–49. See also Glantz, *Battle for Leningrad*, 154–165.

88. P. Pal'chikov, “Iz sekretnykh arkhivov: Delo N-1713” [From the secret archives: Case No. 1713], *Voennye znaniiia* [Military knowledge] 1 (January 1990): 6–7, and Glantz, *Battle for Leningrad*, 204–212.

89. See Kalinin Front Order No. 057 and Western Front Orders No. 0141 and No. 0152 in Shaposhnikov, *Razgrom*, pt. 3, 4–5. See also Boog et al., *Germany and the Second World War*, vol. IV, 728 and 732–733.

90. On the Northwestern Front, see David M. Glantz, “Forgotten Battles of the German-Soviet War (1941–45), Part 4: The Winter Campaign (5 December 1941–April 1942)—The Demiansk Counteroffensive,” *JSMS* 13, no. 3 (September 2000): 145–164, and Glantz, *Forgotten Battles of the German-Soviet War (1941–1945)*, vol. II, *The Winter Campaign (5 December 1941–April 1942)* (Carlisle, PA: Self-published, 1999), 47–63.

91. Glantz, *Forgotten Battles*, vol. II, 11–47.

92. Shaposhnikov, *Razgrom*, pt. 3, 85, shows 123,450 men of 49th, 50th, and 10th Armies facing 44,500 Germans, but actual Soviet combat strengths were probably lower. A. V. Vasil'ev, *Rzhevsko-Viazemskaia operatsiia kalininskogo i zapadnogo frontov (ianvar'-fevral' 1942 g.)* [The Rzhev-Viaz'ma operation of the Kalinin and Western Fronts (January–February 1942)] (Moscow: Voroshilov Higher Military Academy, 1949), 13–20, shows the Kalinin Front with 85,000 infantry and 107 tanks facing 65,000 Germans and the Western Front with 168,000 infantry and 174 tanks facing 150,000 Germans with 200 tanks. Whatever the actual figures, Soviet manpower outnumbered the Germans by at least two to one, whereas the Germans retained a superiority in armor.

93. See Eremenko, *Arduous Beginning*, 296–309.

94. In the Demiansk operation, Northwestern Front, which began with 105,700 men, lost 88,908 killed or captured plus 156,603 wounded from 7 January to 20 May 1942. Krivosheev, *Soviet Casualties and Combat Losses*, 108. See Glantz, *Battle for Leningrad*, 174.

95. Hardesty and Grinberg, *Red Phoenix Rising*, 100–101.

96. Boog et al., *Germany and the Second World War*, vol. IV, 728–730. Efremov died on 19 April, leading his troops in a vain attempt to break out. See also Sergei Mikheenkov, *Armii, kotoryiu predali: Tragediia 33-i armii generala M. G. Efremova 1941–1942* [The army which they betrayed: The tragedy of General M. G. Efremov's 33rd Army 1941–1942] (Moscow: ZAO Tsentrpoligraf, 2009).

97. In the Bolkhov offensive (8 January to 20 April 1942), Briansk Front's 61st, 13th, and 3rd Armies with 210,103 men and 54 tanks attacked 150,000 Germans supported by an estimated 145 tanks. The 3rd Army's 287th Rifle Division alone lost 82 percent of its strength in nine days of fighting. By 1 April, Briansk Front's strength had declined by 85,000 men, making it the weakest Soviet front. Krivosheev, *Soviet Casualties and Combat Losses*, 108, and Volkov, *Kriticheskii prolog*, 122–127.

98. According to Krivosheev, *Soviet Casualties and Combat Losses*, 108, 204,000 troops participated in the Barvenkovo-Lozovaia operation. The Soviets had an initial superiority of almost two to one but suffered 40,881 casualties. On the Southwestern Front (Kursk) and Southern Front (Khar'kov) attacks, see David M. Glantz, “Forgotten

Battles of the German-Soviet War (1941–45), Part 3: The Winter Campaign (5 December 1941–April 1942)—The Moscow Counteroffensive,” *JSMS* 13, no. 2 (June 2000): esp. 147–159.

99. Glantz, “Forgotten Battles of the German-Soviet War (1941–45), Part 6: The Winter Campaign (5 December 1941–April 1942)—The Crimean Counteroffensive and Reflections,” *JSMS* 14, no. 1 (March 2001): 121–170. Krivosheev, *Soviet Casualties and Combat Losses*, 122, lists a total of 82,500 army and naval troops involved in the Kerch’-Feodosiia operation, of whom almost half became casualties. On Sponeck, see Citino, *Death of the Wehrmacht: The German Campaigns of 1942* (Lawrence: University Press of Kansas, 2007), 64–66. It is a telling commentary on the stereotype of Hitler’s interference that the commander in Crimea, Manstein, had Sponeck relieved, tried, and imprisoned for retreating without permission, the very action that more senior German commanders claimed was their prerogative when Hitler had relieved them before Moscow.

100. For details of these operations, see David M. Glantz, *A History of Soviet Airborne Forces* (London: Frank Cass, 1994), and its predecessor, *The Soviet Airborne Experience*, Research Survey No. 4 (Fort Leavenworth, KS: Combat Studies Institute, 1984), 37–90.

101. After the war, a German officer on the V Corps staff described his recollections of this February airborne attack, including the claim that Soviet troops dropped into deep snow without parachutes. Alaric Searle, “The Employment of the Red Army 4th Airborne Corps in the Viaz’má Operation (February–March 1942),” *VIZh* 12, no. 2 (June 1999): 245–250.

Chapter 7. *Rasputitsa*

1. Glantz, “Forgotten Battles of the German-Soviet War (1941–1945), Part 4.”
2. In October, President Roosevelt thwarted a congressional effort to exclude the Soviet Union from receiving Lend-Lease aid. Soviet sources indicate that the United States shipped or was in the process of shipping 182 tanks and 204 aircraft by the end of 1941; by July 1942, 2,200 tanks, or 16 percent of total Soviet holdings, were British or American. Alexander Hill, *The Great Patriotic War of the Soviet Union, 1941–45: A Documentary Reader* (London: Routledge, 2009), 168–172.
3. Boog et al., *Germany and the Second World War*, vol. IV, 1044–1048.
4. V. A. Zolotarev, ed., “*Stavka VGK: Dokumenty i materialy 1942 god*” [*Stavka VGK: Documents and materials*], in *Russkii arkhiv: Velikaiia Otechestvennaia, t. 16 (5-2)* [The Russian archives: The Great Patriotic (War), vol. 16 (5-2)] (Moscow: “TERRA,” 1996), 33–35 (hereafter cited as Zolotarev, “*Stavka 1942*,” with appropriate page[s]).
5. David M. Glantz, *Soviet Military Deception in the Second World War* (London: Frank Cass, 1989), esp. 21–39.
6. Glantz, *Colossus Reborn*, 117–119. See also G. Peredel’sky, “Artilleriiskoe nastuplenie v armeiskikh operatsiiakh” [The artillery offensive in army operation], *VIZh* 11 (November 1976): 13–14.
7. Walter S. Dunn, *Stalin’s Keys to Victory: The Rebirth of the Red Army* (Westport, CT: Praeger, 2006), viii, 44–45, and 95, and Glantz, *Colossus Reborn*, 180.

8. Dunn, *Stalin's Keys*, 24–41, and Glantz, *Colossus Reborn*, 248.
9. In Soviet parlance, *fronts* were large formations (*ob'edenenie*), armies and corps were formations (*soedinenie*), brigades and regiments were units (*chast'*), and organizations below regimental level were subunits (*podrazdelenie*).
10. Glantz, *Colossus Reborn*, 225–226. See also Babich and Baier, *Razvitie vooruzhennia*, 42–43, and Losik, *Stroitel'stvo i boevoe primenenie sovetskikh tankovykh voisk*.
11. Glantz, *Colossus Reborn*, 228–230 and 257. See also Babich and Baier, *Razvitie vooruzhennia*, 44–45.
12. Babich and Baier, *Razvitie vooruzhennia*, 46. In theory, the rifle units created the penetration through which the tank corps exploited while the cavalry corps screened the flanks. Few Soviet staffs were capable of coordinating such a disjointed operation.
13. At Zhukov's suggestion, Order No. 308, 18 September 1941, created the first four guards divisions, based on rifle divisions that had distinguished themselves at El'nia. The men in these divisions received special pay and other priorities, and they were used as shock troops throughout the war. By 1945, the NKO had awarded the guards designation to 11 rifle and 6 tank armies, 1 cavalry-mechanized group, 68 corps of various types, 161 divisions, and a host of smaller units. See S. I. Isaev, "Rozhdennaya v boiakh" [Born in battle], *VIZh* 9 (September 1986): 78–83, and Volkogonov, *Stalin: Triumph and Tragedy*, 431.
14. Glantz, *Colossus Reborn*, 336–340. Each sapper army fielded roughly 50,000 men.
15. Hardesty and Grinberg, *Red Phoenix Rising*, 105–109.
16. Slepyan, *Stalin's Guerrillas*, 113–117.
17. Reinhardt, *Moscow—The Turning Point*, 369–370, and George E. Blau, *The German Campaign in Russia: Planning and Operations, 1940–1942* (Washington, DC: Office of the Chief of Military History, 1955), 120.
18. Reinhardt, *Moscow—The Turning Point*, 213–263 and 381; Bartov, *Eastern Front*, 110–111; and Tooze, *Wages of Destruction*, 523–532.
19. Reinhardt, *Moscow—The Turning Point*, 395–396; Speer, *Inside the Third Reich*, 193–213; and Murray, *Luftwaffe*, 133–134.
20. Tooze, *Wages of Destruction*, 515–523 and 543–567.
21. DiNardo, *Mechanized Juggernaut*, 56.
22. Ziemke and Bauer, *Moscow to Stalingrad*, 177 and 293–295; Halder, *Halder War Diaries*, 613–615; and Wray, *Standing Fast*, 112–113.
23. Bartov, *Eastern Front*, 75–99. See also Kay, Rutherford, and Stahel, *Nazi Policy on the Eastern Front*, 57, 64, and 84.
24. On the strategic debate in the spring of 1942, see Shtemenko, *General Staff at War*, vol. I, 60–72; Roberts, *Stalin's Wars*, 124–125; David M. Glantz, *Kharkov 1942: Anatomy of a Military Disaster* (Rockville Center, NY: Sarpedon, 1998), 21–30; and documents in Zolotarev, "Stavka 1942."
25. "Operatsiia 'Kreml'" [Operation Kremlin], *VIZh* 8 (August 1961): 79–90, contains the German planning documents.
26. I. Kh. Bagramian, *Tak shli my k pobeede* [As we went on to victory] (Moscow: Voenizdat, 1966), 47–88; S. K. Moskalenko, *Na iugo-zapadnom napravlenii* [On the

Southwestern Direction] (Moscow: "Nauka," 1969), vol. I, 172–191; and S. F. Begunov, A. V. Litvinchuk, and V. A. Sutulov, "Vot gde Pravda, Nikita Sergeevich?" [What is the truth, Nikita Sergeevich?], *VIZh* 12 (December 1989): 12–21, 1 (January 1990): 9–18, and 2 (February 1990): 35–46. The latter series contains plans and correspondence related to strategic planning in early 1942.

27. Ziemke and Bauer, *Moscow to Stalingrad*, 225–231, and A. I. Babin, ed., *Karel'skii front v Velikoi Otechestvennoi voine 1941–1945 gg.: Voenno-istoricheskii ocherk* [The Karelian Front in the Great Patriotic War 1941–1945: A military-historical survey] (Moscow: "Nauka," 1984), 71–86. For further details, see Earl F. Ziemke, *The German Northern Theater of Operations 1940–1945*, Department of the Army Pamphlet No. 20-271 (Washington, DC: U.S. Government Printing Office, 1959), 221–234, and A. Zheltov, "Na pravom flange" [On the right flank], *VIZh* 1 (January 1980): 47–54. For the more obscure and unsuccessful Olonets operation, see A. L. Shemenkov, *Podgotovka Olonetskoi nastupatel'noi operatsii* [Preparation of the Olonets offensive operation] (Moscow: Scientific-Research Department of the Voroshilov Academy, 1942), classified secret but later declassified.

Chapter 8. Operation *Blau*

1. For German planning, see Blau, *German Campaign in Russia*, 100–142; Citino, *Death of the Wehrmacht*, 156–164; and David M. Glantz and Jonathan M. House, *To the Gates of Stalingrad: Soviet-German Combat Operations, April–August 1942—The Stalingrad Trilogy* (Lawrence: University Press of Kansas, 2009), vol. I, 11–16.

2. The Transcaucasus Front deployed large forces from 47th and 44th Armies into northern Iran on 25 August and from 53rd Separate Army on 27 August. By November, Soviet forces in Iran included the 402nd Rifle, 1st Mountain, and 23rd Cavalry Divisions; the 13th Motorcycle and 54th Motorized Rifle Regiments; and the 511th Separate Antiaircraft and 54th Pontoon-Bridge Battalions. See Zolotarev, "Stavka 1941," 128, 138, 150, 152, 183, and 209.

3. See the clearest summary of the *Blau* plan in Citino, *Death of the Wehrmacht*, 160–162.

4. Quoted in Hugh R. Trevor-Roper, *Blitzkrieg to Defeat: Hitler's War Directives 1939–1945* (New York: Holt, Rinehart and Winston, 1954), 119; Directive No. 41 is reproduced in translation on 116–121.

5. Manstein, *Lost Victories*, 291–293.

6. Zolotarev, VOV, bk. 1, 331.

7. Manstein, *Lost Victories*, 233–235; Shtemenko, *Soviet General Staff at War*, vol. I, 68–70; Joel S. A. Hayward, *Stopped at Stalingrad: The Luftwaffe and Hitler's Defeat in the East, 1942–1943* (Lawrence: University Press of Kansas, 1998), 68–85; and Paul Carell [Paul K. Schmidt], *Stalingrad: The Defeat of the German 6th Army*, trans. David Johnston (Atglen, PA: Schiffer Military History, 1993), 25–29.

8. On the fall of Sevastopol', see Citino, *Death of the Wehrmacht*, 77–81; Carell, *Stalingrad*, 44–49; Manstein, *Lost Victories*, 248–258; Zolotarev, VOV, bk. 1, 333–335; G. I. Vaneev, S. L. Ermash, I. D. Malakhovsky, S. T. Sakhno, and A. F. Khrenov, *Geroicheskaya oborona Sevastopolia 1941–1942* [The heroic defense

of Sevastopol', 1941–1942] (Moscow: Voenizdat, 1969); and Alex Buchner, *Sewastopol: Der Angriff auf die stärkste Festung der Welt 1942* (Friedberg, FRG: Podzun-Pallas Verlag, 1978). Zolotarev, VOV, bk. 1, 335, places Soviet casualties at 200,000 men, including 156,000 killed, captured, or missing.

9. On the disastrous second battle of Khar'kov, see Glantz, *Kharkov 1942*, and Glantz and House, *To the Gates of Stalingrad*, 77–83.

10. Glantz and House, *To the Gates of Stalingrad*, 78–79, and V. V. Beshanov, *God 1942—“Uchebnyi”* [The year 1942—educational] (Minsk, Russian Federation: Harvest, 2002), 51–56 and 212–214. Appendix 3, 256–258, of Glantz's *Kharkov 1942* contains the Southwestern Direction plan for the offensive.

11. Halder, *Halder War Diary*, 616–617; Ziemke and Bauer, *Moscow to Stalingrad*, 275–278; and Eberhard von Mackensen, *Vom Bug zum Kaukasus: Das III. Panzerkorps im Feldzug gegen Sowjetrussland 1941/42* (Neckargemund, FRG: Kurt Vowinkel Verlag, 1967), 68–75. On the transfer of German air support, see Hayward, *Stopped at Stalingrad*, 82–83.

12. Citino, *Death of the Wehrmacht*, 102–109; Glantz and House, *To the Gates of Stalingrad*, 82–83; Andrei Galushko and Maksim Kolomiets, “Boi za Khar'kov v mae 1942 god” [The battle for Khar'kov in May 1942], in *Frontovaia illiustratsiia 6-2000 [Front illustrated 6-2000]* (Moscow: “Strategiia KM,” 1999), 73; and Aleksei Isaev, *Kratkii kurs istorii Velikoi Otechestvennoi voiny: Nastuplenie marshala Shaposhnikova* [A short course in the history of the Great Patriotic War: The offensives of Marshal Shaposhnikov] (Moscow: “Iauza” “Eksmo,” 2005), 352–353.

13. See A. M. Vasilevsky, *Delo vsei zhizni* [A lifelong cause] (Moscow: Voenizdat, 1983, 197; Moskalenko, *Na iugo-zapadnom napravlenii*, 214–215; and David M. Glantz, *Soviet Military Intelligence in War* (London: Frank Cass, 1990), 61–72.

14. Glantz and House, *Endgame at Stalingrad*, 102–104; Carell, *Stalingrad*, 50–57; Wilhelm Keitel, *In the Service of the Reich*, trans. David Irving (New York: Stein and Day, 1966), 178; and Shtemenko, *Soviet General Staff at War*, bk. I, 79–80.

15. “Boevye deistviia voisk Brianskogo i Voronezhskogo frontov letom 1942 g. na voronezhskom napravlenii” [Combat operations of the forces of the Briansk and Voronezh Fronts in the summer of 1942 on the Voronezh axis], SVIMVOV, no. 15 (1955): 128, and Glantz and House, *To the Gates of Stalingrad*, 336–339. For a graphic portrayal of the offensive, see David M. Glantz, *Atlas of Operation Blau [Blue]: The German Advance to Stalingrad: 28 June–18 November 1942* (Carlisle, PA: Self-published, 1998).

16. “Boevye deistviia voisk Brianskogo i Voronezhskogo frontov,” 133, quoting a conversation between Stalin and Golikov on 30 June, in Zolotarev, “*Stavka 1942*,” 271. For the fighting outside and within Voronezh, see V. A. Shamrai, *Srazhenie za Voronezh: Oboronitel'nyi period (28 iiunia–11 iulija 1942 g.)* [The battle for Voronezh: The defensive period (28 June–11 July 1942)] (Voronezh, Russian Federation: Tsentr duchkovnogo vozrozhdeniya Chernozemnogo kraia, 2013).

17. For details on the fighting in the Voronezh region, see David M. Glantz, “Forgotten Battles of the German-Soviet War (1941–1945), pt. 7: The Summer Campaign (12 May–18 November 1942)—Voronezh, July 1942,” *JSMS* 14, no. 3 (September 2001): 150–220, also available as David M. Glantz, *Forgotten Battles of the German-Soviet War (1941–1945)*, vol. III, *The Summer Campaign (12 May–18*

November 1942) (Carlisle, PA: Self-published, 1999), 11–86. See a shorter summary in Glantz and House, *To the Gates of Stalingrad*, 143–156 and 251–261.

18. Glantz and House, *To the Gates of Stalingrad*, 146–156; Ziemke and Bauer, *Moscow to Stalingrad*, 342–343; and Shtemenko, *Soviet General Staff at War*, bk. 2, 79–84. See also “Combat Operations of Briansk and Voronezh Front Forces in Summer 1942 on the Voronezh Axis,” *JSMS* 6, no. 2 (June 1993): 300–340, a translation of SVIMVOV, no. 15 (1955): 115–146, and M. Kazakov, “Na voronezhkom napravlenii letom 1942 goda” [On the Voronezh axis in the summer of 1942], *VIZh* 10 (October 1964): 27–44. Kazakov cites 5th Tank Army’s strength as 600 tanks, twice that of its German opponents.

19. Horst Boog, Werner Rahm, Reinhard Stumpf, and Bernd Wegner, *Germany and the Second World War*, vol. VI, *The Global War: Widening of the Conflict into a World War and the Shift of the Initiative, 1941–1943*, trans. Ewald Osers et al. (Oxford: Clarendon Press, 2001), 977.

20. Glantz and House, *To the Gates of Stalingrad*, 164–166. Previous accounts of Operation *Blau* argue incorrectly that on 6 July Stalin and his *Stavka* directed the Southwestern and Southern Fronts to conduct a general strategic retreat. See, for example, Ziemke and Bauer, *Moscow to Stalingrad*, 340–343; Vasilevsky, *Delo vsei zhizni*, 201–202; and Shtemenko, *Soviet General Staff at War*, bk. I, 88–91. These Soviet sources advanced this theory to conceal the immense damage done to Soviet forces in the region and portray the disaster as a well-planned measure that facilitated subsequent victory at Stalingrad. Citino, *Death of the Wehrmacht*, 172–173, correctly questions this view. Actually, the 6 July withdrawal was limited to the Don River from Voronezh southward to Pavlovsk, which the Germans had already reached, then southward along the Aidar River to the Voroshilovgrad region (today, Luhansk in Ukraine).

21. As he had done in April and May 1941, from 10–12 July Stalin redesignated 1st, 3rd, 5th, 6th, and 7th Reserve Armies, which he had formed from April through June, as 64th, 60th, 63rd, 6th, and 62nd Armies. He then ordered these armies to defend the eastern bank of the Don River from Voronezh southward to Serafimovich and southward across the western base of the great bend in the Don. A new Stalingrad Front controlled 63rd and 21st Armies along the Don River, and 62nd and 64th Armies deployed astride the western base of the great bend in the Don. On 12 July, Stalin ordered the Stalingrad Front “to occupy the Stalingrad position west of the Don River firmly and under no circumstances permit an enemy penetration east of that line toward Stalingrad” and Southern Front’s armies “to organize a decisive rebuff against the enemy advancing between Millerovo and Migulinskaia,” missions that were utterly unrealistic. See Glantz and House, *To the Gates of Stalingrad*, 185–190, and V. A. Zhilin, ed., *Stalingradskaia bitva: Khronika, fakty, liudi v 2 kn.* [The battle of Stalingrad: Chronicles, facts, people in 2 books] (Moscow: “Olma-Press,” 2002), bk. 1, 183.

22. Blau, *German Campaign in Russia*, 150. The low prisoner count prompted the Germans to assume that Stalin had ordered a general withdrawal when he had not. This low count occurred because Army Group South (A and B), lacking sufficient infantry divisions to digest the forces their armored forces encircled, relied on follow-on Romanian forces to reduce encircled or bypassed Soviet pockets. As a result, although most of the Southwestern and Southern Fronts’ armies were encircled and

almost destroyed, the German bag of prisoners was pitifully low. For example, after their encirclement and destruction in the Millerovo region in late July, the Southwestern Front's 28th and 38th Armies and the Southern Front's 24th Army were simply disbanded, with new armies bearing these numbers formed in September. Furthermore, the Southern Front began the defensive operation with over 500,000 men and ended the campaign with about 120,000 combat effectives. Since it reported fewer than 200,000 losses, it is likely the remaining forces simply went to ground, rejoining the Red Army within days or much later in the war.

23. See Halder, *Halder War Diaries*, 633–636, and Glantz and House, *To the Gates of Stalingrad*, 156–159.

24. “Nekotorie vyvody po operatsiiam levogo kryla Zapadnogo fronta” [Some conclusions concerning the operations of the Western Front's left wing], SVIMVOV, no. 5 (1943): 60–75.

25. Blau, *German Campaign in Russia*, 145–149 and 155.

26. Glantz and House, *To the Gates of Stalingrad*, 167–216, and Zhilin, *Stalingradskaya bitva*, bk. 1, 158–243. On Mackensen's raid, see Citino, *Death of the Wehrmacht*, 178–180. For a description of the capture of Rostov, see Anthony Beevor, *Stalingrad: The Fateful Siege, 1942–1943* (New York: Viking, 1998), 79.

27. Order No. 227 is reproduced in V. A. Zolotarev, ed., *Velikaia Otechestvennaia [voyna]: Prikazy narodnogo komissara oborony SSSR, 22 iunia 1941 g.–1942* [The Russian Archives: The Great Patriotic (War): Orders of the People's Commissariat of Defense of the USSR, 22 June 1941–1942], vol. 13 (2-2) (Moscow: “TERRA,” 1997), 276–278.

28. Directive No. 45 is reproduced in Trevor-Roper, *Blitzkrieg to Defeat*, 129–131; quotation is from 130.

29. For the German strategic debate, see V. E. Tarrant, *Stalingrad* (New York: Hippocrene, 1992), 37–38. General Kurt Zeitzler, who replaced Halder as OKH chief of staff, claims to have made this very point in a mid-October briefing to Hitler. Hitler heard him out patiently but assured his new chief of staff that the situation was under control. See Zeitzler briefing to Hitler, quoted in Seymour Frieden and William Richardson, eds., *The Fatal Decisions*, trans. Constantine Fitzgibbon (New York: William Sloane Associates, 1956), 137–139.

30. Glantz and House, *To the Gates of Stalingrad*, 396–409; Citino, *Death of the Wehrmacht*, 227–233; and S. I. Linets and S. V. Ianush, *Oborona severnogo Kavkaza v gody Velikoi Otechestvennoi voiny (iiul’–dekabr’ 1942 goda)* [The defense of the northern Caucasus in the Great Patriotic War (July–December 1942)] (Moscow: “Ileksa,” 2010).

31. David M. Glantz and Jonathan M. House, *Armageddon in Stalingrad: September–November 1942—The Stalingrad Trilogy* (Lawrence: University Press of Kansas, 2009), esp. vol. 2, 574–586; Wilhelm Tieke, *The Caucasus and the Oil: The German-Soviet War in the Caucasus 1942/43*, trans. Joseph G. Welsh (Winnipeg, Canada: J. J. Fedorowicz, 1995), 223–237; and A. A. Grechko, *Bitva za Kavkaz* [The battle for the Caucasus] (Moscow: Voenizdat, 1973), 205–217. See relevant Soviet documents in V. A. Shapovalov, ed., *Bitva za Kavkaz v dokumentakh i materialakh* [The battle for the Caucasus in documents and materials] (Stavropol': Stavropol' University Press, 2003).

32. Tarrant, *Stalingrad*, 39. On aerial resupply, see Hayward, *Stopped at Stalingrad*, 183.

33. Glantz and House, *To the Gates of Stalingrad*, esp. 219–240, based in part on the following: “Ia. Lagenkarten Nr. 1 zum KTB Nr. 13 Jul–Oct 1942,” Sixth Army (AOK 6, 23948/Ia), in U.S. National Archives Microfilm (NAM) Series T-312, Roll 1446, Washington, DC; Zhilin, *Stalingradskaya bitva*, bk. 1, 239–418; and Zolotarev, “*Stavka 1942*.” See also K. K. Rokossovsky, ed., *Velikaia bitva na Volge* [Great victory on the Volga] (Moscow: Voenizdat, 1965), esp. 63–67; Aleksei Isaev, *Stalingrad: Zabytoe srazhenie* [Stalingrad: The forgotten battle] (Moscow: AST, 2005), 45–49; Aleksei Isaev, *Stalingrad: Za Volgoi dlia nas zemli net* [Stalingrad: There is no land for us beyond the Volga] (Moscow: “Iauza” “Eksmo,” 2008); and Wolfgang Werthen, *Geschichte der 16. Panzer-Division 1939–1945* (Bad Neuheim, FRG: Podzun-Pallas-Verlag, 1958), 100–102.

34. Glantz and House, *To the Gates of Stalingrad*, 383–393 and 453–473.

35. See Glantz and House, *Armageddon in Stalingrad*, 1–3, which is based on: Werthen, *Geschichte der 16. Panzer-Division*, 106–111; Rokossovsky, *Velikaia bitva na Volge*, 124–133; and Heinz Schröter, *Stalingrad*, trans. Constantine Fitzgibbon (New York: E. P. Dutton, 1958), 31.

36. Glantz and House, *Armageddon in Stalingrad*, provides a detailed reconstruction of the battle, beginning with the terrain discussion on 25–28 and the initial organization of 62nd Army on 105–106. For primary sources, see Zhilin, *Stalingradskaya bitva*, bk. 1, 467–903; the daily records of 62nd Army and its subordinate formations; and surviving daily records of Sixth Army, in Florian Freiherr von und zu Aufsess, *Die Anlagenbänder zu den Kriegstagebüchern der 6. Armee vom 14.09.1942 bis 02.02.1943, Band I–III* (Schwabach: January 2006). For an English-language account, see Vasily I. Chuikov, *The Battle for Stalingrad*, trans. Harold Silver (New York: Holt, Rinehart and Winston, 1964); in Russian, see Rokossovsky, *Velikaia bitva na Volge*. For the human aspects, see Carell, *Stalingrad*; Beevor, *Stalingrad*; Michael K. Jones, *Stalingrad: How the Red Army Survived the German Onslaught* (Philadelphia: Casemate, 2007); and Frank Ellis, *The Stalingrad Cauldron: Inside the Encirclement and Destruction of the 6th Army* (Lawrence: University Press of Kansas, 2013).

37. In addition, Sixth Army included the Romanian 1st Cavalry Division; the Croat 369th Infantry Regiment, which was attached to 100th Jäger Division as its third regiment; and more than 10,000 Russian *HiWis* (auxiliary troops).

38. The Kotluban’ offensives took place as follows, largely at Zhukov’s direction:

- 23–29 August—by the Stalingrad Front’s Groups Kovalenko and Shtevnev
- 3–12 September—by the Stalingrad Front’s 4th Tank, 24th, 1st Guards, and 66th Armies
- 18 September–2 October—by the Stalingrad Front’s 1st Guards, 24th, and 66th Armies
- 20–26 October—by the Don Front’s 24th and 66th Armies

39. Glantz and House, *Armageddon in Stalingrad*, table 15, 136.

40. Jason D. Mark, *Death of the Leaping Horseman: 24. Panzer-Division in Stalingrad, 12th August–20th November 1942* (Sydney, Australia: Leaping Horseman Books, 2002), 333–334.

41. Blau, *German Campaign in Russia*, 168–175. On the engineer attack, see Citino, *Death of the Wehrmacht*, 253. For a day-by-day account of the battle in the city from primarily the German perspective, see French L. MacLean, *Stalingrad: The Death of the German Sixth Army on the Volga, 1942–1943*, vol. 1, *The Bloody Fall* (Atglen, PA: Schiffer Publishing, 2013), and Jason D. Mark, *Island of Fire: The Battle for the Barrikady Gun Factory in Stalingrad, November 1942–February 1943* (Sydney, Australia: Leaping Horseman Books, 2006). According to Krivosheev, *Soviet Casualties and Combat Losses*, 125, overall Soviet casualties during the four months of the defensive Stalingrad operation were 643,842, or more than 5,100 per day. This represented 118 percent of the original strength, for three fronts plus the Don River flotilla, of 547,000.

42. Krivosheev, *Soviet Casualties and Combat Losses*, 95 and 123–126. Out of 2,461,000 Soviet troops resisting the German advance to Stalingrad and the Caucasus, the Red Army suffered 1,586,000 casualties, 887,169 of which were irrevocable (killed, captured, or missing). German and other Axis losses during the same period likely totaled 250,000 men.

43. These included rifle, tank, and sapper armies.

44. Glantz, *Colossus Reborn*, 475.

Chapter 9. Operation Uranus

1. For a clear picture of how the *Stavka* and General Staff functioned, see Shtemenko, *Soviet General Staff at War*.

2. See Danilov, *Stavka VGK, 1941–1945*.

3. Georgi Zhukov, *Reminiscences and Reflections* (Moscow: Progress Publishers, 1985), vol. 2, 94. According to Stalin's office calendar, Zhukov did not see his chief between 31 August and 26 September 1942; Vasilevsky was similarly absent between 9 and 21 September. These two senior officers may have inspired—but did not actually plan—the planetary series of offensives. Roberts, *Stalin's Wars*, 149, citing “Posetiteli Kremlevskogo Kabineta I. V. Stalina,” [Visitors to the Kremlin office of I. V. Stalin], *Istoricheskii archiv* [Historical archive] 2 (1996): 35–38.

4. See Zhilin, *Stalingradskaia bitva*, bk. 1, 694; A. I. Eremenko, *Stalingrad: Uchstnikam velikoi bitvy pod Stalingradom posviashchaetsia* [Stalingrad: A participant in the great battle for Stalingrad explains] (Moscow: “AST,” 2006), 352–353; and Isaev, *Stalingrad*, 270.

5. See David M. Glantz and Jonathan M. House, *Endgame in Stalingrad, Book 1: November 1942* (Lawrence: University Press of Kansas, 2014), 20–54, for Soviet strategic planning in fall 1942, specifically the origin of the plan for Operation Uranus.

6. Ultimately, Operation Mars also encompassed offensives by Northwestern Front against Demiansk and Kalinin Front against Velikiye Luki. Within the parameters of Mars, the Kalinin Front's 39th Army was to conduct Operation Venus (*Venera*) to capture the city of Rzhev. See Zolotarev, “*Stavka 1942*,” 394 and 543–544.

7. David M. Glantz, *Zhukov's Greatest Defeat: The Red Army's Epic Disaster in Operation Mars, 1942* (Lawrence: University Press of Kansas, 1999), 18–25.

8. On preparations for Uranus, see Glantz and House, *Endgame in Stalingrad*, bk. 1, 55–126; Erickson, *Road to Stalingrad*, 448–449; Zhukov, *Reminiscences and*

Reflections, vol. 2, 116; Tarrant, *Stalingrad*, 96; and Louis C. Rotundo, ed., *Battle for Stalingrad: The 1943 Soviet General Staff Study* (Washington, DC: Pergamon-Brassey's International, 1989), 15 and 78–79, which consists of materials from two Red Army studies on the operation.

9. Shukman, *Stalin's Generals*, 292–293.
10. Rokossovsky, *Soldier's Duty*, 135–142; see the archival accounts “Flangovye udary Krasnoi Armii v Stalingradskom srazhenii” [Flank attacks in the Stalingrad battle] and “Deistviia podvizhnoi gruppy 5 tankovoи armii v proryve” [Actions of 5th Tank Army in the penetration], *SMPIOV*, no. 6 (April–May 1943): 37–62.
11. Soviet after-action reports indicated that tank corps lost upward of 80 percent of their tanks in ten days of operations, primarily because of mechanical problems. See “A Few Observations Regarding the Employment of Tank and Mechanized Corps in the Exploitation of the Penetration,” *JSMS* 1, no. 3 (September 1988): 361–407. A translation is in *SMPIOV*, no. 8 (August–October 1943): 48–80.
12. Hardesty and Grinberg, *Red Phoenix Rising*, 122–137.
13. Blau, *German Campaign in Russia*, 161 and 171–172.
14. Between 31 July and 23 August, under Zhukov’s supervision, Kalinin and Western Fronts conducted the Rzhev-Sychevka operation against Army Group Center, seizing a large chunk of the German Ninth Army’s Rzhev salient but not as much as Zhukov hoped. See Zhukov, *Reminiscences and Reflections*, vol. 2, 86. Operation Mars provided Zhukov with the resources he needed. Finally, farther north, Volkov and Leningrad Fronts launched the Siniavino operation between 20 August and early September but failed to relieve the city.
15. M. Kozlov, “Razvitiye strategie i operativnogo iskusstva” [Development of strategy and operational art], *VIZh* 11 (November 1982): 12, and Blau, *German Campaign in Russia*, 173. See also Glantz, *Soviet Military Deception*, 105–119, and David Kahn, “An Intelligence Case Study: The Defense of Osuga, 1942,” *Aerospace Historian* 28, no. 4 (December 1981): 248.
16. Rolf Stoves, *Die 22. Panzer-Division, 25. Panzer-Division, 27. Panzer-Division und die 233. Reserve Panzer-Division: Aufstellung, Gleiderung, Einsatz* (Friedberg, FRG: Podzun-Pallas-Verlag, 1985), 45–49; Tarrant, *Stalingrad*, 92–93; Walter Goerlitz, *Paulus and Stalingrad: A Life of Field-Marshall Friedrich Paulus with Notes, Correspondence, and Documents from His Papers* (New York: Citadel Press, 1963), 218–219; and Samuel W. Mitcham, Jr., *The Panzer Legions: A Guide to the German Army Tank Divisions of World War II and Their Commanders* (Westport, CT: Greenwood Press, 2001), 165–166.
17. See a detailed discussion of relative strengths in Glantz and House, *Endgame in Stalingrad*, bk. 1, 127–183. Rokossovsky, *Velikaia bitva na Volge*, estimates German and Axis forces in the Stalingrad region at 600,000 men, 500 tanks, and 400 aircraft. This included the German Sixth Army (300,000), the Romanian Third and Fourth Armies (200,000), and elements of Fourth Panzer Army (about 100,000). The Italian Eighth Army’s 100,000 troops were not attacked until 16 December. Approximately 100,000 troops of the Southwestern Front (1st Guards Army) were also not directly involved in the November operation.
18. Apparently, the German sentries mistook Filippov’s tanks for some captured vehicles used at a nearby training area. Although the Germans held Kalach for

another twenty-four hours, the Soviets held the key bridge until the main body of 26th Tank Corps arrived. For details on the first stage of the Uranus offensive, see Glantz and House, *Endgame at Stalingrad*, bk. 1, 185–534.

19. Ibid., bk. 1, 268–370.

20. Ibid., bk. 1, 371–384. See also DiNardo, *Mechanized Juggernaut*, 59–60. Most older histories quote Paulus's 23 November message to Hitler asking for permission to break out; see, for example, Carell, *Hitler Moves East*, 590–591.

21. See the excellent discussion of the airlift decision in Hayward, *Stopped at Stalingrad*, 234–239, and Carell, *Stalingrad*, 163.

22. Kurt Zeitzler, who had succeeded Halder as army chief of staff, recounted the airlift controversy in Frieden and Richardson, *Fatal Decisions*, 166–167; see also Cajus Bekker, *The Luftwaffe War Diaries* (New York: Ballantine, 1969), 407–410, and Hayward, *Stopped at Stalingrad*, 246–249. Boog et al., *Germany and the Second World War*, vol. VI, 1150–1151, provides a daily breakdown of aircraft and supplies in the airlift.

23. Hardesty and Grinberg, *Red Phoenix Rising*, 141–154, and Hayward, *Stopped at Stalingrad*, 225, 246, and 249.

24. Hayward, *Stopped at Stalingrad*, 272, 310, and 322, and Hardesty and Grinberg, *Red Phoenix Rising*, 142. The stress of air combat frequently produces discrepancies of this kind; the differing figures were not necessarily manipulated by either side.

25. For the Demiansk operation within the context of Operation Mars, see David M. Glantz, *After Stalingrad: The Red Army's Winter Offensive 1942–1943* (Solihull, UK: Helion, 2008), 92–107.

26. The initial assault force for Mars included two tank, two mechanized, and one cavalry corps. The remaining corps were to be committed in Jupiter or Neptune. To date, neither Jupiter nor Neptune appear in any materials released by the Russian military archives.

27. Soviet forces concentrated for Operation Mars constituted 31 percent of the total Red Army manpower, 32 percent of the artillery, 45 percent of the tanks, and almost 39 percent of the aircraft; this compares to 18 percent personnel, 20 percent artillery, 20 percent tanks, and 30 percent of aircraft for Uranus. A total of 193,683 Soviets were killed, wounded, sick, or captured in the operation. See Krivosheev, *Soviet Casualties and Combat Losses*, 108.

28. Glantz, *Zhukov's Greatest Defeat*, 77–85.

29. Ibid., 223–241 and 304–306; David M. Glantz, *Forgotten Battles of the German-Soviet War (1941–1945)*, vol. IV, *The Winter Campaign (19 November 1942–21 March 1943)* (Carlisle, PA: Self-published, 1999), 38 and 65–66.

30. In an encirclement operation, the inner ring concentrates on destroying the encircled force while the outer ring fends off enemy relief efforts and further expands the offensive. In Operation Uranus, the forces allocated to the outer ring, principally cavalry and rifle divisions, proved too weak to accomplish either mission.

31. While 5th Tank Army tied down XXXXVIII Panzer Corps' 11th Panzer Division along the Chir River, by 15 December 5th Shock Army seized German bridgeheads across the Dnepr River, effectively ending any role by XXXXVIII Panzer

Corps in rescuing Sixth Army. See Glantz and House, *Endgame in Stalingrad*, bk. 2, 46–85.

32. Boog et al., *Germany and the Second World War*; vol. VI, 1141–1145, and Manstein, *Lost Victories*, 325–328.

33. This account of *Wintergewitter* is based generally on Manfred Kehrig, *Stalingrad: Analyse und Dokumentation einer Schlacht* (Stuttgart, FRG: Deutsche Verlag-Anstalt, 1974); Boog et al., *Germany and the Second World War*, vol. VI, 1145–1147; Glantz and House, *Endgame in Stalingrad*, bk. 2, 4–19 and 86–158; Manstein, *Lost Victories*, 330–337; Ziemke and Bauer, *Moscow to Stalingrad*, 480–483; and Dana V. Sadarana, *Beyond Stalingrad: Manstein and the Operations of Army Group Don* (New York: Praeger, 1990), 28–48.

34. For details about Sixth Army's breakout plans and 2nd Guards Army's counterstroke, see Glantz and House, *Endgame at Stalingrad*, bk. 2, 286–297, 351–375, and 317–332.

35. For the planning of Little Saturn, see *ibid.*, bk. 2, 20–38 and 223–226. At the same time, 5th Tank, 5th Shock, and 2nd Guards Armies conducted an offensive to clear German forces from the lower Chir River and capture Tormosin. See *ibid.*, bk. 2, 245–285.

36. Manstein, *Lost Victories*, 342–344.

37. “Iz dnevnika boevykh deistvii Verkhovnogo Glavnokomandovaniia Vermakhta” [From the daily report of combat operations (KTB) of the Supreme High Command of the Wehrmacht (OKW)], in Zhilin, *Stalingradskaia bitva*, bk. 2, 226–227; see also David M. Glantz, *From the Don to the Dnepr: Soviet Offensive Operations, December 1942–August 1943* (London: Frank Cass, 1991), 10–82. For the Italian view of this breakthrough, see Hope Hamilton, *Sacrifice on the Steppe: The Italian Alpine Corps in the Stalingrad Campaign, 1942–1943* (Philadelphia: Casemate, 2011), 72–75.

38. On the Tatsinskaia raid, see Glantz, *From the Don to the Dnepr*, 65–69; Marshal of Tank Troops O. Losik, “Armor and Armored Troops in the Battle for Stalingrad,” *VIZH* 10 (October 1982): 32–38; and Armstrong, *Red Army Tank Commanders*, 268–269.

39. Sadarana, *Beyond Stalingrad*, 59.

40. “Adequate Provision of Artillery Means for the Operation Directed to Destroying an Encircled Enemy in the Stalingrad Area” (Moscow: n.p., 1943), trans. Department of the Army Assistant Chief of Staff, G2, November 1952, translation no. F-9083, p. 12, original classified secret, translation declassified 13 March 1964, Combined Arms Research Library, Fort Leavenworth, KS.

41. For details on Operation Ring, see Glantz and House, *Endgame at Stalingrad*, bk. 2, 395–570.

42. *Ibid.*, bk. 2, 559–571.

43. According to Tarrant, *Stalingrad*, 230, German and Romanian forces surrounded at Stalingrad numbered 267,000, of whom 36,000 were evacuated by air, 140,000 were killed, and 91,000 surrendered. Sixth Army lost another 15,000 killed in the initial Soviet counteroffensive (Uranus), for a total of 241,000 dead. Some 300,000 Romanian, Italian, and Hungarian forces were also lost at Stalingrad and in associated operations.

44. Sadarananda, *Beyond Stalingrad*, 57.

45. Ziemke and Bauer, *Moscow to Stalingrad*, 74 and 16–17; Il'ia Moshchan-sky and Vasilii Stoianov, “Na flangakh Stalingrada: Operatsii na severnom Kavkaze, 1 ianvaria–4 fevralia 1943 goda” [On the flanks of Stalingrad: Operations in the northern Caucasus, 1 January–4 February 1943], in *Voennaia letopis'* 3-2002 [Military Chronicle] (Moscow: “BTV-MH,” 2002), 16–17. Other Tiger tanks had been committed on the Leningrad Front in September, with disappointing results.

46. Sadarananda, *Beyond Stalingrad*, 78, and Manstein, *Lost Victories*, 396–398.

47. In part, the Rostov offensive failed because 2nd Guards Army was required to operate simultaneously north and south of the Don River. See 2nd Guards Army's reports in V. A. Zolotarev, ed., *Russkii arkhiv: Velikaia Otechestvennaia—Preludiia Kurskoi bitvy, t. 15 (4-3)* [The Russian archives: The Great Patriotic (War)—Prelude to the Battle of Kursk, vol. 15 (4-3)] (Moscow: “TERRA,” 1997), 247–258.

48. “Ostrogozhsko-Rossoshanskaia nastupatel'naiia operatsiia voisk voronezhskogo fronta” [The Ostrogozhsk-Rossosh' offensive operation of Voronezh Front forces], SVIMVOV, no. 9 (1953), 1–121, classified secret but later declassified. For an overview of the offensives the Red Army conducted in January 1943, see Glantz, *After Stalingrad*, 14–35. See also Peter Szabó, *Don-Kanyar [Bend] 1942–1943: A Magyar Kirdályi 2. Honvéd Hadseeg Képes Krónikája* [An illustrated chronicle of the Royal Hungarian Honved Army] (Budapest: MoD Institute and Museum of Military History, 2013).

49. “Voronezhsko-kastornenskaia nastupatel'naiia operatsiia voisk voronezhskogo i levogo kryla brianskogo frontov” [The Voronezh-Kastorne offensive operation of forces of the Voronezh and the left wing of the Briansk Fronts], SVIMVOV 13 (1954), 1–91, initially classified secret but now declassified. See also Boog et al., *Germany and the Second World War*, vol. VI, 1180.

50. For details of Star and Gallop, see Glantz, *After Stalingrad*, 110–227, and Glantz, *From the Don to the Dnepr*, 82–215. See relevant documents from Gallop, Star, and the Central Front's offensive toward Sevsk in Zolotarev, *Prelude to the Battle of Kursk*.

51. Erickson, *Road to Berlin*, 46–49. With four tank corps, Popov's group should have had over 700 tanks. Soviet records show that Popov's armor strength fell from 212 tanks on 25 January to about 140 on 7 February and then, precipitously, to 25 tanks on 21 February after Manstein's forces commenced their counteroffensive. The weakness of the group bears grim witness to the effectiveness of 6th and 7th Panzer Divisions' defense of the eastern Donbas during January. See Glantz, *From the Don to the Dnepr*, 384.

52. Boog et al., *Germany and the Second World War*, vol. VI, 1183–1184; Glantz, *From the Don to the Dnepr*, 151–179; and Sadarananda, *Beyond Stalingrad*, 106–109.

53. Corum, *Wolfram von Richthofen*, 312. Corum suggests that Hitler's visit to Manstein on 17 February was not intended as a reprimand but rather as a morale booster. Knowing that the field marshal was preparing a counteroffensive, Hitler may have wished to associate himself in the public mind with that attack. This again illustrates the possibility that Hitler felt compelled to act a part as supreme leader.

54. Glantz, *After Stalingrad*, 228–389, and Vasilevsky, *Delo vsei zhizni*, 278–279.

55. On the trials of the Central Front, see David M. Glantz, “Prelude to Kursk: Soviet Strategic Operations, February–March 1943,” in Roland G. Förster, *Gezeitenwechsel im Zweiten Weltkrieg? Die Schlachten von Char’kov und Kursk im Frühjahr und Sommer 1943 in operativer Anlage, Verlauf und politischer Bedeutung: Vorträge zur Militärgeschichte*, Band 15 (Hamburg, FRG: Verlag E. S. Mittler & Sohn, 1996), 38–41.
56. Rokossovsky, *Soldier’s Duty*, 174–178.
57. Bagramian, *Tak shli my k pobeda*, 371–378.
58. An excellent account of 2nd Tank Army’s role is found in F. E. Vysotsky et al., *Gvardeiskaia tankovaia* [Guards tank] (Moscow: Voenizdat, 1963), 15–23. A cavalry-mechanized group was a unique Soviet concept that, as the name implies, attempted to combine cavalry and motorized units to operate over difficult terrain where conventional armor would have difficulty.
59. Most of the units involved were severely depleted. Popov’s mobile group numbered only 25 tanks by 20 February. On 6 February, 7th and 11th Panzer Divisions possessed only 35 and 16 tanks, respectively. During Manstein’s counteroffensive, 17th Panzer Division of XXXXVIII Panzer Corps had only 8 tanks and 11 self-propelled guns. By contrast, the Soviet 25th and 1st Guards Tank Corps totaled 300 tanks, as did the two SS panzer-grenadier divisions.
60. Manstein, *Lost Victories*, 431–433, and Sadarpananda, *Beyond Stalingrad*, 120–126. German records show Soviet losses as 23,200 dead, 9,071 captured, and 615 tanks destroyed. Although silent about Soviet losses in the Donbas region during Manstein’s counteroffensive, Krivosheev et al., *Rossiya i SSSR v voinakh*, 284 and 312–313, acknowledge that Briansk Front lost 54,299 men (19,684 irrevocable) from 5 February through 3 March, Central Front suffered 70,407 losses (30,439 irrevocable) from 25 February through 28 March, and Voronezh Front incurred 86,469 losses (45,219 irrevocable) from 3–25 March. Including the roughly 80,000 men that Southwestern Front lost in the Donbas region, the total losses of the four fronts probably exceeded 300,000 men from early February through late March 1943.
61. Boog et al., *Germany and the Second World War*, vol. VI, 1190–1191, and Glantz, *From the Don to the Dnepr*, 121–145 and 186–211.

Chapter 10. *Rasputitsa* and Operational Pause

1. Blau, *German Campaign in Russia*, 153, 156, and 162, and Guderian, *Panzer Leader*, 310.
2. Citino, *Death of the Wehrmacht*, 272–288. Hitler’s stand-fast order was not solely responsible for this defeat, as Erwin Rommel’s forces were so depleted and short of fuel that escape was unlikely in any event.
3. Blau, *German Campaign in Russia*, 169.
4. Murray, *Luftwaffe*, 158.
5. *Ibid.*, 144 (Table 31).
6. Brian Moynahan, *Claws of the Bear* (Boston: Houghton Mifflin, 1989), quotation on 129, total imports on 127–129. Hill, *Great Patriotic War of the Soviet Union*, provides extensive details on 163–191 (including the aircraft figures, on 174). The uranium incident is described by Steven J. Zaloga, *Target America: The Soviet*

Union and the Strategic Arms Race, 1945–1965 (Novato, CA: Presidio Press, 1993), 18–19. See also B. V. Sokolov, “The Role of Lend-Lease in Soviet Military Efforts, 1941–1945,” *JSMS* 7, no. 3 (September 1994): 567–586.

7. Hardesty and Grinberg, *Red Phoenix Rising*, 165–170.

8. Rhodes, *Masters of Death*, 230–231.

9. Tooze, *Wages of Destruction*, 517–432.

10. Ready, *Forgotten Axis*, 247–250; Hamilton, *Sacrifice on the Steppe*, 300–303; and Axworthy, Scafes, and Craciunoiu, *Third Axis, Fourth Ally*, 114 and 145–146.

11. Edmunds Svens, “The Latvian Legion (1943–1945) and Its Role in Latvia’s History” (MMAS thesis, U.S. Army Command and General Staff College, 2013), 78–91.

12. Ready, *Forgotten Axis*, 259–260.

13. Glantz, *Colossus Reborn*, 541–544.

14. Jean Levesque, “A Peasant Ordeal,” in Stone, *Soviet Union at War*, 195.

15. Reina Pennington, “Women,” in Stone, *Soviet Union at War*, 93–115; see also Pennington, “Offensive Women: Women in Combat in the Red Army in the Second World War,” *JSMS* 74, no. 3 (July 2010): 775–820.

16. Numerous Soviet studies and unit histories document this fact, as do extensive holdings in *Fremde Heere Ost* files, Modern Military Records Section, NAM.

17. German strength information is from “Kraftgegenubersstellung Stand: 1.4.43,” *Anlage 4b zu Abt. Fr. H.Ost(I)*, No. 80/43 g. *Kdos vom 17.10.43*, Series T-78, Roll 552, NAM. The Germans assessed Soviet strength at 5,152,000 troops, 6,040 tanks, and 20,683 artillery tubes. Based on data from GKO files at the Central Party Archives (TsPA) UML, Fond 644, op. 1, d.100, on 3 April 1943, Soviet strength was as follows: ration strength (army), 9,486,000; hospital strength (army), 1,066,000; operating fronts and armies, 5,792,000; nonoperating forces (Transcaucasus and Far East), 1,469,000; internal military districts, 2,225,000; fleet, 400,000; NKVD, 471,000; and GKO subordination, 718,000.

18. Wray, *Standing Fast: German Defensive Doctrine*, 113. This discussion of German defensive organization and doctrine is based on 112–172.

19. Ziemke and Bauer, *Moscow to Stalingrad*, 325.

20. Field Marshal Manstein claims to have protested this policy to Hitler at his promotion ceremony in October 1942. See Manstein, *Lost Victories*, 268–269 and 280.

21. Wray, *Standing Fast: German Defensive Doctrine*, 118–123.

22. As the war went on, the Germans increasingly lacked intelligence sources to look behind the enemy front lines, and their prejudices made it difficult for them to believe that the enemy could deceive them effectively. See Glantz, *Soviet Military Deception*, esp. 558–570.

23. Blau, *German Campaign in Russia*, 166–167, and Guderian, *Panzer Leader*, 275.

24. Guderian, *Panzer Leader*, 287–300.

25. Brian Perrett, *Knights of the Black Cross: Hitler’s Panzerwaffe and Its Leaders* (New York: St. Martin’s Press, 1986), 103–105; see also Richard L. DiNardo, *Germany’s Panzer Arm* (Westport, CT: Greenwood Press, 1997), 17–18.

26. Guderian, *Panzer Leader*, 299 and 311, and Perrett, *Knights of the Black Cross*, 104–105. After Kursk, some Elephants were equipped with machine guns.

27. DiNardo, *Germany’s Panzer Arm*, 17–18, and Walter S. Dunn, Jr., *Kursk: Hitler’s Gamble, 1943* (Westport, CT: Praeger, 1997), 88. See also Thomas

Jentz, *Germany's Panther Tank: The Quest for Combat Supremacy* (Chester, PA: Schiffer, 1995).

28. Zhukov, *Reminiscences and Reflections*, vol. 1, 451.

29. Steven J. Zaloga and James Grandsen, *Soviet Tanks and Combat Vehicles of World War II* (London: Arms & Armour Press, 1984), 156–166. The authors are indebted to Steven Zaloga for his advice on the technological preparations for the 1943 campaign.

30. For a good description of this evolution, see P. A. Kurochkin, *Obshchevoiskovaia armii na nastuplenii* [The combined-arms army on the offensive] (Moscow: Voenizdat, 1966), and Babich and Baier, *Razvitiie vooruzheniiia*. See also Glantz, *Colossus Reborn*, 143–146 and 179–180.

31. Glantz, *Colossus Reborn*, 288–293.

32. Tank armies were formed in accordance with GKO Order No. 2791, dated 28 January 1943. See Babich and Baier, *Razvitiie vooruzheniiia*. See also Glantz, *Colossus Reborn*, 232–234.

33. These orders are reproduced in translation in David M. Glantz and Jonathan M. House, *The Battle of Kursk* (Lawrence: University Press of Kansas, 1999), 354–358.

34. This account of the Munich meeting is based primarily on Guderian, *Panzer Leader*, 241–247; see also Janusz Piekalkiewicz, *Operation “Citadel”: Kursk and Orel—The Greatest Tank Battle of the Second World War*, trans. Michaela Nierhaus (Novato, CA: Presidio Press, 1987), 91–93.

35. Guderian, *Panzer Leader*, 306–309. See also Perrett, *Knights of the Black Cross*, 161–163.

36. Georgi Zhukov, “Na Kurskoi duge” [In the Kursk bulge], *VIZh* 8 (August 1967): 72 and 76, and Shtemenko, *Soviet General Staff at War*, vol. I, 221. For a full discussion of this strategic debate, see Glantz and House, *Battle of Kursk*, 27–32 and 361–373.

37. Vasilevsky, *Delo vsei zhizni*, 288–306; Zhukov, *Reminiscences and Reflections*, vol. 2, 144–182; and Shtemenko, *Soviet General Staff at War*, vol. I, 211–234.

Chapter 11. Kursk to the Dnepr

1. For a complete order of battle at Kursk, see Glantz and House, *Battle of Kursk*, 283–335. The following discussion is based on this. See also *Bitva pod Kurskom: Ot oborony k nastupleniiu* [The Battle at Kursk: From defense to offensive] (Moscow: OO “AST,” 2006), originally published in 1945 by the Red Army General Staff and classified secret; Niklas Zetterling and Anders Frankson, *Kursk 1943: A Statistical Analysis* (London: Frank Cass, 2000); and Valerii Zamulin, *Sryv operatsii “Tsitadel”: Kurskaia bitva—Grif sekretnosti sniat* [The disruption of operation “Citadel”: The Battle of Kursk—The secret classification removed] (Moscow: “Eksmo,” 2013).

2. For Ninth Army’s order of battle, see “Lagenkarten, Anlage zu KTB Nr. 8.” AOK 9, 1a, AOK 9.35939.7, 26 Mar–18 Aug 1943, Series T-312, Roll 320, NAM. This order of battle is difficult to reconstruct accurately because the Red Army eventually captured Ninth Army’s records for this period, and it has yet to release them. The

XX Army Corps did not participate in the offensive because it was protecting Ninth Army's right flank.

3. The panzer units in Ninth Army included 2nd, 4th, 9th, 12th, 18th, and 20th Panzer Divisions. On the *Luftwaffe's* limitations, see Hermann Plocher, *The German Air Force versus Russia, 1943* (New York: Arno Press, 1967), 78 and 81. Plocher commanded 1st Air Division within Sixth Air Fleet.

4. Zetterling and Frankson, *Kursk 1943*, 29–30. See also Sylvester Stadler, *Die Offensive gegen Kursk 1943: II. SS-Panzerkorps als Stosskeil im Grosskampf* (Osnabrück, FRG: Munin Verlag GmbH, 1980), and Gotthard Heinrici and Friedrick Wilhelm Hauck, "Citadel: The Attack on the Russian Kursk Salient," manuscript of postwar debriefing, note 92, trans. Joseph Welch, National Archives and Records Administration (NARA), Washington, DC.

5. For Army Detachment Kempf, see "Tagliche Lagenkarten vom 1.7.43–31.12.43," *Kriegtagebuch* No. 2, AOK 8, Ia, AOK 8, 44701/14, Series T-312, Roll 56, NAM, and other AOK 8 reports in the same series, and Zeterling and Frankson, *Kursk 1943*, 18 and 30. See also Jentz, *PanzerTruppen*, for slightly different strength figures.

6. Plocher, *German Air Force versus Russia 1943*, 75–78 and 83.

7. David M. Glantz, "Soviet Operational Intelligence in the Kursk Operation, July 1943," *Intelligence and National Security* 5, no. 1 (January 1990): 8–15, and Glantz, *Soviet Military Intelligence in War*, 184–283. See also Piekalkiewicz, *Operation "Citadel,"* 115.

8. For detailed descriptions of Soviet defenses, see Glantz and House, *Battle of Kursk*, 63–77. Documents associated with planning and conducting the battle, as well as the Red Army General Staff's daily operational summaries, are in V. A. Zhilin, ed., *Kurskaia bitva: Khronika, fakty, liudi: v 2 kh.* [The Battle of Kursk: Chronicle, facts, and people in 2 books] (Moscow: "Olma-Press," 2003), and V. A. Zolotarev, ed., *Russkii arkhiv: Velikaia Otechestvennaia—Kurskaia bitva: Dokumenty i materialy 27 marta–23 avgusta 1943 g. t. 15 (4-4)* [The Russian archives: The Great Patriotic (War)—The Battle of Kursk: Documents and materials 27 March–23 August 1943, vol. 15 (4-4)] (Moscow: "TERRA," 1997).

9. Glantz and House, *Battle of Kursk*, 56, and G. Koltunov, "Kurskaia bitva v tsifrakh (Period kontranastupleniiia)" [The Battle of Kursk in figures (the period of the counteroffensive)], *VIZh* 7 (July 1980): 80.

10. Glantz and House, *Battle of Kursk*, 56 and 291–292. For details on 50th Army's organization, see F. D. Pankov, *Ognennyye rubezhii* [Firing lines] (Moscow: Voenizdat, 1984), 140–169.

11. G. Koltunov and B. G. Solov'ev, *Kurskaia bitva* [The Battle of Kursk] (Moscow: Voenizdat, 1970), list Central Front as having 1,607 tanks and self-propelled guns. *SMPIOV*, no. 11 (1944), gives a figure of 1,150, probably representing the number of operational tanks and SPs.

12. Glantz and House, *Battle of Kursk*, 299–305; M. A. Kozlov, ed., *V plameni srazhenii: boevoi put' 13-i armii* [In the flame of battle: The combat path of 13th Army] (Moscow: Voenizdat, 1973), 89–128; *SMPIOV*, no. 11; and the classified study by V. T. Iminov, *Organizatsiya i vedenie oborony v bitve pod Kurskom na primere 13-i armii tsentral'nogo fronta (iiul' 1943 g.)* [The organization and conduct of the defense

in the Battle of Kursk based on the example of Central Front's 13th Army (July 1943)] (Moscow: Voroshilov General Staff Academy, 1979).

13. Glantz and House, *Battle of Kursk*, 60–61 and 306–320; Koltunov and Solov'ev, *Kurskaia bitva*, 61–62; and *Boevoi sostav Sovetskoi armii, chast' 3 (ianvar-dekabr' 1943 goda)* [Combat composition of the Soviet Army, part 3 (January–December 1943)] (Moscow: Voenizdat), 163, originally classified secret but later declassified.

14. According to V. N. Simbolikov, *Kurskaia bitva, 1943* [The Battle of Kursk, 1943] (Moscow: Voroshilov General Staff Academy, 1950), classified secret, the strength of Central Front was 711,575, Voronezh Front 625,591, and Steppe Front 573,195, for a total Soviet strength of 1,920,361 including noncombat troops. See also G. Koltunov, "Kurskaia bitva v tsifrakh" [The Battle of Kursk in numbers], *VIZh* 6 (June 1968): 58–68. Note that Soviet calculations tended to overestimate the strength of their opponents and thereby underestimate their numerical advantage.

15. *Bitva pod Kurskom: Ot oborony k nastupleniu*, 762. M. E. Morozov, *Velikaia Otechestvennaia voina 1941–1945 gg.: Kampanii i strategicheskie operatsii v tsifrakh v 2 tomakh, tom 2* [The Great Patriotic War 1941–1945: Campaigns and strategic operations in numbers in 2 volumes, vol. II] (Moscow: Glavarkhiv goroda Moskvy, 2010), 26, shows slightly different numbers because only combat strengths are included.

16. R. A. Savuskhin, ed., *Razvitiie Sovetskikh vooruzhennykh sil i voennogo iskusstva v Velikoi Otechestvennoi voine 1941–1945 gg.* [The development of the Soviet Armed Forces and military art in the Great Patriotic War, 1941–1945] (Moscow: VPA, 1988), 65. These figures include forces along the entire front from Orel to Khar'kov.

17. Glantz and House, *Battle of Kursk*, 74–76, and Glantz, *Soviet Military Intelligence in War*, 267–279.

18. For a graphic day-by-day portrayal of the battle, see David M. Glantz, *Atlas of the Battle of Kursk (July–August 1943)* (Carlisle, PA: Self-published, 2005).

19. See Dennis E. Showalter, *Armor and Blood: The Battle of Kursk, the Turning Point of World War II* (New York: Random House, 2013), 75–76, and Piekalkiewicz, "Operation 'Citadel,'" 137–138. Other sources downplay the effects of this counterpreparation. See Heinrich and Hauck, "Citadel: The Attack on the Russian Kursk Salient," note 72.

20. An initial Soviet attempt to attack the Germans with *Sturmoviks* (Il-2 assault aircraft) was also only partially effective. See Hardesty and Grinberg, *Red Phoenix Rising*, 239–243. The definitive Russian account of the air battle is Vitalii Gorbach, *Aviatsiya v Kurskoi bitve: Nad ognennoi dugoi* [Aviation in the Battle of Kursk: Above the fiery bulge] (Moscow: "Iauza" "Eksmo," 2008).

21. On the northern battle at Kursk, see Glantz and House, *Battle of Kursk*, 86–94 and 115–121. See too SMPIOV, no. 11, 77–80; Koltunov and Solov'ev, *Kurskaia bitva*, 125–128; Paul Carell, *Scorched Earth: Hitler's War on Russia, 1941–1943*, vol. II, trans. Ewald Osers (London: George Harrap, 1970), 46–48; and Mark Healy, *Kursk 1943: The Tide Turns in the East* (London: Osprey, 1992), 72.

22. Glantz and House, *Battle of Kursk*, 123, and Valeriy Zamulin, *Demolishing the Myth: The Tank Battle at Prokhorovka, Kursk, July 1943: An Operational Narrative*, trans. Stuart Britton (Solihull, UK: Helion, 2011), which is a definitive account

of the Voronezh Front's role in defeating Operation Citadel. See also Friedrich W. von Mellenthin, *Panzer Battles*, trans. H. Betzler (Norman: University of Oklahoma Press, 1956), 218–225. The German panzer brigade, with 200 Panthers, founded on ground saturated by overnight thunderstorms, fell under intense Soviet antitank fire, and suffered from mechanical breakdowns; it had virtually no impact on subsequent fighting.

23. Valeriy N. Zamulin, “Prokhorovka: The Origins and Evolution of a Myth,” *JSMS* 25, no. 4 (October–December 2012): 584, has calculated that the actual strengths in operational tanks and self-propelled guns on 12 July were 672 Soviet to 306 German. For a detailed reconstruction of Prokhorovka, see Glantz and House, *Battle of Kursk*, 164–196 and 212–216, and P. A. Rotmistrov, *Stal'naia gvardiia* [Steel guards] (Moscow: Voenizdat, 1988), esp. 174–190. Previous Soviet studies erroneously estimated II SS Panzer Corps at 600 tanks, including 100 Tigers and Ferdinands, of which it claimed 500 were engaged at Prokhorovka. Actually, Rotmistrov's reinforced 5th Guards Tank Army numbered 793 tanks, including 501 T-34s, 261 light T-70s, and 31 English Churchills. However, many of these 793 tanks were with 5th Guards Mechanized Corps and 2nd Guards Tank Corps south of Prokhorovka rather than on the main battlefield. Simbolikov, *Kurskaia bitva, 1943*; SMPIOV, no. 11, 149–151; and Rudolf Lehmann, *The Leibstandarte III*, trans. Nick Olcott (Winnipeg, Canada: J. J. Fedorowicz, 1993), esp. 227–238.

24. Manstein, *Lost Victories*, 448–449. Given the titanic nature of the Kursk struggle, Manstein's account of Citadel is very cursory. As late as 1958, when Manstein penned his memoirs, he still failed to note the five fresh Soviet armies poised in reserve at the base of the Kursk bulge.

25. Erickson, *Road to Berlin*, 108.

26. For Soviet accounts of the Orel operation, see Petr Bukeikhanov, *Kurskaia bitva—Nastuplenie: Operatsiia “Kutuzov,” Operatsiia “Polkovodets Rumiantsev” Iiul’-avgust 1943* [The Battle of Kursk—Counteroffensive: Operation “Kutuzov,” Operation “Commander Rumiantsev” July–August 1943] (Moscow: “Tsentrpoligraf,” 2013), 9–325; “Proryv oborony na flange orlovskoi gruppovki nemtsev” [Penetration of defenses on the flank of the enemy Orel group], SMPIOV, no. 10 (1944); I. Bagramian, “Flangovi udar 11-i gvardeiskoi armii” [The flank attack of 11th Guards Army], *VIZh* 7 (July 1963): 83–95; and L. Sandalov, “Brianskii front v orlovskoi operatsii” [The Briansk Front in the Orel operation], *VIZh* 8 (August 1963): 62–72. Sandalov was Briansk Front's chief of staff at the time.

27. Albert Seaton, *The Russo-German War, 1941–1945* (New York: Praeger, 1971), 366–367, and Sandalov, “Brianskii front v orlovskoi operatsii,” 67.

28. Manstein, *Lost Victories*, 450–453. Manstein characteristically blames Hitler for the requirement to defend the Donbas. The best Soviet accounts of this failed operation by Southern and Southwestern Fronts are A. G. Ershov, *Ostobozhdenie donbassa* [Liberation of the Donbas] (Moscow: Voenizdat, 1973), and Mikhail Zhirkov, *Bitva za Donbass: Mius front, 1941–1943* [The battle for the Donbas: The Mius front, 1941–1943] (Moscow: “Tsentrpoligraf,” 2011).

29. For details on the Belgorod-Khar'kov operation, see Glantz, *From the Don to the Dnepr*, 215–366; Bukeikhanov, *Kurskaia bitva—Nastuplenie*, 326–657; and Glantz, *Soviet Military Deception*, 174–179.

30. By 13 August, 1st Tank Army's strength had fallen to 134 tanks and self-propelled guns, and 5th Guards Tank Army retained just over 100. See Glantz, *From the Don to the Dnepr*, 393. See also Koltunov, *Kurskaiia bitva*, 303–352.
31. According to Krivosheev, *Soviet Casualties and Combat Losses*, 134, Soviet strength in the Belgorod-Khar'kov operation was 1,144,000 (Voronezh Front, 739,000; Steppe Front, 464,600) as opposed by about 350,000 Germans. Soviet losses were 255,566, including 71,611 killed or missing and 183,955 wounded.
32. Shtemenko, *Soviet General Staff at War*, bk. I, 251–252.
33. See Glantz, *Soviet Military Deception*, 186–202. The best Soviet account is by V. P. Istomin, *Smolenskaia nastupatel'naia operatsiia (1943 g.)* [The Smolensk offensive operation (1943)] (Moscow: Voenizdat, 1975). According to Krivosheev, *Soviet Casualties and Combat Losses*, 134–135, Soviet strength in Operation Suvorov totaled 1,252,600 men (Kalinin Front, 428,400; Western Front, 824,200). Between 7 August and 2 October, the Soviets suffered 451,466 casualties in Suvorov, including 107,645 killed or missing and 348,821 wounded. This offensive propelled Soviet forces forward by October to the eastern approaches to Vitebsk and Orsha in Belorussia.
34. Rokossovsky threw 579,600 men into this Chernigov-Pripiat' operation. According to Krivosheev, *Soviet Casualties and Combat Losses*, 137, Soviet losses totaled 141,401 killed or missing and 107,878 wounded. See Glantz, *Soviet Military Deception*, 208–216.
35. Krivosheev, *Soviet Casualties and Combat Losses*, 109, indicates that Popov had 530,000 men involved in the Briansk operation and suffered 56,657 casualties, including 13,033 killed or missing.
36. Ershov, *Osvobozhdenie donbassa*, and Zhirokhov, *Bitva za Donbass*. According to Krivosheev, *Soviet Casualties and Combat Losses*, 136, Malinovsky and Tolbukhin committed 534,200 and 446,700 troops, respectively, to battle during this operation and suffered combined losses of 273,522 (66,166 killed or missing and 207,356 wounded).
37. Manstein, *Lost Victories*, 461–462, and Earl F. Ziemke, *Stalingrad to Berlin: The German Defeat in the East* (Washington, DC: Office of the Chief of Military History, 1968), 163–164.
38. Quoted in Moskalenko, *Na iugo-zapadnom napravlenii*, vol. 2, 122. On German indiscipline as a result of scorched earth, see Fritz, *Ostkrieg*, 372–373.
39. A. P. Riiazansky, *V ogne tankovykh srazhenii* [In the fire of tank battles] (Moscow: "Nauka," 1975), 95.
40. See Glantz, *History of Soviet Airborne Forces*, 262–288.
41. See also Ershov, *Osvobozhdenie donbass*, for details of Tolbukhin's Melitopol' operation. Krivosheev, *Soviet Casualties and Combat Losses*, 109, cites Tolbukhin's strength as 555,300 men and places his losses at 198,749, including 42,790 killed or missing.
42. On 20 October 1943, the Voronezh, Steppe, Southwestern, and Southern Fronts were renamed the 1st, 2nd, 3rd, and 4th Ukrainian Fronts, respectively. At about the same time, the Central and Briansk Fronts were combined as the Belorussian Front (later 1st Belorussian Front) under Rokossovsky. The Kalinin Front also

became the Baltic Front under Eremenko. Shortly thereafter, Eremenko's command was split into 1st and 2nd Baltic Fronts; on 20 November, the Northwestern Front was inactivated. These name changes reflected the future objectives of the headquarters involved. Guderian's rebuilt panzer divisions are enumerated in Manstein, *Lost Victories*, 482.

43. Soviet casualties suffered during the operations in the Kiev region in October included: the 1st offensive from Liutezh (1 October–2 November 1943)—253,830 men engaged and 85,064 losses (24,422 irrevocable [killed, missing, or captured]); the 2nd offensive at Velikii Bukhrin (12–24 October 1943)—185,960 men engaged and 27,938 losses (6,498 irrevocable); the 3rd offensive from Liutezh (3–13 November 1943)—671,000 men engaged and 30,569 losses (6,491 irrevocable); and the defense of the Kiev bridgehead (13 November–22 December 1943)—730,000 men engaged and 87,473 losses (26,443 irrevocable). For details on these failed offensives, see David M. Glantz, *Forgotten Battles of the German-Soviet War (1941–1945)*, vol. V, *The Summer–Fall Campaign (1 July–31 December 1943) (Part 2)* (Carlisle, PA: Self-published, 2000), 565–674.

44. See K. Krainiukov, “Osvobozhdenie Kieva” [The liberation of Kiev], *VIZh* 10 (October 1963): 67–79; G. Utkin, *Shturm “Vostochnogo vala”* [Storm of the “Eastern Wall”] (Moscow: Voenizdat, 1967); and Shtemenko, *Soviet General Staff at War*, bk. I, 253–255. Krainiukov was commissar for 1st Ukrainian Front. Krivosheev, *Soviet Casualties and Combat Losses*, 139, indicates that Vatutin had a total of 671,000 men in the operation. Because of the surprise he achieved, his *front* suffered relatively light losses totaling 30,569 (6,491 killed or missing and 24,078 wounded).

45. Manstein, *Lost Victories*, 496–497, claims that XXXXVIII Panzer Corps mauled three mechanized corps near Korosten’, with no mention of the deception. See also Ziemke, *Stalingrad to Berlin*, 218–219, and Erickson, *Road to Berlin*, 163. See a detailed description of the fighting west of Kiev in David M. Glantz, ed., 1985 *Art of War Symposium: From the Dnepr to the Vistula—Soviet Offensive Operations. November–August 1944* (Carlisle, PA: Center for Land Warfare, U.S. Army War College, 1985), 1–114, reprinted with daily maps in 2001. The Red Army General Staff study of this operation is V. Goncharov, ed., *Bitva za Dnepr 1943 g.* [The battle beyond the Dnepr] (Moscow: “AST,” 2007).

46. According to Krivosheev, *Soviet Casualties and Combat Losses*, 109, Rokossovsky’s Belorussian Front committed 761,300 troops to the Gomel’-Rechitsa operation, losing 88,206 casualties in the process (21,650 killed or missing and 60,556 wounded).

47. Krivosheev, in *ibid.*, indicates that Eremenko’s 1st Baltic Front fielded 198,000 men and lost 168,900 in more than two months of heavy fighting at Nevel’ and north of Vitebsk. For details about the fighting at Vitebsk, Orsha, and Gomel’ and along the southern Dnepr River in fall 1943, see Glantz, *Forgotten Battles*, vol. V, pt. I, 171–405, and pt. II, 675–818. Krivosheev et al., *Rossiia i SSSR v voinakh*, 314, places the strength of Sokolovsky’s Western Front at 310,900 men and its losses at 104,420, including 24,553 irrevocable. According to M. A. Gareev, “Prichiny i uroki neudachnykh nastupatel’nykh operatsiakh Zapadnogo fronta zimoi 1943–1944 goda” [Causes and lessons of unsuccessful Western Front offensive operations in the winter

of 1943–1944], *Voennaia mysł'* [Military thought] 2 (February 1994): 50–58, the Western Front launched four offensives along the Orsha axis between 12 October and December 1943, suffering 104,064 casualties in the process. Gareev blames poor command and excessive *Stavka* ambitions for the failures. German archival materials underscore Soviet intentions and failures.

48. Wray, *Standing Fast*, 114 and 150.

49. The immense casualties were already having an impact on combat capability. During the fall of 1943, the Western Front's rifle divisions numbered between 2,500 and 3,000 men each. Even in areas of main effort, many Soviet divisions contained fewer than 6,000 men.

Chapter 12. Third Winter of the War

1. Guderian, *Panzer Leader*, 314.

2. DiNardo, *Germany's Panzer Arm*, 24 and 19.

3. Tooze, *Wages of Destruction*, 603–611 and 644–645.

4. Ready, *Forgotten Axis*, 454.

5. Fritz Stoeckli, “Wartime Casualty Rates: Soviet and German Loss Rates during the Second World War, the Price of Victory,” *JSMS* 3, no. 4 (December 1990): 659. Soviet regiments attacking in main attack sectors routinely lost 50 percent of their strength during the first one to three days of a penetration operation.

6. By early 1944, the Soviets had fielded ten guards armies (numbered 1 through 8 and 10 and 11, with the 9th, a special airborne army, appearing in early January 1945) and five shock armies (numbered 1 through 5). Three tank armies (the 1st, 3rd, and 5th) plus a host of corps, divisions, and smaller units had received the guards designation, with more to follow by the end of the war.

7. *Polevoi ustav krasnoi armii 1944 (PU-44)* [Field regulations of the Red Army, 1944] (Moscow: Voenizdat, 1944), trans. Office of the Assistant Chief of Staff, G2, U.S. Army, 9. See also David M. Glantz, ed., *Instructions for the Breakthrough of a Positional Defense (Draft[Proekt])*, 1944, *General Staff of the Red Army* (Carlisle, PA: Self-published, 2006); *Instructions* originally published by Voenizdat in 1944.

8. This section draws upon the 1944 regulations, the volumes of war experience (*Sborniki*), memoir literature, and interviews with twenty-five veterans who served as Soviet officers as well as Glantz, *Colossus Reborn*, 63–134. See, in particular, David M. Glantz, *Red Army Officers Speak! Interviews with Veterans of the Vistula-Oder Operation (January–February 1945)* (Carlisle, PA: Self-published, 1997).

9. See David M. Glantz, *Deep Attack: The Soviet Conduct of Operational Maneuver* (Carlisle, PA: Self-published, 1998). German intelligence collected fragmentary evidence of the existence of two additional tank armies in the Ukraine in late 1944. During the postwar era, there were indeed such formations stationed in Poland and in the Carpathians—the 7th and 8th Mechanized Armies, to use the postwar designation. The Soviets did not employ these headquarters during the war, holding them in reserve for certain strategic eventualities, possibly including conflict with the Western Allies.

10. House, *Combined Arms Warfare in the Twentieth Century*, 160–162, and, for a detailed description of the use of forward detachments, Glantz, *Soviet Conduct of Tactical Maneuver*.

11. For German strength, see “Kraftegegenüberstellung,” *Abt. Fr. H. Ost* (1) No. 80/43 gk des vom 17.10.43. The Germans estimated Soviet troop strength on 1 January 1944 as 5,512,000 men, with 8,400 tanks and 20,770 guns and mortars. Soviet archival reports contained in data from the GKO files of the Central Political Administration (TsPA), IML, font. 644, op. 1, d. 218, 11, 101–102, and 103–104, show the following Soviet strengths on 12 March 1944: ration strength (army) 9,980,000; hospital strength (army), 1,255,000; fronts and armies in the field, 6,394,500; non-operational forces (Trans-Baikal and Far East), 1,338,500; internal military districts, 2,247,000; fleets, 423,000; and GKO subordination, 860,000. Krivosheev, *Soviet Casualties and Combat Losses*, 101, places the average monthly strength of the armies in the field at 6,816,800 for the third quarter of 1943, 6,268,600 for the first quarter of 1944, and 6,447,000 for the second quarter of 1944. He provides (245) the following equipment strengths for armies in the field on 1 January 1944: 5,800 tanks and SP guns, 101,400 guns and mortars, and 13,400 combat aircraft.

12. For the historiography of this period and the design of a third Soviet general offensive, see David M. Glantz, *Red Storm over the Balkans: The Failed Soviet Invasion of Romania, Spring 1944* (Lawrence: University Press of Kansas, 2007), esp. xii–xiii and 1–22.

13. For the planning of these operations, see Shtemenko, *Soviet General Staff at War*, bk. 1, 266–272. Documents in the classified volumes of SBDVOV verify much of Shtemenko’s claims, as they do Zhukov’s and Vasilevsky’s memoirs, which are also valuable sources for aspects of *Stavka* planning. See Zhukov, *Reminiscences and Reflections*, vol. 2, and Vasilevsky, *Delo vsei zhizni*. The five operations that constituted Phase I of the winter campaign were: the Zhitomir-Berdichev offensive (1st Ukrainian Front), 24 December 1943–14 January 1944; the Kirovograd offensive (2nd Ukrainian Front), 5–16 January 1944; the Korsun’-Shevchenkovskii offensive (1st and 2nd Ukrainian Fronts), 24 January–17 February 1944; the Rovno-Lutsk offensive (1st Ukrainian Front), 29 January–11 February 1944; and the Nikopol’-Krivoi Rog offensive (3rd and 4th Ukrainian Fronts), 30 January–29 February 1944. Collectively, these five operations, plus others conducted later in the Ukraine, are sometimes termed the Dnepr-Carpathian Strategic Offensive Operation.

14. Krivosheev, *Soviet Casualties and Combat Losses*, 109, places 1st Ukrainian Front’s strength during the Zhitomir-Berdichev operation at 831,000 men, of whom 100,018 were casualties (23,163 killed or missing and 76,855 wounded). The 2nd Ukrainian Front fielded 550,000 in the Kirovograd operation. For both operations, see A. M. Grylev, *Dnepr-karpaty-krym: Osvobozhdenie pravoberezhnoi ukrainy i kryma v 1944 gody* [Dnepr-Carpathia-Crimea: The liberation of the right bank of Ukraine and Crimea in 1944] (Moscow: “Nauka,” 1970). For the German perspective, see Rolf Hinze, *Crucible of Combat: Germany’s Defensive Battles in the Ukraine 1943–44* (Solihull, UK: Helion, 2009), 157–180.

15. Glantz, *Soviet Military Deception*, 315–322.

16. German accounts refer to this encirclement as the Cherkassy pocket, even though that town fell to the Red Army early in the battle. For details on

Korsun'-Shevchenkovskii, see “Korsun'-Shevchenkovskaia operatsiia” [The Korsun'-Shevchenkovskii operation], SMPIOV, no. 14 (1945), 3–65, classified secret; Hill, *Great Patriotic War*, 223–226; and Glantz, *1985 Art of War Symposium*, 115–252. Day-by-day maps of the encirclement are included in David M. Glantz and Harold S. Orenstein, eds. and trans., *The Battle for the Ukraine: The Red Army's Korsun'-Shevchenkovskii Operation, 1944 (The Soviet General Staff Study)* (London: Frank Cass, 2003), and Glantz, *Atlas of the Korsun'-Shevchenkovskii Operation (The Cherkassy Pocket)*, 25 January–17 February 1944 (Carlisle, PA: Self-published, 2003).

17. For the most accurate account of the German side of the Cherkassy pocket, see Karl-Heinz Frieser, Klaus Schmider, Klaus Schönherr, Gerhard Schreiber, Krisztián Ungváry, and Bernd Wegner, *Das Deutsche Reich und der Zweite Weltkrieg*, Band 8, *Die Ostfront, 1943/44: Der Krieg im Osten und an den Nebenfronten* (Munich, FRG: Deutsche Verlags-Anstalt, 2007), 397–419, and Douglas E. Nash, *Hell's Gate: The Battle of the Cherkassy Pocket, January–February 1944* (Stamford, CT: RZM Imports, 2002). The eyewitness accounts in Alex Buchner, *Ostfront 1944: The German Defensive Battles and the Russian Front, 1944*, trans. David Johnston (Atglen, PA: Schiffer Military/Aviation History, 1995), 35–69, indicate that many Germans failed to escape. For the most thorough German account of the winter campaign in the Ukraine, see Hinze, *Crucible of Combat*. See also I. B. Moshchansky, *Osvobozhdenie pravoberezhnoi Ukrainy* [The liberation of the right bank of the Ukraine] (Moscow: “Veche,” 2011).

18. The rank of marshal of a combat arm was second only to the rank of marshal of the Soviet Union. Krivosheev, *Soviet Casualties and Combat Losses*, 109, places the combined strength of the two Soviet fronts at 336,700, including supporting air armies as well as reinforcements received during the operation, including elements of 1st and 2nd Tank Armies dispatched to help block German relief efforts. Overall German strength was about 130,000. Soviet losses were 80,188, including 24,286 killed or missing.

19. See I. M. Belkin, *13 armiiia v Lutsko-Rovenskoi operatsii 1944 g.* [13th Army in the Rovno-Lutsk operation, 1944] (Moscow: Voenizdat, 1960).

20. Ziemke, *Stalingrad to Berlin*, 238–247.

21. Hill, *Great Patriotic War*, 220–221, enumerates these in a speech by Stalin. Articulated for propaganda purposes after the fact, Stalin’s “ten blows” excluded failed offensives during the same period in the Baltic region, in Belorussia, at Kovel’, and in Romania.

22. These included the Kovel’ offensive (2nd Belorussian Front), 15 March–5 April; the Proskurov-Chernovtsy offensive (1st Ukrainian Front), 4 March–17 April 1944; the Uman’-Botoshany offensive (2nd Ukrainian Front), 5 March–17 April; the Bereznegovataia-Snigirevka offensive (3rd Ukrainian Front), 6–18 March; the Odessa offensive (3rd Ukrainian Front), 26 March–14 April; and the Crimean offensive (4th Ukrainian Front), 8 April–12 May. The *Stavka* directed all four Ukrainian fronts plus 2nd Belorussian Front (formed on 15 March in the Kovel’ sector) in these operations, which were also included in the Dnepr-Carpathian Strategic Offensive Operation. According to Krivosheev, *Soviet Casualties and Combat Losses*, 140–141, a total of 2,406,100 troops participated, and Soviet losses were 1,109,528, including 270,298 killed or missing. The best accounts are found in Grylev, *Dnepr-karpaty-krym*, and Moshchansky, *Osvobozhdenie pravoberezhnoi Ukrainy*, 14–277.

23. Grylev, *Dnepr-karpaty-krym*, 137–160, and Moshchansky, *Osvobozhdenie pravoberezhnoi Ukrayny*, 165–211. See also David M. Glantz, *Atlas of the Proskurov-Chernovitsy Operation (The Kamenets-Podol'sk Pocket)*, 4 March–17 April 1944 (Carlisle, PA: Self-published, 2006).

24. Armstrong, *Red Army Tank Commanders*, 74 and 268–271.

25. Ziemke, *Stalingrad to Berlin*, 277 and 280. Ziemke identifies the fortified place order as Führer Order No. 11. For a German perspective on this operation, see Hinze, *Crucible of Combat*, 349–402.

26. Grylev, *Dnepr-karpaty-krym*, 160–178, and “Umanskaiia nastupatel'naia operatsiia voisk 2-go Ukrainskogo fronta vo vtopom udare” [The Uman’ offensive operation of 2nd Ukrainian Front forces during the second blow], SVIMVOV (*Sbornik voenno-istoricheskikh materialov Velikoi Otechestvennoi voiny* [Collection of Military-Historical Materials of the Great Patriotic War]), no. 15 (1955): 1–116, classified secret but now declassified.

27. The 2nd Ukrainian Front’s initial strength was about 500,000, with losses of less than 100,000. See Krivosheev, *Soviet Casualties and Combat Losses*, 140.

28. Grylev, *Dnepr-karpaty-krym*, 179–200; Moshchansky, *Osvobozhdenie pravoberezhnoi Ukrayny*, 240–251; Hinze, *Crucible of Combat*, 199–232; and I. A. Pliev, *Pod gvardeiskim znamenem* [Under the guards banner] (Ordzhonikidze, Russian Federation: Izdatel'stvo "IR," 1976), 100–110. Pliev became the commander of Soviet forces in Cuba in 1962.

29. Krivosheev, *Soviet Casualties and Combat Losses*, 140–141, provides overall figures for the Dnepr-Carpathian Strategic Offensive Operation, which included all four Ukrainian fronts from 24 December 1943 to 17 April 1944. He cites an overall strength of 2,406,100 men committed to these operations and losses of 1,109,528, including 270,198 killed and missing. German records indicate a total strength for Army Groups South and A in late fall of 700,000 and 253,000, respectively, plus 50,000 Romanians. German estimates of Soviet forces, including reserves, totaled 2.5 million, which is fairly accurate. See “Kraftgegünstüberstellung, Stand: 14.10.43” in the files of *Fremde Heeres Ost* (Fr. H. Ost), *Anlage 4c zu Abt. Fr. H. Ost(1) No. 80/43 g. kdos vom 17.10.43*. For the German/Romanian defense of the Crimea, see Buchner, *Ostfront 1944*, 99–137.

30. Ziemke, *Stalingrad to Berlin*, 286.

31. For details, see “Krymskaia operatsiia voisk 4-go Ukrainskogo fronta, 1944 g.” [The Crimean operation of 4th Ukrainian Front forces, 1944], SMPIOV, no. 13 (1944): 3–69, classified secret. See also Hinze, *Crucible of Combat*, 403–445, and Shtemenko, *Soviet General Staff at War*, bk. 1, 269–296. Shtemenko accompanied Voroshilov, the representative of Stavka, during the recapture of the Crimea.

32. According to Ziemke, *Stalingrad to Berlin*, 290–295, out of an initial strength of 152,216 Axis troops, some 64,700 men remained in Sevastopol’ by early May 1944, and of these, 26,700 were “left on the beach” to fall into Soviet hands (295). Hill, *Great Patriotic War*, 227, concludes that up to 130,000 escaped by sea and 21,000 by air, suggesting a failure on the part of the Red Navy and Air Force. The Soviets claimed 100,000 German losses, including 61,580 prisoners. Romania recovered the cadres of seven divisions, although these had to rebuild in their depots, using German equipment, for an extended time period. See Axworthy, Scafeş, and Craciunoiu,

Third Axis, Fourth Ally, 159. According to Krivosheev, *Soviet Casualties and Combat Losses*, 143, Soviet forces of all three services numbered 462,400, with total losses of 84,819 (including 17,754 killed and missing).

33. Ilie Ceaușescu, Florin Constantiniu, and Mihail E. Ionescu, *A Turning Point in World War II: 23 August 1944 in Romania* (New York: Columbia University Press, 1985), 18.

34. Axworthy, Scafeş, and Craciunoiu, *Third Axis, Fourth Ally*, 156–158.

35. Fritz, *Ostkrieg*, 362, and Erickson, *Road to Berlin*, 187–188.

36. Glantz, *Red Storm over the Balkans*, 38–102 and 158–162. Hinze, *Crucible of Combat*, 280–297, and Frieser et al., *Das Deutsche Reich und der Zweite Weltkrieg*, Band 8, *Dis Ostfront, 1943/44*, 482–486, describe the German-Romanian defense briefly. See also Helmuth Spaeter, *The History of the Panzerkorps Grossdeutschland* (Winnipeg, Canada: J. J. Fedorowicz, 1995), vol. 2, 312–314, and the brilliant tactical study by F. M. von Senger und Etterlin, *Der Gegenschlag* (Neckargemünd, BRD: Scharhorst Buchkameradsschaft, 1959), 93–141.

37. Glantz, *Red Storm over the Balkans*, 172–176.

38. Ibid., 177–193, 203, and 249.

39. Ibid., 218–318.

40. Glantz, *Battle for Leningrad*, 266–303.

41. Frieser et al., *Das Deutsche Reich und der Zweite Weltkrieg*, Band 8, *Dis Ostfront, 1943/44*, 285–287.

42. Alexander Hill, *The War behind the Eastern Front: The Soviet Partisan Movement in North-West Russia 1941–44* (London: Frank Cass, 2005), 150–161.

43. Erickson, *Road to Berlin*, 172–177.

44. Glantz, *Battle for Leningrad*, 340–413.

45. For details about the intense fight to expand the Narva bridgehead and overcome the formidable Panther Line, see David M. Glantz, *Forgotten Battles of the Soviet-German War (1941–1945)*, vol. VI, *The Winter Campaign (24 December 1943–April 1944)*, pt. I, *The Northwestern Axis* (Carlisle, PA: Self-published, 2003).

46. For details on the failed offensive to seize Belorussia, see David M. Glantz, *Forgotten Battles of the German-Soviet War (1941–1945)*, vol. VI, *The Winter Campaign (24 December 1943–April 1944)*, pt. II, *The Western Axis* (Carlisle, PA: Self-published, 2004). The Western Front's operations are described in M. A. Gareev, “O neudachnykh nastupatel'nykh operatsiiakh Sovetskikh voisk v Velikoi Otechestvennoi voine” [Concerning unsuccessful offensive operations of Soviet forces in the Great Patriotic War], *Novaia i noveishaiia istoriia* [New and Recent History] 1 (January 1994): 3–29. Because of the Western Front's failures, Sokolovsky and many of his subordinates, including Lieutenant General V. N. Gordov, commander of 33rd Army, were relieved and reassigned. The *Stavka* redesignated the Western Front as 3rd Belorussian Front on 12 April and assigned three of its armies to 2nd Belorussian Front.

Chapter 13. Operation Bagration

1. For the strategic debate, see Shtemenko, *Soviet General Staff at War*, pt. I, 200–202, and Shtemenko's “Pered udarom v Belorusii” [Before the blow in Belarusia], *VIZh* 9 (September 1965): 45–71.

2. According to Krivosheev, *Soviet Casualties and Combat Losses*, 144, and Zolotarev, *Velikaia Otechestvennaia voina*, bk. 3, 149, Soviet strength in the Vyborg-Petrozavodsk Strategic Operation against Finland was 451,000 troops (Leningrad Front, 202,300; Karelian Front, 188,800; and Baltic Fleet, 60,400), 10,000 artillery pieces and mortars, 800 tanks, and 1,547 aircraft facing 268,000 Finnish troops with 1,930 guns, 110 tanks and assault guns, and 248 aircraft. However, Morozov, *Velikaia Otechestvennaia voina 1941–1945 gg.*, vol. 3, 355, asserts that initial Soviet strengths were 290,975 men (Leningrad Front, 186,233, and Karelian Front, 104,742) supported by 11,157 guns and mortars, 535 tanks, and 2,198 combat aircraft opposing 280,000 Finns supported by 3,200 guns and mortars, 250 tanks, and 270 combat aircraft. Soviet losses in the operation were 23,674 killed or missing and 72,701 wounded, plus 489 artillery pieces and 294 tanks destroyed. For details, see Glantz, *Battle for Leningrad*, 415–458; Nikolai Baryshnikov, *Finland and the Siege of Leningrad 1941–1944*, trans. Peter Morely, Viktoriya Kovalenko, and Soma Biswas (Helsinki: Johan Beckman Institute, 2005), 141–207; S. P. Platonov, ed., *Bitva za Leningrad 1941–1945* [The Battle for Leningrad, 1941–1945] (Moscow: Voenizdat, 1964), 428–430; G. K. Kozlov, *Vlesakh Karelii* [In the forests of Karelia] (Moscow: Voenizdat, 1963); and “Inzhenernoe obespechenie proryva oborony finnov na Karelskom peresheike” [Engineer support for the penetration of the Finnish defense on the Karelian Peninsula], SMPIOV, no. 14 (1945): 180–194, classified secret. For the Finnish side, see Ziemke, *The German Northern Theater of Operations*, 272–291.
3. Waldemar Erfurth, *The Last Finnish War* (Washington, DC: University Publications of America, 1979), 204.
4. Ziemke, *German Northern Theater of Operations*, 284–291.
5. Ibid., 295–309. See also Mawdsley, *Thunder in the East*, 294–296.
6. Dan Amir, Boris Morozov, and Aleksander A. Maslov, “Skeletons in the Closet? On the Cherniakhovsky Controversy,” pt. I and pt. II, *JSMS* 26, no. 1 (January–March 2013): 81–113, determine that Cherniakhovsky’s Jewishness is a myth.
7. Erickson, *Road to Berlin*, 197 and 199.
8. Vasilevsky, *Delo vsei zhizni*, 388–389, and Zhukov, *Reminiscences and Reflections*, vol. 2, 516–518.
9. Glantz, *Soviet Military Deception*, 360–378; Paul Adair, *Hitler’s Greatest Defeat: The Collapse of Army Group Centre, June 1944* (London: Arms & Armour, 1994), 56–62; Gerd Niepold, *Battle for White Russia: The Destruction of Army Group Centre June 1944* (London: Brassey’s, 1987), 1–71; A. Matuslenko, *Operativnaia maskirovka voisk* [Operational deception of forces] (Moscow: Voenizdat, 1975), 113; and N. Iakovlev, “Operativnye peregruppirovka voisk pri podgotovke Belorusskoi operatsii” [The operational regrouping of forces during the preparation for the Belorussian operation], *VIZh* 9 (September 1975): 91–97.
10. A. M. Samsonov, ed., *Osvobozhdenie Belorussii* [The liberation of Belarusia] (Moscow: “Nauka,” 1974), 5–156; Shtemenko, “Pered udarom,” 56; and K. K. Rokossovsky, “Dva glavnikh udara” [Two main attacks], *VIZh* 6 (June 1965): 13–17. See also Rokossovsky, *Soldatskii dolg* [A soldier’s duty] (Moscow: “Golos,” 2000), 292–397, an unexpurgated version of *A Soldier’s Duty: Razgrom nemetsko-fashistskikh voisk v Belorussii v 1944 goda v dvukh tomakh* [The defeat of German-Fascist

forces in Belorussia in 1944, in two volumes] (Moscow: VAGsh, 1959), classified secret but now declassified.

11. Erickson, *Road to Berlin*, 206–207, and I. S. Konev, *Zapiski komanduiushchego frontam 1943–1945* [Notes of a front commander 1943–1945] (Moscow: “Golos,” 2000), 230–298. This is the unexpurgated version of Konev’s 1972 memoirs.

12. See this and other documents related to Operation Bagration in V. A. Zolotarev, ed., *Russkii arkhiv: Velikaia Otechestvennaia—Stavka VGK: Dokumenty i materialy 1944–1945*, t. 16 (5-4) [The Russian Archives: The Great Patriotic (War)—*Stavka VGK: Documents and materials 1944–1945*, vol. 16 (5-4)] (Moscow: “TERRA,” 1999), 94 (hereafter cited as “*Stavka 1944–1945*”).

13. N. Antipenko, “Voprosy tylovogo obespechniya Belorusskoi operatsii” [Questions of logistical support for the Belorussian operation], *VIZh* 6 (June 1964): 36–51, and Glantz, *Soviet Military Deception*, 360–378.

14. For Soviet strength in the operation, see Morozov, *Velikaia Otechestvennaia voina 1941–1945 gg.*, vol. II, 382, and *Razgrom nemetsko-fashistskikh voisk v Belorussii v 1944 gody, tom pervyi, Podgotovka Belorusskoi operatsii 1944 goda* [The destruction of German-Fascist forces in Belorussia in 1944, vol. 1, Preparation for the 1944 Belorussian operation] (Moscow: Academy of the General Staff, 1959), 39, originally classified secret. This agrees with data in “Belorusskaia operatsia v tsifrakh” [The Belorussian operation in numbers], *VIZh* 6 (June 1964): 74–77. Krivosheev, *Soviet Casualties and Combat Losses*, 145, cites a total strength for the four Soviet *fronts* for the duration of the operation at 2,411,600 troops, including 79,900 men of 1st Polish Army. At the time, the Germans estimated Soviet strength opposite Army Group Center at 1,230,000 troops, supported by 1,100 tanks and SP guns and 5,000 guns and mortars. See “Kraftegegenüberstellung, Stand: Siehe Fussnote (1.5–1.6.44),” *Fremde Heere Ost (ic), Prüf No. 1551*. For the force calculations of official German historians, see Frieser et al., *Das Deutsche Reich und der Zweite Weltkrieg*, Band 8, *Die Ostfront, 1943/44*, 534. We have slightly modified the German figures of Soviet forces to conform to the Russian sources cited in this note.

15. David M. Glantz and Harold S. Orenstein, eds. and trans., *Belorussia 1944: The Soviet General Staff Study* (London: Frank Cass, 2001), 5–6. Frieser et al., *Das Deutsche Reich und der Zweite Weltkrieg*, Band 8, *Die Ostfront, 1943/44*, 530, identify the panzer-grenadier division in question as *Feldherrnhalle* and list the following other divisions in field army reserve: Third Panzer Army: 95th Infantry and 201st Security Divisions; Fourth Army: 286th Security Division; Ninth Army: 707th Infantry Division, which had originally been a security division; and Second Army (not initially engaged): Hungarian 1st Cavalry Division.

16. Ziemke, *Stalingrad to Berlin*, 314. See also Frieser et al., *Das Deutsche Reich und der Zweite Weltkrieg*, Band 8, *Dis Ostfront, 1943/44*, 574 (map).

17. Glantz, *Soviet Military Deception*, 370 and 407–408.

18. Hans von Ness, “Study of the Destruction of Army Group Center during the Summer of 1944 as Seen from the Point of View of Military Intelligence,” in David M. Glantz, ed., *1985 Art of War Symposium: From the Dnepr to the Vistula—Soviet Offensive Operations, November 1943–August 1944* (Carlisle Barracks, PA: U.S. Army War College, 1985), 251 and 278. Reprinted as David M. Glantz, ed., *1985 Art of War Symposium Transcript* (Carlisle, PA: Self-published, 2003).

19. George Lemm, “Defense of Mogilev by the 12th Infantry Division,” in Glantz, 1985 *Art of War Symposium Transcript*, 366–367. Lemm escaped with his battalion from Mogilev.

20. Ziemke, *Stalingrad to Berlin*, 313–314. It is noteworthy that the supposedly stubborn and irrational dictator would, once again, defer to the (mistaken) recommendations of his military advisers, contrary to the legend that he always opposed the professionals.

21. See, for example, B. Chertok, “Vzaimodeistvie partisan voiskami 65-i armii pri osvobozhdenii belorussii” [Cooperation of partisans with 65th Army during the liberation of Belorussia], *VIZh* 7 (July 1984): 85–89.

22. Glantz and Orenstein, *Belorussia 1944*, 204. For details on the offensive, see V. A. Zhilin, ed., *Operatsiya “Bagration,” Osvobozhdenie Belorussii* [Operation “Bagration,” the Liberation of Belorussia] (Moscow: “Olma-Press,” 2004); V. L. Goncharov, ed., *Operatsiya “Bagration”* [Operation “Bagration”] (Moscow: “Veche,” 2011); Samsonov, *Osvobozhdenie Belorussii*; Glantz, 1985 *Art of War Symposium*, 243–448; and the Soviet General Staff study *Razgrom nemetsko-fashistskikh voisk v Belorussii*.

23. P. Biriukov, “Osobennosti primeneniia inzhenernykh voisk Belorusskoi operatsii” [Peculiarities in the employment of engineer forces in the Belorussian operation], *VIZh* 6 (June 1984): 34–40; V. Mikhailkin, “Boevoe primenie artillerii v Belorusskoi operatsii” [Combat use of artillery in the Belorussian operation], *VIZh* 6 (June 1984): 25–33; and O. Losik, “Primenenie brometankovykh i mekhanizirovannykh voisk v Belorusskoi operatsii” [Employment of armored and mechanized forces in the Belorussian operation], *VIZh* 6 (June 1984): 20–24. For detailed accounts of the operation, see Samsonov, *Osvobozhdenie Belorussii*, and *Razgrom nemetsko-fashistskikh voisk v Belorussii v 1944 gody*; the latter was classified secret. For 11th Guards Army, see Glantz and Orenstein, *Belorussia 1944*, 45–46.

24. Lemm, “Defense of Mogilev,” 372 and 376–377.

25. Biriukov, “Osobennosti primeneniia inzhenernykh voisk Belorusskoi operatsii,” 35–36, and A. Luchinsky, “28-ia armiiia v Bobruiskoi operatsii” [The 28th Army in the Bobruisk operation], *VIZh* 2 (February 1969): 66–75. For the initial week’s operations from the German perspective, see Frieser et al., *Das Deutsche Reich und der Zweite Weltkrieg*, Band 8, *Die Ostfront, 1943/44*, 537–543.

26. Russian memoirs and unit histories add significant details on these operations. For example, see M. F. Panov, *Na napravlenii glavnogo udara* [On the axis of the main attack] (Moscow: n.p., 1995), a history of 1st Guards Tank Corps.

27. K. Telegin, “V boiakh za osvobozhdenie Belorussii” [In battles for the liberation of Belorussia], *VIZh* 6 (June 1969): 88, and A. Tsikin, “Aviatsiia 16-i vozdushnoi armii pri razgrome gruppirovka protivnika pod Bobruiskom” [The aviation of 16th Air Army in the destruction of the enemy grouping at Bobruisk], *VIZh* 7 (July 1962): 22–23.

28. A. A. Sidorenko, *Na mogilevskom napravlenii* [On the Mogilev axis] (Moscow: Voenizdat, 1958), and Frieser et al., *Das Deutsche Reich und der Zweite Weltkrieg*, Band 8, *Die Ostfront, 1943/44*, 543.

29. Lemm, “Defense of Mogilev,” 374–375 and 427.

30. Glantz and Orenstein, *Belorussia 1944*, 78–79 and 71.

31. A. D. von Plato, *Die Geschichte der 5. Panzerdivision 1938 via 1945* (Regensburg, FRG: Walhalla u Praetoria Verlag KG George Zwischenflug, 1978). A short

account is found in Plato, “Defensive Combat of 5th Panzer Division,” in Glantz, 1985 *Art of War Symposium*, 385–418. Plato was the operations officer (Ia) for the division.

32. Rotmistrov suffered high tank losses during the advance to Minsk, particularly from ambushes and (in Vilnius) from *panzerfausts*. His tank army began the operation with 524 tanks and SP guns and had 307 left on 5 July, after the fall of Minsk. By 16 July, after the fall of Vilnius, the army was down to about fifty tanks and had to be withdrawn for refitting. As a result, Rotmistrov was kicked upstairs to become chief of the Red Army’s Armored Forces. See *Razgrom nemetsko-fashistskikh voisk* (1959), 168–169, 195, and 286. These casualties were reflected in frequent changes of command, as well: 5th Guards Tank Army went through three commanders due to wounds in August, and each of its tank corps also lost a commander. See Glantz and Orenstein, *Belorussia 1944*, 222.

33. A. Belousov, “4-ia gvardeiskaia tankovaia brigada v boiakh za Minsk” [The 4th Guards Tank Brigade in the battles for Minsk], *VIZh* 7 (July 1974): 45–49, and A. Karavan, “Na Minskom napravlenii” [On the Minsk axis], *VIZh* 6 (June 1969): 52–57.

34. The reduction of Fourth Army is covered in *Razgrom nemetsko-fashistskikh voisk* (1959), 114–118. See also Frieser et al., *Das Deutsche Reich und der Zweite Weltkrieg*, Band 8, *Die Ostfront, 1943/44*, 552–557.

35. Quoted by Gern Niepold in “The Defense of 12th Panzer Division,” in Glantz, 1985 *Art of War Symposium*, 432. Niepold was the Ia (operations officer) of this division.

36. *Ibid.*, 442–443.

37. S. Poplavsky, “K 20-letiiu osvobozhdeniia Vil’niusa” [On the 20th anniversary of the liberation of Vilnius], *VIZh* 7 (July 1964): 42–46.

38. I. Bagramian, “Nastuplenie voisk 1-go Pribaltiiskogo fronta v Belorussskoi operatsii” [The offensive of 1st Baltic Front forces during the Belorussian operation], *VIZh* 4 (April 1961): 12–27, and 5 (May 1961): 15–31.

39. Rotmistrov’s immediate replacement was Lieutenant General M. D. Solomatin, the successful commander of 1st Mechanized Corps, on 8 August. Ten days later, Solomatin was wounded by a German mine, leading to Vol’sky’s command. Although only a novel about the life of Cherniakhovsky mentions the reasons for Rotmistrov’s relief, the losses of 5th Tank Army are well documented; see note 32 above. See Armstrong, *Red Army Tank Commanders*, 373–374, for the fictionalized criticism of Rotmistrov.

40. Frieser et al., *Das Deutsche Reich und der Zweite Weltkrieg*, Band 8, *Die Ostfront, 1943/44*, 686 (table).

41. For detailed classified accounts, see “Lvovsko-Peremyshlskaia operatsiia 1-go Ukrainskogo fronta, iul’–avgust 1944 gg.” [The Lvov-Peremyshl’ operation of the 1st Ukrainian Front, July–August 1944], *SMPIOV*, no. 22 (1946): 3–91, and “Okruzhenie i razgrom brodskoi gruppirovka nemtsev, iul’ 1944 g.” [The encirclement and destruction of the German Brody Group, July 1944], *SMPIOV*, no. 17 (1945): 31–43. For detailed planning, see David M. Glantz and Harold S. Orenstein, eds. and trans., *The Battle for Lvov, July 1944: The Soviet General Staff Study* (London: Frank Cass, 2002), 17–27.

42. Morozov, *Velikaia Otechestvennaia voina 1941–1945 gg.*, vol. II, 417, states that 1st Ukrainian Front’s strength in this operation was 1,070,953 men, 19,387 guns

and mortars, 2,479 tanks and SP guns, and 3,241 aircraft, facing 600,000 Germans and Hungarians with 6,300 guns and mortars, 900 tanks and assault guns, and 700 aircraft. Differing slightly, Krivosheev, *Soviet Casualties and Combat Losses*, 146, and M. Polushkin, “Lvovsko-Sandomirskaya nastupatel’naia operatsiya 1-go Ukrainskogo fronta v tsifrakh” [The Lvov-Sandomirsk operation of the 1st Ukrainian Front in numbers], *VIZh* 8 (August 1969): 58, together indicate that Konev’s *front* fielded 1,002,200 troops (843,772 combat), supported by 2,206 tanks and SP guns and 13,825 guns and mortars. “Kraftgegenuüberstellung, Stand: Siehe Fussnote (1.5–1.6.44),” cites opposing Axis strength as 430,000 German and 196,000 Hungarian troops, supported by 811 tanks and assault guns and 1,100 artillery pieces. Hungarian forces covered the southern flank of the operation and were scarcely engaged. Soviet calculations of force ratios are in Glantz and Orenstein, *Battle for Lvov*, 26–27, and Morozov, *Velikaia Otechestvennaya voyna*, vol. II, 426, both of which inflate German weapons strengths.

43. For day-by-day maps of the operation, see David M. Glantz, *Atlas of the Lvov-Sandomiersz Operation, 13 July–29 August 1944* (Carlisle, PA: Self-published, 2001). For the German perspective, see Rolf Hinze, *To the Bitter End: The Final Battles of Army Groups North Ukraine, A, and Center—Eastern Front, 1944–45*, trans. Frederick P. Steinhardt (Philadelphia: Casemate, 2005), 15–24.

44. S. Petrov, “Dostizhenie vnezapnosti’ v Lvovsko-Sandomirskoi operatsii” [The achievement of surprise in the Lvov-Sandomirsk operation], *VIZh* 7 (July 1974): 31, and Glantz, *Soviet Military Deception*, 379–399.

45. P. Kurochkin, “Proryv oborony na Lvovskom napravlenii” [Penetration of the enemy defense on the Lvov axis], *VIZh* 7 (July 1964): 22–30, and I. Konev, “Zavershenie osvobozhdeniya sovetskoi Ukrayny i vkhod na Vislu” [The completion of the liberation of Soviet Ukraine and the advance to the Vistula], *VIZh* 7 (July 1964): 3–21.

46. Frieser et al., *Das Deutsche Reich und der Zweite Weltkrieg*, Band 8, *Dis Ostfront, 1943/44*, 691–694.

47. A. Zhadov, “Boevye deistviya na Sandomirskom platsdarme” [Combat operations in the Sandomirsk bridgehead], *VIZh* 7 (July 1975): 50–59.

48. Ziemke, *Stalingrad to Berlin*, 335.

49. According to *Razgrom nemetsko-fashistskikh voisk* (1959), 267, Rokossovsky’s left wing numbered 410,162 troops, supported by 1,654 tanks and SP guns and 8,742 guns and mortars, facing an estimated 84,175 Germans with 214 tanks and assault guns and 1,530 guns and mortars.

50. For a day-by-day portrayal of this operation, see David M. Glantz, *Atlas of the Lublin-Brest Operation (18 July–2 August 1944) and the Advance on Warsaw (28 July–30 September 1944)* (Carlisle, PA: Self-published, 2005).

51. B. Petrov, “O sozdaniii udarnoi gruppirovki voisk v Liublinsko-Brestkoi nastupatel’noi operatsii” [Concerning the creation of a shock group in the Lublin-Brest offensive operation], *VIZh* 3 (March 1978): 83–89, describes the early stages of this operation. A. Radzievsky, “Na puti k Varshave” [On the path to Warsaw], *VIZh* 10 (October 1971): 68–77, recounts the exploitation to Warsaw. German Ninth and Second Army records substantiate his account and the damage done by the German counterattack.

52. Radzievsky, “Na puti k Varshave,” and Ziemke, *Stalingrad to Berlin*, 337 and 341.

53. For a collection of documents on the Warsaw uprising and Soviet attempts to assist the rebels jointly collected by Russia and Poland, see *Powstanie Warszawskie 1944 w dokumentach z archiwów służb specjalnych/Varshavskoe vosstanie 1944 v dokumentakh iz arkhirov spetssluzhb* [The Warsaw uprising of 1944 in documents from archival services] (Warsaw: Institute of National Memory of the Republic of Poland, 2007).

54. This explanation of the Warsaw uprising is based on Jan M. Ciechanowski, *The Warsaw Rising of 1944* (London: Cambridge University Press, 1974), and Janusz K. Zawodny, *Nothing but Honour: The Story of the Warsaw Uprising, 1944* (Stanford, CA: Hoover Institution Press, 1978). For a recent Russian account, see V. Ivanov and I. N. Kosenko, “Kto kogo predal” [Who betrayed whom?], *VIZh* 3 (March 1993): 16–24, and 4 (April 1993): 13–21, which contains newly declassified documents. See also Jonathan M. House, *A Military History of the Cold War, 1944–1962* (Norman: University of Oklahoma Press, 2012), 3–9.

55. R. Nazarevich, “Varshavskoe vostanie 1944 g.” [The 1944 Warsaw uprising], *Novaia i noveishchaia istoria* [New and Recent History] 2 (January 1989): 186–210.

56. Mark J. Conversino, *Fighting with the Soviets: The Failure of Operation FRANTIC, 1944–1945* (Lawrence: University Press of Kansas, 1997), 130–160.

57. “Kraftegegenüberstellung, Stand: Siehe Fussnote (1.7–1.8.44)” *Fremde Heere Ost*. See also Ziemke, *Stalingrad to Berlin*, 340.

58. Krivosheev, *Soviet Casualties and Combat Losses*, 145–146 and 184.

59. “Kraftegegenüberstellung, Stand: Siehe Fussnote (1.7–1.844),” and “Kraft-egegenüberstellung, Stand, 1.9.44,” *Fremde Heere Ost (IIc)*, *Priif Nr. 1859*; “Kraft-egegenüberstellung, Stand: 1.11.44” (handwritten changes), *Fremde Heere Ost (IIc)*, *Priif Nr. 1904*; and Krivosheev, *Soviet Casualties and Combat Losses*, 245–253. For Soviet strength, see “Postanovlenie GKO 12 Marta 1944 g.” [Decree of the GKO of 12 March 1944], citing TsPA, IMA (Central Party Archives of the Institute of Marxism and Leninism), f. 644, op. 1, g. 218, 1, 100–101.

Chapter 14. Clearing the Flanks

1. For the order of battle of Army Group South Ukraine, see Frieser et al., *Das Deutsche Reich und der Zweite Weltkrieg*, Band 8, *Die Ostfront, 1943/44*, 739, which indicates 26 German divisions and 24 Romanian divisions and brigades as of 15 August. On the organization of Romanian 1st Armored Division, see Axworthy, Scafeș, and Craciunoiu, *Third Axis, Fourth Ally*, 163–164. The majority of its sixty-eight tanks in 1944 were worn-out Panzer IVs handed down by the Germans. In the August crisis, the German 20th Panzer Division, which was supposed to be instructing the Romanians on this equipment, appropriated many of these tanks for itself. Prior to this, 20th Panzer Division had no tanks, but 13th Panzer Division had forty-two. For the strength of German panzer divisions in 1943–1945, see Kamen Nevenkin, *Fire Brigades: The Panzer Divisions 1943–1945* (Winnipeg, Canada: J. J. Fedorowicz, 2008).

2. Hermann von Trotha, “German Defensive Measures in Army Group South Ukraine, August 1944,” in Glantz, *1985 Art of War Symposium*, 465.

3. Axworthy, Scafeş, and Craciunoiu, *Third Axis, Fourth Ally*, 159.

4. Morozov, *Velikaia Otechestvennaiia voina*, vol. II, 441, lists the initial strength of Malinovsky's and Tolbukhin's fronts as 873,322 men (2nd Ukrainian, 532,403; 3rd Ukrainian, 340,919), supported by 20,286 guns, mortars, and multiple-rocket launchers (MRLs or, more commonly, *Katiushas*) (10,740, 8,371, and 1,175, respectively); 1,855 tanks and SP guns (1,164 and 691, respectively); and 2,148 combat aircraft (880 and 1,037, respectively), with the remainder under the Black Sea Fleet. These were opposed by 643,000 Germans and Romanians, with 7,618 guns and mortars, 404 tanks and assault guns, and 810 combat aircraft; however, the Romanians surrendered en masse shortly after the offensive began.

5. A multitude of Soviet division histories refer to this problem. Divisions often numbered between 2,500 and 5,000 men, and only elite formations (guards divisions, guards airborne divisions, and a few regular units) exceeded 5,000. Numerous *Fremde Heere Ost* reports of Soviet divisions underscore this problem and note the high proportion of non-Russian soldiers, such as Central Asians, as well as very young and very old soldiers. As noted in chapter 12, women were also not uncommon in some combat units, including in leadership roles.

6. See "Tassko-Kishinevskaia operatsiia" [The Iassy-Kishinev operation], *SMPIOV*, no. 19 (1945); "Boevye deistviia konno-tankovoi gruppy v Iassko-Kishinevskoi operatsiia" [Combat operations of a cavalry-mechanized group in the Iassy-Kishinev operation], and "Nastuplenie 104-go strelkovogo korpusa s proryvom podgotovленnoi oborony protivnika severo-zapadnee Iassy" [The offensive of 104th Rifle Corps with a penetration of a prepared enemy defense northwest of Iassy], both in *SVIMVOV*, no. 3 (1950), 55–119, all classified secret but now declassified. See also V. A. Matsulenko, *Udar s dnestrorskogo platsdarma* [Blow from the Dnestr bridge-head] (Moscow: Voenizdat, 1961). Operational and planning documents are found in V. P. Krikunov, "Razgrom gruppy armii 'Iuzhnaia Ukraina'" [The destruction of Army Group South Ukraine], *VIZh* 10 (October 1989): 7–19. See also Glantz, 1985 *Art of War Symposium*, 449–538, which contains day-by-day maps of the offensive.

7. See Glantz, *Soviet Military Deception*, 409–421.

8. Axworthy, Scafeş, and Craciunoiu, *Third Axis, Fourth Ally*, 182.

9. Ziemke, *Stalingrad to Berlin*, 352–354. For the Romanian version of their coup and change of alliances, written during the Communist era, see Ceauşescu, Constantiniu, and Ionescu, *Turning Point in World War II*, esp. 35–94. This study claims (71) that Romania killed or captured 61,503 Germans in the takeover. Axworthy, Scafeş, and Craciunoiu, *Third Axis, Fourth Ally*, 185, note that the Romanian Third and Fourth Armies at the front suffered 8,305 dead, 24,989 wounded, and 153,883 missing or captured, for a total of 43 percent of the 431,800 troops present at the start of the battle. Many of the remaining soldiers assumed that the war was over and went home. Marshal Antonescu was tried and shot in 1946.

10. I. Shinkarev, "Razgrom nemetsko-fashistskikh voisk v Rumynii" [The Destruction of German-Fascist forces in Rumania], *VIZh* 10 (October 1981): 65–72. For the German side, see the detailed account in Frieser et al., *Das Deutsche Reich und der Zweite Weltkrieg*, Band 8, *Die Ostfront, 1943/44*, 746–772. On 6 September, 2nd Ukrainian Front assumed control of the entire Romanian field force. This included 138,073 men of the Romanian First and Fourth Armies, 4th Independent Air Corps,

and 1st Air Corps. See Axworthy, Scafeş, and Craciunoiu, *Third Axis, Fourth Ally*, 195–198, for the Romanian First Army's defensive battle.

11. Krikunov, "Razgrom gruppy," 15–17; the inter-front command problems are in M. Zakharov, "Molnienosnaia operatsiia" [A lightning operation], *VIZh* 8 (August 1964): 15–28.

12. Soviet documents claim enemy losses in excess of 200,000 men killed or missing, 208,600 taken prisoner, and 830 tanks and assault guns plus 3,500 guns and mortars destroyed. See Krikunov, "Razgrom gruppy," 13. Krivosheev, *Soviet Casualties and Combat Losses*, 147, places Soviet losses at 67,130 (13,197 killed or missing and 53,933 wounded), 75 tanks and SP guns, and 108 guns and mortars.

13. "Kraftegegenüberstellung, Stand: 1.9.44." *Fremde Heere Ost (IIc) Pruf Nr. 1859*.

14. Mawdsley, *Thunder in the East*, 354.

15. The best overall sources on the Soviet war in the Balkans are M. V. Zakharov, ed., *Osvobozhdenie iugo-vostochnoi i tsentral'noi evropy voiskama 2-go i 3-go ukrainskikh frontov, 1944–1945* [The liberation of southeastern and central Europe by forces of the 2nd and 3rd Ukrainian Fronts, 1944–1945] (Moscow: "Nauka," 1970), and M. M. Minasian, *Osvobozhdenie narodov iugo-vostochnoi evropy* [The liberation of the peoples of southeastern Europe]. (Moscow: Voenizdat, 1967). Operations in Bulgaria are covered by A. Zheltov, "Osvobozhdenie Bolgarii" [The liberation of Bulgaria], *VIZh* 9 (September 1969): 59–69.

16. A. Zheltov, "Osvobozhdenie Vengrii" [The liberation of Hungary], *VIZh* 10 (October 1974): 44–50, and Krivosheev, *Soviet Casualties and Combat Losses*, 151. By late October, Malinovsky's front fielded 712,000 men supported by 750 tanks and SP guns and 10,200 guns and mortars. Included in this force were 22 understrength Romanian divisions. Combined German and Hungarian forces numbered almost 250,000 men, with 300 tanks and assault guns and 3,500 artillery pieces.

17. See the *Stavka* directives and *front* orders associated with the Debrecen offensive in Zolotarev, "Stavka 1944–1945," 146, 154, 158, and 305–307.

18. Ziemke, *Stalingrad to Berlin*, 360. Frieser et al., *Das Deutsche Reich und der Zweite Weltkrieg*, Band 8, *Die Ostfront, 1943/44*, 835, includes a detailed order of battle of Army Group South at the end of August, reflecting only eight German and fourteen Hungarian division equivalents.

19. For details on the Debrecan offensive, see "Karten im Monat Oktober 1944, K. T. B. H. Gr. Süd, Ia Lagenkarten," H. Gr. A, 75126/63 file, Series T-311, NAM; Perry Moore, *Panzerschlacht: Armoured Operations on the Hungarian Plains, September–November 1944* (Solihull, UK: Helion, 2008); Roland Singer, *Karpatenschlachten: Der Erste und Zweite Weltkrieg am oberen Karpatenbogen* (Berlin: Pro BUSINESS, 2012); and Számvéber Norbert, *Páncélosok a Tiszántúlon: Az alföldi páncéloscsata 1944 októberében* (Budapest: Nyomdaipari Társaság, 2002). The best account of 6th Guards Army's role in the operation is P. Varakhin, "6-ia gвардейская танковая армия в Дебреценской операции" [6th Guards Tank Army in the Debrecen operation], *VIZh* 11 (November 1975): 69–75. Krivosheev, *Soviet Casualties and Combat Losses*, 110, places Malinovsky's overall strength at 698,200, with about 500 tanks. According to Varakhin, "6-ia gвардейская," 71, 6th Guards Tank Army numbered 34,494 men, 188 tanks and SP guns, and 982 guns and mortars.

20. Frieser et al., *Das Deutsche Reich und der Zweite Weltkrieg*, Band 8, *Die Ostfront, 1943/44*, 872–875. According to Moore, *Panzerschlacht*, 158, the armored strength of III Panzer Corps was 65 tanks and assault guns on 10 October, 49 on 19 October, and 59 on 28 October. Groups Pliev and Gorshkov likely lost roughly 100 tanks in the fighting for Debrecen and 100 more in fighting near Nyiregyhaza. Krivosheev, *Soviet Casualties and Combat Losses*, 110, states that 2nd Ukrainian Front fielded 698,200 men in the Debrecen operation, losing 84,010 men, including 19,713 killed or missing and 64,297 wounded, and likely 500 tanks, about 350 of them in 6th Guards Tank Army.

21. The most thorough English-language account of the struggle for Budapest is Krisztián Ungváry, *The Siege of Budapest: One Hundred Days in World War II* (New Haven, CT: Yale University Press, 2005).

22. See Zolotarev, “*Stavka 1944–1945*,” 163. The most thorough descriptions of the ensuing offensive are the Red Army General Staff’s “Budapeshtskaia operatsiia” [The Budapest operation], SMPIOV, no. 21 (1946), and David M. Glantz, “Operations in Hungary, 26 October–31 December 1944,” in his *1986 Art of War Symposium Transcript* (Carlisle, PA: Center of Land Warfare, U.S. Army War College, 1986), 99–278, reprinted and self-published in 2003. Krivosheev, *Soviet Casualties and Combat Losses*, 152 and 262, places total Soviet strength of both fronts plus the Danube Flotilla at 719,500 men, and he reports Soviet losses of 80,026 dead and missing and 240,056 wounded, divided almost evenly between the two fronts, and 1,766 tanks and SP guns from 28 October 1944 through 13 February 1945. German and Hungarian strength rose from 250,000 men in late October to over 440,000 (330,000 Germans and 110,000 Hungarians) in December, with the arrival of large German reinforcements. German armored strength rose correspondingly to over 400 tanks and assault guns. This shifting correlation of forces helped slow the Soviet advance.

23. The 3rd Ukrainian Front’s operations are covered by Glantz, *1986 Art of War Symposium*, 99–278; S. Alferov, “Nastuplenie 4-i gвардійської армії в Будапештській операції” [4th Guards Army’s offensive in the Budapest operation], VIZh 9 (September 1982): 13–19; and M. Sharokhin and V. Petrukhin, “Forsirovanie Dunaia voiskami 57-i armii i zakhvat operativnogo platsdarma v raione Batiny” [57th Army’s forcing of the Danube and the seizure of an operational bridgehead at Batina], VIZh 2 (February 1960): 25–36. See also Ungváry, *Siege of Budapest*, 5–44.

24. Ziemke, *Stalingrad to Berlin*, 383.

25. Ungváry, *Siege of Budapest*, 48–69; S. Alferov, “Nastuplenie 4-i gвардійської,” 17–19; and N. Birukov, “Na podstupakh k Budapeshtu” [On the approaches to Budapest], VIZh 3 (March 1964): 94. For details on the siege of Budapest, see Andrei Vasil’chenko, *100 dnei v krovavom adu: Budapest—“Dunaiskii Stalingrad”?* [100 days in bloody hell: Budapest—“The Danube Stalingrad”?] (Moscow: “Iauza” “Eksmo,” 2008).

26. Ziemke, *Stalingrad to Berlin*, 383–386. Zheltov, “Osvobozhdenie Vengrii,” claims that 188,000 Germans and Hungarians were encircled in Budapest and that 138,000 ultimately surrendered on 13 February 1945.

27. For details of these counterattacks, see Glantz, *1986 Art of War Symposium*, 665–788.

28. For details, see “Karpetsko-Duklinskaia operatsiia” [The Carpathian-Dukla operation], SVIMVOV, no. 17 (1956), classified secret but now declassified, and D. M. Proektor, *Cherez Duklinskii pereval* [Through the Dukla Pass] (Moscow: Voenizdat, 1960). Krivosheev, *Soviet Casualties and Combat Losses*, 148, credits 38th Army with 99,100 men, supported by up to 300 tanks and SP guns. The army's losses in the operation—62,014 men (13,264 killed or missing and 48,750 wounded)—attest to the ferocity of the fighting.

29. See “Karpetskaia operatsiia 4-go Ukrainskogo fronta, sentiabr–octiabr 1944 g.” [The Carpathian operation of the 4th Ukrainian Front, September–October 1944], SMPIOV, no. 23 (March–June 1946): 3–95. The 4th Ukrainian Front numbered 264,000 men, supported by about 100 tanks and SP guns. The Soviets probably outnumbered their foes by between 2.5 and 3 to 1.

30. Two articles by Bagramian provide the best accounts of the Siauliai-Mtava operation: “Shauliaisko-Mitavskaiia operatsiia voisk 1-go Baltiskogo fronta [The Siauliai-Mtava operation of the 1st Baltic Front], VIZh 10 (October 1962): 3–23, and “Na zavershaiushchem etape Shliaulaiskoi operatsii” [To the final stage of the Siauliai operation], VIZh 5 (May 1976): 51–61. According to Krivosheev, *Soviet Casualties and Combat Losses*, 145, 1st Baltic Front numbered 395,500 troops. *Razgrom nemetsko-fashistskikh voisk v Belorussii* (1959), 173, cites an armored strength of 358 serviceable tanks and SP guns, plus 230 requiring repair. These figures do not count 5th Guards Tank Army or 19th Tank Corps, which joined the front in mid-August.

31. Ziemke, *Stalingrad to Berlin*, 342–343; Frieser et al., *Das Deutsche Reich und der Zweite Weltkrieg*, Band 8, *Die Ostfront, 1943/44*, 634–635 and 647 (map); and for the entire 1944 campaign in the Baltic region, K. A. Orlov, ed., *Bor'ba za Sovetskuiu Pribaltiki v Veloikoi Otechestvennoi voine, Kniga vtoriaia: K Baltiiskomu moriu* [The struggle for the Soviet Baltic Region in the Great Patriotic War, bk. 2, To the Baltic Sea] (Riga: Piesma, 1967).

32. For details on the Soviet defense, see Zolotarev, *Velikaia Otechesvennaia voina*, bk. 3, 156–158; Bagramian, “Na zavershaiushchem etape”; and I. Strel'bitsky, “Podvig artilleristov pod Shliauliaem” [The heroism of artillerymen at Siauliai], VIZh 1 (January 1970): 52–59. Soviet sources claim German armored strength was 500 tanks and assault guns, and they place their own strength at about 400. They report their own losses at 67,606 (of which 15,900 were killed, captured, or missing) and German losses at 67,000 (60,000 killed and wounded and 7,000 captured), with 300 tanks destroyed. Actual German strength was 194 tanks (144 operational), including 157 Panzer Vs (120 operational). See Nevenkin, *Fire Brigades*, 172, 222, and 266.

33. For details on this fighting, see David M. Glantz, “The Baltic Region in the Soviet-German War,” prepared by the Baltic Defence College in Tartu, Estonia. See also Glantz, *The Baltic Region in the Soviet-German War: Duration, Opposing Forces, and Operational Maps* (Carlisle, PA: Self-published, 2011). Soviet strengths and losses in these operations according to Krivosheev et al., *Rossiia i SSSR v voinakh*, 315, were: Rezekne-Dvinsk operation (2nd Baltic Front), 10–27 July—391,200 men, with 57,995 losses (12,880 irrevocable); Pskov-Ostrov operation (3rd Baltic Front), 11–31 July—258,400 men, with 33,584 losses (7,633 irrevocable); Narva operation (Leningrad Front), 24–30 July—136,830 men, with 23,287 losses (4,685 irrevocable) (with more losses from 3–10 August); Madona operation (2nd Baltic Front), 1–28 August

—390,000 men, with 69,506 losses (14,669 irrevocable); and Tartu operation (3rd Baltic Front), 10 August–6 September—272,800 men, with 71,806 losses (16,292 irrevocable). For the struggle in Estonia, see Michael Del Greco, “Operational Art and the Narva Front 1944, Simimäed and Campaign Planning” (PhD diss., University of Liverpool, 2012), and Marek Nisuma, *Eesti: Piirikaitserügemendid Ja Politseipataljonid Narva Rindel 1944. Aastal* [Estonia: Border defense regiments and police battalions on the Narva Front 1944] (Tallinn: Kirjastas Varrak, 2011).

34. See these directives in Zolotarev, “*Stavka 1944–1945*,” 132–133 and 142. Another directive tasked Vasilevsky with coordinating operations in the Baltic region.

35. Morozov, *Velikaia Otechestvennaia voina*, vol. II, 497. Zolotarev, *Velikaia Otechestvennaia voina*, bk. III, 161, states the four *fronts* fielded 900,000 men, 3,081 tanks and SPs, 17,483 guns and mortars, and 2,643 combat aircraft. Krivosheev, *Soviet Casualties and Combat Losses*, 148–149, places total Soviet strength for the two-month operation at 1,546,400 troops because he includes the entire 1st Baltic Front. The four participating *fronts* supposedly suffered 280,000 casualties (61,468 killed or missing and 218,622 wounded). Most Soviet armor functioned primarily as infantry support. According to *Fremde Heere Ost* documents, German strength fell from 510,000, plus 45,000 allies on 1 September, to 400,000 (and 20,000 allies) on 1 November. See “Kraftegegenüberstellung, Stand: 1.9.44,” *Fremde Heere Ost (IIc) Prif 1859*, and “Kraftegegenüberstellung, Stand: 1.11.44,” *Fremde Heere Ost (IIc) Prif 1904*.

36. Among many studies on these operations, see Orlov, *Bor’ba za Sovetskuiu Pribaltiki v Velikoi Otechestvennoi voine*, bk. 2, 127–173. See also Frieser et al., *Das Deutsche Reich und der Zweite Weltkrieg*, Band 8, *Die Ostfront, 1943/44*, 623–644 and maps on 652 and 653.

37. Ziemke, *Stalingrad to Berlin*, 403–407.

38. Zolotarev, “*Stavka 1944–1945*,” 149, and D. Muriev, “Nekotorye kharakternye cherty frontovykh i armeiskikh operatsii, provedennykh v Pribaltiiskoi strategicheskoi operatsii 1944 goda” [Some characteristic features of *front* and army operations conducted in the 1944 Baltic strategic operation], *VIZh* 9 (September 1984): 22–28.

39. Glantz, *Soviet Military Deception*, 433–440. This regrouping involved more than 500,000 men, 9,303 guns and mortars, and 1,340 tanks and SP guns. See Orlov, *Bor’ba za Sovetskuiu Pribaltiki v Velikoi Otechestvennoi voine*, bk. 2, 182.

40. Ziemke, *Stalingrad to Berlin*, 407, documents the German surprise.

41. See Orlov, *Bor’ba za Sovetskuiu Pribaltiki v Velikoi Otechestvennoi voine*, bk. 2, 174–213, and “Memel’skaia operatsiya,” in I. D. Sergeev, ed., *Voennaia entsiklopediia v vos’mi tomakh, tom 5* [Military encyclopedia in eight volumes, vol. 5] (Moscow: Voenizdat, 2001), 89–91. After the reorganization, 1st Baltic Front’s strength exceeded 600,000 men, with 1,323 tanks and SP guns (777 of which participated in the main attack), providing a superiority over Third Panzer Army of perhaps five to one, which the German official history describes as “hopeless” (Frieser et al., *Das Deutsche Reich und der Zweite Weltkrieg*, Band 8, *Die Ostfront, 1943/44*, 643).

42. Ziemke, *Stalingrad to Berlin*, 409.

43. Frieser et al., *Das Deutsche Reich und der Zweite Weltkrieg*, Band 8, *Die Ostfront, 1943/44*, 637. See also Franz Kurowski, *Bridgehead Kurland: The Six Epic Battles of Heeresgruppe Kurland*, trans. Fred Steinhardt (Winnipeg, Canada:

J. J. Fedorowicz, 2002), esp. 22–23. Howard D. Grier develops the argument about the Type XXI U-boat in Hitler's strategy in *Hitler, Dönitz, and the Baltic Sea: The Third Reich's Last Hope, 1944–1945* (Annapolis, MD: Naval Institute Press, 2007), esp. xviii–xxi and 216–223.

44. This operation has been overlooked because it occurred after major Soviet victories in Belorussia and the Baltic and because it failed. However, it had a significant effect on Soviet operations in January 1945. See M. Alekseev, "Nachalo boev v Vostochnoi Prussii" [The beginning of combat in East Prussia], *VIZh* 10 (October 1964): 11–22. Krivosheev et al., *Rossiya i SSSR v voinakh*, 316, cites Cherniakhovsky's strength as 404,500 troops, of which 79,527 were lost (16,819 killed or missing and 62,708 wounded). Soviet tank and SP gun strength was probably around 350. Alekseev places total German armor strength at 500, but the reality was probably closer to half that number.

45. The most thorough analysis of this operation is James F. Gebhardt, *The Petsamo-Kirkennes Operation: Soviet Breakthrough and Pursuit in the Arctic, October 1944*, Leavenworth Paper No. 17 (Fort Leavenworth, KS: Combat Studies Institute, 1989). See also Ziemke, *German Northern Theater of Operations*, 300–310.

46. Krivosheev, *Soviet Casualties and Combat Losses*, 151, cites Soviet strength of 133,500, including 20,300 men of the Northern Fleet, and places Soviet losses at 21,233 (6,084 killed or missing and 15,149 wounded). Kh. Khudalov, "Petsamo-Kirkenesskaia operatsiia" [The Petsamo-Kirkenes operation], *VIZh* 10 (October 1969): 116, claims German losses totaled 18,000 killed and 713 taken prisoner.

47. Ziemke, *Stalingrad to Berlin*, 412–413. *Fremde Heere Ost* records on German and Soviet strength reflect an equally grim picture.

Chapter 15. Battles in the Snow

1. Ungváry, *Siege of Budapest*, 70–77, and Glantz, 1986 *Art of War Symposium*, 187–202.

2. See S. P. Ivanov, "K 40-letiu Budapeshtskoi operatsii" [On the 40th anniversary of the Budapest operation], *VIZh* 11 (November 1984): 18–19. See also Vasil'chenko, *100 dnei*, 180–186.

3. Guderian, *Panzer Leader*, 384. Soviet intelligence detected the movement of this SS corps from Poland but apparently lost its precise location when the force reached Hungary. Although Soviet radio-intercept and cryptology operations did well against most German units, they were less able to track SS forces, which used separate codes and communications nets. Tactically, though, SS scorn for Soviet capabilities frequently prompted the SS to neglect encoding their radio transmissions. See Glantz, *Soviet Military Deception*, 466–467.

4. For details on IV SS Panzer Corps' counterstrokes, see Glantz, 1986 *Art of War Symposium*, 199–206 and 666–717, and Vasil'chenko, *100 dnei*, 367. Supposedly, the panzer corps and other reinforcements amounted to 20,000 men and 200 tanks, 39 of which were lost in Operation Konrad I. The two SS divisions had just over 100 operational tanks on 1 January.

5. Erickson, *Road to Berlin*, 439–441, and Glantz, 1986 *Art of War Symposium*, 663–789. German armored strength during the initial counterattacks (1–10

January 1945) amounted to 260 tanks in IV SS Panzer Corps and 146 tanks in III Panzer Corps. These were opposed initially by 30 tanks of 18th Tank Corps' lead brigade and then by the remaining armor (about 100 tanks) of that corps and more than 150 tanks of 2nd Guards Mechanized Corps. On 20 January, the two panzer corps together numbered about 250 tanks and assault guns. In this and subsequent night attacks, the Germans employed an experimental version of infrared night vision. The surprise use of this new technology resulted in the decimation of 18th Tank Corps' armor, as well as frenetic attempts by the Soviets to counter the new technology. In the end, day battles and Soviet strength negated this temporary German advantage.

6. Erickson, *Road to Berlin*, 441–444; Ungváry, *Siege of Budapest*, 140–148; Vasil'chenko, *100 dnei*, 226–316; and Ivanov, “K 40-letiiu Budapeshtskoi,” 18. According to Ungváry (42 and 82), one reason for the ineffectual nature of the Axis defense was that the commander of IX SS Mountain Corps, Karl Pfeffer-Wildenbruch, was a policeman who never ventured out of his fortified headquarters.

7. Ungváry, *Siege of Budapest*, 206–255, and Vasil'chenko, *100 dnei*, 317–346. According to Ungváry, no more than 700 men escaped to German lines.

8. The use of the word *seemed* is appropriate because Hitler should have known that the *Stavka* had already dispatched 9th Guards Army, its strongest reserve, to Hungary, a major indicator that Stalin intended a strong drive into Austria and the remainder of the Danube basin. In fact, at a daily meeting in Berlin on 27 January Hitler is reported to have predicted, “But this must be covered here [Hungary], too, because the next big thrust will come here. . . . I say it again. This is the most dangerous place. If he breaks through here, everything is lost.” See stenographic records in Helmut Heiber and David M. Glantz, *Hitler and His Generals: Military Conferences 1942–1945* (New York: Enigma Books, 2002–2003), 638–639.

9. Erickson, *Road to Berlin*, 422. For assessments and details on the preparation and conduct of the Vistula-Oder operation, see SMPIOV, no. 25 (1947), and A. V. Vasil'ev, *Visla-oderskaia operatsiia* [The Vistula-Oder operation] (Moscow: Voroshilov Academy of the General Staff, 1948), classified secret but later declassified. These sources cite German strength on 1 January 1945 as 338 division equivalents, of which 228 (188 divisions, 50 separate regiments, and 180 separate battalions), or two-thirds of the total force, were on the Eastern Front. Also, 73 divisions were on the Western Front, 18 in northern Italy, and 9 in Norway and Denmark. *Fremde Heere Ost* records dated 1 November show German Eastern Front strength as 2,030,000, with 190,000 allies. Replacements raised this figure slightly after 1 January 1945. Soviet open sources have traditionally inflated this number to 3.1 million by including *Volkssturm* (Home Guards) and irregular units to improve perceptions of Red Army performance. According to Krivosheev, *Soviet Casualties and Combat Losses*, 101, the average operating strength of the Red Army during the first quarter of 1945 was 6,461,100 soldiers. Therefore, Soviet strategic superiority in manpower was about three to one over German forces, without counting the Western Allies. Soviet superiority in armor and artillery was even more pronounced.

10. Among many recent Russian analyses of strategy in early 1945, see A. V. Isaev, *1945-i: Triumf v nastuplenii i v oborone: Ot Vislo-Oderskoi do Balatona* [1945: Triumph on the offensive and on the defense] (Moscow: “Veche,” 2009).

11. According to Krivosheev, *Soviet Casualties and Combat Losses*, 153, and other formerly classified Soviet sources, Soviet strength in the operation was 2,211,700 (1,565,000 combat), 7,042 tanks and SP guns, and more than 33,500 guns and mortars, supplemented by 90,900 Polish troops. *Fremde Heere Ost* records estimated German strength at 400,000 men (and about 40,000 Volkssturm), 800 tanks and assault guns (reinforced to 1,136 during the operation), and 4,103 artillery pieces.

12. This combination of concentration on main attack axes and economy of force elsewhere converted the 5-to-1 Soviet strategic superiority to 10-to-1 in each bridgehead sector and up to 13-to-1 at the tactical (corps and below) sector. Nonetheless, in some sectors (up to 30 percent of the areas occupied by fortified regions) German forces actually outnumbered their Soviet foes, something rarely acknowledged in German accounts.

13. For more details on German planning and force redeployment, see Ziemke, *Stalingrad to Berlin*, 410–419.

14. For details, see Alfred Price, *The Last Year of the Luftwaffe, May 1944 to May 1945* (London: Greenhill Books, 2001), esp. 91–96 and 130–134.

15. Ziemke, *Stalingrad to Berlin*, 411–414.

16. See, for example, Guderian, *Panzer Leader*, 385–395.

17. For details of combat operations, see Aleksei Isaev, 1945, *Poslednii krug ada: Flag nad Reikhstagom* [1945, the last circle of hell: Flag over the Reichstag] (Moscow: “Iauza” “Eksmo,” 2009); Isaev, *Berlin 45-go: Srazheniia v logovo zveria* [Berlin 1945: The battle in the lair of the beast] (Moscow: “Iauza” “Eksmo,” 2007); and Glantz, 1986 *Art of War Symposium*, 697–663. Among many excellent Soviet accounts are SMPIOV, no. 25; A. D. Bagreev, *Vislo-oderskaia operatsia: Razgrom nemetsko-fashistskikh voisk v Pol’she sovetskimi voiskami v ianvare 1945 goda* [The Vistula-Oder operation: The destruction of German-Fascist forces in Poland by Soviet forces in 1945] (Moscow: Voroshilov Academy of the General Staff, 1957); N. A. Antonov, *Proryv oborony protivnika voiskami 1-go Beloruskogo fronta v Vislo-Oderskoi operatsii (ianvar’ 1945)* [Penetration of the enemy defenses by 1st Belorussian Front’s forces in the Vistula-Oder operation, January 1945] (Moscow: Voroshilov Academy of the General Staff, 1980); and A. P. Snegov, *Voennoe iskusstvo v Vislo-Oderskoi operatsii* [Military art in the Vistula-Oder operation] (Moscow: Lenin Military-Political Academy, 1979), all formerly classified secret but now declassified. For the German view, see Hinze, *To the Bitter End*, 79–154.

18. On the intricacies of tank army operations, see I. M. Kravchenko, *Boevye deistviia voisk 3 gвардейской танковой армии в ходе Висло-одерской операции* [Combat operations of 3rd Guards Tank Army during the Vistula-Oder operation] (Moscow: Voroshilov Academy of the General Staff, 1978), classified secret but now declassified. See also Dmitrii Shein, *Tanki vedet Rybalko: Boevoi put’ 3-i Gвардейской танковой армии* [Rybalko leads tanks: The combat path of 3rd Guards Tank Army] (Moscow: “Iauza” “Eksmo,” 2007), and the memoirs of its commander, Rybalko. Air-ground coordination is covered in A. Efrimov, “Применение авиации в орудийной борьбе на высоких темпах и на большую глубину” [The employment of aviation during the conduct of high-tempo operations to great depth], *VIZh* 1 (January 1985): 22–29.

19. For an excellent German view of XXIV Panzer Corps operations, see H. G. Liebisch, “17th Panzer Division Operations to 27 January,” in Glantz, 1986

Art of War Symposium, 609–626. Liebisch was one of the few commanders of that division to escape with his battalion. This and the subsequent description of the techniques of Soviet forward detachments are based in part on exhaustive interviews conducted by David Glantz in Moscow (in June 1989) with the following: I. I. Guskovskiy, commander, 44th Guards Tank Brigade, 11th Guards Tank Corps, 1st Guards Tank Army; A. F. Smirnov, executive officer, 100th Tank Brigade, 31st Tank Corps; B. P. Ivanov, battalion commander, 40th Guards Tank Brigade, 11th Guards Tank Corps, 1st Guards Tank Army; D. A. Dragunsky, commander, 55th Guards Tank Brigade, 7th Guards Tank Corps, 3rd Guards Tank Army; and A. A. Dement'ev, commander, 93rd Separate Tank Brigade, 4th Guards Tank Army. Initial strengths of 16th and 17th Panzer Divisions were 85 and 72 tanks, respectively. See Nevenkin, *Fire Brigades*, 401 and 426.

20. H. G. Liebisch, “Second Phase of 17th Panzer Division Retrograde Operations East of the Oder River,” in Glantz, 1986 *Art of War Symposium*, 639–642.

21. Kravchenko, *Boevye deistviya*, 41–55.

22. Among the many works on Zhukov’s penetration operation, see A. P. Snegov, *Organizatsiya i osushchestvlenie proryv podgotovленnoi oborony protivnika soedineniyami 32-go strelkovogo korpusa 5-go udarnoi armii v Visla-oderskoi operatsii* [The organization and realization of a penetration of prepared enemy defenses by formations of 5th Shock Army’s 32nd Rifle Corps in the Vistula-Oder operation] (Moscow: Lenin Military-Political Academy, 1980), classified secret but now declassified.

23. The Polish role in the capture of Warsaw is covered in S. Poplavsky, “1-ia armii voisk Pol'skogo v boiakh za Varshavu” [The 1st Polish Army in the battles for Warsaw], *VIZh* 1 (January 1965): 47–53. Poplavsky commanded this army.

24. For details of this grueling experience, see W. Hartelt, “Battle Report of a Panther Tank Company of Panzer Division ‘Hermann Goering,’” in Glantz, 1986 *Art of War Symposium*, 627–638. According to Nevenken, *Fire Brigades*, 623 and 715, Grossdeutschland Panzer Corps had roughly 114 tanks, but these were transferred in dribslets of about 20 tanks each, reducing their impact.

25. The Soviets employed special follow-on groups, including elements of 33rd and 3rd Guards Armies as well as 7th Guards Mechanized Corps, to deal with bypassed German forces. See D. Barinov and G. Nekhonov, “Unichtozhenie bluzhdaiushchei’ gruppovki protivnika” [The destruction of “floating” enemy groups], *VIZh* 3 (March 1965): 62–68. Barinov was the corps’ chief of staff.

26. Ziemke, *Stalingrad to Berlin*, 423 and 427.

27. For an example of action at Poznan, see G. Khlupin, “Shturm forta ‘Rauch’” [Assault on Fort Rauch], *Voennyi Vestnik* [Military herald] 6 (June 1988): 15–17.

28. Details of Soviet battles for the Oder bridgeheads are found in F. Bokov, “Pylaiushchii platsdarm” [Flaming bridgehead], *VIZh* 5 (May 1972): 49–55, and A. M. Sokolov, “Zakreplenie i rasshirenie platsdarmov v Vislo-Oderskoi operatsii” [The fortification and expansion of bridgeheads in the Vistula-Oder operation], *VIZh* 4 (April 1986): 32–38. Krivosheev, *Soviet Casualties and Combat Losses*, 153, cites 193,125 Soviet losses during this operation (43,251 killed or missing and 149,874 wounded). According to Vasil’ev, *Visla-oderskaiia operatsiia*, 58 and 76, 1st Belorussian Front counted 130,000 Germans dead, 37,300 prisoners, 614 tanks and assault guns destroyed, and 617 captured between 14 and 22 January. By 4 February, this total

had risen to 216,970 Germans dead, 60,308 prisoners, 1,237 tanks and assault guns destroyed, and 1,119 captured. The 1st Ukrainian Front's total count was significant but somewhat lower. Total German losses exceeded 300,000 troops. On 1 February, Ninth Army's Group Oder defended the Oder River front east of Berlin with Division Staff z.b. V. 606 (four emergency battalions), Group Schimpf (Group Berlin but later 309th Infantry Division) on 3 February, with several emergency battalions), and the lead elements of 25th Panzer-Grenadier Division (two of six battalions, with 25 Panther tanks and 10 tank destroyers [*Jagdpanzer IV/70 (V)*]). These were reinforced on 5 February by 21st Panzer Division, with 47 tanks and 15 tank destroyers, deployed in the 80-kilometer-wide sector from Bad Freienwald southward to Eisenhuttenstadt, with 303rd Döberitz Infantry Division (six battalions), two battalions of reconstituted *Feldherrnhalle* Division, and several smaller units en route. On 3 February, V SS Mountain Corps took over defense of Frankfurt and received 433rd Replacement Division (Div. Regener) on 4 February and Kurmark Panzer-Grenadier Division (four battalions, with fifty-five tanks, at least half of them Panthers) on 5 February. This motley crew conducted the bridgehead battles near Küstrin during the first week of February. Ninth Army faced 1st Belorussian Front's 5th Shock, 8th Guards, and 69th Armies, backed by 1st Guards Tank Army. See "Hgr. Weichsel, Lage Stand 1–5.2.54, Lage-Karten der Heeresgruppe Weichsel. 1–28 February 1945," in *H. Gr. Weichsel, Ia 75122/13 file*, Series T-311, NAM. At the time, according to Isaev, *Berlin, 1945*, 94, Zhukov reinforced 8th Guards Army with 11th Tank Corps (83 tanks and 25 SP guns).

29. On the East Prussian operation, see Glantz, 1986 *Art of War Symposium*, 279–486; *SMPIOV*, no. 22 (1946): 131–160; *SMPIOV*, no. 24 (1947); and "Proryv nepriiatel'skoi oborony 28-i armiei v vostochnoi prussii (ianvar' 1945 g.)" [Penetration of the enemy defense by 28th Army in East Prussia (January 1945)], *SVIMVOV*, no. 6 (1952); all three classified secret but later declassified.

30. Krivosheev, *Soviet Casualties and Combat Losses*, 155, and other Soviet sources as well as *Fremde Heere Ost* records indicate that Soviet strength for the East Prussian operation was 1,669,100 troops (1,220,000 combat), 3,859 tanks and SP guns, and 25,426 guns and mortars facing 580,000 German troops (plus 200,000 *Volkssturm*), 700 tanks and assault guns, and 8,200 artillery pieces. The best English-language account of the operation is Prit Buttar, *Battleground Prussia: The Assault on Germany's Eastern Front, 1944–45* (Oxford: Osprey Publishing, 2010). See also Alastair Noble, *Nazi Rule and the Soviet Offensive in Eastern Germany, 1944–1945: The Darkest Hour* (Portland, OR: Sussex Academic Press, 2009).

31. J. Condne, "Employment of 7th Panzer Division with Emphasis on Its Armored Group," in Glantz, 1986 *Art of War Symposium*, 451–485. Condne was a panzer battalion commander in the division.

32. Krivosheev, *Soviet Casualties and Combat Losses*, 155, places Soviet losses for the operation at 584,778 (126,464 killed or missing and 458,314 wounded). German losses probably exceeded 100,000, with over 300,000 more troops bottled up in Königsberg and the Heilsberg Fortified Region.

33. See Zolotarev, "Stavka 1944–1945," 198.

34. See "Doklad No. 00297/op komanduiushchego voiskami 1-go Belorusskogo fronta Verkhovnomy Glavnokomanduiushchemu o plane Berlinskoi nastupatel'noi operatsii" [Report No. 00297/op of the commander of the forces of 1st Belorussian

Front to the Supreme High Commander about a plan for the Berlin offensive operation], in A. M. Zolotarev, ed., *Russkii arkhiv: Velikaia Otechestvennaia—Bitva za Berlin (Krasnaia armiia v poverzhennoi Germanii, t. 15 (4-5)* [The Russian archives: The Great Patriotic (War)—The battle for Berlin (The Red Army in the defeat of Germany), vol. 15 (4-5)] (Moscow: “TERRA,” 1995), 56–60. The report is dated 1515 hours 10 February 1945.

35. See “Operativnaia direktiva N0.00310/op komanduiushchego voiskami 1-go Belorusskogo fronta komanduiushchim 8-i gvardeiskoi, 69-i i 33-i armiami na provedenie Berlinskoi operatsii” [Operational Directive No. 00310/op of the commanders of 8th Guards, 69th and 33rd Armies on the conduct of the Berlin operation], in Zolotarev, *Russkii arkhiv*, 60–62, and “Operativnaia direktiva komanduiushchego voiskami 1-go Belorusskogo fronta komanduiushchim 47-i, 5-i udarnoi, 1-i i 2-i gvardeiskimi tankovymi armiami na provedenie Berlinskoi operatsii” [Operational Directive No. 00310/op of the commanders of 47th, 5th Shock, and 1st and 2nd Guards Tank Armies on the conduct of the Berlin operation], also in Zolotarev, *Russkii arkhiv*, 62–64.

36. See “Doklad No. 00318/op komanduiushchego voiskami 1-go Belorusskogo fronta Verkhovnomy Glavnokomanduiushchemu plana nastupleniia na Stettinskom napravlenii” [Report No. 00318/op of the commander of the forces of 1st Belorussian Front to the Supreme High Commander for plan of an offensive on the Stettin axis], in Zolotarev, *Russkii arkhiv*, 328–329.

37. See Konev’s proposal in SVIMVOV, no. 10–11 (1953): 139–140.

38. See *Stavka* Directive No. 11024, dated 1815 hours 17 February, in Zolotarev, “*Stavka 1944–1945*,” 200. The directive approving Konev’s plan has not yet been released from the archives.

39. *Stavka* Directive No. 11023 of 9 February had ordered the 3rd Belorussian Front to complete destroying German forces in East Prussia by 20–25 February. See Zolotarev, “*Stavka 1944–1945*,” 199.

40. See *Stavka* Directive No. 11027, dated 2015 hours 17 February 1945, in Zolotarev, “*Stavka 1944–1945*,” 202–203. On 15 February, an agent reported to Gehlen’s *Fremde Heere Ost* that “the forces of 2nd and 3rd Ukrainian Fronts are planning a great offensive toward Vienna.” See “Beurteilung der Feindlage vor deutscher Ostfront im grossen—Stand 25.2.1945,” in *Fremde Heere Ost* (I), Nr. 1161/45 g. Kdos, H. Qu., den 25.2.1945, copy of the original.

41. See *Stavka* Directive No. 11029, dated 2010 hours 17 February 1945, in Zolotarev, “*Stavka 1944–1945*,” 201. The 4th Ukrainian Front’s proposed plan is in ibid., 330–333.

42. See David M. Glantz, “Soviet Military Operations during the Soviet-German War as Indicators of the USSR’s Postwar Territorial Ambitions and International Influence,” in *National Institute for Defence Studies (NIDS) Annual* (Tokyo: NIDS, 2015), and Glantz, “Stalin’s Strategic Intentions, 1941–1945: Soviet Military Operations as Indicators of Stalin’s Postwar Territorial Ambitions,” in *JSMS* 4 (October–December 2014): 676–720.

43. See the most cogent defense of Stalin’s decision in Isaev, *Berlin 1945*, 158–159. The most important issue associated with Stalin’s decision to halt the advance on Berlin hinges on the strength of German forces defending Berlin and deployed

in Silesia and Pomerania on 1st Belorussian and 1st Ukrainian Fronts' outer flanks. According to Army Group Vistula's strength reports, "Zusammenstellung über den Bestand an Pz. Kpfw. Sowie den Einsatz der Pz.—Inst.—und Bergdienste im Monat Februar 1945, 9 Mar 1945," in *H. Gr. Weichsel, O. Qu/V (Pz.) 75122/18 file* (copy of original), on 12 February Army Group Vistula fielded 630 operable tanks and assault guns, with 155 in Ninth Army, 295 in Eleventh SS Army, 160 in Second Army, and 20 in Corps Oder. By 28 February, this figure had increased to 704 operable tanks and assault guns, including 280 in Ninth Army, 183 in Third Panzer Army, 181 in Second Army, and 59 in Corps Oder and 184th Assault Gun Brigade. For comparison's sake, by 1 March 1st Belorussian Front's 1st and 2nd Guards Tank Army fielded 1,067 tanks and SP guns, with 424 tanks and 154 SP guns in the former and the remainder in the latter; see Isaev, *Berlin 1945*, 172–173. These, plus several hundred tanks and SPs in separate tank and mechanized units, faced roughly the 460 tanks and assault guns of German Ninth and Third Panzer Armies.

44. Marshal Vasili I. Chuikov, *The Fall of Berlin* (New York: Ballantine Books, 1967), 114–115. This is an English translation of the first edition (1965) of Chuikov, *Konets tret'evo reikhha* [The end of the Third Reich], in which Chuikov wrote:

That we had sufficient forces to continue the Vistula-Oder operation right on to the storming of Berlin;

That the fears for the right flank of the 1st Belorussian Front were groundless, since the enemy had not got sufficient reserves at his disposal to mount a serious counter-blow (incidentally, Guderian admits to as much himself in his memoirs);

That the blow which the enemy planned to launch from the Stettin region could not have been carried through earlier than 15 February, and with only insignificant forces at that;

That a determined advance on Berlin in the beginning of February by seven or eight armies, including three or four tank armies, would have enabled us to wreck the enemy's blow from the Stettin area and continue our westward advance;

That at the beginning of February, Hitler had not sufficient forces and materials to defend the capital, nor any properly engineered lines of defense; and

As a result, the road to Berlin lay open.

It is likely that Chuikov was encouraged to write the book by Khrushchev, who was then in the final stages of his de-Stalinization program. The verbal counteroffensive against Chuikov took place after Khrushchev's removal from power. It is at least possible that Khrushchev ultimately intended to link Yalta with Stalin's decision to halt along the Oder and blame him for the casualties the Red Army suffered during the April assault in Berlin.

45. See G. Zhukov, "Na berlinskem napravlenii" [On the Berlin axis], *VIZh*, no. 6 (June 1965): 12–22. This article was preceded by N. Antipenko, "Ot visty do odera" [From the Vistula to the Oder], *VIZh*, no. 3 (March 1965): 74–76 and 80–81; K. Tlegin, "Na zakluchitel'nom etape voiny" [At the conclusive stage of the war], *VIZh*, no. 4 (April 1965): 55–70, esp. 62–64; and in the same issue, I. Konev, "Berlin—Praga"

[Berlin—Prague], 17–25. Interestingly enough, though S. M. Shtemenko substantiates Zhukov's and the *Stavka*'s assertion that the threat to 1st Belorussian Front's right flank necessitated a halt along the Berlin axis in his article "Kak planirovalas' posledniaia kampaniiia po razgromu gitlerovskoi Germanii" [How the final campaign for destroying Hitlerite Germany was planned], *VIZh*, no. 5 (May 1965): 68–69, he reveals the General Staff's opinion that an advance to Vienna would be not only feasible but also useful. He states: "Hitlerite resistance in Budapest was finally overcome on 13 February. This, in the General Staff's opinion, opened a favorable perspective to develop offensives along the Olomouc—Prague and Vienna—Pilsen axes—into the very belly of Fascist Germany—and permit attracting there as many enemy forces as possible, including from the critical central axis." However, nowhere in his article does Shtemenko directly connect the developments at Yalta with the General Staff's subsequent planning.

46. Among many accounts of Yalta, see S. M. Plokhy, *Yalta: The Price of Peace* (New York: Viking, 2010).

47. For the terms of the London Protocol of 12 September 1944 and the Yalta Conference from 7–11 February, see "Protocol on Zones of Occupation and the Administration of 'Greater Berlin' (September 12, 1944)," *Occupation and the Emergence of Two States, 1945–1961*, vol. 8 in *German History in Documents and Images*, at germanhistorydocs.ghi-dc.org/pdf/eng/Allied%20Policies%201_ENG.pdf, accessed on 28 March 2015; The Yalta Conference, 1945, Milestones, 1937–1945, Office of the Historian, U.S. Department of State, at <http://history.state.gov/milestones/1937-1945/YaltaConf>, accessed on 28 March 2015; and The Yalta Conference, February 1945, The Avalon Project; Yalta (Crimea Conference), at <http://Avalon.law.yale.edu/wwii/yalta.sp>, accessed on 28 March 2015.

48. The reinforcements the *Stavka* assigned to 2nd and 3rd Ukrainian Fronts in Hungary from 17 February to 16 March included: 9th Guards Army, 6th Guards Mortar Division, 387th Rifle Division, and 51st and 52nd Tank Destroyer Brigades. On 9 March, the *Stavka* directed the two *fronts* to repel the German counterstroke north of Lake Balaton; forbade 3rd Ukrainian Front from using 9th Guards Army in the defense; and ordered the two *fronts* to conduct an offensive beginning 15 March, spearheaded by 9th Guards Army and 6th Guards Tank Army, respectively, to destroy German forces north of Lake Balaton and develop the offensive toward Papa and Sopron and Györ. On 16 March, the *Stavka* transferred 6th Guards Tank Army from 2nd to 3rd Ukrainian Front to help destroy German forces north of Lake Balaton, together with 27th Army.

49. Details are in SVIMVOV, no. 10–11. Krivosheev, *Soviet Casualties and Combat Losses*, 110, lists Konev's strength in this operation at 980,800 troops, of whom 99,386 became casualties (23,577 killed and missing, 75,809 wounded). The 3rd Guards Tank Army fielded 48,027 men and 567 operable tanks and SP guns on 8 February, including 359 T-34 and 20 IS-122 model tanks and 188 SP guns; see Shein, *Tanki vedet Rybalko*, 280. For comparison's sake, on 8 February 4th Tank Army had 414 tanks and SP guns, with another 121 in repair, and 7th Guards Mechanized Corps had 241 tanks and SPs. However, according to Vladimir Beshanov, *Gor'kaia Pravda o poBede: Krovavyi 1945 god* [The bitter truth about the misfortune: Bloody 1945] (Moscow: "Iauza," 2013), 236, 3rd Guards and 4th Tank Armies' parent *front* lost

about half of its 2,215 tanks and SP guns in the next eight days of fighting. This, he argues, was justification for delaying the advance on Berlin. Completing the picture, 1st and 2nd Belorussian Fronts lost a total of 1,027 tanks and SP guns during the East Pomeranian offensive, which began on 12 February. See Krivosheev et al., *Rossiya i SSSR v voinakh*, 486.

50. According to Army Group Vistula's records, Eleventh SS Army fielded 295 tanks and assault guns on 12 February.

51. For detailed coverage, see A. S. Zav'ialov and T. E. Kaliadin, *Vostochnaia-Pomeranskaia nastupatel'naia operatsiia Sovetskikh voisk, fevral'-mart 1945* [The Eastern Pomeranian offensive operation of Soviet forces, February–March 1945] (Moscow: Voenizdat, 1960). Krivosheev, *Soviet Casualties and Combat Losses*, 156 and 263, places Soviet strength in the operation, including 1st Polish Army, at 996,100 troops. Soviet losses were 225,692 (52,740 killed or missing and 172,952 wounded) and 1,027 tanks and SP guns and 1,005 guns and mortars damaged or destroyed. German strength probably did not exceed 200,000 men and 295 tanks and assault guns.

52. For details, see *Shturm Konigsberga* [The storming of Königsberg] (Kalinigrad, USSR: Izdatel'stvo Kaliningrada, 1973); I. Bagramian, "Shturm Konigsberga" [The storming of Königsburg], *VIZh* 8 (August 1976): 56–64, and 9 (September 1976): 47–57; N. Krylov, "Razgrom zemlandskoi gruppovki protivnika" [The destruction of the Zemland enemy group], *VIZh* 4 (April 1972): 52–58; B. Arushanian, "Na Zemlandskom poluostrov'e" [On the Zemland peninsula], *VIZh* 4 (April 1970): 80–88; and documents in Hill, *Great Patriotic War*, 254–262.

53. "Konigsbergskaia operatsiia 1945" [The Königsberg operation 1945], in M. M. Kozlov, ed., *Velikaia Otechstvennaia voina 1941–1945, entsiklopedia* [The Great Patriotic War 1941–1945, an encyclopedia] (Moscow: "Sovetskaia entsiklopediia," 1985), 329 (hereafter cited as VOV). Over 300,000 Soviet troops took part in the siege, supported by 538 tanks and SP guns and 5,200 guns and mortars.

54. "Zemlandskaia operatsiia 1945" [The Zemland operation 1945], VOV, 288, states that 111,000 Soviet troops participated in the operation, supported by 538 tanks and SP guns and 5,200 guns and mortars. This source estimates German strength on the peninsula at 65,000 men, 166 tanks and assault guns, and 1,200 artillery pieces, but these figures are probably inflated.

55. Erickson, *Road to Berlin*, 520–521.

56. See "Verkhne-Silezkaia nastupatel'naia operatsiia voisk 1-go Ukrainskogo fronta, 15–31 marta 1945 g." [The Upper Silesian offensive operation of the 1st Ukrainian Front, March 1945], *SVIMVOV*, no. 6 (1952): 3–80, classified secret but later declassified. Krivosheev, *Soviet Casualties and Combat Losses*, 110, and other sources list Soviet strength in the operation as 408,400, supported by 988 tanks and SP guns and 5,640 guns and mortars.

57. Krivosheev, *Soviet Casualties and Combat Losses*, 110, cites Soviet losses of 66,801 (15,876 killed or missing and 66,801 wounded). "Verkhne-silezkaia operatsiia 1945" [The Upper Silesian operation 1945], VOV, 126, estimates German losses as 40,000 destroyed and 14,000 captured.

58. For the planning of the Vienna operation, see P. Ia. Malinovsky, *Budapest-Vena-Praga* [Budapest-Vienna-Prague] (Moscow: "Nauka," 1965), and A. Rakitsky, "Ot Budapesta do Veny" [From Budapest to Vienna], *VIZh* 4 (April 1975): 119–123.

For its planning and conduct, see “Venskaia operatsiia voisk 2-go i 3-go Ukrainskikh frontov” [The Vienna operation of the 2nd and 3rd Ukrainian Fronts], SVIMVOV, no. 3 (1959): 3–54, classified secret but later declassified.

59. For intelligence and deception aspects of the operation, see Glantz, *Soviet Military Deception*, 515–520. Sixth SS Panzer Army’s role is covered in A. Werncke, “The Employment of 6th SS Panzer Army in Hungary and Austria from February to May 1945,” in Glantz, 1986 *Art of War Symposium*, 771–787. Werncke was deputy logistical officer for the army.

60. For details on combat operations, see D. M. Glantz, “An Overview of Operations in Hungary, 1 January–16 March 1945,” and R. Stoves, “Comments on German Counterattacks in Hungary,” both in Glantz, 1986 *Art of War Symposium*, 665–756 and 761–770. Stoves commanded a panzer company in 1st Panzer Division and has since written extensively on his division as well as German armor in general. The most thorough account from the German perspective is Georg Maier, *Drama zwischen Budapest und Wien: Der Endkampf der 6. Panzerarmee 1945* (Osnabrück, FRG: Munin-Verlag GMBH, 1985). Soviet accounts include “Oboronitel’nye boi 64-go strelkovogo korpusa iuzhnee ozera Balaton v marte 1945 g.” [The defensive battle of 64th Rifle Corps south of Lake Balaton in March 1945], SVIMVOV, no. 9 (1953): 121–166, classified secret but now declassified; Andrei Vasil’chenko, *Poslednee nastuplenie Gitlera: Razgrom tankovoi elity reikha* [The last offensive of Hitler: The destruction of the Reich’s tank elite] (Moscow: “Iauza,” 2008); Aleksi Isaev and Maksim Kolomiets, *Razgrom 6-i tankovoi armii SS: Mogila Pantserwaffe* [The destruction of 6th SS Panzer Army: The grave of the *panzerwaffe*] (Moscow: “Iauza,” “Strategiia KM,” “Eksmo,” 2009); and O. Baronov, *Balatonskaia oboronitel’naia operatsiia* [The Balaton defensive operation] (Moscow: OOO Izdatel’skii tsentr “Eksprint,” 2001). Krivosheev, *Soviet Casualties and Combat Losses*, 110, cites the strength of Soviet forces in the Balaton operation as 465,000 troops, supported by 407 tanks and SP guns (less 6th Guards Tank Army) and 6,889 guns and mortars. This includes only 3rd Ukrainian Front. To this must be added the 101,500 troops and almost 400 tanks and SP guns of 2nd Ukrainian Front west of Budapest and the more than 100,000 troops of 9th Guards Army in reserve east of the city. Along the entire front, Russian sources claim Army Group South fielded about 430,000 men, supported by 900 tanks and assault guns, the bulk of which (807 armored vehicles, by Soviet calculations) was focused in the Balaton counterstroke. However, Maier, *Drama zwischen Budapest und Wien*, 203 and 556, provides documents that prove Army Group South actually numbered 220,000 German troops (81,400 in Sixth SS Panzer Army, 88,600 in Army Group Balck [Sixth Army] and I Cavalry Corps, and 50,000 in Second Panzer Army) and 548 tanks and assault guns (320 in Sixth SS Panzer Army, 138 in Sixth Army, and 70 in Second Panzer Army).

61. Two panzer and one panzer-grenadier divisions were still assembling as of 6 March 1945. For the full order of battle of Army Group South on that date, see Frieser et al., *Das Deutsche Reich und der Zweite Weltkrieg*, Band 8, *Die Ostfront, 1943/44*, 941.

62. Krivosheev, *Soviet Casualties and Combat Losses*, 110, cites Soviet losses in the Balaton operation as 32,899 (8,492 killed or missing and 24,407 wounded). Rakitsky, “Ot Budapesta do Veny,” 119, claims that the Germans lost 40,000 men,

500 tanks and assault guns, and 300 guns and mortars, although these figures are inflated. According to German documents in Maier, *Drama zwischen Budapest und Wien*, 240, from 6 through 13 March the Germans suffered 14,181 personnel losses, including 2,451 killed, 11,116 wounded, and 1,251 missing, whereas Sixth SS Panzer Army lost 102 tanks and assault guns and Sixth Army about 20.

63. Krivosheev, *Soviet Casualties and Combat Losses*, 156, places Soviet strength in the Vienna operation at 745,600 troops, including 100,900 Bulgarians, supported by an estimated 400 tanks and SP guns. This includes 46th Army and supporting elements of Malinovsky's 2nd Ukrainian Front. Beginning on 25 March, the remaining 272,200 men (plus over 100,000 Romanians) of Malinovsky's *front*, supported by 300 tanks and SP guns, conducted the Bratislava-Brno operation in Slovakia and Hungary north of the Danube. Although the Soviets treat these two offensives separately, German Army Group South had to contend with both Soviet *fronts* simultaneously. After its Balaton losses, including Hungarian forces, Army Group South numbered fewer than 400,000 soldiers, supported by about 400 tanks and assault guns.

64. According to Krivosheev, *Soviet Casualties and Combat Losses*, 157, Soviet losses in the Vienna operation were 167,940 (38,661 killed or missing and 129,279 wounded). Bulgarian 1st Army suffered an additional 9,805 casualties (2,696 killed or missing and 7,107 wounded). The 2nd Ukrainian Front suffered 79,596 casualties in the Bratislava-Brno operation (16,993 killed or missing and 62,663 wounded).

65. According to Krivosheev, *Soviet Casualties and Combat Losses*, 101, Soviet losses during the period 1 October–31 December 1944 totaled 259,766 killed or missing and 1,026,645 wounded; during the period 1 January–31 March 1945, these figures were 468,407 killed or missing and 1,582,517 wounded. German strength and losses during January and February are from Ziemke, *Stalingrad to Berlin*, 457.

Chapter 16. End Game

1. Antony Beevor, *The Fall of Berlin 1945* (New York: Viking, 2002), 65, 67, and 107–109.

2. For the German order of battle on the Berlin axis, see *Berlinskaia operatsiia 1945 goda* [The Berlin operation, 1945] (Moscow: Voenizdat, 1950), 1–44, classified secret but later declassified. This study, reprinted as V. Goncharov, ed., *Bitva za Berlin: Zavershajuushchee srazhenie Velikoi Otechestvenoi voiny* [The battle for Berlin: The final battle of the Great Patriotic War] (Moscow: "AST," 2007), is the most thorough Soviet study of the campaign yet available and is scheduled to be published in English by Helion. See also Tony Le Tissier, *The Battle of Berlin 1945* (London: Jonathan Cape, 1988); Le Tissier, *Race for the Reichstag: The 1945 Battle for Berlin* (London: Frank Cass, 1999); and Le Tissier, *Zhukov at the Oder: The Decisive Battle for Berlin* (Atglen, PA: Stackpole Books, 2009), 273–276, which provides a detailed order of battle for the German Ninth Army, opposite Zhukov's *front*; Isaev, *Berlin 1945*; Isaev, *Poslednii krug ada*; and W. Willemer, "The German Defense of Berlin," MS no. P-136 (Historical Division, Headquarters, United States Army, Europe, 1953), which was compiled by German veterans of the battle.

3. Le Tissier, *Zhukov at the Oder*, 117–118.

4. See Ziemke, *Stalingrad to Berlin*, 463, for Hitler's changing assessments. On the Lauban counterattack, see Isaev, *Berlin 1945*, 142–144, and Beshanov, *Gor'kaiia Pravda*, 247–249. From 1 February through 10 March, Rybalko's tank army lost 370 tanks and SP guns, many in the Lauban region, leaving it with 255. The German forces carrying out the envelopment were Group Nehring's XXXIX and LVII Panzer Corps, the former with Führer-Grenadier Division and parts of 21st and 17th Panzer Divisions and the latter with 8th Panzer, 408th Infantry, and the Führer Escort (*Begleit*) Divisions, and 103th Panzer Brigade. General Nehring claimed to have destroyed 149 Soviet tanks and 142 SP guns, a number close to the mark.

5. See the most detailed account of the struggle for Küstrin in Isaev, *Berlin 1945*, 257–282. See also Le Tissier, *Zhukov at the Oder*, 79–98, and Ziemke, *Stalingrad to Berlin*, 464–465. After Küstrin was encircled on 22–23 March, the Germans attempted to relieve the fortress on 27 March with 20th and 25th Panzer-Grenadier, Führer-Grenadier, and *Müncheberg* Panzer Divisions, Combat Group "1001 Nights," and 502nd SS Panzer (Tiger) Battalion. The counterattack force fielded a total of 133 tanks and assault guns, including 39 King Tigers. This attack failed badly, with the 502nd losing 18 of its 31 King Tigers in Soviet minefields. Küstrin was also costly for the Soviets as 5th Shock Army suffered 982 dead, 3,281 wounded, and 5 missing, together with 62 tanks and 24 SP guns destroyed or damaged, from 21 through 31 March. The 8th Guards Army suffered even greater losses, losing 1,124 killed and 4,052 wounded. Overall, the two armies lost 61,799 (15,466 irrevocably) from 2 February through 30 March.

6. Mawdsley, *Thunder in the East*, 383–384. Krebs had little influence and committed suicide at the end of the war.

7. On Soviet suspicions, see V. Pozniak, "Zavershajushchie udary po vragu" [The final blow against the enemy], *VIZh* 5 (May 1965): 26, and Shtemenko's various accounts express the same suspicions.

8. Le Tissier, *Zhukov at the Oder*, 273–276, places the strength of Ninth Army in mid-April at 90,836 men (not including *Volkssturm*), with 653 tanks and SP guns. "Stand der Panzer und Sturmgeschütze an 13.4.1945, Heeresgruppe Weichsel Nr. 77/45 Kdos, H. Qu., den 13.4.45," in *H. Gr. Weichsel, O. Qu 75122/18–19 file*, Series T-311, NAM, indicates Ninth Army fielded 587 tanks and assault guns, 512 operable. On the same date, Third Panzer Army had 255 tanks and assault guns (232 operable). By contrast, in Goncharov, *Bitva za Berlin*, 37–55, the Red Army General Staff placed total German strength in and forward of Berlin at 760,750 men, supported by 1,519 tanks and assault guns and 9,303 artillery pieces. Other Soviet estimates credit the Germans with 1 million men, including about 200,000 *Volkssturm* in 200 battalions. These estimates include not only Army Group Vistula but also Twelfth Army from the West. Finally, based on German documents Isaev, *Berlin 1945*, 293–296, credits Ninth Army with around 200,000 men, including 90,836 combat troops, 2,625 guns and mortars (including 695 antiaircraft guns), and 512 operable tanks and assault guns. Actual German strength, based on surrender figures, was approximately as follows: Army Group Vistula, 550,000; Army Group Center, 500,000 (of which 150,000 helped defend Berlin); Army Group South or Austria, 450,000; Army Group North (in Courland), 300,000; and the Berlin Garrison, 120,000.

9. Willemer, *German Defense of Berlin*, 25–39.
10. Goncharov, *Bitva za Berlin*, 56–160, provides complete planning details. See also Isaev, *Berlin 1945*, 308–361, and, far more briefly, Chuikov, *End of the Third Reich*, 166–177.
11. Chuikov, *End of the Third Reich*, 166, and V. A. Matsulenko, *Voennoe iskusstvo v Berlinskoi operatsii* [Military art in the Berlin operation] (Moscow: Voroshilov Academy of the General Staff, 1983), 7–20, classified secret but later declassified.
12. G. Zhukov, “Na Berlinskem napravlenii” [On the Berlin axis], *VIZh* 6 (June 1965): 12–22. Soviet armored and artillery strengths are found in V. I. Gan’shin, *Tankovye i mekhanizirovannye voiska v Berlinskoi operatsii* [Tanks and mechanized forces in the Berlin operation] (Moscow: Voroshilov Academy, 1948), classified secret but later declassified, and *Berlinskaia operatsiia* (2007 reprint), 161–178.
13. Le Tissier, *Zhukov at the Oder*, 139.
14. I. S. Konev, *Year of Victory* (Moscow: Progress Publishers, 1984), 315–316. This is a translation of *God pobedy* [Year of victory] (Moscow: Voenizdat, 1966).
15. Rokossovsky, *Soldier’s Duty*, 314–345, reissued in an unexpurgated version as *Soldatskii dolg* [A soldier’s duty] (Moscow: “Golos,” 2000), 408–431, and Rokossovsky, “Severnee Berlina” [North of Berlin], *VIZh* 5 (May 1965): 36–41.
16. Krivosheev, *Soviet Casualties and Combat Losses*, 158. See also the discussion of German strengths in Goncharov, *Bitva za Berlin*, 728. The breakdown of strengths included: 1st Belorussian, 908,500 men; 1st Ukrainian, 550,900 men; 2nd Belorussian, 441,600 men; Polish 1st and 2nd Armies, 155,900 men; and the Dnepr Military Flotilla, 5,200 men.
17. Le Tissier, *Zhukov at the Oder*, 125.
18. N. M. Ramanichev, “Iz optya peregruppirovki armii pri podgotovke Berlinskoi operatsii” [From the experience of regrouping an army during the preparation of the Berlin operation], *VIZh* 8 (August 1979): 9–16; “Kombinirovannyi marsh 47-go strelkovogo korpusa 70-i armii pri peregruppirovke voisk 2-go Belorussskogo fronta s dantsigskogo na shtettinskoe napravlenie (aprel’ 1945 g.)” [The combined march of 70th Army’s 47th Rifle Corps during the regrouping of 2nd Belorussian Front forces from the Danzig to the Stettin axis], *SVIMVOV*, no. 7 (1952): 97–118, classified secret but since declassified.
19. For planning ratios, see Goncharov, *Bitva za Berlin*, texts and figures. Details of air-ground cooperation are found in “O primenii aviatii Berlinskoi operatsii” [Concerning the employment of aviation in the Berlin operation], *VIZh* 4 (April 1985): 18–26, which consists of an interview with S. I. Rudenko, 16th Air Army’s commander in the operation.
20. Chuikov, *End of the Third Reich*, 177–181. See also S. Kh. Agonov, “Inzhenernye voiska v Berlinskoi operatsii” [Engineer Forces in the Berlin operation], *VIZh* 4 (April 1985): 36–40.
21. Le Tissier, *Zhukov at the Oder*, 149; Goncharov, *Bitva za Berlin*, 177–184; and Isaev, *Berlin 1945*, 362–373.
22. Le Tissier, *Zhukov at the Oder*, 134.
23. Hardesty and Grinberg, *Red Phoenix Rising*, 333.
24. Le Tissier, *Zhukov at the Oder*, 142.

25. For details, see Goncharov, *Bitva za Berlin*, 184–193; Isaev, *Berlin 1945*, 373–400; Beshanov, *Gor'kaia pravda*, 448–458; and, in English, Chuikov, *End of the Third Reich*, 178–182.

26. According to Isaev, *Berlin 1945*, 400, 1st Belorussian Front lost 188 tanks and SP guns destroyed, damaged or due to mechanical difficulties on 16 April, together with 1,128 men killed and 4,496 wounded (less 8th Guards Army, which likely added another 2,000 casualties). According to Gan'shin, *Tankovye i mekhanizirovaniye*, 40, during the penetration battle of 16–19 April, 1st Belorussian Front lost 727 tanks, representing 23 percent of its initial strength. During the entire operation, 1st Guards Tank Army lost 431 of its 706 tanks and self-propelled guns, including 104 in Berlin street fighting; 232 of these were irretrievable combat losses. Isaev, *Berlin 1945*, 401–439, provides day-by-day losses.

27. Konev, *Years of Victory*, 317–325; D. Leliushenko, “Perek nami Berlin!” [Before us Berlin!], *VIZh* 6 (June 1970): 65–72; and, for greater detail, respective sections of Goncharov, *Bitva za Berlin*, and Isaev, *Berlin 1945*.

28. For the Polish role, see E. Dymkovsky, “2-ia armii Voiska Pols'kogo v Berlinskoj i Pražskoj operatsiakh” [Polish 2nd Army in the Berlin and Prague operations], *VIZh* 6 (June 1975): 41–45, and E. Bordzilovsky, “Uchastie 1-i armii Voiska Pols'kogo v Berlinskoi operatsii” [The participation of 1st Polish Army in the Berlin operation], *VIZh* 10 (October 1963): 15–29.

29. Chuikov, *End of the Third Reich*, 189; Pozniak, “Zavershaiushchie udary,” 31; O. A. Rzheshevsky, “The Race for Berlin,” *JSMS* 8, no. 3 (September 1995): 566–579; and Isaev, *Berlin 1945*, 412–414.

30. Of the many descriptions of this complex fighting, see Chuikov, *End of the Third Reich*, 18; V. Maskarevsky, “17-i motoinzhenernaia brigade v Berlinskoi operatsii” [The 17th Motorized Engineer Brigade in the Berlin operation], *VIZh* 4 (April 1976): 61–65; and I. Sinenko, “Organizatsiya i vedenie boja 164-m strelkovym polkom za Batslov pod Berlinom” [The organization and conduct of combat for Batslow near Berlin by the 164th Rifle Regiment], *VIZh* 4 (April 1976): 65–70. The engineer brigade supported 1st Guards Tank Army, and the rifle regiment was in 3rd Shock Army.

31. Ziemke, *Stalingrad to Berlin*, 479–485.

32. In addition to the studies cited in previous notes, see A. Luchinsky, “Na Berlin!” [On to Berlin!], *VIZh* 5 (May 1965): 81–91.

33. A. Faizulin and P. Dobrovolsky, “Vstracha na El'be” [Meeting on the Elbe], *VIZh* 4 (April 1979): 52–53, contains documentary reports; see also G. Nekhonov, “Vstracha na El'be” [Meeting on the Elbe], *VIZh* 4 (April 1965): 119–121. Later that same day (25 April), elements of 15th Guards Rifle Division (5th Guards Army) linked up with the same 69th Infantry Division near Riesa; on the next day, 121st Guards Rifle Division of 13th Army met advanced elements of the U.S. 9th Infantry Division near Wittenberg. Farther north, on 2 May the lead elements of Soviet 70th Army (2nd Belorussian Front) met American troops of XVIII Airborne Corps (under British Second Army Command) near Schwerin.

34. For the fighting in Berlin, see V. S. Antonov, “Poslednie dni voiny” [The final days of war], *VIZh* 7 (July 1987): 70–75; S. Neustroev, “Shturm reikhstaga” [Assault

on the Reichstag], *VIZh* 5 (May 1960): 42–51; Isaev, *Berlin 1945*, 600–672; Goncharov, *Bitva za Berlin*, 385–542; and Le Tissier, *Race for the Reichstag*, 138–174.

35. For details and documents of the Berlin surrender, see V. G. Kuznetsov and V. P. Modlinsky, “Agoniia” [Agony], *VIZh* 6–7 (June–July 1992): 4–12, and Le Tissier, *Race for the Reichstag*, 188–190.

36. According to Krivosheev, *Soviet Casualties and Combat Losses*, 158, Soviet casualties in the Berlin operation totaled 78,291 killed or missing and 274,184 wounded, or 18 percent of committed forces. Polish casualties amounted to 2,825 killed or missing and 6,067 wounded. The Soviets also lost 1,997 tanks and self-propelled guns, 2,108 artillery pieces, and 917 aircraft during this operation. Isaev, *Berlin 1945*, 673–684, breaks these figures down by army and tank army. Soviet classified figures on German losses are in Goncharov, *Bitva za Berlin*, 730–732.

37. These conferences were held at the headquarters of the Group of Soviet Forces in Germany (GSFG) and the Central Group of Forces (CGF) from February through April 1946. Two of the conference reports were later published as “Iz doklad komanduiushchego bronetankovymi i mekhanizirovannymi voiskami Gruppy sovetskikh voisk v Germanii marshala bronetankovykh voisk P. A. Rotmistrova na voenno-nauchnoi konferentsii po izucheniiu Berlinskoi operatsii” [From the report of the commander of armored and mechanized forces of the Group of Soviet Forces in Germany, Marshal P. A. Rotmistrov, at a military-scientific conference on the study of the Berlin operation], *VIZh* 9 (September 1985): 43–50, and “Iz vystupleniya Marshala Sovetskogo soiuza I. S. Koneva na voenno-nauchnoi konferentsii vysshego komandnogo sostava Tsentral’noi gruppy voisk po izucheniiu optya Berlinskoi i Prazhskoi operatsii” [From a presentation of Marshal of the Soviet Union I. S. Konev at a military-scientific conference of the higher command staff of the Central Group of Forces on the study of the experience of the Berlin and Prague operations], *VIZh* 4 (April 1985): 53–59. The reports concluded that terrain considerations in central Europe and the changing nature of combat required an alteration of the army force structure away from the tank-heavy formations prevalent during the war to a more balanced combined-arms mixture. As a result, in 1946 and 1947 the Soviets abolished the tank armies and both tank and mechanized corps, replacing them with mechanized armies composed of tank and mechanized divisions, each with an increased complement of infantry and supporting arms. Rifle divisions received more firepower and support arms and were slowly motorized.

38. According to Morozov, *Velikaia Otechestvennaia voina*, vol. II, 767, German strength in the Prague operation was 900,000 men, 1,900 tanks and assault guns, 9,700 guns and mortars, and 1,000 aircraft. This included Army Group Center and over half of Army Group Austria (formerly Army Group South). Ziemke, *Stalingrad to Berlin*, 498, in effect agrees with this figure by placing German strength on 6 May at 600,000 for Army Group Center and 430,000 for Army Group Austria, or Ostmark.

39. Krivosheev, *Soviet Casualties and Combat Losses*, 159, and Morozov, *Velikaia Otechestvennaia voina*, vol. II, 753–754, agree on Soviet strength in the Prague operation: 2,028,100 troops, 1,808 tanks and SP guns, 29,496 guns and mortars, and 3,014 aircraft, of which 257,417 men were Allies, including 69,522 Poles, 48,400 Czechs, and 139,495 Romanians.

40. For details on the operational planning and conduct of the operation, see S. M. Shtemenko, *The Last Six Months: Russia's Final Battles with Hitler's Armies in World War II* (Garden City, NY: Doubleday, 1977), 393–396. For the best Russian-language account, see A. N. Grylev, V. P. Morozov, A. F. Ryzhakov, and V. V. Gurkin, *Za osvobozhdenie Chekoslovakii* [For the liberation of Czechoslovakia] (Moscow: Voenizdat, 1965). See also R. Malinovsky, “2-i Ukrainskii Front v bor'be za osvobozhdenie Chekoslovakii” [The 2nd Ukrainian Front in the struggle for the liberation of Czechoslovakia], *VIZh* 5 (May 1960): 11–25. For the German perspective, see Hinze, *To the Bitter End*, 159–191.

41. Krivosheev, *Soviet Casualties and Combat Losses*, 159, places combined Soviet, Polish, Romanian, and Czech losses in the operation at 52,498, including 11,997 killed or missing and 40,501 wounded. Matériel losses were 373 tanks and SP guns, 1,006 guns and mortars, and 80 aircraft.

42. Shtemenko, *Last Six Months*, 401–410.

43. Triadafilos Triadafilopoulos, “The Political Consequences of Forced Population Transfers: Refugee Incorporation in Greece and West Germany,” in Rainer Ohlinger, Karen Schonwalder, and Triadafilopoulos, eds., *European Encounters: Migrants, Migration, and European Societies since 1945* (Aldershot, UK: Ashgate Publishing, 2003), 103; *Die deutschen Vertreibungsverluste. Bevölkerungsbilanzen für die deutschen Vertreibungsgebiete 1939/50*, Herausgeber: Statistisches Bundesamt (Wiesbaden, FRG: Verlag W. Kohlhammer, 1958).

44. Thomas Grosser, “Integration of Deportees into the Society of the Federal Republic of Germany,” in Alfred J. Rieber, ed., *Forced Migration in Central and Eastern Europe, 1939–1950* (London: Frank Cass, 2002), 97.

Chapter 17. Conclusion

1. Roberts, *Stalin's Wars*, 280–281.
2. For Soviet order of battle in the Far East and Trans-Baikal region from 1941 to 1945, see *Boevoi sostav Sovetskoi armii, chast' 1 (Iyun'-dekabr' 1941 goda)* [The combat composition of the Soviet Army, pt. 1 (June–December 1941)] (Moscow: Voroshilov Academy of the General Staff, 1963); *Boevoi sostav Sovetskoi armii, chast' 2–4 (Ianvar'-dekabr' 1942 goda–1944 goda)* [The combat composition of the Soviet Army, pts. 2–4 (January–December 1942–1944)] (Moscow: Voenizdat, 1966, 1972, and 1988); *Boevoi sostav Sovetskoi armii, chast' 5 (Ianvar'-sentabr' 1945 g.)* [The combat composition of the Soviet Army, pt. 5 (January–September 1945)] (Moscow: Voenizdat, 1990); and David M. Glantz, *The Impact of Intelligence Provided to the Soviet Union by Richard Zorge on Soviet Force Deployments from the Far East to the West in 1941 and 1942* (Carlisle, PA: Self-published, 2014), a study presented to the Japanese National Institute for Defense Studies in October 2013. Soviet strength in the Far East on 22 June 1941 included 24 rifle, motorized rifle, and cavalry divisions; 8 tank and mechanized divisions; and 13 fortified regions, the latter intended for an economy-of-force role on the border. The *Stavka* drew heavily on units from the Far East and Trans-Baikal Military Districts in 1941 when it halted the German offensive at Moscow and conducted its first counteroffensive. From June through December,

it dispatched 18 divisions (11 rifle, 5 tank, and 2 motorized) from the Far East to the West, as well as enough personnel from the Pacific Fleet to form 12 naval rifle brigades. Formations such as Colonel A. P. Beloborodov's famous 78th Rifle Division and the 82nd Motorized Rifle Division, often described as "Siberian" divisions by Western authors, were actually from these two military districts. However, the *Stavka* replaced these experienced divisions with newer, less capable units formed in the eastern military districts, so that the Far Eastern strength of the Red Army remained almost unchanged during the first winter of the war. Even after sending 10 more rifle divisions and 4 rifle brigades to the West during the summer of 1942, Soviet strength in the region rose from 32 divisions and 14 fortified regions on 1 January 1942 to 47 divisions and 19 fortified regions on 1 January 1945. By the time of the Soviet attack in August 1945, this force had increased to 80 divisions, 4 tank or mechanized corps, and 21 fortified regions, organized into 1 tank and 11 combined-arms armies and supported by 4 air armies.

3. "Japanese Preparations for Operations in Manchuria, January 1943–August 1945," Japanese Monograph No. 138, U.S. Army Military History Section, U.S. Army Forces, Far East, Tokyo, 1951, 90–110 and 141–151.

4. Dennis M. Giangreco, *Hell to Pay: Operation Downfall and the Invasion of Japan, 1945–1947* (Annapolis, MD: Naval Institute Press, 2009), 94–97. For the older interpretation that downplayed the influence of casualty estimates, see Richard B. Frank, *Downfall: The End of the Imperial Japanese Empire* (New York: Random House, 1999), esp. 133–148.

5. The authors are indebted, as so often before, to Jacob W. Kipp, who reviewed this portion of the manuscript and provided extensive information, based on his own research, concerning U.S.-Soviet planning for Manchuria. Professor Kipp cited three documents from the Roosevelt Presidential Library at Hyde Park, NY: Map Room, Averell Harriman to F. D. Roosevelt, 16 October 1944 on the U.S. briefing to the Soviets; Map Room, Harriman to FDR, 18 October 1944 on the Soviet briefing; and U.S. Military Mission, Moscow (General Deane) to Joint Chiefs of Staff, M-21419, 18 October 1944, containing the Lend-Lease request for this campaign.

6. See the file of order of battle reports, downgraded from Top Secret Ultra and digitized by the Combined Arms Research Library, at <http://cgsc.cdmhost.com/cdm/singleitem/collection/p4013c0118/id/3999/rec/11>, accessed on 23 August 2013.

7. On the negotiations for Soviet intervention and on the Hokkaido plan, see Glantz, "Soviet Military Operations during the Soviet-German War"; John Erickson, "Stalin, Soviet Strategy, and the Grand Alliance," in Ann Lane and Howard Temperley, eds., *The Rise and Fall of the Grand Alliance, 1941–1945* (Houndsmill, UK: Macmillan, 1995), 164–167; and V. P. Galitsky and V. P. Zimonin, "Desant na Khokkaido otmenit" [Descent on Hokkaido countermanded], *VIZh* 3 (March 1994): 5–10, which includes correspondence between Stalin and Vasilevsky regarding the operation.

8. Edward J. Drea, "Missing Intentions: Japanese Intelligence and the Soviet Invasion of Manchuria, 1945," *Military Affairs* 48, no. 2 (April 1984): 66–73. See also Glantz, *Soviet Military Deception*, 544–555.

9. On the Soviet redeployment, see N. V. Eronin, *Strategicheskaiia peregruppovka sovetskikh vooruzhenikh sil (pri podgotovke Dal'nevostochnoi kampanii 1945 goda)* [Strategic regrouping of the Soviet armed forces (during preparations for the 1945 Far Eastern campaign)] (Moscow: Voroshilov Academy, 1980), classified secret but later declassified. Between 1 January and 9 August 1945, Soviet personnel strength in the Far East rose from 1,010,400 to 1,577,700. Although this source is accurate concerning the Soviet side, it woefully overstates Japanese strength in Manchuria.

10. Erickson, “Stalin, Soviet Strategy, and the Grand Alliance,” 165–166. For details on these changes in Soviet plans and the subsequent operations, see David M. Glantz, *The Soviet Strategic Offensive in Manchuria, 1945 “August Storm”* (London: Frank Cass, 2003), and Glantz, *Soviet Operational and Tactical Combat in Manchuria, 1945 “August Storm”* (London: Frank Cass, 2003).

11. Japanese garrison divisions had four regiments rather than three but no antitank or artillery capability. Even the regular field divisions of three regiments each had virtually no antitank capability, since the Japanese discounted the Soviet ability to introduce tanks into Manchuria and combat in the Pacific had not required Japan to develop modern antitank guns. Therefore, in Manchuria the Japanese added “raiding” battalions to each of their field divisions. Personnel in these battalions carried explosive charges to use against enemy tanks as suicide bombers. Such attacks proved ineffective against the Soviets until the Japanese command doubled the size of each charge. Most Soviet tank losses came at the hands of these suicide bombers, called by the Russians the *smertniki* (deathniks or Kamikazes).

12. According to Krivosheev, *Soviet Casualties and Combat Losses*, 160–161, the Soviets committed 1,669,500 soldiers to Far Eastern operations, including action in Manchuria, in Korea, and on the islands of the Kuriles and Sakhalin. The Mongolians contributed another 16,000 men as part of Pliev’s cavalry-mechanized force. In Manchuria itself, three Soviet fronts fielded 1,577,725 men, supported by 5,556 tanks and self-propelled guns, 27,086 guns and mortars, and 3,721 aircraft against the 713,000 soldiers of the Kwantung Army (plus 170,000 Manchurians and 44,000 Inner Mongolian forces, most of whom refused to fight or were ineffective). Although the Japanese had considerable artillery strength located in fortresses or under army command, they had virtually no modern tanks. See Glantz, *Soviet Strategic Offensive in Manchuria*, 60–91.

13. Jacob W. Kipp, “The Soviet Far Eastern Build-Up and the Manchurian Campaign, February–August 1945: Lessons and Implications,” Soviet Army Studies Office, Fort Leavenworth, KS, 1988, 8–13.

14. For details on Soviet force structure in Manchuria and the postwar restructuring, see Glantz, *Soviet Strategic Offensive in Manchuria*, 92–118 and 311–346. New Russian accounts of the operation include A. B. Shirokorad, *Dal'nevostochnyi final* [Far Eastern finale] (Moscow: “AST,” 2005); A. Aleksandrov, *Velikaia pobeda na Dal'nem vostoke, Avgust 1945 goda: Ot Zabaikal'ia do Korei* [The great victory in the Far East, August 1945: From Trans-Baikal to Korea] (Moscow: “Veche,” 2004); and I. N. Ban'kovskaia, ed., *Sovetsko-Iaponskaia voina, 9 avgusta–2 sentiabria 1945 g.: Rasskrychennye arkhivy* [The Soviet-Japanese War, 9 August–2 September 1945: Declassified archives] (Moscow: BIMPA, 2006).

15. I. Krupchenko, “6-ia gvardeiskaia tankovaia armiiia v Khingano-Mukdenskoi operatsii” [The 6th Guards Tank Army in the Khingan-Mukden operation], *VIZh* 12 (December 1962): 15–30.
16. A. A. Luchinsky, “Zabaikal’tsy na sopkakh Man’chzhurii” [Trans-Baikal troops in the hills of Manchuria], *VIZh* 8 (August 1971): 67–74.
17. N. I. Krylov, N. I. Alekseev, and I. G. Dragan, *Naustrechu pobede: Boevoi put’ 5-i armii, oktiabr 1941g.–avgust 1945g.* [Toward victory: The combat path of 5th Army, October 1941–August 1945] (Moscow: “Nauka,” 1970).
18. Krivosheev, *Soviet Casualties and Combat Losses*, 160–161. The Soviets also lost 78 tanks and SP guns (most to *smertniki*) and 232 guns and mortars. The Mongolians lost 72 killed or missing and 125 wounded. Krivosheev (277) lists Japanese losses for the Manchurian Campaign at 83,700 killed and 609,400 captured, plus 16,100 Chinese, 10,300 Korean, 5,600 Mongolian, and 700 Manchurian prisoners. Japanese prisoners joined captured Germans in long-term captivity in Siberia and the Far East, where they worked to rebuild the Soviet economy. Like the German prisoners, many perished and were not repatriated to Japan.
19. On the 257th Tank Brigade, see A. Beloborodov, “Na sopkakh Man’chzhurii” [In the hills of Manchuria], *VIZh* 12 (December 1980): 30–35, and 1 (January 1981): 45–51.
20. Edward J. Drea, *In the Service of the Emperor: Essays on the Imperial Japanese Army* (Lincoln: University of Nebraska Press, 1998), esp. 209–215. See also Tsuyoshi Hasegawa, *Racing the Enemy: Stalin, Truman, and the Surrender of Japan* (Cambridge, MA: Belknap Press of Harvard University Press, 2005), who argues that the Soviet invasion of Manchuria was most decisive in the Emperor’s decision to surrender.
21. Galitsky and Zimonin, “Desant na Khokkaido otmenit,” 9. See Glantz, “Soviet Military Operations during the Soviet-German War,” for President Truman’s role in persuading Stalin to halt his offensive against Hokkaido and how the Soviets managed to seize all of the Kurile Islands.
22. Frank, *Downfall*, 323. The Shumishu landing is described in Donald W. Mitchell, *A History of Russian and Soviet Sea Power* (New York: Macmillan, 1974), 450. See Giangreco, *Hell to Pay*, 162–163, on Japanese efforts to increase the defenses of Hokkaido.
23. Manstein, *Lost Victories*, 547.
24. Grier, *Hitler, Dönitz, and the Baltic Sea*, 221.
25. See, for example, General Friedrich von Mellenthin’s description of the Soviets he fought outside Stalingrad, in *Panzer Battles: A Study of the Employment of Armor in the Second World War*, trans. H. Betzler (Norman: University of Oklahoma Press, 1956), 186 and 209; Mellenthin does note that Soviet armored units were often an exception to these generalizations.
26. Ziemke, *Stalingrad to Berlin*, 412.
27. Ibid., 213. See also Table O in this volume.
28. Ziemke, *Stalingrad to Berlin*, 213–214 and 412, places total German dead at between 3 and 3.5 million; the authors estimate that 88 percent of these deaths occurred in the East. Krivosheev, *Soviet Casualties and Combat Losses*, 272–278, reviews the conflicting data and concludes that at least 3,888,000 German troops

(including Austrians, SS, and foreign auxiliaries) died, and 3,035,700 became prisoners. Officially, 450,600 German POWs, plus an additional 94,700 Hungarians and Romanians, died in captivity (278).

29. On German strength and losses in the West, see Frank P. Chambers, *This Age of Conflict* (New York: Harcourt, Brace & World, 1962), 589–596.

30. Alexander Hill's numerous publications help us understand the full effect of Lend-Lease. See, for example, Hill, *Great Patriotic War of the Soviet Union*, 163–191. Russian revisionists have also recognized this effect, including Boris V. Sokolov, "The Role of Lend-Lease in Soviet Military Efforts, 1941–1945," *JSMS* 7, no. 3 (September 1994): 567–586.

31. Moynihan, *Claws of the Bear*, 208–209.

32. Based on interviews that David Glantz conducted with Soviet war veterans in July 1989, Soviet infantry casualties remained high throughout the war, especially in first-echelon assault units. When asked what the normal losses were in a first-echelon regiment on the main attack axis of a penetration, a former regimental commander of 97th Guards Rifle Division replied "*pochti polovina*" (almost half) of the regiment's strength, even at the end of the war.

33. For detailed figures of party membership, see Mawdsley, *Thunder in the East*, 228. On the relationship between party and officers, see Reese, *Red Commanders: A Social History of the Soviet Army Officer Corps*, 157–171.

34. William E. Odom, *The Collapse of the Soviet Military* (New Haven, CT: Yale University Press, 1998), 389.

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A Note on Sources

Although a vast literature exists on the German-Soviet war, much of this work has suffered from the inaccessibility of Soviet military accounts and the lack of Soviet archival materials. Fascinating as they are, the popular memoirs of Heinz Guderian, F. W. von Mellenthin, Erich von Manstein, and others portray a war against a faceless enemy, a host that had no concrete form nor precise features. As described in the conclusion, these authors heavily influenced the talented efforts of historians such as Earl Ziemke and Albert Seaton to reconstruct the Soviet face of war; much of their primary material remained German or was heavily influenced by Germans such as former OKH head Franz Halder.¹

This same lack of archival records also influenced the few memoirs of prominent Red commanders, such as Georgii Zhukov, Konstanin Rokossovsky, and Vasili Chukov. Under the liberalization policies of Nikita Khrushchev, such men were able to publish their recollections during the 1960s. Again, however, these commanders had limited access to the Soviet archives, which forced them to rely on a combination of some archival records and their imperfect memories of the war. Thus, for example, neither side correctly depicted the course of battle inside Stalingrad. Moreover, controversial issues such as the seemingly endless disasters of 1941, Stalin's failure to withdraw from Kiev, or Zhukov's disastrous Mars offensive remained off-limits for public discussion. A few historians, through their linguistic talents or unique access to Soviet sources, were able to expose the basic nature of the Soviet Union's role in the war. Foremost among this group was John Erickson, whose massive tomes *The Soviet High Command, Moscow to Stalingrad*, and *Stalingrad to Berlin* will remain military classics, as will perceptive single-volume histories of the war such as Malcolm MacIntosh's *Juggernaut: A History of the Soviet Armed Forces*. Supplementing these sources, the most valuable and extensive collection of information and documents related to the war published during the Soviet period is Michael Parrish's two-volume bibliography of books published in the Soviet Union prior to 1985.

The situation began changing in 1990, when closer contacts started to develop between the United States and the USSR and their respective militaries. U.S. president George H. W. Bush's program of political détente with Soviet premier Mikhail Gorbachev and, later, Russian Federation president Boris Eltsin (Yeltsin) prompted their respective military establishments to pursue cooperative programs, including the exchange of military texts and studies prepared in the past and used in education for the future. As a result, textbooks, officer dissertations, and other materials from the Soviet General Staff and Frunze Academies, as well as complete collections (*Sborniki*) of Red Army General Staff war experience studies flowed westward, and U.S. military texts and studies on lessons learned went east. After the fall of the

Soviet Union in 1991, the Russian Federation accelerated these contacts and exchange programs, and later, the Central Archives of the Ministry of Defense began releasing fresh archival materials pertaining to the German-Soviet War on its website (www.podvig.naroda.ru).

During the mid-1990s, governmental organs such as the Ministry of Defense, the Institute of Military History, the Russian Academy of Science, the Academy of Science's Institute of General History, the Combined Editorial Office of the Russian MVD, the Federal Security Service of the Russian Federation, the Academy of the Federal Security Service of the Russian Federation, the Main Archives Administration of the city of Moscow, and others began releasing extensive collections of archival documents through their own publishing houses. Among them were Voennoe Izdatel'svto (Voenizdat), the military publishing house of the Ministry of Defense; Nauka (Science), the organ of the Russian Academy of Sciences; IVI RAN, the press of the Institute of General History; and affiliated presses. These collections included wartime directives and reports of the *Stavka*, the People's Commissariat of Defense (NKO), the Red Army General Staff, the NKVD, and GRU, as well as documents pertaining to specific wartime military operations (such as Moscow, Stalingrad, Kursk, the battle for the Dnepr, Belorussia, and Berlin) and other aspects of World War II.

At the same time, privately owned publishing firms such as "Iauza," "Eksmo," "Veche," "AST," "Olma-Press," Tsentrpoligraf, and others published tens if not hundreds of books written by Russian historians, who, with improved archival access, were able to examine all but a few aspects of the war.

The end of the Cold War had an even greater effect on German archival research. The collapse of the East German state allowed scholars to discover German documents, often duplicate copies held in nonmilitary archives, that historians had long believed were lost forever. The result has been an outpouring of superb new scholarship on the Axis side of the conflict. Foremost among these is the magisterial German official history of the conflict; the Clarendon Press has now published most of the volumes of this work in translation under the series title *Germany and the Second World War*. In addition, scholars such as Robert Citino, David Stahel, Alexander Hill, Rolf Hinze, and Jason Mark are steadily revising our understanding of the German side. The most extensive bibliography of books on the war is Rolf-Dieter Müller and Gerd R. Ueberschär, *Hitler's War in the East, 1941–1945: A Critical Bibliography*, published in Germany and Oxford in 1997.

The "Selected Bibliography" that follows highlights representative titles from all of the categories of sources mentioned here.

1. On this German influence, see the fascinating study by Smelser and Davies, *The Myth of the Eastern Front*, esp. 56–73.

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ISBN: 978-0-7006-2121-7



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