

USAWC STRATEGY RESEARCH PROJECT

**THE STRATEGIC IMPLICATIONS
OF THE BATTLE OF STALINGRAD**

by

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ABSTRACT

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The Battle of Stalingrad was probably the largest battle in World War II and a key turning point in the war on the Eastern Front. This paper will review, on a macro level, the German campaign that began in the Spring of 1942 and concluded with the surrender of the German VI Army, with an emphasis on the Battle of Stalingrad itself. It then will examine the key consequences and lessons learned from the campaign, including lessons of military strategy and leadership. Where appropriate, the paper will make observations about lessons from Stalingrad that are applicable to the U.S. military today.

TABLE OF CONTENTS

ABSTRACT.....	iii
LIST OF ILLUSTRATIONS	vii
THE STRATEGIC IMPLICATIONS OF THE BATTLE OF STALINGRAD	1
CONDUCT OF THE CAMPAIGN	2
THE PRELUDE TO THE BATTLE.....	2
THE BATTLE FOR STALINGRAD	5
THE BATTLE'S POSTLUDE	13
CONSEQUENCES	14
THE HEAVY COST OF THE BATTLE TO THE GERMANS	14
A BLOW TO GERMAN MORALE.....	14
THE SECURITY OF SOVIET OIL AND LEND-LEASE SUPPORT.....	15
SHIFT OF STRATEGIC INITIATIVE TO THE RED ARMY.....	16
LESSONS LEARNED	16
OVERSTRETCHING OF RESOURCES	16
FRONTAL ASSAULT VS. ENVELOPMENT.....	17
THE NEED FOR RESERVES.....	18
CIVIL-MILITARY RELATIONS	18
THE KEY ROLE OF INTELLIGENCE	19
THE IMPORTANCE OF AGGRESSIVE AND ADAPTIVE LEADERSHIP	20
CONCLUSION	21
ENDNOTES	23
BIBLIOGRAPHY	27

LIST OF ILLUSTRATIONS

FIGURE 1. GERMAN SUMMER OFFENSIVE, 7 MAY – 23 JULY 1942.....4

FIGURE 2. THE GERMAN ATTACK AT STALINGRAD8

FIGURE 3. THE SOVIET COUNTEROFFENSIVE11

THE STRATEGIC IMPLICATIONS OF THE BATTLE OF STALINGRAD

“They were being sent into an image of hell. As darkness intensified, the huge flames silhouetted the shells of tall buildings on the bank high above them and cast grotesque shadows... As they approached the shore, they caught the smell of charred buildings and the sickly stench from decaying corpses under the rubble.”¹

—Anthony Beevor, author of *Stalingrad*

“...a different outcome in the Battle of Stalingrad could scarcely have changed the end result of the war... Because of its tremendous size, spaces, and distances, Russia could only be conquered by Russians.”²

—General (Ret) Uhle-Wettler, German Army

When one visits the huge, “Mother of Russia” war statue in Stalingrad (now renamed Volgograd), Russia, one gets the impression that an epic battle took place there. And, indeed, an epic battle—the World War II Battle of Stalingrad between Germany and the Soviet Union—did take place there. The battle, which lasted six months, produced over 1.5 million casualties and led to the destruction of an entire German army and half of another.³ It also at one point tied down seven Soviet armies.⁴ The magnitude of these figures makes the battle hard to imagine, but it is clear that Stalingrad was one of the largest and longest single battles in military history.

Stalingrad also is significant in that it marked a key turning point in the war on the Eastern Front. While the ultimate outcome of Germany’s war effort in the East probably was determined by its failure to defeat the U.S.S.R. in its 1941 campaign (Operation BARBAROSSA), Stalingrad was the high water mark of Germany’s eastward advance. After its defeat at Stalingrad, the Reich never again occupied as much Soviet territory and, with brief exceptions, was in retreat.

The purpose of this paper is to examine briefly the Stalingrad campaign, with an eye to its strategic implications or lessons learned. I will first describe the conduct of the battle, including the events leading up to and immediately following it. I will then discuss the more important consequences and lessons learned, with a focus on the significant strategic and operational mistakes that led to the German defeat.

CONDUCT OF THE CAMPAIGN

THE PRELUDE TO THE BATTLE

The Battle of Stalingrad occurred a year after the Germans' invasion of the Soviet Union in 1941 in Operation BARBAROSSA. The aim of BARBAROSSA was to launch a massive, surprise attack against the Soviet Union that would capture most of the territory west of the Urals and force Moscow to capitulate. BARBAROSSA did achieve some profound successes: the Germans advanced to Leningrad in the north, the outskirts of Moscow in central Russia, and Kharkov in the south. In the process, they encircled and annihilated Soviet divisions by the dozen, taking advantage of their mobile, armored warfare, or "blitzkrieg," tactics. But, the Soviet or "Red" Army's resistance proved stronger than expected and the campaign dragged on into the winter, for which the German troops were unprepared. A Soviet counteroffensive launched in December 1941 then brought the German advance to a halt. One reason the German advance was thwarted was Hitler's decision to attack the U.S.S.R. across a broad front from the Barents to the Black Sea, thereby diluting the German Army's, or Wehrmacht's, combat power. Of course, the broad offensive also forced the defending Red Army to spread its forces thin, but it was more of a liability for the Germans because it prevented them from concentrating enough combat power to take Moscow—the principle strategic objective.

There were several important outcomes of BARBAROSSA that affected Germany's subsequent war effort in the East. First, since BARBAROSSA failed to defeat the Soviet Union, the war in the East would continue into a second year and further tax Germany's military resources. Secondly, the campaign cost Germany dearly in manpower and material, with the Wehrmacht sustaining over a million casualties.⁵ The most important outcome, though, was that, by failing to win in the first year, the Germans gave the Soviets time to mobilize for war. Given the vast resources of the U.S.S.R., this meant Germany would face ever increasing Soviet military capabilities as the war progressed, while her own capabilities were expended. Although this trend was not decisive in 1942 when the Battle of Stalingrad began, it nonetheless allowed the Soviets to continue the war effort and limited Germany's war fighting capability. By 1943, the trend became more pronounced, allowing the Red Army to field many more forces than the Germans. Thus, by the Battle of Kursk in 1943, the Red Army had a superiority in manpower of more than two to one.⁶

As the Russian winter relented in the spring of 1942, the German High Command planned a new offensive, Operation BLUE, for the summer. Because of Germany's losses in the previous year, this offensive would be smaller in scope and focus on the South. Hitler's aim

was to interdict Soviet oil and lend-lease shipping on the Volga River, seize the oil fields in the Caucasus, and set the stage for a later advance into the Middle East.⁷

On the Soviet side, the Supreme High Command, or Stavka, prepared to defend against another German offensive. Although captured documents revealed the Germans' advance would be in the South, Stalin dismissed this intelligence as a ruse and was convinced Moscow would be the German objective.⁸ So, the Red Army put its main effort on defending the center of the front and, as a result, was not well-prepared for the approaching German campaign.

In the lead up to Operation BLUE, a coincidental development occurred in the South that proved costly for the Soviets. In its December 1941 counteroffensive, the Red Army had pushed a salient into the German line near Barvenkovo and, in May 1942, decided to attack from the salient to retake Kharkov and relieve German pressure elsewhere on the front. At the same time, the German Army Group South decided to envelop the salient to straighten out its line before launching Operation BLUE. Neither side was aware of the other's intentions and, as misfortune would have it, the Red Army attacked first from the middle of the salient on May 12. It encountered little resistance because the Germans had already deployed to the sides of the salient for their own attack. With the Soviets' southern flank exposed, the Germans attacked into the Soviet rear, destroying three Soviet armies and capturing some 240,000 prisoners.⁹

With the Barvenkovo Salient eliminated, the Germans began Operation BLUE on June 28, 1942. Army Group South first advanced to Voronezh and attempted to take the city. However, the Stavka, concerned the attack was a prelude to an advance on Moscow, reinforced Voronezh, strengthening the Red Army's resistance. Rather than risk the campaign becoming bogged down, Hitler directed Army Group South to by-pass the city and press eastward to Stalingrad.

The German advance initially was very rapid. Having suffered severe losses at Barvenkovo, the opposing Soviet forces—the Southern and Southwestern Fronts—could not halt the German advance and, rather than fall victim to another encirclement, withdrew eastward until they could establish a defensible line. Unaware the Red Army was doing a strategic withdrawal, the Germans assumed the lack of resistance meant, as Hitler stated, that “the Russian is finished.”¹⁰

It was at this time that Hitler took a decision that would later prove unfortunate for the Germans. Whereas Operation BLUE originally called for sequential attacks—first to Stalingrad and then to the Caucasus, Hitler directed that the attacks be done concurrently. For this purpose, he split Army Group South into two groups—Army Group A, which was to proceed to the Caucasus, and Army Group B, which would advance to interdict the Volga River at

Stalingrad. The General Staff warned Hitler that this decision would spread the Wehrmacht too thin and not allow sufficient forces to protect its flanks. But, Hitler was anxious to achieve his war aims quickly and rejected his generals' concerns. Hitler's confidence—and that of some of his top commanders—that Army Group South could take the Caucasus and interdict the Volga simultaneously reflected in part their view that the Russians were an inferior people (“*untermensch*”) who could not stand up to the Germans.¹¹

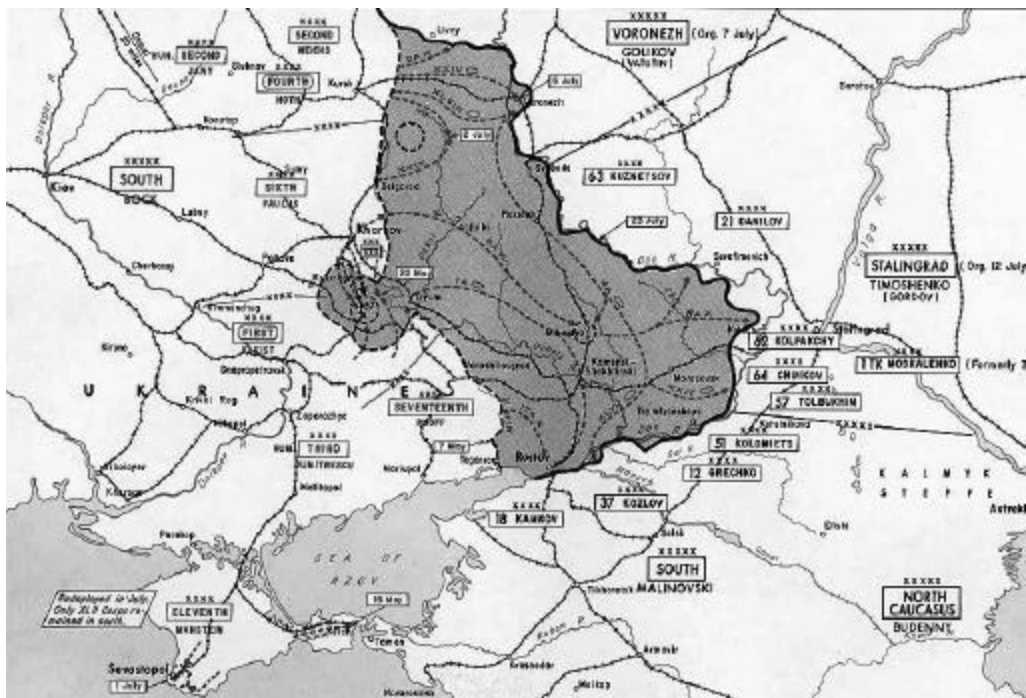


FIGURE 1. GERMAN SUMMER OFFENSIVE, 7 MAY – 23 JULY 1942.¹²

Hitler's decision against his generals' recommendations reflected a growing trend in his direction of the German Army's operations. Whereas, in the early years of the war, Hitler allowed his generals to handle operational matters, he was now making those decisions himself and ordering actions his generals considered militarily unsound.

With Army Group South split in two, Army Group A, composed of the I Panzer (armor) and XVII Armies, pressed toward the Caucasus, while Army Group B, composed of the II, IV Panzer, and VI Armies, advanced toward Stalingrad. By far the largest formation was the VI Army, which spearheaded the advance to the city. The VI army was commanded by General Friedrich

Paulus, a career General Staff officer who had a reputation for being thorough and hard-working, but not decisive.¹³ This disposition was to play a key role in the approaching battle at Stalingrad.

As Army Group B advanced, Hitler made another fateful decision in July, ordering that Army Group B not only establish a position on the Volga, as originally planned, but seize the city of Stalingrad as well.¹⁴ As this was not necessary to meet the military objective of interdicting the Volga, it appears Hitler's decision was motivated by political considerations or a personal desire to capture the city bearing the Soviet leader's name. In any event, it placed greater demands on the VI Army, which, as the main force of Army Group B, would have to expend considerably more resources to invade the city.

When it became clear the Germans were advancing against Stalingrad, the Red Army formed a new front, the Stalingrad Front, to defend the city. Composed of the 51st, 57th, 62nd, and 64th Armies, the front established a defensive line to the west of the Don River, roughly 70 miles west of Stalingrad. On July 23, the VI Army attacked the Soviet line, and after a series of engagements, the Stalingrad Front withdrew to the east bank of the Don. Several days later, the IV Panzer Army attacked the southern flank of the front, forcing it to pull back to a new line on the Myshkova River, roughly 40 miles southwest of Stalingrad. In the course of this engagement, much of the 51st Army was destroyed.

At this point, the Germans underwent an operational pause as they prepared for their attack against the city itself. Meanwhile, because of the extensive frontage being defended by the Stalingrad Front, the Stavka split it in two, creating a Southwest Front in the north and a Stalingrad Front in the south. The stage was set for the battle for the city.

THE BATTLE FOR STALINGRAD

On the eve of the Battle of Stalingrad, the attacking German forces (Army Group B) had 250,000 men, 740 tanks, 1,200 aircraft, and 7,900 guns and mortars; the opposing Soviet forces of the Southwest and Stalingrad Fronts had 187,000 men, 360 tanks, 337 aircraft, and 7,500 guns and mortars.¹⁵ Thus, the German forces had a moderate advantage in manpower and substantial advantages in armor and aircraft. Working in the Soviets' favor, however, were the advantages that naturally accrue to the defense—the use of terrain and obstacles and the availability of shorter lines of communication.

To seize Stalingrad, Army Group B divided into three groups: the II Army in the north; the VI Army in the center; and the IV Panzer Army in the south. The II Army's task was to hold the German line opposite Voronezh while the rest of the group attacked Stalingrad. The VI Army

was the main effort with the mission of invading the central and northern sectors of the city, while the IV Panzer Army had the task of executing a supporting attack against the city from the south. Army Group B also had three other formations—the Italian VIII Army and the Romanian III and IV Armies. These forces, however, were less capable and ultimately were given secondary missions defending the group's flanks. On the Soviet side, the Stalingrad Front was arrayed with its main force—the 62nd Army—defending the majority of the city, the 64th Army defending the southern end of the city, and the 57th Army defending the front's southeastern flank on the Kalmyk Steppe.

The battle began on the morning of August 23, 1942, when the Germans launched massive air strikes against the city, wreaking as much destruction and terror as possible. Over 2,000 sorties were executed on the 23rd alone, and, by the next day, the city was in ruins.¹⁶ As the air campaign got underway, the Germans launched a three-pronged ground attack against the city. The VI Army attacked the northern end with the objective of reaching the Volga and then rolling up the city from north to south. This was followed by an attack by the IV Panzer Army against the southern end of the city to fix the Soviet 64th Army and, concurrently, an attack by the VI Army in the center to split the seam between the Soviet 62nd and 64th Armies. Ultimately, the aim of the Germans was to divide the 62nd and 64th Armies, and then annihilate them separately.

Initially, the German attacks scored significant successes. In the north, the VI Army punched through the Soviet line to the Volga, cutting off the northern end of the city, and then began to press southward against the 62nd Army's northern flank. In the south, the IV Panzer Army smashed through the 64th Army's defensive line, driving a wedge between it and 62nd Army. As the 62nd Army now was threatened with envelopment, the Soviet forces were forced to fall back and establish a new line closer to the city. This process of withdrawing and establishing new defensive positions continued as the Germans pressed their attacks so that, by September 12, the Soviet line had been pushed back into the city itself.

Despite the Germans' initial successes, their advance slowed considerably as the battle continued. The reasons for this are threefold. First, desperate to hold on to the city, the Red Army and inhabitants of Stalingrad mounted a tenacious defense, with small unit formations executing hit-and-run attacks and factory employees firing anti-aircraft guns and disabled tanks that still had serviceable guns. Secondly, as the Soviet forces were pushed into smaller concentric circles around the city, they had less territory to defend and, therefore, were able to respond quickly to German assaults. Finally, because of the numerous German air strikes, the city had been reduced to rubble, creating obstacles that aided the Soviet defense and inhibited

maneuver by the Germans' chief weapons, their tanks. Thus, the battle evolved into one of close quarters combat amongst the burned out buildings of the city—a task for which the German mechanized units, as one author noted, “proved to be totally unfit.”¹⁷

The Soviet resistance was such that, by October, the Germans' advance had slowed to a snail's pace. Under pressure from Hitler to take the city, Paulus continued to assault it, but progress was reduced to capturing a building here or a block there. As one war correspondent observed, whereas the Germans captured Poland in 28 days, they took only “a few houses” in 28 days of fighting in Stalingrad.¹⁸ On October 14, Paulus made an all-out push to capture the city, committing five divisions against the 62nd Army, with the German Air Forces flying some 3,000 attack sorties in support.¹⁹ This was the heaviest day of fighting in the battle. As one 62nd Army officer described it, “The fighting assumed monstrous proportions beyond all possibility of measurement.”²⁰ The attack nearly succeeded: the 62nd Army was split into several isolated pockets and pushed back to the bank of the Volga. But, the Red Army stubbornly held on to slivers of the city and, by October 17, the German attack ground to a halt due to heavy losses. This was the Germans' culminating point in the battle.

The protracted fighting in September and October wreaked devastation of profound proportions. Entire divisions were wiped out, only shells of buildings were left standing, and fires burned on a continual basis. As McTaggart describes it, “...the great city was like a twisted, stinking corpse, full of smoldering ruins and unburied dead.”²¹ The battle also took a serious toll on civilians in the captured territories, as well as on those who became prisoners of war. With the exception of some prisoners who were integrated into German units, the Germans subjected Russian civilians and prisoners alike to a horrific fate. According to Soviet sources, the Germans executed some 3,000 civilians during the fighting in the Stalingrad area and deported another 60,000 to labor camps where they had no protection from the elements.²² Certain groups, such as Jews and Soviet Communist Party officials, were specifically targeted for execution. In one instance early in the campaign, 90 Jewish children reportedly were shot by Army Group South units.²³ The Soviet treatment of German prisoners was not much better: crippled Germans either were shot or left to fend for themselves and the rest were carted off to camps where many died of malnourishment and exposure.²⁴

During the rest of October and into November, the Germans continued to execute localized attacks against the 62nd Army. But, none of these were as powerful as the one launched on October 14, and the gains were confined to single buildings or portions of buildings. Simply put, the VI Army was exhausted and Army Group B had no additional forces

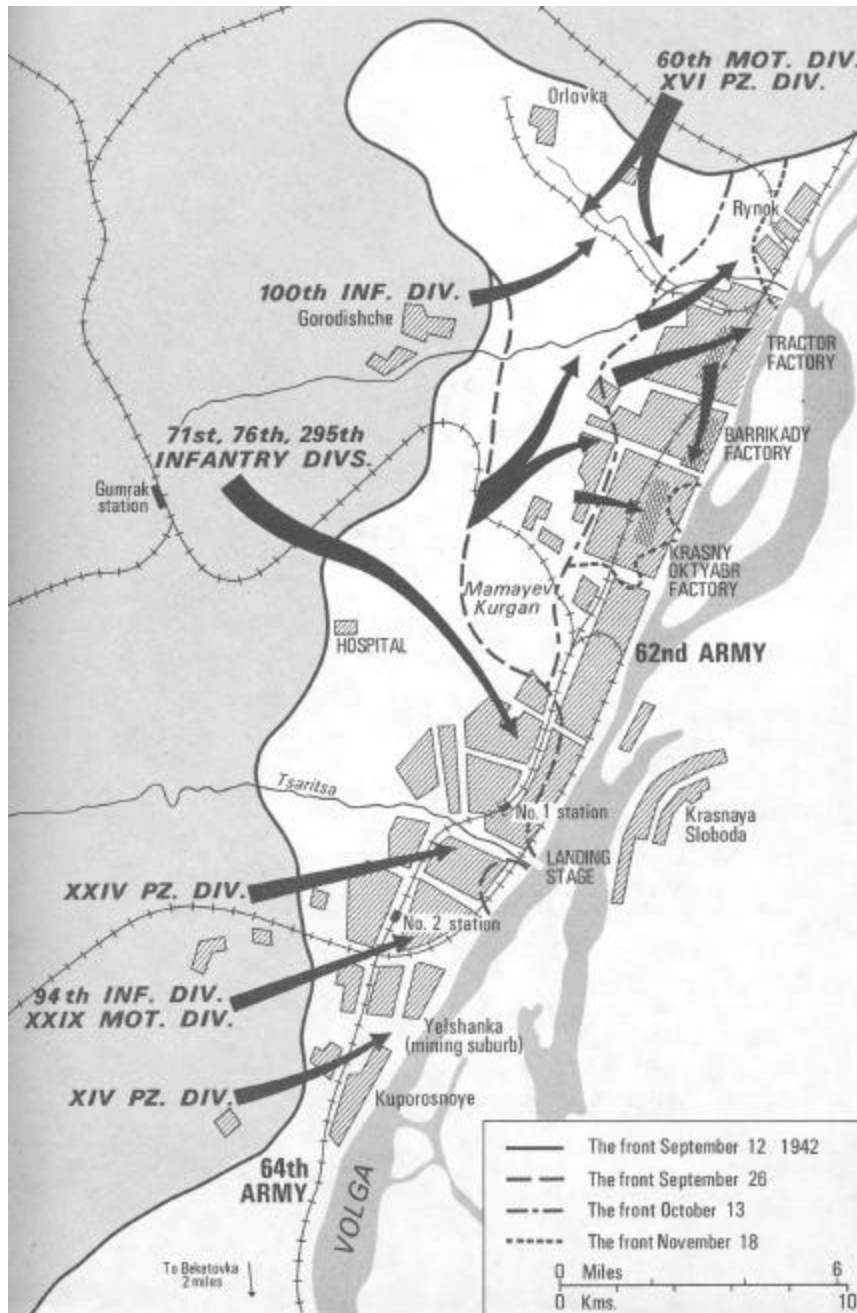


FIGURE 2. THE GERMAN ATTACK AT STALINGRAD²⁵

to commit to the fight. Of course, the Soviet forces likewise were spent and were not capable of much other than occasional, localized counterattacks. Thus, a sort of stalemate emerged in the city. Events were about to unfold, though, that would dramatically swing the battle in the Soviets' favor.

As early as September, the Stavka had recognized that, in their rapid advance to Stalingrad, the Germans had created an exposed flank along the Don River to the north of the VI Army. They also had created a smaller exposed flank to the south of the IV Panzer Army. The two flanks were lightly defended by the III and IV Romanian Armies, respectively, augmented by German panzer units. Seeking to exploit the opportunity presented by these flanks, Stalin's top military commander, Marshal Zhukov, began planning a major Soviet counteroffensive to penetrate the flanks and envelop the Germans at Stalingrad. Codenamed Operation URANUS, the plan called for a double envelopment of the VI Army and associated units, using three separate attacks: two attacks from the north and south, respectively, into the rear of the VI Army to form an inner "ring" around it, and a third attack from the north into territory west of the VI Army to create a second, outer ring.²⁶ The first ring would destroy the VI Army, while the second would defend against any outside German attempt to relieve it. If the operation was successful, it would set the stage for a follow-on attack, codenamed Operation SATURN, toward Rostov to envelop Army Group A in the Caucasus or at least force it to withdraw.

During the months of October and November, as the 62nd Army clung to life on the banks of the Volga, the Stavka made preparations for the counteroffensive under complete secrecy. The armies defending Stalingrad (62nd Army) and the territory to the south (51st, 57th, and 64th Armies), were consolidated under the Stalingrad Front, and some were reinforced in preparation for the attack against the Germans' southern flank. At the same time, to the north of Stalingrad, units were regrouped into a new Don Front, which now comprised the 24th, 65th, and 66th Armies, each of which was reinforced. This front would attack from the north and link up with those from the south to form the inner ring. Finally, the Southwest Front was reformed to the rear with two units from Stavka reserves—the 21st Army and the 5th Tank Army. This front would execute the attack to the west to form the outer ring. Altogether, nine different armies were to participate in the operation. As forces were deployed to the Stalingrad area in preparation for the offensive, the Stavka employed strategic deception by deploying them first to the north, giving the Germans the impression the Red Army was reinforcing Moscow. By mid-November, most of the preparations were complete. Altogether, the Soviet forces assembled for the operation comprised over a million men, with some 900 tanks, 13,500 guns and mortars,

and 1,100 aircraft.²⁷ The German forces that would oppose them also numbered over 1 million men, with 675 tanks, 10,000 guns and mortars, and 1,200 aircraft.²⁸ Thus, the two sides were fairly equivalent, the Soviets having some advantage in tanks and guns. However, also working in favor of the Soviets was the fact that many their soldiers were fresh, unlike the battle-fatigued Germans.

As noted, the German General Staff had had misgivings about the vulnerability of the Germans' northern flank when Hitler decided to split Army Group South in two. In the course of the battle, other generals expressed similar concerns. In particular, one of the VI Army's corps commanders, General von Seydlitz, urged Paulus to hold two panzer divisions in reserve in case the Soviets attacked into the army's rear.²⁹ Paulus, however, dismissed this suggestion, blindly trusting to Hitler's direction and convinced the Soviets were not capable of executing a major attack.³⁰

On November 19, 1942, the Red Army launched Operation URANUS, almost totally catching the Germans by surprise. The Soviet forces quickly smashed through the Romanian defenses and drove deep into the VI Army's rear, wreaking confusion and havoc along the way. In four days, the forces of the Don and Stalingrad Fronts linked up near Kalach, closing the inner ring around the VI Army and part of the IV Panzer Army. Meanwhile, the Southwest Front attacked to the west of Stalingrad and, by November 30, the outer ring was in place. With that, the Soviets proceeded to the next stage of the operation—the systematic annihilation of the VI Army.

The German reaction to the encirclement was slow. In the chaos associated with the sudden attack, Paulus did not have a clear picture of what was happening until it was well underway. Hitler also was slow to respond, having been distracted by concurrent developments in North Africa, where the Germans were retreating from the Battle of El Alamein and U.S. and British forces were launching Operation TORCH.³¹ As the scope of the Soviet counteroffensive became evident, Paulus held a meeting with his commanders three days after it began. Nearly all of them favored breaking out of the ring and withdrawing from Stalingrad, and Paulus proposed this course of action to Army Group B.³² But, before the army group could respond, he received an order from Hitler to stay in place.³³ As the Soviet forces cut off the VI Army's supply lines and its position became more precarious, Paulus again on November 23 requested authority to break-out, stating it faced "annihilation in the immediate future" if it did not withdraw.³⁴ To this Hitler responded with a "Führer's Order" that there was to be no withdrawal and that the VI Army would be re-supplied by air.³⁵ Having been rebuked twice, Paulus resigned himself to following the Führer's orders.

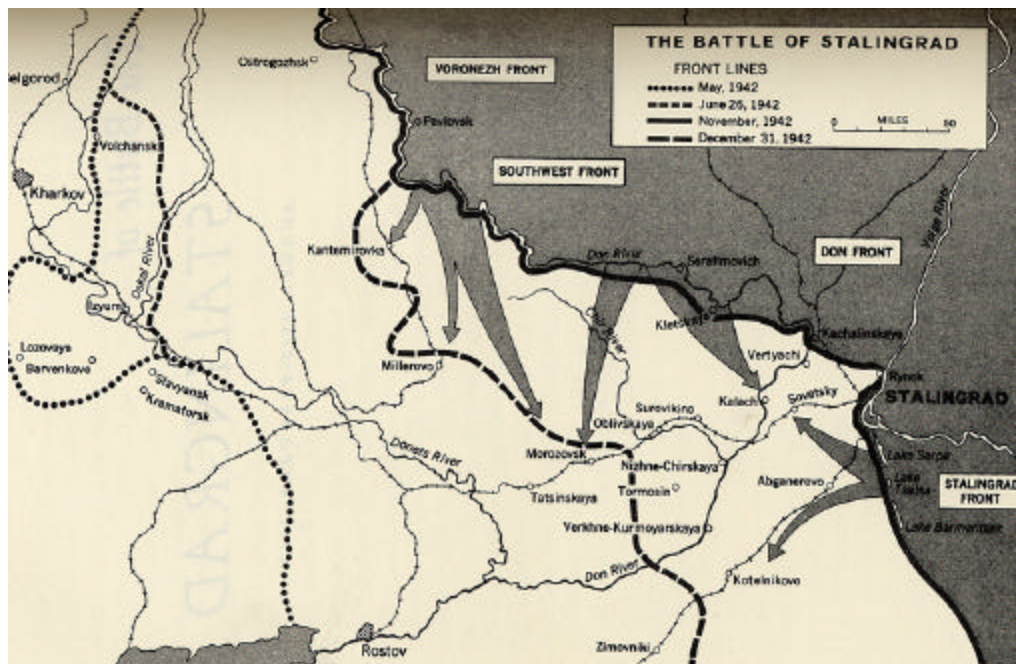


FIGURE 3. THE SOVIET COUNTEROFFENSIVE³⁶

Hitler's order for VI Army to stay in place was motivated by two factors. First, he was still seized with wanting to capture Stalingrad and was unwilling to believe that the Russians might hand him a major defeat. Secondly, he was advised by his deputy, Marshall Goering, that the VI Army could survive in place by re-supplying it by air. The notion that the VI Army could be sustained by air was ludicrous, as the German Air Force did not have enough aircraft to conduct an airlift of this scale.³⁷ The VI Army stated it needed 700 tons of supplies per day, and the Air Force calculated it could airlift only 350 tons.³⁸ In actuality, even the Air Force's calculations were overly optimistic: when the airlift began, only 65 tons per day were delivered during the first two days, and the tonnage did not significantly increase afterwards.³⁹

As the encirclement continued, the position of the VI Army became increasingly untenable. Food had to be severely rationed, fuel and ammunition allotments were reduced, and medical supplies dwindled. Complicating the situation was the onset of the Russian winter, for which the Germans again were unprepared and which led to hypothermia and frostbite. Finally recognizing he risked losing the VI Army and concerned about the emerging Soviet threat to Army Group A, Hitler tasked one of his premier commanders, General von Manstein, to form a new Army Group Don and attack to relieve the VI Army. Manstein doubted he could

break through the Soviet rings, but nonetheless prepared a plan to attempt the relief. Code-named Operation WINTER TEMPEST, the plan called for a task force, Army Group Hoth, to attack the Soviet line from the southwest and punch a corridor through to the VI Army. In the event Army Group Hoth was unable to reach the VI Army, a branch plan—Operation THUNDERCLAP—directed that the VI Army break-out to the southwest to meet Army Group Hoth. Army Group Hoth's forces, composed of two German and two Romanian corps, were not sufficient to execute the plan, so Manstein was assigned an additional four panzer divisions.⁴⁰ These divisions were pulled from elsewhere on the Eastern Front, France, and Germany.⁴¹

WINTER TEMPEST was launched on December 12 and at first scored some success. Army Group Hoth advanced against the Soviet 51st Army as far as the Myshkova River and reached a point only 22 miles from the VI Army's perimeter.⁴² However, the Stavka then committed a new strategic reserve formation, the 2nd Guards Army, to the fight, and the German attack ground to a halt. At this point, Paulus should have executed THUNDERCLAP to meet Army Group Hoth. But, he demurred, saying he could not disobey Hitler's order to hold Stalingrad and that VI Army did not have enough fuel to break-out anyway.⁴³ Faced with mounting pressure against Army Group Hoth and renewed Soviet attacks further west that threatened to envelop both Army Group Don and Army Group A, Manstein called off the relief effort. Operation WINTER TEMPEST had failed and, with it, any chance of saving the VI Army.

What followed next can only be described as a tragedy of unimaginable magnitude. The Soviet forces tightened the noose around the VI Army which, like the 62nd Army at the beginning of the battle, was pushed back into ever smaller circles around Stalingrad. Eventually, the army lost the airfields by which it was being re-supplied, and delivery of food, clothing, and medicine was reduced to air drops that were far from sufficient for the army to survive. The result was that soldiers of the VI Army began to die by the thousands—either from starvation, exposure, illness, combat injuries, or some combination of the four. This gradual death of the army, though, did provide one benefit to the German forces in the south. By tying down seven of the nine Soviet armies originally committed to Operation URANUS, the VI Army prevented them from attacking Army Groups A and Don, and this gave the two groups time to withdraw and escape being themselves enveloped.⁴⁴

On January 8, 1943, the Soviets offered the VI Army an opportunity to surrender, which Paulus rejected. Later, Paulus did seek authority to surrender, but this was forbidden by Hitler.⁴⁵ With no surrender forthcoming, the final Soviet attack—Operation RING—was launched on January 8 to finish the VI Army off. By January 25, the Don Front reached the center of the city, splitting the VI Army in two, and on January 31, Soviet infantrymen reached

Paulus's bunker, forcing him to surrender along with the bulk of his army. Two days later, an isolated German pocket in the northern part of the city also surrendered, bringing an end to the battle.

The annihilation of the VI Army and its associated elements was a huge loss for the Germans. Of the 274,000 German, Romanian, and other Axis troops who were surrounded as a result of the Soviet counteroffensive, 158,000 perished and 91,000 were taken prisoner (the remaining 25,000 were evacuated by air prior to the army's collapse).⁴⁶ The Red Army suffered even more losses, with casualties during the encirclement operation totaling 155,000 dead and 331,000 wounded.⁴⁷

Looking at the battle as whole, though, the figures are even more staggering. Total Axis losses for the battle, from August 23, 1942 to February 2, 1943, exceeded 500,000 men.⁴⁸ Again, the Soviet losses for the period were higher, with total casualties estimated at 1.1 million.⁴⁹ Nonetheless, given her commitments in Europe and Africa, and the growing strain of nearly four years of war, Germany could less afford to absorb these losses.

THE BATTLE'S POSTLUDE

As discussed earlier, during the planning of Operation URANUS, the Soviets had conceived a follow-on plan, Operation SATURN, to cut off Army Groups Don and A or force them to withdraw. In fact, the Southwest Front executed a scaled down version of this plan in December when it attacked Army Group Don's flank to the southwest. The attack forced Manstein to call off his attempt to relieve the VI Army and, as intended, prompted the Germans to begin withdrawing Army Groups Don and A to the west.

With the VI Army now defeated and Army Groups Don and A withdrawing, the Red Army expanded its counteroffensive in February, 1943, aiming at Kursk and Kharkov. In what nearly became a route of the Germans, the Soviets rapidly advanced westward, seizing both cities by February 18, and threatening the German positions in Kiev and the Crimean Peninsula. At this point, however, Manstein salvaged the situation with a counterattack that stopped the Soviet offensive and, by mid-March, re-took Kharkov for the Germans. This marked the end of the second year of the war on the Eastern Front. With the onset of the spring rains, major fighting stopped for the next several months.

One outcome of the German counterattack was the creation of a large Soviet bulge in the German line in the area of Kursk, north of Kharkov. The Kursk Salient, as it was called, became the objective of the final major German campaign in the East in the summer of 1943 and led to another epic battle—the Battle of Kursk—in which the Germans also were defeated. The Battle

of Kursk could probably be viewed as the Germans' last offensive gasp on the Eastern Front. Although the Germans concentrated considerable combat power for this offensive, including 3,155 tanks, the attempt was in vain: the tide of the war in the East had already turned in the U.S.S.R.'s favor as a result of Stalingrad and the full-steam mobilization of the Soviet Union.⁵⁰

CONSEQUENCES

The campaign for Stalingrad had serious consequences for Germany in terms of manpower and material, morale, and the future course of the war on the Eastern Front and, for that matter, in Europe as a whole. These consequences are summarized below.

THE HEAVY COST OF THE BATTLE TO THE GERMANS

A major consequence of the campaign was its tremendous cost to the Germans in military forces—costs, again, that Germany could not afford. In addition to the ½ million casualties she incurred from the campaign, Germany lost some 3,500 tanks and self-propelled guns, 12,000 guns and mortars, and 3,000 aircraft.⁵¹ This amounted to roughly half a year's worth of German war production.⁵² As Zhukov concluded, "losses of such magnitude had a disastrous effect on the general strategic situation and shook the entire military machine of Nazi Germany to its foundations."⁵³ In terms of force structure, the battle likewise took a serious toll. The largest army in the Wehrmacht, the VI Army, was destroyed as was most of the IV Panzer Army. Three other armies—the Romanian III and IV Armies, the Italian VIII Army, and the Hungarian II Army—also were largely eliminated, bringing the total Axis losses to roughly four and a half armies. This lost force structure equated to over 50 Axis divisions.⁵⁴ The cost was high in respect to military leadership as well. Twenty-two German generals were taken prisoner at Stalingrad, including a field marshal, an army chief of staff, and at least five seasoned corps commanders.⁵⁵ As in the case of manpower and equipment, these losses in force structure and general officers could not easily be replaced.

A BLOW TO GERMAN MORALE

Another important consequence of the battle was the damage it inflicted on German morale. A three-day period of mourning was declared in Germany after the battle to recognize the many soldiers who had perished, and thousands of families came to the realization that their loved ones had perished on the banks of the Volga. Wehrmacht officers were no longer confident that the war on the Eastern Front could be won, and the confidence of German civilians in the war effort was no longer certain. Wieder and Einsiedel, who fought at Stalingrad, describe well this impact of the battle on German morale:

“This was not only a catastrophe in terms of loss of fighting power. The moral after-effects on the [German] troops and civilian population were soon apparent, as was the increased self-confidence and will to fight of the enemy who had now seized the initiative...If one takes into account the fact that we were engaged in a total war in which psychological factors are bound to play a decisive role, then the Battle of Stalingrad was something the like of which had never been heard of before.”⁵⁶

The stress the German defeat wrought upon the German population was evident in anti-war riots that erupted among students in Munich after the battle.

It should be noted that the defeat at Stalingrad also negatively affected the morale of Germany's Axis partners, who lost some of their confidence in the Nazi leadership. Some of these countries sought subsequently to extricate themselves from the war.⁵⁷

THE SECURITY OF SOVIET OIL AND LEND-LEASE SUPPORT

A third consequence of the campaign was that, by pushing the Germans back by some 400 miles to Kharkov, it ensured the security of the Caucasus and Caspian Sea region.⁵⁸ This region was strategically important to the Soviets for two reasons. First, it was the U.S.S.R.'s principle source of oil, with the majority of Soviet oil fields and refineries located at Maikop and Baku. The oil was shipped into the heart of the U.S.S.R. via several rail lines through the Caucasus and Astrakhan as well as by barge up the Volga through Stalingrad.⁵⁹ As noted, capturing the Caucasian oil fields was one of Hitler's objectives in Operation BLUE and, had the Germans succeeded, the Red Army would have lost much of the fuel it depended on to wage the war.

The Caucasus and Caspian areas also were important because they constituted one of the two primary routes through which the Allies shipped Lend-Lease aid to the U.S.S.R., the other route being via Murmansk in the north. Lend-Lease aid was shipped to the U.S.S.R. from mid-1942 to 1945 and constituted an important source of military and industrial support. Among the key items provided were large quantities of aluminum, manganese, and coal to help Soviet industry recover, as well as millions of tons of food, uniforms, and some 11,800 railroad cars and locomotives.⁶⁰ Especially important was the provision of trucks to support Red Army operations. Indeed, by the end of the war, two out of every three Red Army trucks came from Lend-Lease sources.⁶¹ The effect of the Lend-Lease aid was to compensate in part for the U.S.S.R.'s loss in production caused by the war and thereby help it sustain the war effort until Soviet production was back on track.

The net result of the German defeat at Stalingrad and subsequent retreat was to eliminate the German threat to these vital sources of oil and aid. With the Germans now pushed back

400 miles to the west, they would never again threaten Soviet oil or Lend-Lease from the south for the duration of the war.

SHIFT OF STRATEGIC INITIATIVE TO THE RED ARMY

Certainly the most important consequence of the battle is that, due to all the factors discussed above, it permanently shifted the strategic initiative in the east from the Germans to the Soviets. Up until the Soviet encirclement of the VI Army, it was possible the Germans could have forced the U.S.S.R. to sue for peace. Soviet industry was just beginning to rebound at the time the battle began and the Red Army's supply situation was still precarious.⁶² Thus, if the Germans had won at Stalingrad, taken control of the Caucasus, and cut the Red Army's supply of oil and Lend-Lease aid from the south, it is conceivable they could have so seriously damaged Soviet war-making ability as to force Moscow to pull out of the war. After the defeat at Stalingrad, however, there was no longer such a possibility. Their lines of communication and sources of energy and aid secure, the Soviets were able to produce more and more military formations unhampered for the rest of the war. The Germans, on the other hand, had incurred huge losses that their stretched resources could not fully replace, putting them at a serious disadvantage. This reality was evident in the manpower situation when the Battle of Kursk began. According to Jukes, "...whereas in November 1942 the Red Army began its counteroffensive on a basis of rough parity, seven and a half months later, when it began the Battle of Kursk, it had a superiority in manpower of over two to one."⁶³ In material, a similar imbalance in artillery was evident by the time of the Kursk battle, in which the Red Army had an advantage of 2.5 to 1.⁶⁴ And, of course, the Soviet victory at Stalingrad boosted the Red Army's morale at the expense of the Wehrmacht. The net result of these developments is they allowed the Soviets to shape the further course of the war in their favor.

LESSONS LEARNED

There were many lessons learned from the Stalingrad campaign, ranging from logistics to strategy to military leadership. Some, however, stand out as especially important in respect to both the outcome of the war and modern military policy. The discussion below focuses on these key lessons.

OVERSTRETCHING OF RESOURCES

Certainly an important lesson learned from Stalingrad was the Germans' overstretching of their military resources—a factor that led to the Wehrmacht not massing enough combat power to achieve its objectives. In the Stalingrad campaign, there were two instances where the

Germans overstretched their military capabilities. The first was Hitler's decision to split up Army Group South and advance against Stalingrad and the Caucasus concurrently, reducing the forces available for each. The second was Hitler's order to capture the city of Stalingrad in addition to interdicting the Volga, thereby expanding the VI Army's mission without giving it more forces. The net result was that Army Group B had less forces than it needed to ensure the successful execution of its missions, and this contributed to its defeat. Had Army Group South never been divided and the capture of the city of Stalingrad not been made a requirement, the Germans would have been able to concentrate their forces and defend their flanks, and the encirclement of the VI Army may well not have happened.⁶⁵

FRONTAL ASSAULT VS. ENVELOPMENT

Another lesson of the battle is the desirability of avoiding frontal assaults whenever possible. Frontal assaults enable the defender to exploit all the advantages of the defense, such as the emplacement of obstacles and the orientation of forces toward the expected enemy avenue of approach. Consequently, they historically have been very costly to the attacker. Patton's frontal assaults against the Germans at Metz in the Lorraine Campaign, for example, cost his Third Army 29,000 casualties.⁶⁶

In the Battle of Stalingrad, Paulus essentially carried on the battle for two months with frontal assaults against the Soviets' defensive line. The result was that the VI Army's combat power was gradually drained, and it ultimately ran out of sufficient forces to stage meaningful attacks.

A more preferable maneuver is the envelopment, in which the enemy is caught unawares and has not prepared a deliberate defense in expectation of attack. The Germans very effectively used the envelopment earlier in the war, and it is not clear why they did not attempt such a maneuver at Stalingrad. Evidently, they believed the Red Army's defense of Stalingrad was on the brink of collapse and that another major assault or two would suffice to defeat it. As one German soldier recalled, "We were the victors and...we thought that we would capture the city in a few days. That was a mistake."⁶⁷ It also is possible Paulus believed an envelopment of the city, which probably would have required augmentation with airborne and river units to cross the river, would be too difficult to do. Whatever the case, if the Germans had enveloped Stalingrad, the Soviet 62nd Army—cut off from its sources of sustainment—would have been eliminated.

To summarize, Stalingrad shows that, in conventional warfare, commanders should avoid frontal assaults and employ, instead, enveloping maneuvers where possible. This is not to say

that the frontal assault is not an acceptable maneuver. There are cases where it is required to penetrate the enemy's line. But, it can lead to such losses that the defeat of the enemy, if it is achieved, becomes a pyrrhic victory.

THE NEED FOR RESERVES

Clausewitz said it is "an essential condition of strategic leadership that forces should be held in reserve according to the degree of strategic uncertainty."⁶⁸ Clearly, there was such uncertainty when the Germans advanced on Stalingrad. The uncertainty was evident as early as July, 1942, when the German General Staff expressed concern about splitting Army Group South, noting this would not allow enough forces to protect Army Group B's flanks. It was subsequently evident when the battle for the city dragged into October and it was no longer clear the VI Army would be able to capture it. Finally, the uncertainty became painfully manifest in November, when General von Seydlitz recognized the vulnerability of the VI Army's northern flank and urged Paulus to establish a reserve in case the Russians attacked. Nonetheless, with the exception of a few Army Group B divisions scattered about the area, neither the army group nor the VI Army had reserves with which it could decisively influence the fight.⁶⁹

Reserves at all levels serve two purposes. First, they provide a force to respond to unexpected developments, such as an enemy attack on one's flanks. Second, they give the commander the ability to exploit an unexpected opportunity that presents itself on the battlefield, such as a penetration of the enemy's defensive line. Had Paulus established a robust reserve as von Seydlitz suggested, he would have been able to employ it against the Soviet counteroffensive either to escape encirclement or to keep a corridor open to the rear through which his army could be re-supplied and reinforced. He also could have employed a reserve to reinforce his attack against Stalingrad in mid-October, when the Germans came so close to capturing the city. To be fair, Paulus would have had to draw from his forces or obtain additional units from the German High Command to establish such a reserve. But that doesn't change the fact that he needed a reserve. The bottom line is that, in any military engagement, having a reserve available is essential if the commander is to react effectively to unexpected developments.

CIVIL-MILITARY RELATIONS

A third take-away from Stalingrad is the importance of civil-military relations in the success or failure of a campaign. Fostering positive civil-military relations can lead to local civilians providing support to the occupying forces and thereby serve as a combat multiplier. The same is true for prisoners-of-war, who may be more prone to support the enemy—perhaps even fight

on his behalf—if they are treated well. As discussed, the Germans in the Stalingrad campaign treated most civilians and POWs brutally. By and large, they implemented the policy directed by Hitler's deputy, Marshall Goering, who said that the territories in the East should be fully exploited to meet German needs, even if this deprived the local people of the minimal food, clothing, and other necessities required to survive.⁷⁰ The result was to strengthen the resolve of Russian civilians and soldiers alike to oppose the Germans and to discourage Red Army units from defecting. As Jukes states, "...for the bulk of the Russians the home-grown dictatorship [of Stalin] was much the lesser of two evils; and as evidence of Nazi atrocities was...publicized...Soviet resistance hardened and the population rallied round the figure of Stalin as they had never done in peacetime."⁷¹

Given the discontent in Russia with Stalin's regime, which before the war had executed, imprisoned, or exiled millions of Soviet citizens, the Germans missed a tremendous opportunity to enlist local support.⁷² Had Army Group South, for example, treated civilians and POWs well and promoted an image of being their deliverers from Stalinism, it could have obtained the dedicated support of thousands of people, and many Red Army soldiers, no doubt, would have switched to the German side. Conceivably, such a development could have changed the outcome of the campaign and, for that matter, the war in the East. The lesson learned is that the military strategy for any campaign should include concerted efforts to obtain the support of the local people.

THE KEY ROLE OF INTELLIGENCE

Yet another lesson from the battle is the crucial role of intelligence in military decision-making. Throughout the campaign, we see multiple instances on both sides where accurate intelligence about the enemy was either lacking or not believed. The first was when Stalin refused to believe the main effort of the Germans' 1942 campaign would be in the south, despite having intelligence to this effect.⁷³ Stalin stuck to his view that the Germans would aim for Moscow and, as a result, the Red Army was not prepared for the Germans' advance to Stalingrad. The next instance was the lead up to the Battle of the Barvenkovo Salient, when neither side was aware of the other's deployments and, as chance would have it, the Red Army attacked first, giving Army Group South the opportunity to envelop it. This intelligence failure was extremely costly to the Soviets, who wound up losing three entire armies. A third instance was when the Germans failed to detect, during their unopposed advance from Voronezh to the Don River, that the Soviets were executing a strategic withdrawal. Consequently, the Germans assumed the Red Army was spent, and this contributed to Hitler's fateful decision to divide Army

Group South and attack Stalingrad and the Caucasus simultaneously, diluting German combat power.

During the battle itself, it is painfully clear the Germans did not have sufficient intelligence about Soviet capabilities and intentions. The VI Army was surprised at the resistance offered by the 62nd and 64th Armies and the difficulty the Germans were having in eliminating them. More important, though, was the Germans' failure at all levels to detect the massive preparations the Soviets were making to encircle the VI Army—a failure that ultimately led to the loss of that army. Had the Germans more actively sought intelligence about Stavka efforts to build strategic reserves behind the front, they may have detected the trap Zhukov was setting with Operation URANUS and strengthened the VI Army's flanks to avoid encirclement.

What these examples show is the critical importance of intelligence in military planning and operations at all levels. If commanders are not to embark upon operations in the blind, they must actively collect and assess intelligence against the enemy, draw the appropriate conclusions, and incorporate those conclusions into their plans.

THE IMPORTANCE OF AGGRESSIVE AND ADAPTIVE LEADERSHIP

Finally, the Battle of Stalingrad yields important lessons for strategic military leadership. When one compares the two principle leaders of the battle, General Paulus and Marshal Zhukov, one finds a compelling contrast that no doubt influenced the battle's outcome. General Paulus was an accomplished staff officer, but had little command experience and was not prone to take initiative.⁷⁴ Some of his evaluation reports reportedly described him as efficient, but lacking decisiveness.⁷⁵ Paulus also was prone to comply with orders without question and, having been promoted rapidly by the Nazis in the 1930s, had an unwavering faith—at least until his surrender—in the genius of Hitler.⁷⁶

These traits were reflected in Paulus's decision-making at Stalingrad. When his attack bogged down in September, Paulus did not attempt a different approach, such as enveloping the 62nd Army or advancing against the Soviets' sustainment base across the Volga. Rather, he continued to assault the Red Army's lines, even though this solution obviously was not working. Later, as the vulnerability of his northern flank became increasingly apparent and von Seydlitz urged him to establish an army reserve, Paulus took no action, blindly adhering to the view that the Russians were not capable of seriously threatening his army. When the Red Army did launch its counteroffensive, Paulus was slow to react. It was not until three days after the counteroffensive began, when the Soviets had almost sealed the ring around his army, that he requested authority to break out. Then, in December, when Manstein's forces had advanced

within miles of the VI Army's perimeter and Paulus should have executed THUNDERCLAP to meet them, Paulus again demurred, unwilling to go against Hitler's orders and attempt a break-out to save his army. In all these instances, Paulus's indecision and timidity contributed to his army's defeat.

Marshal Zhukov, on the other hand, was a very capable leader with an excellent grasp of strategy. A student of the Soviet military leader and thinker, Marshal Tukhachevsky, he believed in mobile warfare and applied it to the battles that he fought. This, together with his proclivity to take bold action and calculated risks, made him a formidable opponent. In the Battle of Khalkin-Gol between the U.S.S.R. and Japan in 1939, he handed the Japanese a resounding defeat, enveloping a Japanese force of some 75,000 men.⁷⁷ Later, in 1941, he distinguished himself by organizing the defense of Leningrad against the Germans' siege and orchestrating the Soviet counteroffensive that brought Operation BARBAROSSA to a halt.

Zhukov showed similar leadership acumen in the Battle of Stalingrad. Recognizing early on that Army Group B's exposed northern flank presented an opportunity to deal a severe blow to the Germans in the South, he planned in detail the counteroffensive that led to the encirclement of the VI Army. He also saw the potential of driving the rest of Army Group B and Army Group A out of the Don-Caucasus region with the follow-on operation that he planned, Operation SATURN, a modified form of which did, indeed, drive the Germans back as far as Kharkov. In both these initiatives, Zhukov demonstrated *adaptive* leadership—a key strategic leadership quality. He adapted to the battle as it developed, exploited the opportunities that emerged, and handed the Germans a resounding defeat.

CONCLUSION

In conclusion, Stalingrad truly was an epic battle—a long, bloody engagement that led to huge losses for both sides and, in the case of the Germans, sealed the fate of the Wehrmacht in the East. With their strength sapped by the preceding years of the war and their resources stretched, the Germans experienced a blow at Stalingrad from which they never recovered. The result was that the strategic initiative shifted to the Soviet side, making Stalingrad the fundamental turning point in the war on the Eastern Front.

Ultimately, the defeat of the Germans in the battle can be traced to serious mistakes that they made, including stretching their resources too thin, adhering to frontal assault maneuvers, not collecting adequate intelligence, not establishing a meaningful reserve, and failing to exercise bold and adaptive leadership. These mistakes all provide important lessons that the modern military leader should keep in mind when planning and executing military campaigns.

Perhaps the most important of the above lessons is the importance for a nation not to stretch its military resources too thin. The missions given to a military should be sufficiently constrained to allow it to protect itself and mass its forces against the enemy and thereby ensure success. This is a consideration the United States should keep in mind today as it juggles numerous competing military requirements in the Middle East, Southwest Asia, the Caribbean, and elsewhere in the world.

WORD COUNT=8808

ENDNOTES

- ¹ Anthony Beevor, *Stalingrad* (New York: Penguin, 1998), 135.
- ² Paul Carell, *Stalingrad: The Defeat of the German 6th Army* (Atglen, PA: Schiffer Publishing, 1993), 337.
- ³ Beevor, 394, 398.
- ⁴ Geoffrey Jukes, *Stalingrad: the turning point* (New York: Ballantine Books, 1968), 7.
- ⁵ Jennifer King and Timothy Rollins, "Sixty Years Ago: Operation BARBAROSSA—Death on the Eastern Front," *The American Partisan* Feb 2002 [journal on-line]; available from <http://www.american-partisan.com/cols/2002/ww2/qtr1/0209.htm> ; Internet; accessed 6 February 2004.
- ⁶ Jukes, 156.
- ⁷ Heinz Magenheimer, *Hitler's War* (London: Cassell & Co., 1997), 171.
- ⁸ Georgi K. Zhukov, *Marshal Zhukov's Greatest Battles*, trans. Theodore Shabad (New York: Cooper Square Press, 1969), 117.
- ⁹ U. S. Army War College, *Case Study: Kursk – 1943* (Carlisle Barracks: U. S. Army War College, 1999), 3.
- ¹⁰ Jukes, 27.
- ¹¹ Ibid.
- ¹² Thomas E. Griess, ed., *West Point Atlas for the Second World War: Europe and the Mediterranean*, The West Point Military History Series (Wayne, NJ: Avery, n.d.), 22. Reproduced with permission from the Department of History, U.S. Military Academy, West Point, NY.
- ¹³ Samuel W. Mitcham, Jr. and Gene Mueller, *Hitler's Commanders* (New York: Cooper Square Press, 1992), 74.
- ¹⁴ Zhukov, 127.
- ¹⁵ Ibid.
- ¹⁶ Jukes, 45.
- ¹⁷ Pat McTaggart, "Winter Tempest in Stalingrad," *World War II Presents 1943: A Year in Review*, 2003, 10.
- ¹⁸ McCarthy, Justin, dir., *World War II: The Eastern Front*, Vol. II, 55 min, Columbia River Entertainment, 1995, videocassette.
- ¹⁹ Jukes, 97.

²⁰ Beevor, 193.

²¹ McTaggart, 10.

²² Beevor, 177-178.

²³ Ibid., 66.

²⁴ Ibid., 371.

²⁵ Geoffrey Jukes, *Stalingrad: the turning point* (New York: Ballantine Books, 1968), 99. Reproduced with permission of the author.

²⁶ Zhukov, 159.

²⁷ Jukes, 106.

²⁸ Zhukov, 159. This source provides the numbers of German personnel, tanks, and guns and mortars. The figure for German aircraft is from the preceding source (Jukes, 106).

²⁹ Mitcham, 89.

³⁰ Jukes, 27.

³¹ U.S. Army War College, *Course 4: Implementing National Military Strategy*, Vol. I (Carlisle Barracks: U.S. Army War College, 2003), 2-3, 2-37.

³² Mitcham, 89.

³³ Ibid.

³⁴ Jukes, 132.

³⁵ Ibid.

³⁶ Georgi K. Zhukov, *Marshal Zhukov's Greatest Battles* (New York: Cooper Square, 2002), 106. Reproduced with permission from Rowman & Littlefield, Lanham, MD.

³⁷ Jukes, 132.

³⁸ Beevor, 270.

³⁹ McCarthy, (videocassette).

⁴⁰ McTaggart, 14.

⁴¹ Zhukov, 183.

⁴² Jukes, 141.

⁴³ Pat McTaggart, 15.

⁴⁴ Beevor, 310.

⁴⁵ Jukes, 152.

⁴⁶ Mitcham, 95.

⁴⁷ Magenheimer, 168.

⁴⁸ Beevor, 398.

⁴⁹ Ibid., 394.

⁵⁰ David M. Glantz and Jonathan M. House, *When Titans Clashed: How the Red Army Stopped Hitler* (Lawrence, KS: University Press of Kansas, 1995), 165.

⁵¹ Zhukov, 192.

⁵² Jukes, 154.

⁵³ Zhukov, 192.

⁵⁴ Glantz, 283.

⁵⁵ Beevor, 396.

⁵⁶ Joachim Wieder and Heinrich von Einsiedel, *Stalingrad: Memories and Assessments* (London: Cassell, 1995), 164.

⁵⁷ Zhukov, 193.

⁵⁸ National Geographic, *Atlas of the World*, 7th ed. (Washington: National Geographic, 2000), 68.

⁵⁹ Jukes, 17.

⁶⁰ Glantz, 150.

⁶¹ Ibid.

⁶² It took a year for Soviet production to get back on track due to the disruption caused by relocating industries to the Urals. See Glantz, 72.

⁶³ Jukes, 156.

⁶⁴ Glantz, 165.

⁶⁵ Looking at the European war as a whole, we see other occasions where the Germans overstretched their capabilities. The invasion of the U.S.S.R. while the Germans were occupying Western Europe and supporting the Italians in North Africa, for example, spread Germany's military forces very thin and ran the risk of failure in all three theaters. Ultimately, it did lead to failure in Africa, where the under resourced Afrika Corps was forced to surrender in

November, 1943. In another example, Hitler's decision in 1941 to invade all of European Russia, rather than concentrate on Moscow, diluted the German effort across a front more than 1,000 miles wide. The result was the German Army did not have enough strength in the center to capture Moscow and the defeat of the Soviet Union was not achieved.

⁶⁶ Bob Hogan, "A monthly update from the desk of Bob Hogan," *This Month in Military History* November 2003 [journal on-line]; available from <http://www.veteransinfo.net/History/November/this_month_in_military_history.htm>; Internet; accessed 16 February 2004.

⁶⁷ McTaggart, 10.

⁶⁸ Carl von Clausewitz, *On War*, translated by Michael Howard and Peter Paret (Princeton: Princeton University Press, 1989), 210.

⁶⁹ Zhukov, 142.

⁷⁰ U. S. Army War College, *Case Study: Kursk – 1943*, 12.

⁷¹ Jukes, 10.

⁷² Russians Abroad, "Russian History: Russia – The Purges," n.d.; available from <http://www.russiansabroad.com/russian_history_63.html#>; Internet; accessed 18 February 2004.

⁷³ Jukes, 23.

⁷⁴ Mitcham, 74-75.

⁷⁵ *Ibid.*, 74.

⁷⁶ *Ibid.*, 75-76.

⁷⁷ Marshall Bremant, "Battle of Khalkin-Gol," *Reader's Companion to Military History* (Boston, MA: Houghton-Mifflin, 2003); available from <http://college.hmco.com/history/readerscomp/mil/html/mh_027100_khalkingolba.htm>; Internet; accessed 29 January 2004.

BIBLIOGRAPHY

- Beevor, Anthony. *Stalingrad*. New York: Penguin, 1998.
- Bremont, Marshall, "Battle of Khalkin-Gol." *Reader's Companion to Military History*, Boston: Houghton-Mifflin, 2003. Accessed internet on 4 Dec 03: http://college.hmco.com/history/readerscomp/mil/html/mh_027100_khalkingolba.htm.
- Carell, Paul. *Stalingrad: The Defeat of the German 6th Army*. Atglen, PA: Schiffer Publishing, 1993.
- Clausewitz, Carl Von. *On War*. Translated by Michael Howard and Peter Paret. Princeton, NJ: Princeton University Press, 1989.
- Erickson, John. *The Road to Stalingrad*. London: Harper and Row Publishers, 1975.
- Glantz, David M., and House, Johathan M. *When Titans Clashed: How the Red Army Stopped Hitler*. Lawrence: University Press of Kansas, 1995.
- Griess, Thomas E., ed. *West Point Atlas for the Second World War: Europe and the Mediterranean*. The West Point Military History Series. Wayne, NJ: Avery, n.d.
- Hogan, Bob. "A monthly update from the desk of Bob Hogan." *This Month in Military History* November 2003. Journal on-line. Available from <http://www.veteransinfo.net/History/November/this_month_in_military_history.htm>. Internet. Accessed 16 February 2004.
- Jukes, Geoffrey. *Stalingrad: The turning point*. New York: Ballantine Books, 1968.
- King, Jennifer, and Rollins, Timothy. "Sixty Years Ago: Operation BARBAROSSA—Death on the Eastern Front." *The American Partisan* Feb 2002. Journal on-line. Available from <http://www.american-partisan.com/cols/2002/ww2/qtr1/0209.htm>. Internet. Accessed 6 February 2004.
- Magenheimer, Heinz. *Hitler's War*. London: Cassell & Co, 1997.
- McCarthy, Justin, dir. *World War II: The Eastern Front*. Vol II, 55 min. Columbia River Entertainment, 1999. Videocassette.
- McTaggart, Pat, "Winter Tempest in Stalingrad." *World War II Presents 1943: A Year in Review*, 2003, 10-16.
- Mitcham, Samuel W., Jr. and Mueller, Gene. *Hitler's Commanders*. New York: Cooper Square Press, 1992.
- National Geographic. *Atlas of the World*, 7th ed. Washington: National Geographic, 2000.
- Norton-Taylor, W. "Confederate Casualties incurred in The Pickett-Pettigrew Charge." 20 January 2001. Available from <<http://www15.brinkster.com/gburginfo/ChargeCasualties.htm>>. Internet. Accessed 16 February 2004.
- Riasanovsky, Nicholas V. *A History of Russia*, 3rd Ed. New York: Oxford University Press, 1977.

- Russians Abroad. "Russian History: Russia – The Purges." n.d. Available from <http://www.Russiansabroad.com/russian_history_63.html#>. Internet. Accessed 18 February 2004.
- Schwarz, Benjamin. "A Job for Rewrite: Stalin's War." *New York Times*, 21 February 2004, sec. B, p. 7.
- Strassler, Robert B., ed. *The Landmark Thucydides: A Comprehensive Guide to the Peloponnesian War*. New York: Simon & Schuster, 1996.
- The Avalon Project at Yale Law School. "The Atomic Bombing of Hiroshima and Nagasaki." 2004. Available from <<http://www.yale.edu/lawweb/avalon/abomb/mp10.htm>>. Internet. Accessed 16 February 2004.
- U.S. Army War College, *Case Study: Kursk – 1943*, Carlisle Barracks: U.S. Army War College, 1999.
- U.S. Army War College, *Communicative Arts Program Directive, AY04*. Carlisle Barracks: U.S. Army War College, 2003.
- U.S. Army War College. *Course 4: Implementing National Military Strategy*, Vol. I. Carlisle Barracks: U.S. Army War College, 2003.
- Weider, Joachim and von Einsiedel, Heinrich. *Stalingrad: Memories and Assessments*. London: Cassell, 1995.
- Zhukov, Georgi K. *Marshal Zhukov's Greatest Battles*. Translated by Theodore Shabad. New York: Cooper Square Press, 1969.