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STUDENT REPORT

LUFTWAFFE TACTICAL OPERATIONS AT
STALINGRAD

19 NOVEMBER 1942-02 FEBRUARY 1943

MAJOR ROY W. LOWER

87-1595

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REPORT NUMBER 87-1595

TITLE LUFTWAFFE TACTICAL OPERATIONS AT STALINGRAD
19 NOVEMBER 1942-02 FEBRUARY 1943

AUTHOR(S) MAJOR ROY W. LOWER

FACULTY ADVISOR MR HARRY FLETCHER, GS-12

SPONSOR LT COL DAVID L. McFARLAND, ACSC/EDCH

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PREFACE

Whenever historians congregate and discuss World War II, inevitably someone broaches the topic of most decisive battles. For Americans names like Midway, Guadalcanal, and Normandy merit special mention. However, the first name cited by Russians and Germans is often Stalingrad. It was here, from 19 November 1942 until 2 February 1943, that the tide of battle irrevocably shifted in Russia's favor. This shift took place not only on the ground but in the air. During those wintry days Germany fought and lost its second great aerial battle of the war. Unlike the "Battle of Britain" which resulted in a strategic draw, the aerial loss at Stalingrad signaled a change in momentum from which Germany never recovered. As a result, much of the world we have today can be traced to the fateful decisions made on the Volga 45 years ago. For this reason, historians and professionals have analyzed and reanalyzed this critical battle. Unfortunately, most of their studies centered on the aerial resupply effort of VIII Fliegerkorps and virtually ignored the role of German tactical airpower. The purpose of this paper is to fill this void. Hopefully, this examination of tactical airpower will yield more than sterile lessons and be of more than passing interest to future Air Force leaders.

Students of the Stalingrad campaign will immediately recognize that I have excluded Germany's allies from my discussion. While it is true that Croatian, Slovakian, Hungarian, Rumanian and Italian air forces assisted the Germans, their contributions at this stage of the war remained mediocre. At one time during the campaign, the Croatian staffel, 15/JG 52, had no serviceable aircraft (Appendix B). The Italian contingent of 90 aircraft flew only 6000 sorties during their entire 17 months in Russia (42:112). To put this figure in perspective, Luftflotte IV flew nearly 24,000 sorties during June 1942 alone (8:242). The Rumanian contribution might have been greater had not most of their aircraft and airfields been overrun during the initial Soviet counterattacks on 19 November. Lastly, the Hungarians had only one fighter squadron, 1/1 Fighter Squadron, attached to Luftflotte IV. Equipped with semi-obsolete Re-2000 "Hejas," 1/1 suffered much the same fate as her Rumanian ally. After abandoning almost all their aircraft to the advancing Russians, the Hungarians withdrew to Stary Oskol where they began conversion to Bf-109 F and Bf-109 G fighters. They did serve briefly in the Stalingrad area flying their newly acquired Bf-109 F-4s, but their contributions were negligible (33:34).

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Because of the symbiotic nature of Wehrmacht and Luftwaffe operations in the East, I found it necessary to include a running commentary on the primary ground operations. However, the major thrust of this paper remains Luftflotte IV's combat contributions to the Sixth Army during its encirclement. To accomplish this, I relied heavily on wartime diaries of key participants such as Generals Pickert, Fiebig, and von Richthofen. I complemented these perspectives with the combat diaries of notable pilots such as Helmut Lipfert and Hans Waldmann of JG 52, Hans-Ulrich Rudel of StG 2, and Kurt Ebener of JG3.

My special thanks go to several people: Mrs Ruth Griffin of Air University Library whose patience and constant efforts with interlibrary loan made much of this project possible; to Mr Harry Fletcher and Mr Jim Kitchens of the Simpson Historical Research Center for their very knowledgeable assistance and expertise on the Luftwaffe; to Hauptmann Gerd Groneman, German Air Force, who translated several primary and secondary sources; and to Major T.C. Lentz whose meticulous scrutiny assured a quality product. Lastly, my special thanks to my combination secretary, confidante, critic... my wife Ann.

ABOUT THE AUTHOR

Major Roy W. Lower graduated from the USAF Academy in June 1974 and went on to attend Undergraduate Navigator Training (UNT) at Mather AFB, California. After UNT he underwent combat crew training for the KC-135 at Castle AFB, California, and then reported for duty at Kincheloe AFB, Michigan. He upgraded to instructor navigator in December 1976 and by December 1978 he had again been assigned to Castle AFB, and was flying as an evaluator in the 93rd Bomb Wing Standardization/Evaluation Division. While flying at Castle, he completed his M.A. in History at the University of California, Stanislaus. Major Lower is a bonafide expert on the history of the Luftwaffe, having spent the past 20 years studying its development, tactics, operations, and ultimate decline. Since first reading Toliver and Constable's Fighter Aces of the Luftwaffe in 1968, he has spent thousands of hours during his academic and leisure time trying to fill the historical gaps left in the Luftwaffe's operational history. He couples this knowledge with unique qualifications in Russian history and military theory. During 5 years as first an instructor, then course director, and finally Assistant Professor of Military Studies, he spent thousands of hours developing, teaching, and refining a core curriculum course on military theory and Soviet force analysis at the USAF Academy. While at the Academy he also authored an article for the sophomore military studies coursebook entitled, "Strategic Deception for Operation Overlord." Major Lower and his wife, Ann have two daughters. He will be reporting in July 1987 for military observer duty with the UN Treaty Supervisory Organization.

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EXECUTIVE SUMMARY

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AUTHOR(S) MAJOR ROY W. LOWER

TITLE LUFTWAFFE TACTICAL OPERATIONS AT STALINGRAD,
19 NOVEMBER 1942-02 FEBRUARY 1943

I. Purpose: In late 1942 and early 1943 the German military suffered in succession three stunning setbacks: the Americans landed at Rommel's back door in North Africa, Montgomery overwhelmed Rommel at El Alamein and turned him back from Cairo, and the Russians encircled and annihilated the Sixth Army at Stalingrad. Without doubt, the defeat in Russia had the most shattering effect on the German psyche (9:xvi). Additionally, it marked a turning point for the war in the East (6:248). The purpose of this paper is to analyze the pivotal role played by Luftwaffe tactical airpower in this defeat.

II. Problem: Much of America's military doctrine and weapons acquisition is predicated on our perception of the threat. Today, our most formidable potential opponent remains the Soviet Union. We have developed a new combined arms doctrine which acknowledges this fact and intimately links our air and ground forces. In spite of this renewed recognition of the Soviet threat, scholarly study by military professionals of the last East/West campaign has been the exception rather than the rule. The German defeat at Stalingrad can serve as a microcosm of events in the East. In this context, relatively little has been written about the tactical air force's role in the campaign.

III. Data: The concept of operations governing "Operation Blau" envisioned a resumption of the "blitzkrieg" tactics that had served the Germans so well in 1941. The objectives of this

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operation included the iron ore and wheatlands of the Donetz Basin and the oil of Baku. Hitler realized that the quick war he originally contemplated in 1941 was now only a distant memory. As a result, the Baku oil fields increased in their strategic importance. The Stalingrad campaign was conceived as a covering action for the thrust to Baku and therefore entirely peripheral to the original concept of operations. However, the vanity of both Hitler and Stalin combined to elevate Stalingrad out of its backwater position and thrust it onto center stage. It became a symbol of Russian resistance and German obstinacy; the immovable object versus the irresistible force. At this point, Germany's industrial inferiority coupled with the law of marginal returns to produce what von Clausewitz termed "the culminating point." German forces had advanced so far and been attrited so much that the Soviets were able to seize the strategic initiative. Once Hitler realized von Paulus' predicament, he made perhaps the most crucial decision of the war. He committed the Luftwaffe to an impossible resupply effort and doomed the tactical air forces to a costly war of attrition. Spread out over the vast expanse of southern Russia like tiny islands in a hostile ocean, the Luftwaffe tactical fighter and bomber wings sortied out on thousands of missions in an attempt to plug the gaping holes created by the resurgent Red Army. However, the German war machine depended on combined arms operations for its success and at Stalingrad the Sixth Army lay mortally wounded. Physically and morally beaten by more than 4 months of vicious fighting, von Paulus and his staff were more than happy to have the Luftwaffe fly to the rescue. The result was disaster for all. The transport fleet lost nearly one-third of all their JU-52s and over 1000 trained aircrewmembers (8:256). The tactical air forces irretrievably lost the strategic initiative. The Sixth Army was annihilated.

IV. Conclusion: The German failure at Stalingrad was multidimensional and cannot be attributed to any single combat arm. The Luftwaffe tactical air forces could not overcome the numerical disadvantages of the encircled Sixth Army. Similarly, they could not protect the air umbilical established by VIII Fliegerkorps from the resurgent Red Air Force. Stalingrad clearly represented von Clausewitz' "culminating point" for the German war machine. They had come so far and lost so many men and machines in the process that the strategic momentum finally shifted to the Russians.

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V. Recommendations: As Air Force officers, we should continue to look to the past for lessons that might serve to guide our actions in the future. Specifically, the German experience in Russia during World War II can serve as a watershed of experience and help us avoid many of the pitfalls of the modern battlefield. The German aerial campaign at Stalingrad should give us significant reason to pause and examine our air doctrine and force acquisition in light of the devastating setbacks they suffered.

Chapter One

INTRODUCTION

In late fall 1942, the house of cards that Adolf Hitler had built through treachery, murder, and naked aggression was about to come tumbling down. The military that forged his empire was stretched to the breaking point by combat operations in North Africa, Europe, and Russia. Three years of incessant combat had taken their toll. By June 1942, the Wehrmacht alone had lost over 1,000,000 men in killed, wounded, and missing. This represented 40 percent of Germany's mobilized forces (12:175). These losses produced two immediate results. First, they forced Germany to rely increasingly on her sometimes questionable allies. Secondly, and more importantly, they forced her to do more with less men and material. Both these actions produced dire results.

Germany's initial success in World War II was attributable to the intimate cooperation established between her services. The resultant military machine could be likened to a three-legged stool, with the air, ground, and support forces representing legs of this stool. As long as all three legs were sound, Germany could steamroll her opponents. However, if one leg was seriously weakened or broken, the stool collapsed. The weak leg in Germany's stool in October 1942 was her dangerously overextended Army. Russian generals masterfully exploited this weakness at Stalingrad in November 1942.

The Stalingrad campaign resulted in the first major disaster for German arms and is regarded by many historians as the psychological and strategic turning point of World War II (6:248; 9:xvi). During the winter of 1942-43, the Sixth Army was first encircled and then systematically annihilated by a resurgent Red Army. Much has been written about this campaign, about Army Group Don's abortive relief attempt, and about the aerial resupply effort. However, very little has been written about Luftwaffe tactical support which was such a critical component of the German combined arms concept. The purpose of this paper is to examine the Luftwaffe's tactical contribution at Stalingrad.

The roots of Germany's defeat in Russia go far beyond simple bear counts which some analysts are prone to cite. Therefore, much of Chapter Two sets the stage by tracing the development of the Luftwaffe/Wehrmacht relationship and exploring Hitler's motivations for attacking the Soviet Union.

Chapter Three explains how the Wehrmacht failed to administer the coup de grace during the summer of 1942 and how, in turn, the Red Army and Air Force were able to rebound from their initial setbacks. Additionally, it analyzes the deadly precedent established by the Demyansk/Kholm airlift and how it subsequently influenced the Stalingrad decision.

Chapter Four provides an in-depth analysis of the crucial decision-making process that tied tactical airpower to a hopeless situation, and concludes with the initial German efforts to stem the Russian tide.

Chapter Five is devoted to the "friction" of war, or how the environment affected the outcome of the Stalingrad campaign.

Chapters Six and Seven trace the seesaw tactical developments both in the air and on the ground, during the decisive months of the battle, and conclude the study.

Chapter Two

FLOODTIDE ON THE VOLGA

I shall never start a war without the certainty that a demoralized enemy will succumb to the first stroke of a single gigantic stroke.

A. Hitler, 1933

In September 1942, as General Friedrich von Paulus, commander of the German Sixth Army, tentatively edged his way toward the peripheral goal of "Operation Blau," he was unaware of the titanic struggle that would ensue for this relatively insignificant industrial city on the Volga. Nor was he aware of the presence of a new opponent, Gregori Zhukov, who had arrived in this theater after his successful defense of Moscow the previous winter. The collision of these two men and the intransigent will of their respective leaders at Stalingrad completely changed the character of the war in the East and earmarked that city as both the high water mark of the German flood East and the beginning of the end for the Third Reich (9:xvi). For Stalingrad was to become the frigid grave for over 1,000,000 Russian and German soldiers, and more importantly, break the back of the Luftwaffe as an offensive force (9:xiv). From 19 November 1942, when Russian forces first pierced the Rumanian and Italian lines flanking the Sixth Army, until the final surrender of Nazi Germany on 8 May 1945, the Luftwaffe and hence the entire German armed forces in the East were on the strategic defensive. To appreciate this assertion one needs to examine the combined arms nature of the German armed forces in World War II.

BLITZKRIEG

The victorious Luftwaffe that pounded Stalingrad into a pile of rubble between September and November in 1942 was a force directly wedded to the Wehrmacht. It was a tactical air force in every sense of the word and a far cry from the force envisioned by General Walther Wever, the father of the resurrected Luftwaffe. Wever had envisioned a multidimensional force with one critical component, a strategic air arm. Unfortunately, after his untimely death in an aircraft accident in 1936, the Luftwaffe began an evolution which ultimately resulted in slavish cooperation with the Wehrmacht (31:255; 39:2). This cooperation was to be both the boon and the bane of blitzkrieg warfare. While it provided for the brilliant successes of the campaigns in Poland, France, Norway, and the Balkans, it was fatally flawed in

its ability to function in an area such as Russia. For Russia presented the Luftwaffe with a theater of operations comprising hundreds of thousands of square miles and requiring an eventual combat front of over 6000 kilometers (11:1). The campaigns in the West paled in comparison to the depth and breadth presented by the Russian campaign. Even the original concept of operations which envisioned a theater up to the Dneiper River encompassed an area three times as large as the French campaign. What this immense territorial expanse did was serve to dilute the psychological shock value of Germany's blitzkrieg operations, and this shock was the most critical aspect of a successful blitz:

As long as the panzers kept moving the enemy could never regain his balance, would fight in the dark, disconnected from his neighbors, his command, without a route of retreat. His supplies would fail to arrive as the transport system broke down, as the roads became clogged by the civil population in flight from the relentless march of the panzers. In such a way, Guaderian reckoned, the ability and the will to continue the fight would be destroyed before the main forces came into action (10:24).

If, however, the immensity of Russia served as a successful counterpoise to the very essence of blitzkrieg, why did Hitler attack East in the first place and why was Stalingrad elevated to such a position of importance in the subsequent campaign? To understand these very basic questions we must examine Germany's strategic position in 1941-42.

GERMANY'S STRATEGIC PERSPECTIVE

By the spring of 1941, Hitler was the unchallenged master of continental Europe though he had received his first strategic rebuff during the Battle of Britain. Without air superiority, his half-hearted attempts at a British invasion were for naught. He therefore turned his eyes elsewhere, to the strategic mineral houses of the world, the Middle East and Soviet Russia. His involvement in North Africa was directly linked to his bumbling ally Mussolini, but could possibly pay oil dividends. The real enemy to Hitler was, and forever would be, Bolshevism. His move to Russia therefore fulfilled two equally important imperatives: 1) Destruction of the Bolshevik homeland and its conversion to "lebensraum" for the master race and 2) autarky, the mineral self-sufficiency he dreamed of for his Third Reich. Within this framework, the Donets Basin and the Baku oil fields were critically important to both the Russian and German war effort. Realizing this, Hitler even went to the extent of creating a special "Oil Brigade Caucasus" which accompanied the first echelon of troops (28:101). Their mission was to exploit the Russian oil fields as soon as possible (43:--). Though Stalingrad was definitely peripheral to the major thrust of the operation, it could not be ignored. Its strategic position on the Volga threatened the entire southern flank. Von Kleist's army group would be like

a goose with its neck stretched out invitingly to the Russian axe at Stalingrad. That is why von Paulus and his ill-fated army were driving their way to the northeast in September 1942.

In one respect, the renewed German offensive against Stalingrad and the Baku oilfields in 1942 was a microcosm of the German blitzkrieg dilemma. Army Groups A and B were still tasked with capturing and controlling a space larger than France. The problem for von Paulus was that he had an army of only 250,000 men compared to the 1,000,000 men who marched against France in 1940 (11:59). What the ancestors of Karl von Clausewitz had failed to appreciate was his admonition about "the culminating point" in his treatise, On War. In Chapters IV and XXII von Clausewitz described in detail a number of factors that weigh against the attacker as the offensive proceeds. These factors included losses to enemy action, detached forces for secure lines of communication (LOC), stretched LOCs and relaxed mental effort. Conversely, the defender is strengthened in absolute terms and in this dynamic there comes a point, "a culminating point in the offensive, beyond which it is more dangerous to proceed than it is to revert to the defensive and await the enemy's counteroffensive" (7:270). This culminating point was as applicable to Luftflotte IV under General von Richthofen as it was to Friedrich von Paulus and his Sixth Army.

Chapter Three

CREST

That they should have come so far.
General Charles de Gaulle
Stalingrad, 1944

In 1942, the air forces that had become such an integral part of blitzkrieg warfare were under the trained eye and experienced hand of General Wolfram von Richthofer, cousin of the great ace of World War I fame, Manfred von Richthofen. Von Richthofen would be the top ranking Luftwaffe commander at Stalingrad. He was a late convert to the concept of blitzkrieg as practiced by the Germans during the war. Initially, he felt that horizontal bombing was the preferred tactic over the vertical bombing advocated by Udet and perfected by the Luftwaffe during the later stages of the Spanish Civil War and the opening campaigns in the West (22:101). However, after the great success of the JU-87 Stuka in the Polish campaign he became the premier advocate of close air support and combined arms operations. During the summer of 1941, shattered Russian tanks throughout Byelorussia and the Ukraine served as mute testimony to von Richthofen's perfection of aerial blitzkrieg (8:240). Unfortunately for von Richthofen and his contemporaries in the Luftwaffe, the immense size of the Ukraine served as a Russian sponge to German airborne thrusts. The Russian forces, though badly mauled, were again and again able to recover from seeming death-dealing blows by retreating, regrouping, and refitting. What the Russians needed was time; time to recover their equilibrium after successive physical and psychological shocks. This is exactly what the wide open spaces of southern Russia provided, time and space. Conversely, what the Germans needed to do was to compress this time and space by exploiting mobility and maneuver. That the Germans failed at this most basic aspect of blitzkrieg at Stalingrad is an historical fact. The reasons for this failure were twofold, Adolf Hitler and von Clausewitz' culminating point.

Hitler made two critical errors at Stalingrad. First, he violated his own directive for "Operation Blau" and the primary principle of war, the objective, when he diverted more and more of his effective strength from the Seventeenth Army. The Seventeenth Army's mission was to capture the Baku oil fields, the energy storehouse of the Soviet Union. Baku alone produced 24 1/2 million tons of oil for Stalin every year (35:Plate 14). Stalingrad was merely a secondary show in the original plan of

operations and was to be screened by von Paulus' Sixth Army. Hitler's second mistake is closely related to the first, in that he tied his prestige as a military leader to the capture of Stalingrad. Stalingrad ceased to be an industrial and transportation center and became instead a symbol.

...Hitler's frustration at that stage of the campaign had overcome reason. On 28 September he opened the drive for the Winter Relief at the "Sportpalast" in Berlin with a speech in which he ridiculed the publicity he had lately been receiving in the world news media. Pinpricks like the Dieppe raid of mid-August, he complained, were touted as brilliant Allied victories while his own march from the Donets to the Volga and the Caucasus was "nothing." To carry his point home he added, "when we take Stalingrad-and you can depend on that-that is nothing." As a clincher, he vowed a second time to take Stalingrad and assured the audience, "You can be certain no one will get us away from there" (32:44).

Thus the stage was set for Gotterdammerung on the Volga. Even when Hitler had tactical opportunities to cut his losses and extract the Sixth Army on 21-23 November, he had effectively forfeited these options in September. However tragic this chain of events may be, it is only part of the story. An equally critical aspect is the change in momentum which took place at Stalingrad.

Constant combat from spring through the fall of 1942 fused the normally distinct organizations of Luftflotte IV and the Sixth Army into a Siamese-twin-like entity; an injury to one equally affected the other. Therefore, by late October 1942 the exhaustion of the Sixth Army in the bitter fighting at Stalingrad produced immediate effects on the Luftwaffe. The state of von Paulus' army was most clearly described by Colonel H.R. Dingler, IA of the 3rd Motorized Division at Stalingrad.

...on reaching Stalingrad the German attackers had reached the end of their power. Their offensive strength was inadequate to complete the victory nor could they replace the losses they had suffered. These facts were sufficient not only to justify a withdrawal but to compel retreat. However, the German Supreme Command refused to accept the idea of retreat, disregarding the lessons taught by history and the experiences of previous wars (21:193-94).

Thus, von Clausewitz' culminating point had been reached. But critically, no one recognized this fact (6:239-240). The momentum had shifted and on 19 November 1942, Red Army and Air Force units forcefully drove the point home. Within 3 days, the Sixth Army and 270,000 men were encircled when Russian armored forces met at the Kalach bridgehead southwest of Stalingrad (27:286). The

lightning-like success of the Russian ground forces was partially attributable to a surprisingly resurgent Red Air Force.

THE RED AIR FORCE AT STALINGRAD

While the Luftwaffe was being overtaxed by far-flung commitments in France, North Africa and Russia, her Russian counterpart experienced a moral and material resurgence. New fighter types, such as the Lavochkin LA-5 and Yakolev Yak-9, made their first appearance at what the Russians considered the most critical front, Stalingrad (17:97). Compounding the Luftwaffe's problems, these aircraft appeared in unprecedented numbers and reflected the nearly miraculous recovery of the Russian aircraft industry. Much of the credit for the recovery has to go to Stalin and his advisors, who managed it with draconian measures. In turn, this recovery helped produce strategic and tactical surprise on the Volga. While the Russian aircraft industry was recovering from the invasion-produced dislocation, the Soviet Air Force (VVS) paused to assimilate and adopt the expensively learned tactics of the Luftwaffe.

Between 22 June 1941 and 19 November 1942 the VVS paid a dear price for tactical lessons that would turn the tide of battle. Though they had lost hundreds of pilots and thousands of aircraft during the first year of the war, significantly, most of their aircraft had been destroyed on the ground. As a result, the VVS still had thousands of trained pilots waiting for the modern aircraft which came rolling off Russian assembly lines in late 1942 (17:31,91). This combination of trained men and new, modern equipment found an outstanding mentor in General A.A. Novikov.

When General Novikov succeeded General P.F. Zhigarev in April 1942, he immediately began a series of reforms which reinstilled a fighting spirit in the VVS (17:83-87). Primary among these reforms was his insistence on centralized control and decentralized execution. This provided the flexibility Red Air Force commanders needed to exploit the initiative once they had wrested it from their Axis opponents. Coincidental with Novikov's reforms, Stalin instituted and provided for a STAVKA (High Command) RESERVE which could be employed as he saw fit (17:101). This RESERVE helped provide the mass which would overwhelm the Germans at Stalingrad. Through all these changes, the VVS had reconstituted itself into a formidable opponent; one which would soon irrevocably seize the strategic initiative from an overextended, weary foe.

Though Hitler and his advisors were aware of the ominous Russian concentration along the Volga as early as October, he was unaware of the extent to which Stalin had been able to husband his forces (16:97). Therefore, the first tactical indication of the disaster which would befall the Sixth Army came from Lieutenant Hans-Ulrich Rudel. This seasoned pilot, who was to go on to win

every award for bravery Germany could offer, had already flown over 600 combat sorties. Scrambled in his JU-87 from Karpovka 10 miles west of Stalingrad, to investigate an urgent report from the bridgehead at Kletskaya, he spotted troops moving west.

The weather is bad, low flying clouds, a light fall of snow, the temperature probably 20 degrees below zero; we fly low. What troops are those coming towards us? We have not gone more than halfway. Masses in brown uniforms--are they Russian? No. Rumanian. Some of them are even throwing away their rifles in order to be able to run faster: A shocking sight, we are prepared for the worst. ... We have passed some distance beyond them before we sight the first Soviet troops.

They find all the Rumanian positions in front of them deserted. We attack with bombs and gunfire--but how much use is it when there is no resistance from the ground (28:63,64)?

What young Lieutenant Rudel observed here is a critical point. To the overwhelming superiority established by the Russians along the Don River bend, the attacks carried out by Stukageschwader 2 (StG 2) were mere pinpricks. The German's allies, Italian and Rumanian troops, were sent reeling in pell-mell retreat. Not only was Sixth Army threatened, but also Army Group A deep in the Caucasus. There were no legitimate ground forces left to oppose the Russians and work in concert with the Luftwaffe tactical forces. A freak event had totally immobilized the only armored forces not committed to Stalingrad.

In a tragicomic event, the 13th Panzer Division discovered that field mice had eaten through the lighting flexes of its tanks (21:205). When they attempted to reposition their machines in support of the Rumanians, they found that most would not start and those that did quickly broke down or caught fire. Thus, the only ground force capable of delaying the Russian juggernaut was an ad hoc group of stragglers, flak artilleryman, rear echelon, and auxiliary troops organized by Major Reiner Stahel at Oblivskaya (39:9). At this point it is appropriate to pause and reflect on the situation confronting tactical German airpower. Sixth Army was surely to be cut off and left with two alternatives: stand and fight or attempt a fighting retreat towards Kotelnikovo or Nizhne Chirsk. Both options posed separate, distinct problems for the tactical air forces. Hitler chose to emulate the success of the previous winter at Demyansk and form a hedgehog. To understand how he arrived at this decision despite almost every subordinate commander's objections, we must look back briefly to the Demyansk airlift and the role tactical airpower played in its success.

EFFECT OF THE DEMYANSK/KHOLM AIRLIFT

To understand the problems confronting the Luftwaffe commanders and their ability to support an extended airlift operation into Stalingrad, we must first look back to the most recent precedent for an airlift, the Demyansk/Kholm pocket. After the strategic rebuff Hitler and the Wehrmacht received by the Siberian divisions in December 1941, the German 2d Army Corps of over 100,000 men at Demyansk plus a smaller contingent of 3500 men at Kholm were entirely cut off and encircled (2:277). In a stupendous effort the Luftwaffe was able to keep an "air umbilical" open to the trapped men despite severe difficulties. During this operation the Luftwaffe continued to enjoy advantages in numbers of aircraft, skills of aircrews, and a distinct technological edge with their equipment. Jagdgeschwader 51 and III/JG 3 routinely escorted the lumbering Junkers Ju-52s into the pocket (Appendix C). The average one-way trip for the escorting Messerschmitt Bf-109s was a mere 60 miles (5:398). Additionally, the Red Air Force had virtually ceased to exist at this stage of the war (17:82). The incredible losses they had suffered in the summer and fall of 1941 had two important results, however. First, the glaring inadequacies of the Red Air Forces spurred the Novikov reforms of 1942 which would turn the tables at Stalingrad. Secondly, the severe losses the Germans inflicted on Russia both on the ground and in the air during 1941 ushered in an insidious kind of complacency at the highest levels of the German government, namely Hitler and his second-in-command, Hermann Goering. Their frame of reference for judging the effect of seeming death blows to the Red Army and Air Force culturally blinded them to the danger ahead. They simply were not mentally prepared for the remarkable recuperative powers of the Russians (10:122).

To supply the trapped corps at Demyansk the Luftwaffe faced two major obstacles: the Russian winter and enemy opposition (aircraft and AAA). The material requirements to keep the pocket open were intimidating. The 100,000 men required 300 tons of food and material daily, and given the low serviceability of aircraft in winter operations, the Luftwaffe needed 500 JU-52s dedicated to the airlift to ensure 150 operational aircraft (17:81). Each aircraft loaded with two tons of cargo could meet the 300 tons-per-day requirement (17:81). An absolute prerequisite for the success of such an operation was suitable airfields within the pocket. Fortunately, these airfields existed at Demyansk and Peski. Between January 1942 and the Russian withdrawal in early 1943, the Luftwaffe flew 64,844 tons of supplies to the beleaguered 2d Corps (17:82). The anemic Red Air Force rarely contested the skies over Demyansk. German fighters made sweeps over the approach and return flight paths of the transports and were able to ensure their return. Both the Germans and Russians learned lessons from Demyansk and as Von Hardesty so aptly observed:

The Luftwaffe victory--once disembodied from its accompanying high costs--became an illusory model for subsequent German airlift operations. With the advent of Stalingrad, Hitler and the German High Command turned to this precedent to bolster their contention that a large encircled army grouping could be resupplied effectively by air (17:83).

The problem with this deduction is that it had been taken out of context when it was applied to Stalingrad. By the start of the Russian counteroffensive on 19 November 1942, conditions had radically changed. The Red Air Force was resurgent and actively challenged the best of the Luftwaffe for command of the skies over Stalingrad. The airfields that were a prerequisite for success in any aerial resupply were extant but couldn't be maintained throughout the encirclement. German tactical air forces were stretched far too thin by commitments in the Middle East, the West, and North Africa (23:151). If all these preconditions couldn't be met, then how did Germany's decisionmakers decide on a hedgehog position at Stalingrad?

Chapter Four

DECISION ON THE DON

The situation is not any different than it was 12 months ago in Dec 1941.

Generalleutnant Martin Fiebig

Because of the nature of the Wehrmacht/Luftwaffe relationship in 1942-43, there is no way we can appreciate the failure of tactical airpower at Stalingrad without briefly explaining the role of German ground forces in that failure. Within this relationship, the Luftwaffe had become essentially long-range artillery; much of the Wehrmacht success depended on the Luftwaffe and vice versa. Thus, when von Paulus appealed to Hitler for direction on 23 November 1942, the "Fuehrerbefehl" he received to hold at all costs seemed perfectly plausible because he had already made that leap of logic. It had been done before at Demyansk, why not now at Stalingrad? What both von Paulus and Hitler failed to appreciate was that Stalingrad was not, and could not be, another Demyansk. Events had overtaken the Germans; they simply failed to recognize it. If there is a villain in this scenario, it has to be Hitler, because it was Hitler's intransigence and his failure to fully appreciate the situation which doomed von Paulus and 300,000 men on the Volga.

As mentioned earlier, the precedent for the Stalingrad "kessel" was the 2nd Corps' stand at Demyansk. During this year-long defense of Demyansk, the 2nd Corps required 302 tons of supplies per day (17:82). It doesn't take a mathematical genius to figure that the minimum daily requirement for resupplying 300,000 men at Stalingrad would require at least 900 tons per day. Initial German calculations at the Fuehrer's headquarters closely paralleled these estimates (16:131). What does not fit into the equation is the asymmetry in the Demyansk/Stalingrad environments.

Demyansk was located just south of Lake Ilmen in North central Russia. Large tracts of forests and swamps abound in this area, and provided the raw material for building shelters and firewood for keeping men warm (5:353). In stark contrast at Stalingrad, where the area west of the city is reminiscent of certain parts of the midwestern United States, the terrain is absolutely devoid of trees and undergrowth.

The terrain on both sides of the Don is one vast endless steppe, broken occasionally by deep valleys, in which villages are tucked away. The landscape recalled the North African desert, but with snow instead of sand (21:208).

The intensity of an average Russian winter would require that some fuel be flown in to lessen the effects of a debilitating cold that often reached -20 F. Though Hitler had been apprised by his staff of the desperate situation, he seems to have already decided on a course of action regardless of the facts. The following passages contained in the Oberkommando der Wehrmacht (OKW) diary succinctly illustrate the decision-making process which took place between 19 November and 23 November 1942 when Hitler sent the fateful message ordering Sixth Army to "hold the western and southern cornerstone of its position under all circumstances" (16:128).

25 NOVEMBER 1942

Situation Report:

East: The Fuhrer is confident with regards to the situation of the Sixth Army. ... The pocketed Sixth Army has been told to hold all its fronts. However, its supply situation is critical, and in view of adverse winter weather and the enemy superiority in fighter planes, it appears doubtful whether it will be possible to supply the army by air with necessary food rations, ammunition, and fuel, which total 700 tons daily. The Fourth Air Force has only 195 transport planes available, but approximately 500 planes are needed. Therefore General Freiherr von Richthofen, Commanding General of VIII Air Force Corps committed in the Stalingrad area, suggested to the Fuhrer that the Sixth Army should first conduct a withdrawal towards the west and resume the attack at a later time. However, the Fuhrer bluntly rejected this suggestion (16:131-32).

With the facts fully weighing against the hedgehog position, why did Hitler issue the order? Cajus Bekker in The Luftwaffe War Diaries is able to shed more light by describing a confrontation between General Zeitzler, the Army Chief of Staff, and Hermann Goering:

Hitler sent for Goering, and the Reichsmarschall presented himself with the words: 'My Fuhrer, I announce that the Luftwaffe will supply the 6th Army from the air.'

'The Luftwaffe just can't do it,' answered Zeitzler. 'Are you aware, Herr Reichsmarschall, how many daily sorties the Army in Stalingrad will need?'

'Not personally,' Goering admitted with some embarrassment, 'but my staff know.'

Zeitzler stuck to his guns, calculating the necessary tonnage. The Army, he said requires 700 tons every day. Even assuming that every horse in the encirclement area was slaughtered, it would still leave 500 tons. 'Every day 500 tons landed from the air!' he repeated

'I can manage that,' Goering assured him. Zeitzler lost all control. 'It's a lie!' he shouted.

Goering turned red, and his breath labored. He clenched his fists as if to fall upon the Army Chief of General Staff. Hitler's voice intervened. He said coldly, 'The Reichmarschall has made his announcement, and I am obliged to believe him. The decision is up to me' (2:280,281).

The reaction of the men directly committed by Hitler's decision closely paralleled Zeitzler's. In a memorandum written on 25 November 1942, General von Seydlitz-Kurzbach, Commander of 51st Corps in Stalingrad, clearly states:

The Army is faced with a clear either-or: Breakthrough to the southwest in the general direction of Kotelnikovo or annihilation within a few days. This assessment is based on a sober evaluation of the actual situation (13:186).

Both General Martin Fiebig, Commander of Fliegerkorps VIII which would be tasked with an airlift, and his superior, General Wolfram von Richthofen, supported Seydlitz:

Upon my question as to the intentions of the 6th Army, he (General Schmidt, von Paulus' chief of staff) explained that the Commanding Officer was thinking of committing this army in all around defense of Stalingrad. The final decision was to be made early the next day, 22 Nov 1942, in a conference with General Hoth (Commander of the 4th Panzer in the Pocket), who was coming to Nishchirskaya for this purpose.

Going further into the possibility of the all-around defense I asked how they were thinking of supplying the 6th Army, since the supply line from the rear might be cut very soon. General Schmidt answered that the supplies would then have to be carried by air. I explained that I thought it impossible to supply a whole army by air, particularly at that time when our transport aircraft were used in great numbers for the North African campaign. ... On 22 NOV 1942 at 0700 I called up Schmidt again, telling him that I thought we were relying too much on our air supply. I explained again that, after long deliberation, based on my experiences and with my knowledge of the available means, I thought it impossible to supply the 6th Army by air. Also weather conditions and the enemy situation were completely incalculable....

I immediately reported the Army's intention and my opinion of it to my Air Force Commander, General V. Richthofen. General V. Richthofen was of the same opinion, namely that the 6th Army could not be supplied by air (39:3-4).

This rather lengthy series of quotations raises two important points: 1) Why didn't Goering fully consult with his commanders in the field before making his impossible boast, and 2) Why were von Paulus and Schmidt so predisposed to sit tight and let the Luftwaffe resupply and protect them?

Caesar Bekker makes an excellent point in the Luftwaffe War Diaries: what motivated Goering was his continued prestige in Hitler's eyes. In effect, Hitler presented Goering with a fait accompli when he privately took him aside and said " 'Listen, Goering, if the Luftwaffe cannot supply the 6th Army, the whole Army is lost.' " Goering's reaction was predictable: " 'There was thus nothing I could do but agree, otherwise I and the Luftwaffe would be blamed from the start. I could only say: 'Certainly, my Fuhrer, we will do the job!'" (2:280).

The answer to the second question is intriguing and critical to the close support effort flown by Luftwaffe tactical air in and around the pocket. The reason Schmidt and von Paulus preferred to sit and defend is that they and their army were already morally and mentally defeated. They had come so close to that elusive victory that when the awful truth came crashing down around them in late November, they seemed resigned to inactivity rather than ask yet another supreme effort from their exhausted men. The German infantry advance, like a furious tropical storm, had spent itself on objectives with peculiar names like Mamayev Hill, "Red October" metallurgical works, and the Stalingrad tractor factory.

Four times between 20 September and 4 October Paulus reported that his infantry strength in the city was fading more rapidly than he could find troops to replenish it. He predicted that unless the decline was reversed the battle would stretch out indefinitely (32:46).

Again, on 6 October von Paulus stopped briefly to prepare for yet another all out push.

His infantry strength was too low. In one division the infantry battalions were down to average strengths of 3 officers, 11 non-commissioned officers and 62 men. Ammunition also was beginning to run short. In September alone the Army fired 25 million rounds of small arms ammunition, better than half a million anti-tank rounds, and three quarters of a million artillery rounds (32:47).

Meanwhile, the men of Sixth Army experienced an evolutionary change of heart as they rode the emotional rollercoaster from triumphant conqueror in August to "condemned man" in October.

September 1st: " Are the Russians really going to fight on the very bank of the Volga? It's madness."
September 8th: "...insane stubbornness."
September 11th: "...Fanatics."
September 13th: "...wild beasts."
September 16th: "Barbarism ... [they are] not men but devils."
September 26th: "...Barbarians, they use gangster methods."
October 27th: "...The Russians are not men, but some kind of cast-iron creature; they never get tired and are not afraid of fire."
October 28th: "Every soldier sees himself as a condemned man" (6:222).

Subordinate commanders who sensed the disintegration of the army and had some prescience of Russian intentions tried to warn the High Command. Hitler merely brushed aside their suggestions, relieved them as defeatist, or shouted them down (21:204). And so the stage is set like a "B" movie on Saturday afternoon. Sixth Army circles its wagons in the ruins of Stalingrad while the bloodthirsty Russians ride menacingly around the beleaguered defenders, probing for weaknesses. Meanwhile the airborne cavalry feverishly organize a tenuous aerial lifeline while General von Manstein frantically scrapes together a makeshift relief force for the long-suffering defenders. Will they arrive in time? Can the Luftwaffe alone stem the onrushing Red tide? These are the questions participants on both sides of the lines were asking in late November 1942.

The Russian forces that smashed through on both sides of Stalingrad were executing a carefully planned grand tactical counterstroke. "Operation Uranus" was only phase one of a two-part plan to isolate and annihilate all of Army Group A and B (15:459). The Russians' offensive symbolized a change in the tide of events tactically, operationally, and strategically. Army Group A in the Caucasus was particularly vulnerable because most of Field Marshal von Kleist's tactical airpower had been diverted to Stalingrad (18:202). The only fighter cover von Kleist had left was a skeleton force of Jagdgeschwader 52 (JG 52) to cover 45,000 square miles of territory (Appendix B). When the Russians seized the initiative on the ground at Stalingrad they began to dictate the tempo of events throughout the theater. Of course the most immediate problem confronted the Germans at Stalingrad.

When the Russian counterstroke fell, most of the forward airfields were immediately overrun. This forced the reconnaissance and close support forces to hastily withdraw into the Stalingrad pocket. In this manner, approximately 40 Bf-109 fighters of JG3 and some elements of Stukageschwader 2 formed the

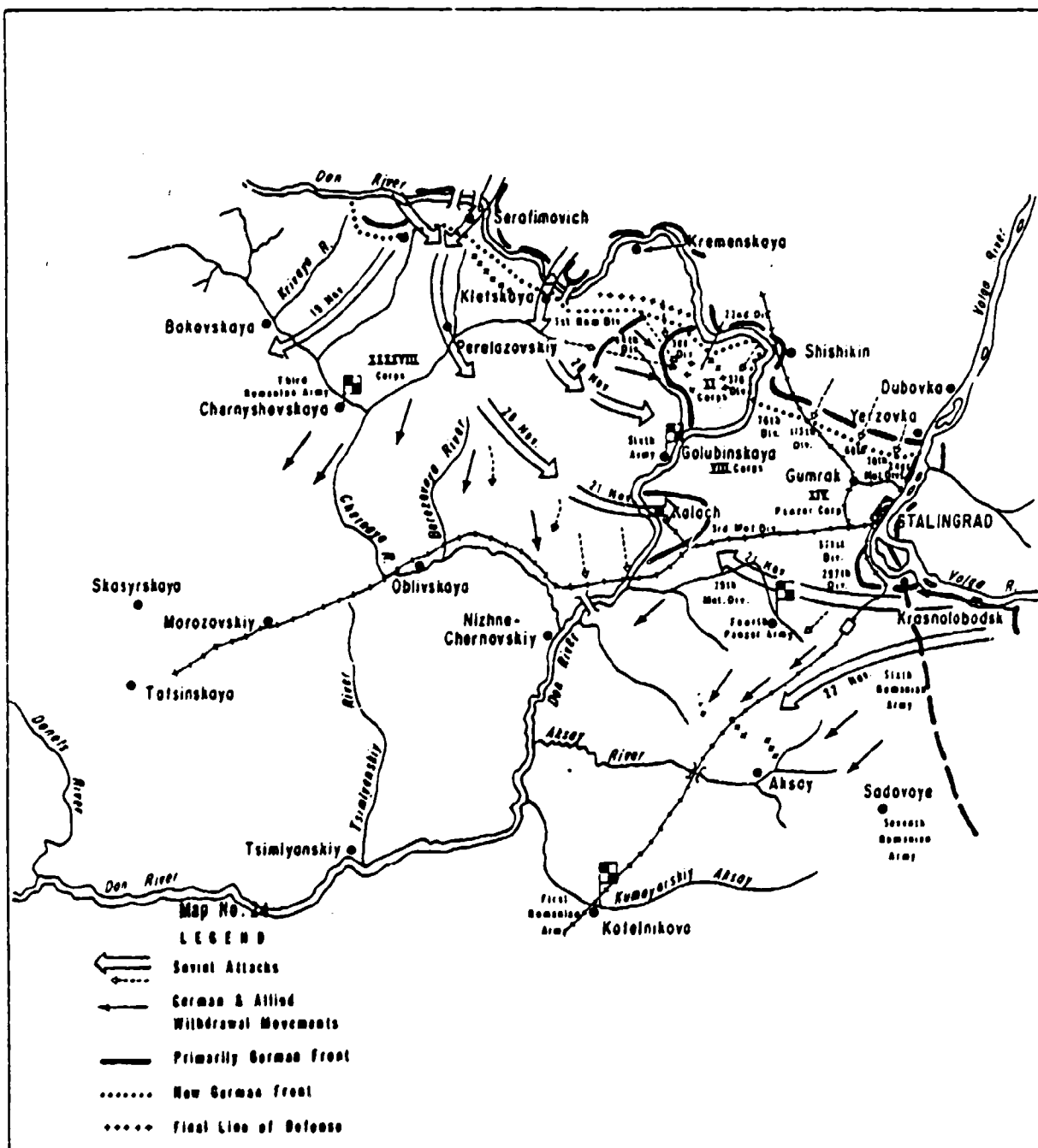
nucleus for air defense in Stalingrad (Appendix C). The bigger problem for these units was the loss of their ground support equipment and almost all of their trained ground personnel (37:21-22; 27:254). Four airfields within the pocket survived unscathed and anchored the soon to be formed aerial lifeline: Pitomnik, Bassargino, Gumrak, and Bol'shaya Rossoshka.

General von Paulus at Sixth Army Headquarters in Golubinskaya outside Stalingrad faced a confused situation reflecting the recent change of events. Reports flooded in that the Rumanian units on both sides of Sixth Army had been ripped asunder and that uncontested Soviet armor units were within easy striking distance of Sixth Army Headquarters. Hastily von Paulus moved his staff within the pocket and set up his new headquarters at the Gumrak railroad station. Generalleutnant Fiebig, Commander of VIII Fliegerkorps supporting Sixth Army, faced an equally confusing, critical situation at Oblivskaya on the east side of the Chir River.

Once Fiebig grasped the seriousness of the situation along the Don River, he realized that he must hold Oblivskaya at all costs (39:19-20). Fortunately, subordinate commanders like Major Dr Kupfer of StG 2 took independent actions to help redress the situation.

Ernst Kupfer was another of the seasoned veterans common to StG 2. During the pre-war years he had instructed at a cadet college and then transferred into the Luftwaffe in 1938. He participated in all the early campaigns and could always be found at the hottest points of action. By late 1942 he had already been shot up three times during operations, and in one instance over Kronstadt he was badly wounded. In addition to dislocations and broken bones, he suffered a fractured skull and partial blindness. It appeared his flying days were over, but after some ingenious reconstructive surgery which required eight operations, he recovered and returned to duty. By November 1942 he had already flown 500 combat sorties and was holder of the Knight's Cross (35:12). During the early critical hours of the Russian counteroffensive he led his forward elements in the attack (4:109-111).

Flying out of Karpovka, I/StG 2 flew mission after mission trying to stem the Russian tide. Within a very short time, though, the Stukas ran short of bombs, ammunition, and aviation fuel, and had to retire out of the pocket. A small detachment under Leutnant Heinz Jungclausen remained within the pocket for a few more days to provide what meager support they could for the hard-pressed Sixth Army (28:65,69). The rest of I/StG 2 arrived in Oblivskaya on 22 November. Fortunately StG 2's reaction was not unique, and at Kalach, the target of the Russian spearheads, Major Hubertus Hitschold's Schlachtgruppe 1 launched to intercept the Russian columns on the open steppe. Flying Bf-109 E and newer FW-190 A-4 ground attack fighter-bombers, Hitschold's men joined in the counterattack (2:281). However, as valuable as



Extracted from: The German Air Force Versus Russia, 1942, by Generalleutnant Herman Plocher. Reprinted with permission from the USAF Historical Studies Division, Aerospace Studies Institute, Air University.

these missions were tactically, in the overall scheme of things their effect could be likened to putting a cork in a open fire hydrant. The Russians' advance continued.

The uncertainty of the ground situation during the first few days of the Russian offensive is reflected in Generalmajor Pickert's diary entry of 20 November 1942.

Had to abandon my plan to go north at 5:30 this morning due to a completely unclarified situation, poor visibility, and icy roads. Reports came in from both North and South, to the effect that Russia has prepared a strategically planned major attack. It is even more serious than I had assumed yesterday. We are resorting to all kinds of counter-measures, including security at our own headquarters (40:31).

Pickert went on to note that the forward headquarters of Luftlotte IV had been moved to Novocherkask to avoid being encircled and thereby losing its freedom of action. As is often the case in any disastrous change of events, Pickert began to notice panic in his troops on 23 November. "Circulation of wild rumors forced me to post a bulletin stating that I shall have all rumor-mongers shot at once" (40:30).

Wild rumors were the least of Generalleutnant Fiebig's problems at Oblivskaya. Between 22 and 24 November Soviet tank columns spearheading the Russian drive to encircle the Sixth Army had already covered over 50 miles. Behind them came seven Soviet Rifle Armies and nearly 60 divisions pouring through the gaping holes created by the first echelon on either side of Stalingrad (15:462). On the night of 23 November the converging Soviet columns linked up to capture the vital bridgehead at Kalach. With the trap closed, Russian attention now shifted to the exposed airfield at Oblivskaya.

Again, Fiebig was well served by one of his subordinates. As sometimes happens in dire situations, one man's iron will can galvanize lesser men and thereby accomplish seemingly impossible tasks. Oberst Reiner Stahel possessed such a will. A Luftwaffe Flak artillery officer, Stahel dragooned Rumanian and German stragglers, drafted cooks, railroad guards and construction companies to form a 5000-man force. By 22 November this force was in place, but it had a 50-kilometer front to protect. Almost immediately it came under attack by 6-8 Russian divisions. During the ensuing days it suffered 10 percent losses weekly and sometimes 50 percent losses at points of heaviest fighting (39:6). The Stahel detachment was supported in these operations by nearly every type aircraft assigned to Fliegerkorps VIII.

On 25/26 November attack aircraft from Oblivskaya flew mission after mission to thwart the Soviet advance (39:19-20). Anti-tank Hs-129s and prewar Hs-123 biplanes of Schacht Gruppe 1 and JU-87 Ds from StG 2 attacked with a fury born of desperation.

One morning there is musketry fire on the far side of the aerodrome... The met. [meteorological] Flier gives the alert by firing a succession of red Vereys. I immediately take off with the squadron and close to the airfield I see horses, their dismounted riders beside them, all Ivans. To the North an incalculable army of horses, men and material. I climb, knowing the conditions of our defenses and wanting to make a preliminary survey of the general situation. It does not take me long: a Russian cavalry division is advancing and there is nobody to stop them. ... Their main force is two to three miles distant from our airfield with its spearhead on its periphery. There are no ground forces in this area; this is therefore the direst emergency. The first thing we do is to destroy their artillery with bombs and cannon fire before they can take up positions; then we attack the other constituents. A dismounted cavalry unit is immobilized and loses its fighting efficiency. Therefore we have no choice but to shoot down all their horses.

Without intermission we take off and land; we are all in feverish haste. Unless we can wipe them all out before dusk our airfield will be threatened by nightfall.

In the afternoon we spot a few Soviet tanks. They are rolling at top speed in the direction of the aerodrome.... The sheer urgency of self-defense gives us a precision we have never had before....

In the evening, I fly my seventeenth sortie of the day and we take a good look at the battlefield. It is quiet, everything is wiped out (28:68,69).

On the 26th, at the height of the battle, General von Richthofen visited Fiebig at Oblivskaya. Disturbed by the fluid situation along the Chir and Fiebig's exposed position, von Richthofen ordered Fiebig, VIII Fliegerkorps's staff, and some of the aircraft based at Oblivskaya to retreat to Tazinskaya and Morosovskaya (39:20). The previous day Fiebig and his counterpart within the pocket, General Pickert, began the airlift that was to sustain Sixth Army until a relief expedition could effect its withdrawal. The three main airfields for the airlift, Tazinskaya, Morosovskaya, and Millerovo, constituted Sixth Army's critical link to the outside world. Tazinskaya and Morosovskaya, affectionately known as "Tazi" and "Moro" to the flyers, would later figure prominently in the Stalingrad drama. General Fiebig was subsequently relieved of his responsibility for orchestrating ground support with this responsibility passing to General Manheke (39:23).

During the first two days of the airlift it quickly became apparent that the JU-52s of Luftflotte IV were insufficient for the job. Therefore He-111s from combat support groups were detailed for the airlift. As a result He-111s from KG 55, I/KG 100, and KG 27 at Morozovskaya and Millerovo were tasked to

perform dual operations (2:283). Unless enemy pressure dictated, these aircraft were to assist in the Stalingrad resupply effort. Already serious deficiencies in the Luftwaffe manifested themselves. Under the rigors of a bitter winter and constant combat attrition, Luftflotte IV simply could not fulfill all the tasks facing it. Fiebig was forced to play a dangerous zero sum game. He was compelled to "rob Peter to pay Paul" by diverting bombers dedicated to the Sixth Army and the defense of the Chir River line to complete the required airlift tonnage. He gambled that the Chir line would hold, "Tazi" and "Moro" would be safe, and the airlift tonnage would suffice. He had no other choice; all his aircraft were engaged.

During the retrograde movement of fighters, fighter-bombers, and Stukas to Tazinskaya, the unpredictable weather intervened to increase the hazards of normal combat operations. It is appropriate at this time to diverge and examine the environment that constantly affected combat in the East.

Chapter Five

THE INFLUENCE OF WEATHER AND TERRAIN ON LUFTFLOTTE IV COMBAT OPERATIONS

It seems rather trite and contrived today to blame every disaster that befell the Germans in Russia on "General Winter," but historians and military professionals alike would be remiss in not analyzing the effects of weather on the Stalingrad operations. The 45-year-old images captured by German combat photographers depict scenes of bitter cold and incredible hardship. The photos conjure up words like "implacable" and "remorseless" because the cold was remorseless; the storms were implacable. What hasn't been fully appreciated is the learning curve German units experienced as they attempted to adapt to the Russian environment. From memoirs and wartime diaries, it is readily apparent that the high technology Luftwaffe was not prepared for the challenges of Russia. One of the problems they faced was as basic as starting your aircraft engine. Erich Hartmann, the future world's leading ace, experienced these problems firsthand.

The Germans were astonished in Russia when Red fighters swarmed over their airfields early on sub-zero mornings when they had been unable even to start their own aircraft. When Erich's squadron captured a Russian airman, he showed them with typical Soviet directness how the Russian Air Force maintained its operational effectiveness at 40 below zero.

The cooperative prisoner was proud of knowing something perhaps the German didn't know. He called for half a gallon of gasoline in a can. He went over to one of the grounded Messerschmitts and to the horror of the watching JG 52 personnel, poured the gasoline into the aircraft's oil sump. The Germans backed away twenty yards or more. The moment that Dummkopf turned on the ignition and attempted a start there would be an explosion.

Apprehensive mechanics began cranking the motor by hand, while a German pilot cringed down into the cockpit. After the gasoline was thoroughly mixed with the congealed oil, he turned on the ignition.

The engine started. There was no explosion (30:81).

The Russian went on to explain that at sub-zero temperature the oil in the German engine congealed to the consistency of mud and

made the engines impossible to start. The gasoline liquefied the oil and evaporated as the engine warmed. The only side effect was a decrease in the lubricating ability of the oil which required it to be changed more often (30:81).

This same Russian went on to display his artistry on another JG 52 machine. After asking for and being supplied a tray of gasoline, he placed the tray under the engine compartment of a Bf-109. He then lit a match and jumped back as the tray of gasoline burst alight. The flames shot up and warmed the fighter's open engine compartment.

One of the mechanics said that the electrical system would be ruined - the insulation all burnt away - as the flames died down. The Russian simply said, 'Start it.' The instant, smooth roar of that motor convinced everyone (30:81).

Johannes Steinhoff, Kommandeur of II/JG 52 at this time, related another method of starting Russian aircraft. At a captured Russian airfield, JG 52 personnel discovered an engine mounted on a flat-bed truck. This engine had a drive shaft extending from it with a locking mechanism attached to the shaft. This locking mechanism, in turn, fit into the propeller hub of Russian aircraft. By slowly rotating the airscrew once the locking mechanism was engaged, the Russians could "prime" their engines so that they could start in sub-zero cold. These tricks of the trade took time and experience, though, and in the winter of 1942 the Germans were still learning (43:--).

Another problem the Germans grappled with concerned their machine guns and cannon. Often, even if pilots did get airborne, their weapons would jam in combat. Erich Hartmann's captive Russian showed the members of JG 52 yet another technique for cold weather operations. Calling for a large tub of boiling water, the Russian immersed the stripped-down German machine gun into the water and then briskly scrubbed every bit of grease and oil off the weapon. Without the grease and oil required for normal operations the machine gun worked perfectly at 40 degrees below zero (30:82).

As difficult as the weather made conditions at the front, in southern Russia these difficulties were only compounded by the steppes. The seemingly endless flat land west of Stalingrad presented ideal conditions for mobile war.

Of all the territory reached by the Germans during World War II, only the Kalmyk Steppe, between the Don and the Terek Rivers, has retained the character of treeless grazing land.

During the temperate seasons of late spring, summer, and early fall, the steppe is the ideal battle ground for armored and motorized units. The vast flatland is accessible in all its parts and harbors only one natural obstacle--the so-called Balkas....

But the Balkas can be reconnoitered and avoided. The much more serious threat in the steppe comes from hostile aviation because the Balkas, some isolated clumps of trees, and a few human settlements are literally the only feature to afford cover (41:55).

This lack of cover put the outnumbered, defending Germans at a decided disadvantage. The nature of mobile warfare which required movement at a moment's notice, coupled with a lack of shelter, forced the airmen to live in tents throughout the year (43:--). The lack of shelter also made German aviators particularly vulnerable to fragmentation bombs and strafing attacks. Since there were no forests or mountains to break the icy wind or bank the snow, the German aviators often faced impossible flying conditions. When they couldn't fly they were often easy prey to advancing Russian cavalry or armor detachments. Admittedly, the Red Air Force faced these same problems, but by 1942 they had already arrived at some ingenious answers.

In 1942 Western military observers marveled at the Russian ability to operate from unimproved runways carved out of the steppe. The Russian approach was simple; airfields were usually located near a road or railroad. Fueling operations consisted of a single refueling vehicle which individually refueled each aircraft. The normal field consisted of only a few dispersal points.

In total, it was a crude but effective system. The Germans operated similarly, but one problem they had particular difficulty with was the Russian thaw. Here the Russians had at least a partial answer.

During the thaw an attempt is made to retain a landing-ground in service for use as long as possible by preparing two strips of snow, one of which is encouraged to thaw as rapidly as possible, while the other is covered with straw to delay the action of the thaw (36:32).

In contrast, the Germans often faced hazardous operations during the intermittent period of freezing and thawing in November 1942. These same winter conditions affected the Luftwaffe in other less direct ways. During the first week of the airlift Fiebig fretted over the weather daily.

The worst weather we've ever had. Flights are being attempted, but no possibility for full observations or engaging the enemy. In the rear area all the communication lines have been destroyed by hail, and now there is no line of communication to the rear commands (39:21).

Similarly, the weather affected operations at the front by disrupting rail traffic hundreds of miles away. During the

airlift an unusually heavy snowfall in Rumania delayed gasoline supplies to the front.

Lastly, if these problems were not serious enough to daunt the most steadfast, we should remember that all these operations took place in the depth of winter. Because Stalingrad lies at nearly 50 N latitude, roughly the same latitude as Winnipeg, the days were even shorter than usual. Night flying was unavoidable (39:22). Night operations conducted in an area relatively devoid of civilization made navigation particularly challenging. In the heat of battle, German pilots always had to keep their wits about them and remember which sides of the lines they were on. To become disoriented in the topsy-turvy world of aerial combat often meant capture or death. The Russians played on this fear and immediately set about making the routes to Stalingrad a ring of steel.

Chapter Six

"INDIANS" ON THE DON

During the waning days of 1942, the Russians systematically stepped up the pressure on Luftflotte IV. Their first priority was to make the trip to Stalingrad a gauntlet of fire. To accomplish this they developed concentric rings around the fortress with the outer rings patrolled by their fighters and the inner rings composed of both AAA and interceptors (17:112-114). As early as 28 November, Soviet Ilyushin IL-2 fighter-bombers attacked and destroyed 29 aircraft at Gumrak and Bol'shaya Rossoshka (17:114). During the ensuing weeks the VVS kept up a relentless pressure on the airfields within the pocket. On several occasions General Pickert noted bombing and strafing of Pitomnik by Russian formations. Luftflotte IV relied on the quality of its two fighter wings to counter this pressure.

Led by "Furst" (Prince) Wilcke, Jagdgeschwader 3 contained a number of highly decorated aces and had already passed the 1000 victory mark the previous June. Wilcke himself had claimed over 100 victories before the start of the defensive campaign at Stalingrad. His adjutant, Hauptmann Walter Dahl, was equally adept at the deadly art of aerial warfare. Both men combined to claim over 50 Russian aircraft during the Stalingrad air battles. On 23 December 1942, Wilcke achieved his 150th victory and was subsequently awarded the Swords to his Knight's Cross (25:41). Ernst Obermaier's book, Die Ritterkrueztträger der Luftwaffe, clearly indicates the skill level common to JG 3's pilots at this time. Among the aces present at Stalingrad were Kurt Brandle (180 victories), Werner Lucas (106 victories), Georg Schentke (90 victories), Hans Grunberg (82 victories), Gustav Frielinghaus (74 victories), and Kurt Ebener (57 victories). JG 3 was joined in the air war by what became known as the "Wing of Aces," Jagdgeschwader 52.

Jagdgeschwader 52 (JG 52) operated primarily in the Caucasus during much of the Stalingrad fighting; however, one gruppe did assist JG 3 along the southeastern approaches to Stalingrad. Operating out of Simovniki, II/JG 52 routinely flew close air support, air superiority, and escort duty in conjunction with JG 3 (19:19). Young pilots like Helmut Lipfert and Hans Waldmann cut their combat teeth during the intense air battles in and around Stalingrad. In the first week of December alone, Waldmann shot down five Russian aircraft (3:224). Waldmann went on to survive Stalingrad and tally over 130 victories. Tragically, he

was killed in the final days of the war while flying the Me-262 jet fighter. His diary of the time reflects the grimness of their circumstances yet it also displays his sense of humor:

Russia, 13.12.42... I am fine, as you might think. Since I don't see the disgusting and depraved females hanging around with lustful sneers in the overcrowded coffee houses and I don't hear the idiotic grouching of blockheads, I am feeling as good as ever. What are these small inconveniences when you are finally standing where you've been wishing for years. It's a pity that you can't imagine the feeling of flying far over the Russian lines and then seeing yourself encircled by a lot of enemies. The dogfights last longer now because the "gentlemen" are flying a lot of American types and additionally they are slowly getting a lot of combat experience (3:59).

It was during this time of incessant combat that the German term for enemy aircraft, "Indians," took on a new dimension. As good as individual pilots like Wilcke and Waldmann were, they found themselves hard-pressed to handle the increasing numbers of aggressive Russian pilots. The air battle, in fact, began to take on the character of "Custer's Last Stand." During the first week of December the Germans were largely compelled to abandon their "frei jagd" (free hunt) method and begin escorting their vulnerable transports. Bf-109s of JG 3 and Bf-110 Fs of ZG 1 began these missions using auxiliary tanks to extend their range (17:114). Often, even with the auxiliary tanks, their aircraft could not recover in the pocket because of the hazardous conditions there. Therefore, the transports were still vulnerable to enemy fighters on their approach and landing. The Germans countered this weakness by stationing volunteers from II/JG 3 within the pocket.

PLATZSCHUTZSTAFFEL PITOMNIK

In the second week of December, members of II/JG 3 volunteered to man an airfield protection squadron loosely based on 4/JG 3 staff. Sharing all the privations and hardships of the garrison, including the reduced rations and incessant bombardments, these men set new standards of bravery and sacrifice. Despite the constant harassment from marauding Russian aircraft and artillery bombardment, the half-dozen men assigned here succeeded in downing 130 Russian aircraft between 12 December and 16 January 1943 when the field at Pitomnik fell to advancing Russians (24:108). Two of the heroes of these operations, Oberleutnant Georg Schentke and Feldwebel Kurt Ebener, shot down dozens of aircraft between them. Schentke, however, was forced to bail out over Soviet-held territory on Christmas Day 1942 and was never seen again. When Schentke went missing he had claimed 90 aerial victories (24:108).

Perhaps no other man better typifies the spirit of sacrifice of the men of the staffel than Kurt Ebener. It can truly be said that in his service at Stalingrad he acted as his brother's keeper. The youngest of three brothers, he volunteered to fly in the pocket to help defend his older brother, Oberleutnant Helmut Ebener, a company commander in a tank destroyer detachment of the 414th Panzer Division. Earlier in the year, his oldest brother Walter, had been killed in action on the Eastern front and Kurt was determined to do everything within his power to protect Helmut. The following account of Kurt Ebener's tour of duty within the pocket is an edited version of Gero von Langsdorff's "Jagdflieger in Stalingrad" (19:193-202).

On 16 December 1942, Feldwebel Ebener flew from "Moro-West" into the pocket. As part of a two-ship formation with Oberleutnant Lucas, he detoured to the southeast toward Aksay, then turned to the north and followed the Volga into the pocket. On their flight in, they both saw large numbers of Soviet troops moving to the southwest to oppose General Hoth's relief force. In contrast, they noticed how pitiful the German defensive perimeter appeared around Stalingrad. Upon their arrival at Pitomnik, they observed what was to the the norm for operations at Stalingrad; a widely dispersed group of exhaust-stained Bf-109s in dirty white camouflage, a small number of vehicles, and a few tents contrasting with the vast expanse of windswept snow.

As soon as they touched down and taxied to their parking spots, a swarm of mechanics and armorers began rearming and refueling their planes. By the middle of December, the airfield had become a target for constant harassment by the Soviets. Under these kinds of primitive conditions and the constant stress of combat, few pilots lasted longer than a week in the pocket without relief. Ebener would stay a full month.

As soon as the aircraft were refueled, Oberleutnant Lucas and the pilot Ebener relieved took off to escort a flight of JU-52s leaving the pocket. Ebener soon discovered that the airfield protection squadron had only three serviceable aircraft. Most of the Bf-109s he saw when he arrived were derelict and used for spare parts. The JU-52 transports could not afford to bring in the spare parts that were required for routine operations. The defenders of Stalingrad were starving and needed every ounce of food the JUs could bring. Mechanics simply had to make do with what was on hand.

The weather conditions at Pitomnik precluded any semblance of normal operations and the armorers and mechanics suffered the most. Ground personnel performed daily maintenance under the most austere conditions. Temperatures routinely hovered well below zero. As a result, many mechanics had their hands frozen to the aircraft as they attempted to make the delicate adjustments required by their sophisticated aircraft. Often the snow blew into a blinding white cloud that could drive ice crystals into bare skin. The food, too, was no better than the normal

fare. The daily menu consisted of 2 1/2 ounces of bread and a watery soup with a small piece of horsemeat. Under these conditions, it was a miracle the Germans were able to sustain operations as long as they did.

On 19 December Ebener flew continuously for over 5 hours. During that time he flew four separate sorties, landing only long enough to refuel and rearm. His first sortie was a fighter sweep over the pocket. Later he flew escort duty around the pocket for a FW-189 reconnaissance plane, and then on yet another sortie he flew cover for a group of arriving JU-52s. On this last sortie he and his wingmen, Uffz Pissarski, surprised a group of LAGG-3 fighters. Outnumbered 4 to 1, the two Germans attacked and Ebener achieved the first of over 30 victories he would claim in the pocket. His victim, a LAGG-3, crashed vertically into the ground south of Karpovka. Back at Pitomnik, Ebener landed with his low-fuel light burning. No victory rolls or wing wagging here, only the grim monotony of combat mission after combat mission. Forty minutes later he was airborne again.

On this flight Ebener encountered another formation of LAGGs. Within 5 minutes, Ebener scored two more victories and broke up the Russian formation. This accomplished, he and his wingman turned their attention to a flight of Petlyakov PE-2s intent on bombing Pitomnik. In a repeat performance, he dispatched two PE-2s and dispersed their formation. Finally, after landing at Pitomnik, he could barely crawl from his cockpit as the physical and mental exertion of combat caught up with him.

On Christmas Eve, Ebener attempted to visit his brother Helmut in the front lines. Unfortunately, knee-deep snow hindered his progress, and he was never able to link up. As he regrettably began the trip back to the airfield, he easily oriented himself by noting the ever-increasing number of dead horses, human corpses, and burned-out tanks in the airfield's vicinity.

Even when Ebener flew missions out of the pocket to pick up replacement aircraft, he never forgot the men he left behind. On 28 December he flew to the aircraft depot at "Moro" to pick up a new aircraft, a Bf-109 G-6/U6. On his return flight he crammed the new plane full of food for his brother and his company.

By January, the situation in the pocket was quite desperate both in the air and on the ground. In one instance, Ebener found himself alone, low on fuel, and cornered by several Russian lend-lease "Airacobra" fighters. Only by ducking into a low cloud cover and then quickly reversing his direction did he lose them long enough to land at Pitomnik. Just as he rolled to a stop the Russians began their strafing runs. Fortunately he was able to unstrap and jump into a trench before they destroyed his aircraft. Since he couldn't fly another mission until a replacement aircraft was flown in, Ebener drove and walked to the front to visit his brother for what would be the last time. Surrounded by the soldiers of his brother's company, who openly adored him for

the many missions he had flown in their defense, Ebener found renewed strength.

Upon his return to Pitomnik, Ebener threw himself upon the Russians day after day. On 10 January alone he shot down two Il-2 "Sturmoviks" and two fighters. While flying close support in his brother's area of the front he attacked 6 Il-2s strafing the Baburkin medical clearing station. Unknown to him, his brother Helmut had just been admitted at Baburkin with fatal injuries.

Ebener flew his last sorties at Stalingrad on 14 and 15 January and in one instance nearly got shot down. Taking off on a mission with Oberleutnant Lucas, Ebener acted as wingman. Lucas had taken off only moments before and Ebener had waited for the powdery snow to settle before beginning his takeoff roll. Just as he brought his landing gear up he saw and sensed, almost simultaneously, enemy tracer bullets kicking up the snow around his aircraft. In the same instant he saw a blur pass over his aircraft from front to rear and felt the stick shudder in his hand from the prop wash created by Oberleutnant Lucas' fighter. Lucas had spotted the Russian fighters pouncing on Ebener and had made a head-on pass to distract them. Fortunately for Ebener, the tactic worked, and the Russians dispersed without further combat.

Ebener was relieved on 15 January but by the time he left he was officially credited with (13) LAGG-3s, (10) IL-2s, (3) YAK-1s, (2) PE-2s, (2) MIG-1s, (2) DB-3s, and (1) LAGG-5. Despite these and other heroics, the men at Pitomnik were doomed to fail because of events elsewhere around the pocket.

EBB TIDE ON THE VOLGA

During the early weeks of December the Red Army strengthened their hold on Stalingrad and prepared for the inevitable relief effort by von Manstein's Army Group Don. Surprised by Sixth Army's inactivity within the pocket, the Russians probed for weaknesses in the northwest sector. Their operations here on 8 December near Dimitrevka prompted a sharp rebuke from fighters of JG 3 and Stukas of StG 2. The German defenders sealed off the penetration and counted 60 enemy tanks destroyed. During the aerial melee JG 3 accounted for 32 enemy aircraft destroyed (39:27). Realizing that time and the weather were on their side, the Russians returned their attention to Army Group Don. Analyzing von Manstein's probable axis of approach, the Soviet High Command decided to modify "Operation Saturn" into an envelopment of the Stalingrad relief force (14:9-10). On 12 December, while the Russians were revising their plans, von Manstein struck.

Hoping that both the weather and the Russians would cooperate, von Manstein dispatched his relief force under his most able panzer commander, General Hermann Hoth. Spearheaded by Fourth Panzer Army, this two-part plan entailed a march to

contact by the relief force ("Wintergewitter") followed by a sequential breakout by Sixth Army ("Donnerschlag") (20:336-337). But as Robert Burns noted "the best laid plans of mice and men often go astray." Both the weather and the Russians refused to cooperate.

Despite terrible flying conditions, General Fiebig managed to step up the airlift during the week of 16 December in anticipation of the impending breakout. In 450 sorties VIII Fliegerkorps delivered 700 tons of supplies to the threatened army (2:285). This tonnage still fell far short of the bare 350 tons/day minimum required. Food was scarce, and the average daily ration consisted of two slices of bread and a thin soup. If relief did not arrive soon, Sixth Army would be too weak to break out. Realizing this, Fiebig pushed his transport division around the clock. The Russians countered German night flights with nocturnal harassment raids. So began a deadly game of chess in which not even the darkness could be called friend.

NIGHTFIGHTING OVER THE STEPPE

Soviet night harassment over the pocket and German forward airfields prompted a predictable German reaction. The Soviet nocturnal raids were nothing new to the East, but the stakes had grown too high at Stalingrad to ignore them. General of Night-fighters Kammhuber wanted to dispatch aircraft from home defense for the east, but the stepped up Combined Bomber Offensive of the British and Americans forced him to keep his fighters at home (1:63). It devolved upon the local Luftwaffe formations to organize their own defense. As a result, several squadrons attempted some unusual expedients. Part of the problem was the nature of the threat.

The Russians pressed into service some of their most antique aircraft. Their most successful weapon proved to be the slow-moving PO-2 biplane. Constructed primarily of wood and fabric, these aircraft defied radar detection and routinely bedeviled German airfields and front lines (37:16). Casting about for a counter to the PO-2 the Germans settled on a modified version of the Focke-Wulf-58 "Weihe." To fly these aircraft, General Kammhuber drew on successful crews from various bomber, fighter, and fighter-bomber formations in the East. After completing their conversion training at Weiner-Neustadt in the fall of 1942, the first of these groups reported to Luftflotte IV in November. Ten and 12/ZG 1 with Bf-110 Fs and 2 NJ Schwarm with FW-58s formed the nucleus of this new capability (1:64). Hardly had they been formed when Russian units broke through at Stalingrad. Two NJ Schwarm had to destroy all its aircraft during the retreat, and the Bf-110 Fs of ZG 1 were squandered in ground support and low-level attacks. The only significant successes of this time were achieved by Uffz Arnold Doring of 9/KG 55. Flying a modified He-111, he shot down three TB-3 bomber transports (1:91). Ultimately the auxiliary units were disbanded on 18 January 1943. The surviving aircraft and aircrews of the

auxiliary NJ Schwarm were absorbed into the railway Jagdstaffeln. While the Luftwaffe attempted to contain the VVS' multidimensional threat, General Hoth and the relief column slugged it out with the Russians on the Kotelnikovo axis.

"WINTERGEWITTER"

When General Hoth started his relief expedition on 12 December he had at his disposal Fourth Panzer Army, 23d Panzer retrieved from the Caucasus, and 6th Panzer newly arrived from France. Seventeenth Panzer did not arrive until the offensive was over a week old. In spite of the formidable sounding array, Hoth had critical weaknesses in two areas: Rumanians guarded his flanks, and he possessed only 232 tanks (14:8). Part of the weakness of this force came from a faulty enemy assessment by the Fuehrer. Hitler could not believe that the Russians had regained such strength.

Hitler could not bring himself to believe in the extent of the Soviet strength gathering around the Don bend. If there were 143 formations, as Army Group Don insisted there were, then they had to be severely under-strength formations. The Red Army could not possibly have formed and equipped 143 strong formations! His own forces, which in contrast were understrength, he persisted in treating as if they were not (10:128).

As events were to prove, von Manstein's estimate of the situation was very accurate.

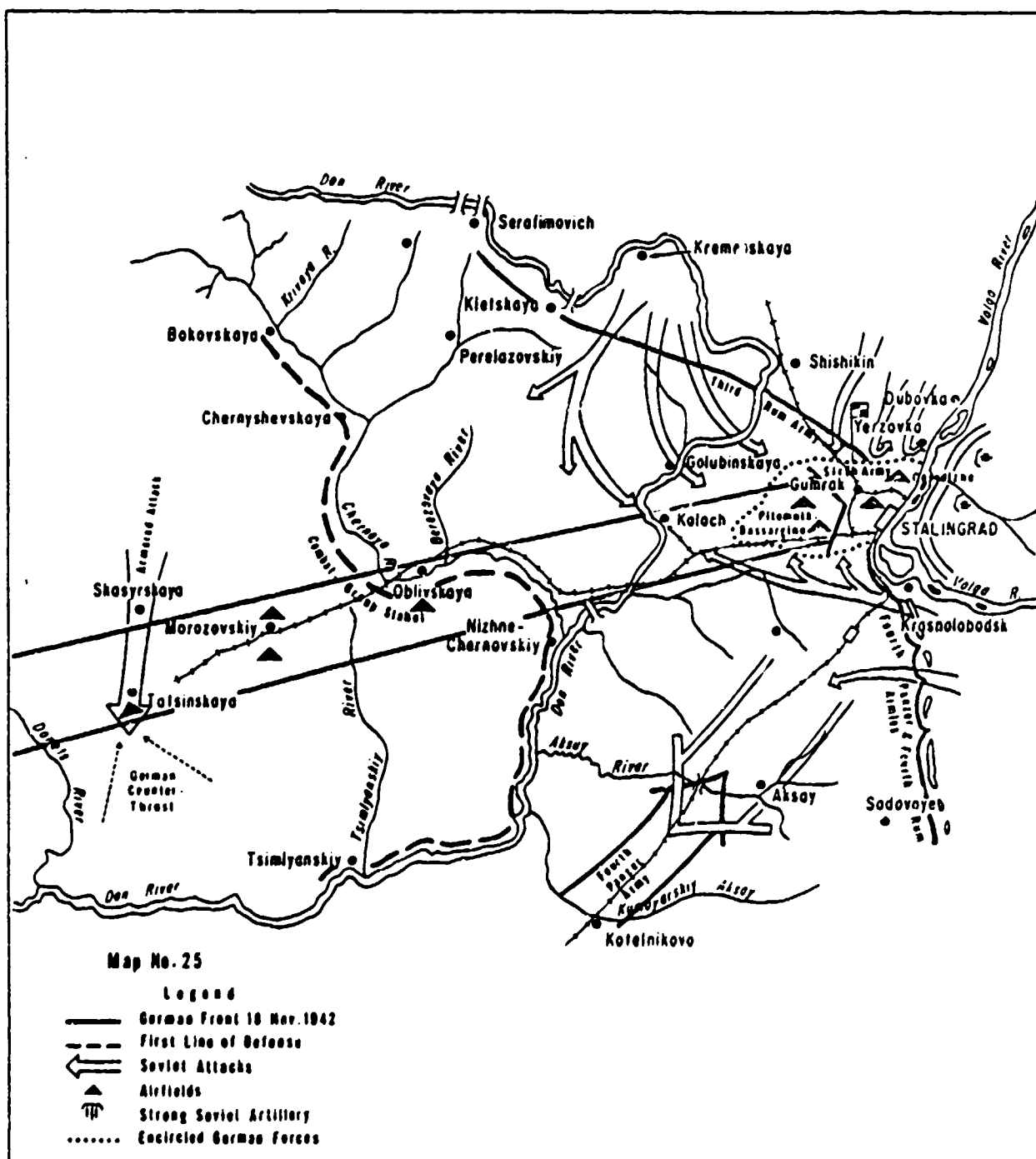
During the rescue operation, tactical airpower was again able to assert itself. JG 3, joined by fighters of II/JG 52, flew hundreds of missions. In addition, dive-bombers and fighter-bombers from StG 2, SG 1, and ZG 1, combined to give the Russians all they could handle. But the constant strain of combat and attrition had taken their toll. By the end of December, JG 3 would have only 29 serviceable aircraft out of a normal strength of 124 (Appendix B). Figures for II/JG 52 were similar; only 15 out of a normal complement of 40 were available for combat (Appendix B). During this effort General Fiebig diverted part of the He-111s from KG 55 and KG 27 to fly close support missions. Fiebig realized that "...the tactical success of the 4th Panzer Army with the support of the HEs is worth more than a few tons for the front" (39:30). Everyone realized, from von Manstein down to the lowliest private, that there could be only one supreme effort.

Surprisingly, the relief forces initially made good headway. In a classic combined arms assault, the force came within 30 miles on 19 December. Soldiers could actually see the glow of fires coming from the pocket in the night sky. Salvation appeared to be at hand--or was it?

"SMALL SATURN"

In the predawn hours of 16 December 1942 a tremendous artillery barrage announced new Russian intentions. Shattering the Italian Eighth and Rumanian Third Armies, the Russians charged directly at the rear of Hoth's relief force. Directly in their path lay Tazinskaya, Morozovskaya and Millerovo. If these airfields were lost it would be a shattering blow to von Paulus' aerial lifeline. But who was available to stop them? All tactical airpower was committed to the furious assault on Stalingrad. If the relief force stalled, Sixth Army's fate would be sealed. Desperately von Manstein tried to accelerate "Wintergewitter" and "Donnerschlag", but von Paulus hesitated. Hitler's invisible hand kept von Paulus from making the right decision at the critical moment. Like a snowflake in your hand, the moment passed. By this time Hoth was engaged by Soviet formations totaling 19 1/2 divisions (149,000 men), 635 tanks, and more than 1,500 guns (14:23). The renewed threat on his left flank forced him to withdraw 6th Panzer from the attack on Stalingrad and face left to meet the Russian onslaught (14:22). The only tactical airpower available to stop the Russians came from II/Sch G 1, StG 2 and KG 27.

The advancing Soviet forces were channeled by two natural obstacles, the Kalitva and Chir Rivers. Rushing down this alley were over 250 tanks. Starting on 16 December II/Sch G 1 engaged this formation in close combat. The only aircraft to achieve any success were the cannon equipped Hs-129s of 4/Sch G 1. Firing armor-piercing 30 mm MK 101 cannon rounds, these aircraft succeeded in knocking out 10 tanks in 2 days (26:19). This barely blunted the Russian drive and in turn cost the unit all their supporting Bf-109 Es. Falling back to Voroshilovograd to regroup, the unit was joined by the badly needed Panzer Jager Staffel of JG 51. These two units stayed together for a month and by 16 January had destroyed another 13 tanks (26:19). Despite these efforts, the Luftwaffe could not distract the Russians from their goal. Instilled with a singlemindedness of purpose, General Badanov drove his 24th Tank Corps inexorably towards Tazinskaya. By Christmas Eve he was on the periphery of "Tazi." Millerovo had already been overrun, and "Moro" was partially evacuated. Aided by a dense fog, Badanov's tanks fell upon Tazinskaya and were greeted by an unreal sight (14:19). Looming out of the fog were hundreds of fully loaded JU-52s awaiting clearance from Reichsmarschall Goering to take off. Incredibly, Goering refused to allow the JU-52s to evacuate until the field came under enemy fire. Once Badanov announced his arrival with a volley of rocket fire, General Fiebig took matters into his hands and launched the force. In the mad scramble to take off in the dense fog, the first JU ran into an approaching tank. Like a flushed covey of quail, transports took off in every direction while tankers fired point blank at the escaping aircraft. Fiebig and his staff managed a harrowing escape in the last JU-52 (39:40-43). They recovered at Rostov-West, but the back of the airlift had been shattered. Sixty aircraft had been



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 Generalleutnant Herman Plocher. Reprinted with permission from
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 Institute, Air University.

lost; one-third of the total (2:287). Equally devastating was the loss of all their support facilities and many ground personnel. Tactical air had been unable to fly at all because of poor weather conditions.

At "Moro" the situation was equally precarious, but Oberst Dr Ernst Kuhl took matters into his own hands and sensibly evacuated the aircraft to Novocherkassk when he heard of the Tazinskaya fiasco. Taking a calculated risk, he and a skeleton staff remained behind, hoping that the weather would clear and his bombers could return on Christmas to keep the enemy at bay.

At "Moro" the weather officer predicted a cold front arriving Christmas Day which would dispel the fog blinding tactical air at "Moro" and "Tazi." Based on this information the operations officer alerted the evacuated crews at Novocherkassk where most of them had spent an uneasy night in their aircraft. Within an hour they had recovered at Morozovskaya just as the fog cleared. Refueled and rearmed, they lifted off and counterattacked the Russian spearhead approaching Morozovskaya. Throughout the day Major Dr. Kupfer's StG 2, Major Hitschold's Sch G 1, Major Wilcke's JG 3, and bombers from KGs 27, 55, and I/KG100 unmercifully hammered the Russian tanks (2:287-288). Caught in the open steppe unsupported by air, the 25th Tank Corps and 1st Guards Mechanized Corps were nearly annihilated. At Tazinskaya, Badanov faced an equally precarious situation. He had completed his mission and destroyed Tazinskaya, but in so doing he had run dangerously short on fuel and ammunition. German ground and air units now attacked this isolated unit with a vengeance. The 24th Tank Corps held on tenaciously for three more days, but by the end of 29 December Badanov was at the end of his rope. Under cover of darkness he broke out of the trap with his few remaining tanks and made for his corps base at Ilinko (14:22). The ordeal at Tazinskaya was over.

Chapter Seven

DENOUEMENT

Though German forces recaptured Tazinskaya on 30 December, the Russians had dealt Sixth Army a mortal blow. In particular, the destruction of the support facilities severely disrupted all future resupply operations. While this was a terrible setback for Fiebig and his crews, developments elsewhere dictated the course of Sixth Army's future.

The daring Russian raid on Tazinskaya and Morosovskaya were symptoms of a much more profound German vulnerability. General Hoth and the relief force were inexorably pushed back from the Stalingrad pocket by increasingly stiff Soviet resistance. Stalin's "Operation Little Saturn" posed too great a risk to von Manstein's dangerously extended Army Group Don and von Kleist's Army Group A (20:329). Reluctantly von Manstein ordered Hoth's withdrawal. Within a few days, over 100 miles separated the Sixth Army from the nearest German formations. The only function Sixth Army could fulfill now was to hold out as long as possible while von Kleist extricated himself from the Caucasus (20:350). What airpower von Paulus had at his disposal for the last month of Stalingrad's defense consisted of a pitiful remnant of 4/JG 3 and a few Stukas of StG 2. The story of these few defenders is the final chapter of tactical air at Stalingrad.

On 10 January, the Russians launched "Operation Koltso," the drive to liquidate Stalingrad's defenders (14:25). During this time the Russians concentrated their artillery on Pitomnik, the primary resupply base. Despite a tenacious defense from the starved defenders of Stalingrad, the Russians were able to penetrate to the very edge of Pitomnik by 15 January. The heroic Kurt Ebener was relieved on this day by a new contingent of JG 3 led by Oberleutnant Frielinghaus of 6/JG 3. Frielinghaus' arrival was a portent of events to come. During the trip into the pocket on 14 January, he had encountered a roving band of Russian fighters. While dogfighting with this group his machine gun synchronization had failed, and he shot off nearly four-fifths of his propeller. Fortunately, he was able to limp into Pitomnik (3:63).

For decades after the war, the events comprising the last hours of the platzschutzstaffel at Pitomnik remained a mystery. Only during the last few years have any comprehensive accounts begun to appear in print. Unique among these accounts for its attention to detail and fidelity to events is Gerhard Brache's

Gegen Vielfache Ubermacht. In his book, Brache chronicles the final agonizing hours of the fighter pilots trapped within the pocket. His vehicle for this story is Hans Grunberg, one of the few pilots to not only survive Stalingrad but also survive the war. The following account is a condensed version from Brache's work.

The small band of aviators at Pitomnik now consisted of nine pilots from JG 3 and a small contingent from StG 2. Included in the airfield protection staffel were Hauptmann Germeroth, Oberleutnant Frielinghaus, Oberleutnant Lucas, Feldwebel Prese, Feldwebel Traphan, Feldwebel Grunberg, Unteroffizier Pizzarski, Uffz. Reif, and Uffz. Wollman (3:63). All through the night on 15 January, this group snatched what sleep they could during an incessant Russian artillery barrage. On the morning of 16 January, as they crawled out of their bunkers for yet another series of missions, they were greeted by Russian small arms and tank fire.

The Stuka contingent took off immediately, and as the JG 3 personnel watched, made repeated attacks on the Russian forces who were already at the southwest edge of the airfield. The quick-thinking Oberleutnant Lucas was the only JG 3 pilot to get airborne. Feldwebel Grunberg ran to the only other serviceable Bf-109 and attempted to start, but found that it had not been warmed up yet. While Grunberg was attempting to start, Lucas made several low-level strafing passes on the enemy infantry, returned, waggled his wings, and departed toward the west. In the meantime, one damaged JU-87 returned to Pitomnik trailing white smoke. The crew landed safely, but their aircraft was severely damaged. After expending their ordnance, the other five Stukas headed to the north toward Gumrak, the last operational airfield in the pocket.

Unknown to the Stuka pilots, Gumrak had not been sufficiently maintained. The field was pock-marked by bomb craters and strewn with damaged aircraft. All five of their aircraft crashed after landing. Oberleutnant Lucas had changed direction after leaving Pitomnik and he too made an approach at Gumrak. Fortunately, he saw the destruction at the field, aborted his landing, and recovered outside the pocket. Nine months later he would be killed in aerial combat with British Spitfires over Holland.

Back at Pitomnik everyone realized it was time to go. After enemy fire destroyed a parked Focke-Wulf FW-200, anyone with lingering doubts suddenly found himself hurrying down the road toward Gumrak. While mechanics disabled the only remaining Bf-109 (Grunberg had failed to start it), everyone else began their hasty retreat. Most made the trip on foot because of an acute fuel shortage within the pocket. Grunberg was lucky enough to hitch a ride at least part of the way in a jeep. After that, he trudged through knee-deep snow for hours.

During the nightmarish trip, Grunberg saw men dragging themselves on makeshift sleds because their feet were too frostbitten for them to walk. At other times he saw men too feeble to continue, begging their comrades for help. All their entreaties fell on deaf ears. Throughout his ordeal he and his comrades were subjected to continuous low-level strafing attacks. Each foot of the way was marked by the corpse of a German soldier. At dusk on the 16th, Grunberg finally arrived at Gumark. Unfortunately, his ordeal was far from over.

The airfield at Gumrak was in shambles. Unrelenting Russian attacks had left the field nearly unserviceable. Only the most dedicated or foolhardy pilots dared a landing. That afternoon three He-111s did land after a running battle with eight Il-2 "Sturmoviks." By the time Grunberg and his compatriots arrived, though, the Heinkels had been forced to depart. The JG 3 pilots' hopes dimmed. After talking with Feldwebel Frese, Grunberg became even more despondent. Hauptmann Gemeroth had announced that henceforth it would be every man for himself. What this translated into, of course, was "rank has its privileges," and Frese was forced to give up his seat on a departing He-111 to Germeroth.

Shortly after this episode, Grunberg and Frese linked up with Feldwebel Traphan of 5/JG 3 and tried unsuccessfully to commandeer an abandoned Fiesler "Storch." Like everything else mechanical in the pocket, it proved to be out of gas. By evening most of the pilots of JG 3 had been reunited and settled down for another anxious, miserable night in the pocket. That night Pitomnik fell.

In the pre-dawn hours of 17 January a lone JU-52 touched down at Gumrak. Flown by four young Unteroffiziers, the JU could only stay on the ground until dawn or risk never leaving the pocket. Grunberg and Pissarki quickly attached themselves to the crew but Traphan somehow got separated in the confusion that occurred once the JU started engines. In the frantic crush to board what might be the last plane out of Stalingrad, dozens of men jumped desperately onto the horizontal surfaces of the plane. The pilot, realizing what might happen, regrettably pushed up full power and took off. Once in the air they took stock and found that only ten men, including the Stuka crew from Pitomnik, had actually gotten aboard. In a somber mood, the survivors hedge-hopped their way out of the pocket. Five days later, Feldwebel Grunberg and Uffz Pissarki rejoined their unit at Schachty. So ended the final chapter of Platzschutzstaffel Pitomnik.

CONCLUSION

On 31 January 1943, a gaunt Field Marshal von Paulus crawled out the basement at the Univermag building and went into Russian captivity. With him went 91,000 scarecrows masquerading as men. In the ensuing years of captivity and abuse, 95 percent of them

perished. By 1955 only 5500 had returned from Siberian prisons (13:161). The tactical air formations of Luftflotte IV had done everything within their power to prevent this tragedy, but a series of mistakes conspired to defeat them. Pessimists would say that the only German mistake was to invade Russia in the first place. They would only be partially correct. In August 1941 Soviet prospects for seeing another year in power appeared quite slim, but only 16 months later the situation had changed dramatically. Hitler's inability to see the change undermined every decision in southern Russia. Unwilling to recognize the threat posed to Sixth Army and indeed Army Group A, despite weeks of forewarning, Hitler needlessly sacrificed them. The tragedy for the Luftwaffe was that the system required their sacrifice too.

By the invasion of Russia in 1941, the Luftwaffe was relegated to being an appendage of the army. The close coordination of air and ground units had worked extremely well in the Low Countries, France, and Poland, where the target nation had relatively finite borders, but in Russia the blitzkrieg met its match. Though the Germans could mass overwhelming forces along a single axis of attack and achieve temporary superiority, they could in no way match the strategic potential of Russia. By November 1942 their strategic potential had been harnessed and translated into an awesome fighting machine. This machine fell on the overextended Sixth Army and steamrolled to Russia's first strategic victory. The tactical aircraft of Luftflotte IV tried vainly to plug the gaps in the German defensive line, but simply didn't have the strength. Weakened by months of combat and inclement weather, stretched to the breaking point by Hitler's dream of conquest, the Luftwaffe was unequal to the task. The Germans learned some hard lessons in Russia 45 years ago. Perhaps these are lessons that can still be learned today.

The following observations of this campaign are offered up more as food for thought rather than lessons learned. It is the judgment of this author that military men are wont to demand hard cold facts and subsequent lessons learned. However, the writing of history is an inexact science which chronicles the activities of a most inexact, capricious, sometimes irrational being--man. Therefore, we should infer from and extrapolate upon the experience of history rather than use it as a mental strait-jacket in our decision making process. In this light, we should examine two areas of most interest to the Stalingrad campaign: the German leadership and the flawed Wehrmacht operational doctrine.

Without doubt, the most glaring failure at Stalingrad rests firmly with Hitler's conduct of the campaign. From the very start he ignored the original concept of operations and began to divert more and more of Army Group A's strength, originally destined for the critical oil fields at Baku, to the Stalingrad cauldron. This violated the primary principle of war, the principle of the objective, and precipitated dire grand strategic and grand tactical results. Once the Soviets encircled Sixth

Army, Hitler compounded his mistakes by trying to manage the campaign from East Prussia.

To ensure that von Paulus did exactly as he was told, Hitler dispatched his personal representative to the pocket and throughout the encirclement attempted to manage the battle from East Prussia, over 1200 miles away. The resulting "fog of war" plainly affected Hitler's decisions. Throughout the course of the battle, his situation charts at OKW Headquarters never accurately reflected the situation facing von Paulus. Based partly upon wishful thinking and partly upon incorrect estimates, Hitler's erroneous estimate of the situation contributed directly to the disaster. He compounded his errors by denying his commanders on the scene the freedom of action they needed to redress the situation. The tendency for leaders today to involve themselves in the minutiae of military operations is growing. New technology in communications and intelligence collection literally puts the world at a decisionmaker's finger tips. Yet this temptation to overcontrol must be denied. The pitfalls for decisionmakers are as real today as they were in 1942 in Russia and in 1831 when von Clausewitz first described them. Whether you are the President of the United States or a Corps commander directing thousands of individual soldiers, you must develop a trust in your subordinates ability and judgment. Without this essential trust, you will be prompted to intervene again and again in operations that perhaps should best be left alone. Such was the case on the Volga and the loss of Sixth Army was the result. Part of the reason for Hitler's faulty estimates can be traced to a cultural chauvanism in which he attributed near superhuman ability to German soldiers while denigrating the Soviets as "untermenschen."

Hitler's attitude can be traced in part to the very success of the Wehrmacht during the first 3 years of the war. In every campaign, Germany steamrolled all opposition. Even at the start of "Barbarossa," the Russian campaign, the Wehrmacht shattered their numerically superior foe. Much of this success was directly attributable to the quality of the German fighting man and the equipment which bore him into battle. In essence, Hitler relied on his military's superior weapons and training to win the day. Wooed by the wonders of technology in the late 1930's, Hitler developed a military heavily dependent on mechanization and complex weapon systems. Initially, he was stupendously successful, conquering Europe and most of European Russia. However, over time he fell victim to the siren's call of technology as a panacea for all ills. This siren's call is as powerful today as it was over 50 years ago.

In Western society, the use of technology is closely related to the Judeo-Christian ethic which exalts the sacredness of life. Many believe that technology is a force multiplier which can enable one man to do the fighting of many. Therefore, by equipping this representative man with superior weaponry, the society hazards only one life instead of dozens should war come. In broader terms, some Western theorists argue that a

numerically inferior but technologically superior nation can wage war and win over a numerically superior but technologically backward foe. If this scenario sounds familiar, it should, for it is essentially a restatement of the quantity/quality debate. What both the United States and her allies should remember is that the Soviet Union validated her interpretation of the debate at battles like Stalingrad. Despite tremendous losses, which some historians conservatively estimate at 20 million, the Soviets defeated Nazi Germany. The lesson the Soviets learned was that mass is important and can overcome limited quality. This fact should not be lost as we in the West structure our forces for tomorrow.

As we embark on a course somewhat similar to Germany's with our Airland Battle doctrine, we should continue to remind ourselves of the pitfalls inherent in tying one service to another. Certainly the Germans did not originally intend to fly the vast majority of their missions in close support to the detriment of other missions. Yet this is exactly what transpired at Stalingrad and elsewhere on the Eastern front. As the Russian pressure increased on the ground, the Army turned to the Luftwaffe again and again to help abate the power of the Russian juggernaut. Over time, the Luftwaffe became nothing more than long range artillery in the East. We must be cognizant of this predisposition with our Airland Battle concept and maintain a sense of balance throughout our operations.

Hopefully, these observations will give us reason to pause and reflect on our force acquisition and employment in the future. The experiences of the Wehrmacht in the East, so costly in their purchase, should not be relegated to the dust bin of history. Instead, they should be examined and reexamined by both military professionals and political leaders.

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APPENDIX

APPENDIX A

For the reader who is unfamiliar with the basic German terms used in the text, a short explanatory note may be helpful: The Luftwaffe's combat strength was organized into Wings (Geschwader) each of which was identified by a number and had a prefix according to its branch of service. Fighter units were known as Jagdgeschwader, abbreviated to JG; bomber units as Kampfgeschwader (KG); heavy fighter units as Zerstörergeschwader (ZG); night fighter units as Nachtjagdgeschwader (NJG); dive-bomber and ground attack units initially as Stukageschwader and subsequently as Schlachtgeschwader (St.G., SG); and operational training units, which under the German system flew combat missions along side the field units, as Lehrgeschwader (LG).

Each Geschwader comprised three or four Gruppen numbered with Roman characters (e.g. I/JG 52) and each Gruppe was made up of three or four Staffeln, numbered with Arabic numerals (e.g. 9/JG 1). The strength of these formations varied widely but an average fighter Staffel comprised nine or ten aircraft, giving the Gruppe a strength of about 30 machines and the Geschwader a total strength of about 100 aircraft. The Geschwader usually operated in a particular sector with its Gruppen dispersed quite widely on various airfields; but it was not uncommon to encounter Gruppen or even Staffeln on detached service hundreds of miles from the parent Geschwader, according to the requirements of local circumstances or training and replacement needs.

Reconnaissance units were organized around the Gruppe rather than the Geschwader, and prefixed by (F) or (H) to indicate their long-range or local reconnaissance roles respectively; thus 2(F)/122 indicates Staffel 2 of Fernaufklärungsgruppe 122.

Many units were also identified by traditional titles, usually commemorating either a past commander or a famous airman of the First World War; or referring to the unit's crest; or to some notable incident in its history. Examples of these categories are JG 51 "Molders" and JG 2 "Richtofen"; JG 53 "Pik As" (Ace of Spades); and JG 27 "Afrika." The German Air Force of the 1960s still includes units named after the First World War aces Richthofen, Boelcke and Immelmann.

Luftwaffe ranks paralleled those of the Army, and some of the most frequently quoted may be translated as follows:

Feldwebel	=Sergeant
Oberfeldwebel	=Warrant Officer(1) or Master Sergeant

CONTINUED

Leutnant	=2nd Lieutenant
Oberleutnant	=Lieutenant
Hauptmann	=Captain
Major	=Major
Oberstleutnant	=Lt.-Colonel
Oberst	=Colonel
General-Major	=Maj.-General
General-Leutnant	=Lt.-General

Extracted from: German Air Force Fighters of World War Two by
Martin C. Windrow. Copyright 1968 by
Doubleday and Company Inc.

APPENDIX

APPENDIX B

LUFTWAFFE ORDER OF BATTLE

DATE 31. 21. 42				TYPE: JAGD						
Unit	A/C	Command	Status	Aircraft			Crews			Con Rd
				IE	Str	Serv	IE	Str	Rdy	
Stab J.G.1	190			4	4	4	4	2	2	0
I/J.G.1	109G1/R2			40	40	27	40	32	26	6
	109F				4	3				
	109E7				1	1				
II/J.G.1	190			40	41	40	40	43	25	2
III/J.G.1	190			40	53	48	40	45	23	19
IV/J.G.1	190			40	41	27	40	43	24	0
Stab J.G.2	109G3/R2			4	6	4	4	4	4	0
	190				14	10				
I/J.G.2	190			40	41	33	40	21	19	2
II/J.G.2	190			40	21	13	40	35	17	18
III/J.G.2	190			40	49	38	40	39	29	10
10/J.G.2	190			15	13	9	15	11	10	1
11/J.G.2	109G1			15	0	0	15	0	0	0
Stab J.G.3	109G2, 4, 6	L-4		4	3	2	4	4	2	2
I/J.G.3	109	L-4		40	21	6	40	32	11	21
II/J.G.3	109	L-4		40	17	10	40	41	18	23
III/J.G.3	109	L-4		40	18	11	40	33	19	14
1./J.G.4	109	D.L.M.		12	15	8	12	14	9	5
2./J.G.4	109	D.L.M.		12	0	0	12	4	0	4
Stab/J.G.5	190	Ost		4	1	1	4	4	2	2
I/J.G.5	190	Ost		40	39	29	40	41	25	15
II/J.G.5	109F 4	Ost		40	22	20	40	38	16	22
III/J.G.5	109F 4	Ost		40	37	19	40	39	27	12
	109E 7									
IV/J.G.5	190			40	29	26	40	41	20	21
	109G1/R2				6	3				
Stab/J.G.26	190			4	5	5	4	4	2	2
I/J.G.26	190			40	34	23	40	43	27	14
II/J.G.26	190			40	33	26	40	53	28	18
	109G 4				11	7				

CONTINUED

Unit	A/C Type	Command	Status	Aircraft			Crews			Con Rd
				IE	Str	Serv	IE	Str	Rdy	
III/J.G.26	109G 4			40	2	2	40	48	35	12
	190				35	29				
	109G1/R2				1	0				
10/J.G.26	109			15	14	13	15	13	12	1
11/J.G.26	109G1/5			15	12	8	15	10	0	10
Stab/J.G.27	109G2/4/6			4	0	0	4	3	0	3
I/J.G.27	109			40	0	0	40	36	0	36
II/J.G.27	109			40	0	0	40	29	0	29
III/J.G.27	109	M.u.A.		40	20	17	40	42	13	9
Stab/J.G.51	190	Ost		16	4	3	16	14	3	10
I/J.G.51	190	Ost		40	30	14	40	40	29	11
II/J.G.51	109G2 Tr.	M.u.A.		40	32	21	40	50	30	12
III/J.G.51	190	Ost		40	51	37	40	41	28	13
IV/J.G.51	190	Ost		40	26	15	40	39	27	12
15/J.G.51	109F	Ost		12	13	5	12	18	17	1
Stab/J.G.52	109G2/4/6	L-4		4	3	0	4	7	4	3
I/J.G.52	109	L-4		40	40	31	40	37	16	21
II/J.G.52	109	L-4		40	27	15	40	39	29	10
III/J.G.52	109	L-4		40	37	24	40	38	26	12
15/J.G.52	109G			12	0	0	12	13	0	15
Stab/J.G.53	109G2/4/6	M.u.A.		4	6	3	4	7	5	2
I/J.G.53	109	M.u.A.		40	30	17	40	42	14	28
II/J.G.53	109	M.u.A.		40	35	27	40	54	33	21
							12	6	6	
III/J.G.53	109			40	15	11	40	38	14	24
Stab/J.G.54	109G2			4	3	2	4	3	2	1
	109F4			0	1	1				
I/J.G.54	190			0	9	8				
	109G2			40	23	15	40	48	16	32
II/J.G.54	109G2/4/6			40	33	22	40	34	24	10
III/J.G.54	109G2/4/6	Ost		40	30	17	40	40	33	7
Stab/J.G.77	109G2	M.u.A.		4	7	5	4	11	6	0
I/J.G.77	109G2/4/6Tr.	M.u.A.		40	25	11	40	43	29	0
II/J.G.77	109G2/4/6	M.u.A.		40	27	20	40	26	25	0
III/J.G.77	109	M.u.A.		40	25	18	40	49	35	0
	109F4	M.u.A.			3	2				

CONTINUED

	SUMMARY						
German Totals	1592	1360	908	1592	1671	916	631
Germany	772	636	477	772	744	390	305
Ost	272	214	131	272	273	152	90
M.u.A.	288	212	141	288	524	190	72
Lfl.4	248	166	99	248	231	125	106
D.L.M.	24	15	8	24	18	9	9
TOTALS	1604	1243	856	1604	1590	896	582

EXTRACTED FROM; GERMAN ORDER OF BATTLE, UNITED STATES STRATEGIC
BOMBING SURVEY. DOCUMENT 137.306-14 SIMPSON
HISTORICAL RESEARCH CENTER, MAXWELL AFB, AL.

APPENDIX

APPENDIX C

Operations of J.G.3 in Russia during the Time 1.1.42-2.8.43

Extract from a short history by Karl Heinz Langl. Various sources, War Diary).

Jagdgeschwader Udet

Period from 1 January 1942

Jan.-May 1942	Stab/J.G.UDET	in Germany Wiesbaden-Erbenheim
April-May 1942	I./J.G.UDET	Newly constituted Wiesbaden-Erbenheim
20.1.-April 42	II./UDET	<u>Malta Theater</u> Sclacca Airfield <u>Target area</u> Malta Under command of J.G. 53 (Maltzhan)
10.2.-13.4.42	III/UDET	<u>Russian Theater</u> , Northern section <u>Under Command</u> of Luftflotte 1 I.Fl. Korps (Forster) Szoltzy Airfield (Lake Ilmen) Target Area Demiansk-Cholm

CONTINUED

Period

Missions Against the Soviet Union

Summer offensive 1942

From 7.5.1942

J.G.UDET

under the command of VIII

I./II./III.Gruppe

Fl. Korps (Richtofen)

Airfields Tschugujeff
(Charkow) Jaruga-Rogan,
Schtschigry, Medwenskoje
near Kursk,
Gorschteschnoje,
Jassenki near Voronesh,
Marijewka near
Olchowotka, Millerovo-
North, Nowij-Cholan,
Morosovskaya, Tazinskaya

III./UDET

Intermittently
participated in the
fighting on the Crimean
Peninsula.

Theater J.G. UDET

Breakthrough and pursuit
on the upper Don and
capture of Voronesh on
28.6.-8.7.1942.

End July-10.8.

J.G.UDET

Frolow Airfield

10.8.-13.9 1942

J.G.UDET

Tusow Airfield

Theater

Advance in the great Don
bend westward Stalingrad
from 24.7-16.8.1942

Offensive on Stalingrad
from 17.8.-18.11.1942

13.9.-End

II./UDET

Russian Theater Northern
Front

CONTINUED

October 1942

Under Command of
Luftflotte I

	<u>Airfield</u>	<u>Fliegerkorps I.</u> <u>Operation area</u>				
	Degjurewo South of Leningrad Szoltzy	Rskew Witebsk Lake Ilmen- Demiansk, Tuleblja Stara-ja- Russa,				
13.9-18.11.1942	J.G.UDET With I&II Gruppe	Russian Theater Southern Front Under Command of VIII Fl. Korps (Fiebig)				
	II. UDET from 1.11	<table border="0" style="width: 100%;"> <thead> <tr> <th style="width: 50%; text-align: center;"><u>Airfield</u></th> <th style="width: 50%; text-align: center;"><u>Operation Area</u></th> </tr> </thead> <tbody> <tr> <td>Pitomnik near Stalingrad</td> <td>Offensive against Stalingrad</td> </tr> </tbody> </table>	<u>Airfield</u>	<u>Operation Area</u>	Pitomnik near Stalingrad	Offensive against Stalingrad
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18.11.-15.12.1942	Stab I and II.UDET	<table border="0" style="width: 100%;"> <tbody> <tr> <td style="width: 50%;">Pitomnik</td> <td style="width: 50%;">in the pocket at Stalingrad</td> </tr> <tr> <td>Gumrak</td> <td>a reinforced staffel of I&II UDET stayed in the pocket at Stalingrad until 7.1.1943.</td> </tr> </tbody> </table>	Pitomnik	in the pocket at Stalingrad	Gumrak	a reinforced staffel of I&II UDET stayed in the pocket at Stalingrad until 7.1.1943.
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21.11.1942-7.1.1943	III./UDET	Oblivskaya Fighter operations Morosovskaya Stalingrad Tazinskaya				
15.12.1942- 7.1.1943	Stab II./ UDET and rest of I./UDET	<table border="0" style="width: 100%;"> <tbody> <tr> <td style="width: 50%;">Morosovskaya Tazinskaya</td> <td style="width: 50%;">Fighter operations Repelling attacks on the Don and in the Kalmuck Steppe 23.11.- 11.12.1942</td> </tr> </tbody> </table>	Morosovskaya Tazinskaya	Fighter operations Repelling attacks on the Don and in the Kalmuck Steppe 23.11.- 11.12.1942		
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APPENDIX

APPENDIX D

Memorandum By General Von Seydlitz of 25 November 1942

Art. Gen. v. Seydlitz-Kurzbach, OC LI AC to COC Sixth Army on 25.11.42 re Army Order of 24.11.42. Copy by AHC to COs Army Gr Don; COs LI AC No. 603/42 GCF 25.11.42, rec. Army GR. Don 28.11.42.

In receipt of the Army order of 24 November 1942 for the continuation of fighting, and fully cognizant of the gravity of the situation, I feel obliged to resubmit in writing my opinion which has been strengthened further by events during the past 24 hours.

The Army is faced with a clear either-or:

Breakthrough to the south-west in the general direction of Kotelnikov or annihilation within a few days. This assessment is based on a sober evaluation of the actual situation.

1. Since practically no supplies were available at the beginning of the battle, the supply position must be a crucial factor in any final decision. State of supplies of LI AC on evening of 23.11 [not reproduced]

The figures speak for themselves.

Even the minor skirmishes of the past few days have led to an appreciable decrease in the supply of ammunition. If, as can be expected daily, the Corps is attacked along the entire front, its supply of ammunition will be completely exhausted within 1-3 days. It is unlikely that the supply position of the other Army Corps, which have been engaged in major battles for several days, is any better.

From the attached figures it follows that the adequate airlift of supplies for LI Corps is doubtful and for the entire Army out of the question. What supplies 30 Ju can fly in (on 30.11) or the further 100 Ju that have been promised can be no more than a drop in the ocean. To base our hopes on them is grasping at a straw. It is not clear where the much larger number of Jus needed is to come from. If they are available at all, they would first have to be flown in from all over Europe and North Africa. Because of the distance involved, their own fuel requirement would be so great that, with the general fuel shortages we have experienced, the whole operation looks

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questionable, quite apart from the operational consequences of this measure from the war effort as a whole. Even if 500 instead of the promised 130 aircraft could be flown in each day, they could not carry more than 1,000 tons of material, which is inadequate for the needs of an army of 200,000 men engaged in major battle and that has run out of supplies. At best they can fly in the most essential fuel supplies, a small fraction of the requirements for various types of ammunition and perhaps also a fraction of the food rations as well. Within a few days, all the horses will have perished. Tactical manoeuvrability will have been restricted even further, the distribution of supplies to the troops rendered considerably more difficult, and the fuel requirement stepped up even further.

There is little doubt that the bulk of the weather-proof Russian fighter planes will be used to intercept the incoming transport planes and to attack the Pitomnik and Pestkovatka airfields, the only ones suited to major airlift. Considerable losses are inevitable, and uninterrupted fighter support for the long approach and the two airfields can hardly be taken for granted. Weather conditions, too, are bound to affect the airlift.

Because of the impossibility of bringing in sufficient supplies by air, the exhaustion of the remaining supplies within a few days-about 3-5 days for ammunition-can at best be slightly delayed but not prevented. Making available provisions go further is to some extent in our own hands (LI Army Corps was ordered to stretch them by 100 per cent three days ago). But when it comes to stretching the fuel and ammunition supplies, we are wholly dependent on the enemy.

2. The probable actions of the enemy, who can look forward to a battle of annihilation of classical proportions, is easy to predict. Familiarity with his previous tactics leads one to suppose that he will continue his attacks on the encircled Sixth Army with undiminished ferocity. We must also credit the enemy with being able to realize that he must destroy the Sixth Army before our relief measures can be put into effect. We know from past experience that sacrifice of human lives will not deter him. Our successful defence tactics, especially on 24.11, and his heavy losses must not lead us into self-deception.

Moreover, the enemy cannot be entirely unfamiliar with our supply problems. The more persistently and fiercely he attacks, the more quickly will we run out of ammunition. Even if every one of his attacks should be repulsed, he will nevertheless achieve final victory if we have exhausted our ammunition and become defenceless. To deny him this realization means counting

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on his mistakes. This has led to defeat throughout military history. It would in any case be an inordinate risk which, with the collapse of the Sixth Army, would have the gravest consequences upon the duration of the war and perhaps also on the final outcome.

3. In purely operational terms, it follows that the Sixth Army can only escape destruction in the hedgehog position if relief proves so effective that, in a few, i.e. approximately five days, the enemy is forced to stop his attacks. There are no indications whatsoever that this can be done. If relief cannot arrive until later, then our state of defencelessness will be such that the destruction of the Sixth Army is inevitable.

It is impossible to foresee what measures the Army High Command can take to relieve the Sixth Army. Relief from the west can only be a long way off since the only covering forces are west of the Upper Chir at Oblivskaya on the Lower Chir, so that relief forces will have to be assembled far from the Sixth Army. Organizing a force strong enough to effect a quick breakthrough across the Don and covering its northern flank will take weeks as the Millerovo railway line is largely unserviceable. Add to this the time needed for the operation itself, which because of the bad weather and the short winter days is considerably longer than in the summer.

The deployment of two panzer divisions at Kotelnikovo for a relief operation from the south, and their arrival, will take at least ten days. The prospect of a quick breach of the enemy lines is gravely hampered by the need to cover the lengthening flanks, and particularly the eastern flank, of the relief force, not to mention the state of the divisions and the question of whether or not two panzer divisions are enough. The speeding up of the deployment of relief forces by throwing in a larger number of motorized columns cannot be considered a possibility - neither the columns nor the fuel can be available, or they would have been used for supplying the exposed Stalingrad front much earlier, when the distances involved were much smaller.

4. The prospect of relief within a period when the arrival of supplies is still likely to make a difference is therefore as good as nil. The order by the High Command to hold the hedgehog position until aid arrives is obviously based on false assumptions. It cannot be implemented and would inevitably lead to disaster for the Sixth Army. If the Army is to be saved, then the order must be revoked at once, or else the Army must immediately act as if it had been.

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The idea of sacrificing the Army deliberately must, in view of the operational political and moral consequences, be out of the question.

5. A comparison of the timescale of supply and operational measures with that of probable enemy actions leads to so obvious a conclusion that further arguments are redundant. Nevertheless I would draw attention to the following facts, all of which point in the same direction:

- a) The far from stabilized position on the south-western front of the hedgehog.
- b) The northern front cannot withstand a concentrated enemy attack for any great length of time, since, following the withdrawal of the 16th Panzer Div. and later of the 3rd Inf. Div. (mot.), the northern front had to be moved back to hold what is admittedly a shorter but also an almost completely undeveloped line.
- c) The strained situation on the southern front.
- d) The greatly depleted Volga front has lost much of its striking power, which will be particularly felt when, as is to be expected soon, the river is completely iced over and another obstacle in the enemy's way has thus been removed.
- e) Lack of ammunition has impeded the continuous replacement of men deployed at the enemy Volga bridgehead, where earlier enemy attacks have been tying down all reserves.
- f) The condition of the divisions which have been bled dry in the drive on Stalingrad.
- g) The Army has been tightly massed into a barren area of steppe which offers little usable shelter or practicable cover so that men and material are completely exposed to the weather and enemy air attacks.
- h) Impending winter conditions with an almost total lack of heating fuel along the greater part of the present lines.
- i) Inadequate support by the Luftwaffe because of lack of suitable operational bases. There is no anti-aircraft support because all available anti-aircraft units have been diverted to anti-tank defence.

Any comparison of the present position with conditions in the Demyansk pocket last year can only lead to dangerous conclusions. There, the difficult terrain favored the defence. The distance from the German front was very much less. An encircled Corps needs significantly fewer supplies than an Army; in particular far fewer heavy weapons (panzer, heavy guns, mortars) had to be supplied with ammunition than are indispensable here in the barren steppes. Despite the shorter

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distance to the German front the creation of a very narrow corridor to the Demyansk pocket took weeks of heavy winter battles.

6. The alternatives are clear:

Either the Sixth Army continues to hold its defensive hedgehog position until it has run out of ammunition, i.e. has become totally helpless. Since, with the certain continuation and probable extension of enemy attacks against what are still relatively quiet sectors of the front, this state of affairs is due to occur well before effective relief can arrive, a passive response means the end of the Army.

Or, in an effective operation, the Army can break out of its encirclement.

That is only possible if the Army, by stripping the northern and Volga fronts of troops, i.e. by shortening the front, can release enough combat forces to launch an attack on the southern front, and, after surrendering Stalingrad, break through at the enemy's weakest point, i.e. in the Kotelnikovo direction. This decision would involve abandoning considerable quantities of material, but offers the prospect of smashing the southern jaw of the Soviet pincer, thus saving a major part of the Army and its equipment for further operations. As a result a section of the enemy force will continue to be tied down, where as with the annihilation of the Army in the hedgehog position the enemy will have a completely free hand. To the outside, the operation can be presented in a way that will help to preserve morale: 'After the total destruction of Stalingrad, centre of the soviet arms industry, the Sixth Army, having first liquidated an enemy concentration on the Volga, has been withdrawn.'

The chances of success of a breakout are the greater as previous engagements have shown that the enemy infantry does not stand very firm on open terrain, and as some of our forces are still holding their positions along short stretches east of the Don and in the Aksay sector. In view of the pressing time factor, the breakout must be started and completed without delay. Any delay reduces its prospects. Any delay cuts down the number of fighting men and the ammunition. With every delay the enemy in the breakout sector becomes stronger and can bring up more support against the Kotelnikovo group. Every delay reduces our fighting strength by the decimation of horses and the consequent immobilization of horsedrawn guns.

Unless the Army High Command revokes the order to hold the hedgehog position immediately, my own conscience and responsibility to the Army and the German people impose the imperative duty to seize the freedom of action curtailed by the previous order and to use what little time is left to avoid utter

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disaster by a breakout attempt. The complete destruction of 200,000 fighting men and their entire supply of material and equipment is at stake.

There is no other choice.

signed: von Seydlitz
Artillery General

[Note by Chief of German Army General Staff: We do not have to cudgel the Fuhrer's brain and Gen. von Seydlitz does not have to cudgel that of the C-in-C.]

Stalingrad. Analyse und Dorkumentation einer Schlacht, Manfred Kehrig, Stuttgart, 3rd edition, 1979

Kriegstagebuch des Oberkommandos der Wehrmacht (War Diary of the OKH) 1940-1945, ed. by von Schramm with the collabration of Hillgruber, Hubatsch and Jacobsen, Von Greiner and Schramm: Coblenz and Munich, 1961-4