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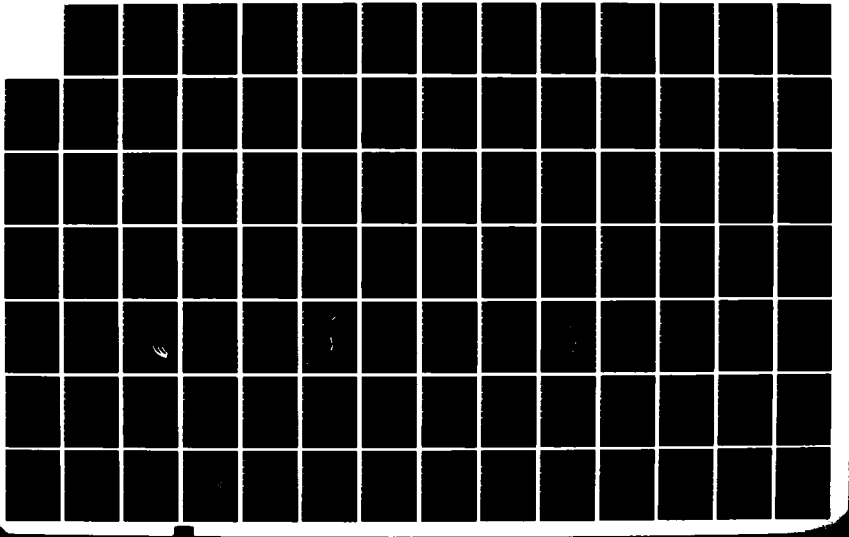

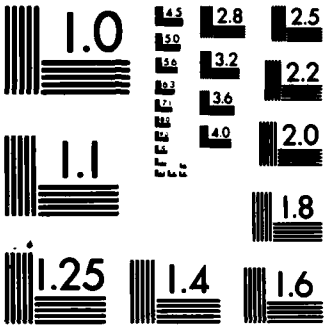

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A thesis presented to the Faculty of the U.S. Army Command and General Staff College in partial fulfillment of the requirements for the degree

MASTER OF MILITARY ART AND SCIENCE

by

TIMOTHY A. WRAY, MAJ, USA
B.S., United States Military Academy, 1971
M.A., Stanford University, 1979

Fort Leavenworth, Kansas
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This study examines the evolution of the German Army's defensive doctrine on the Russian Front from 1941 to 1945. It begins by reviewing prewar doctrine as expressed in German field manuals and professional journals. German defensive techniques are then traced throughout the war, with particular emphasis upon the elements of continuity in German doctrine. This doctrinal evolution is examined on three levels: what substantive changes occurred, why those changes developed, and the methods by which the changes were put into effect within German units. Primary sources consulted in this investigation include wartime publications of the German Army High Command (OKH), unit after-action reports, and other doctrinal materials in the German Military Records Collection, National Archives.

INTRODUCTION

Correctly anticipating the nature of the next war is the most critical problem confronting military leaders in peacetime. Effective investments in training, equipment, and weaponry depend upon the accuracy with which these leaders can, in effect, divine the future. The standard point of departure for this augury is the experience of recent wars. Strategists attempt to isolate lessons of continuing relevance from these conflicts, and then make their decisions accordingly. As shown by the example of France in 1940, this divination can be tragically inexact.

Military history is a reservoir of vicarious experience that, if understood, can be tapped for insights into current problems. For purposes of contemporary decision-making, however, it is not the *history* itself but the *understanding* and *insight* that are most valuable. All too often, peacetime armies forget this distinction and simply become what B.H. Liddell Hart called "temples of ancestor worship."

Within the past several years, Western doctrinal analysts have paid new attention to the German Army's defensive battles in Russia during World War II. Much of this interest has had a strongly utilitarian flavor, with writers hitching historical examples to theories of "maneuver" or "attritional" warfare for NATO use.[1] In the heat of argument, however, Eastern Front examples have often been snatched out of their historical context. Where little or no consideration is given to the unique circumstances that governed particular operations, legitimate understanding and insight are the likely victims.

The purpose of this paper is to trace the development of German defensive doctrine on the Russian Front. For the sake of understanding and insight, this paper will address both the substance of German doctrinal changes and the logic by which those changes were derived. Thus, not only will German battlefield methods be analyzed, but also the peculiar constraints and circumstances that

helped to shape the German practices.

Military doctrine is the established conceptual and procedural framework within which military operations are planned and conducted. In peacetime, doctrine is reliably expressed in an army's training manuals. In wartime, however, expedient changes to combat usage frequently outstrip official publications. In this latter instance, doctrine is more correctly represented by the prevailing battlefield techniques employed by combat units. For example, German field manuals are of little value in tracking German defensive practices on the Eastern Front: despite remarkable changes to German combat technique, no new manual on defensive operations was published during the entire war.

The first chapter of this paper discusses the prewar development of German defensive doctrine. This establishes the philosophical context within which the Germans operated at the outset of the Russo-German War. As will be seen, German defensive doctrine in 1941 was firmly rooted in remembrances of World War I.

Succeeding chapters examine the German Army's defensive battles against the Red Army. From the first defensive engagements fought by the Germans in the summer of 1941, these operations rarely followed the format of published defensive doctrine. The application of standard defensive procedure was foiled by several factors: peculiar problems of terrain, weather, and deployment; unanticipated shortages of German troops and equipment; and even the totally unforeseen tactical meddling of the German Supreme Commander, Adolf Hitler. Under the circumstances, German units improvised defensive measures as best they could. Although these expedient techniques salvaged some features of prewar doctrine, they also incorporated defensive practices new to the German Army.

As the war progressed, doctrinal modification became a nearly continuous process. From early 1943 onward the Soviet enemy held a pronounced quantitative

superiority, and Germany could only hope to redress the resulting combat imbalance by the most careful use of her dwindling military resources. A keen doctrinal edge was vital in these circumstances, and so German combat technique was frequently honed. Doctrinal changes could not be made solely on the basis of optimum tactical efficiency, however, since other elements of the battlefield equation did not remain static. Tactical changes adopted by the Red Army, shifts in the strength, training, and steadfastness of German units, and more of Hitler's bizarre interference all warped the development of German defensive doctrine. From the latter part of 1944 onwards, German defensive doctrine actually declined in tactical sophistication in order to accommodate the diminishing strength and skill of German units.

The final chapter offers some general observations and conclusions about the overall German defensive effort against the Soviets in World War II. Through nearly four years of increasingly desperate defensive battles, the German Army showed itself to be as innovative and resourceful in defeat as it had earlier been in victory. Seen in retrospect, the magnitude of this German effort will appear even greater than it does at first glance, for German units used defensive methods that were almost wholly extemporized throughout the entire war.

In any future conflict in Western Europe, NATO forces will face tactical and strategic problems similar to those that confronted German armies on the Russian Front during World War II. In the defense, the German Army was hamstrung by a number of political and territorial imperatives that restricted its strategic flexibility. German defensive operations were hobbled not only by allies of varying style and ability, but also by large differences in the training, mobility, and combat power of German units as well. The Red Army battled by the Germans in World War II bears a strong resemblance to the current Soviet Army (and its Warsaw Pact siblings) in doctrine, command style, and strategic philosophy. Finally,

of course, the German Army operated against an adversary whose preponderance in men and materiel was absolute. And, while it did not "fight outnumbered and win" by achieving final victory, the German defensive battles were fought with sufficient skill, tenacity, and resourcefulness to merit close scrutiny. From this, understanding and insight will hopefully follow.

CHAPTER I: THE ORIGINS OF GERMAN DEFENSIVE DOCTRINE

In 1941, the German Army's doctrine for defensive operations was nearly identical to that used by the old Imperial German Army in the final years of World War I. The doctrinal practice of German units on the Western Front in 1917 and 1918 - the doctrine of "elastic" defense-in-depth - had been only slightly amended and updated by the beginning of BARBAROSSA. In contrast to offensive doctrine, which in the years from 1919 to 1939 had moved toward radical innovation, German defensive doctrine had followed a conservative course of cautious adaptation and reaffirmation. Consequently, although in 1941 it embraced an offensive doctrine designed for a war of maneuver, the Germany Army still hewed to a defensive doctrine derived from the positional warfare *(Stellungskrieg)* of an earlier generation.

Elastic Defense: Legacy of the Great War

The Imperial German Army adopted the elastic defense-in-depth during the winter of 1916-1917 for compelling strategic and tactical reasons. At that time, Germany was locked in a war of attrition against an Allied coalition whose combined resources exceeded those of the Central Powers. The German command team of Field Marshal Paul von Hindenburg and General Erich Ludendorff hoped to break the strategic deadlock by a major offensive effort on the Russian Front in 1917. This required that they economize Germany's strength on the Western Front in France and Belgium, holding casualties there to a minimum while repelling expected Allied offensives without major reinforcements. In order to accomplish this, they sanctioned a strategic withdrawal in certain sectors to newly-prepared defensive positions. This "Hindenburg Line" shortened the front, and more cleverly exploited the defensive advantages of terrain than the "high water mark" positions previously held. This withdrawal was a major departure from prevailing defensive philosophy, which hitherto

had measured success in the trench war solely on the basis of seizing and holding terrain. In effect, Ludendorff* adopted a new policy that emphasized the husbanding of German manpower over the blind retention of ground - a strategic philosophy whose tactical analogue was an elastic defense-in-depth.

In order to complement his strategic designs, Ludendorff directed the implementation of the Elastic Defense doctrine.[1] This new doctrine supported the overall strategic goal of minimizing German casualties, and also better corresponded to the tactical realities of attack and defense in trench warfare than previous methods had done.

Through the war's first two years, it had been German (and Allied) doctrinal practice to defend every meter of front by concentrating infantry in a system of forward trenches. This prevented any enemy incursion into the German defensive zone, but inevitably resulted in heavy losses to defending troops due to Allied artillery fire. Such artillery fire was administered in increasingly massive doses by the Allies, who regarded artillery as the *sine qua non* for any successful offensive advance. (For example, even the stoutest German trenches had been almost entirely eradicated by the six-day artillery preparation conducted by the British prior to their Somme Offensive in 1916.) Consequently, the Germans sought a defensive deployment that would immunize the bulk of their defending forces from the annihilating Allied cannonade. The simple solution to this problem was to construct the German main defense line some distance to the rear of a forward security line. Although still

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*Hindenburg and Ludendorff nominally operated according to the "dual responsibility" principle of the German General Staff, whereby the Commander and his Chief of Staff shared responsibility and authority on a nearly equal basis. In practice, Ludendorff's energies were so great that Hindenburg regularly deferred to his judgment. Ludendorff also routinely involved himself in matters of technical detail far beneath the Olympian gaze of Hindenburg. In the matters being discussed, Ludendorff thus played the dominant role at both the strategic and tactical levels.

within range of Allied guns, the main defense positions would be removed from easy observation. Fired blindly, most of the Allied preparatory fires would thus be wasted.

In developing the Elastic Defense doctrine, the Germans analyzed other lessons of trench warfare as well. The German Army had come to realize that concentrated firepower, rather than a concentration of personnel, was the most effective means of dealing with waves of Allied infantry. Too, they had learned that the ability of attacking forces to sustain their offensive vigor was seriously circumscribed. Casualties, fatigue, and confusion debilitated the assaulting infantry, causing the combat power of the attacker steadily to wane as his advance proceeded. This erosion of offensive strength was so certain and predictable as to render penetrating forces fatally vulnerable to counterattack - provided, of course, that fresh reserves were available to that end. Finally, the Allied artillery - so devastating when laying prepared fires on observed targets - was far less effective when providing continuous support for advancing infantry owing to the difficulties of coordinating such fires in the days before portable wireless communications. Indeed, any successful attack essentially forfeited its fire support once it advanced beyond the initial range of friendly artillery, since the ravaged terrain hindered the timely forward displacement of guns.[2]

Between September 1916 and April 1917 the Germans distilled these tactical ingredients into a novel defensive doctrine: the Elastic Defense.[3] This doctrine focused on defeating enemy attacks at minimum loss to defending forces rather than on the retention of terrain for the sake of prestige. The simple concept of the Elastic Defense was to exhaust Allied offensive energies in a deep system of fortified trenches. By fighting the defensive battle *within* as well as *forward of* the German defensive zone, the Germans could exploit

the inherent limitations and vulnerabilities of the attacker while conserving their own forces. Only minimal security forces would occupy forward trenches, and thus most of the defending troops would be safe from the worst effects of the fulsome Allied artillery preparation. German firepower would continuously weaken the enemy's infantry forces. If faced with overwhelming combat power at any point, German units would be free to maneuver within the defensive network in order to develop more favorable conditions. When the Allied attack faltered, German units (including carefully husbanded reserves) would ferociously counterattack. These methods would create a condition of tactical "elasticity": advancing Allied forces would steadily lose strength in inverse proportion to growing German resistance. Finally, German counterattacks would overrun the prostrate Allied infantry and "snap" the defense line back into its original positions.

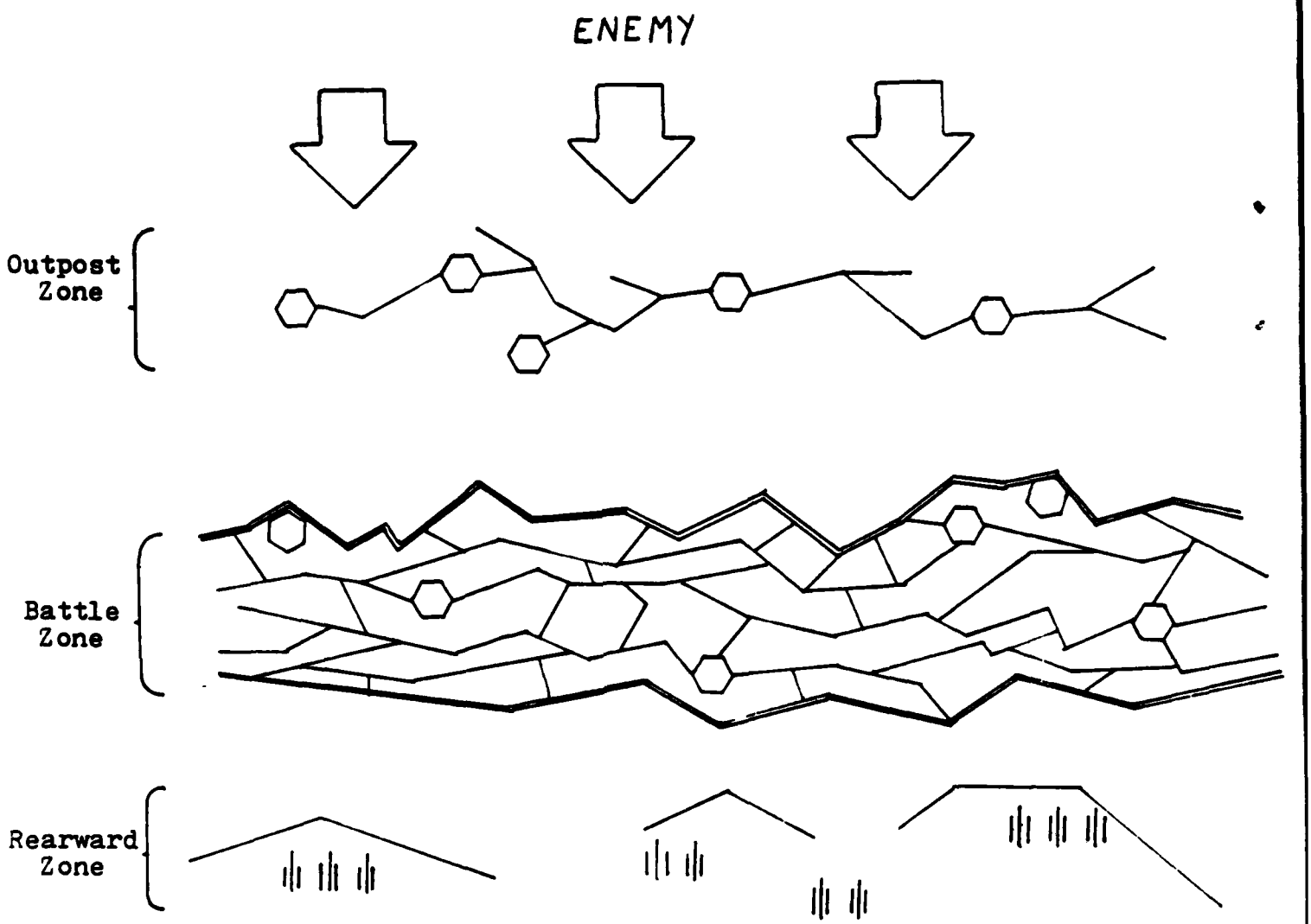
The Germans accomplished this by prescribing three separate defense zones: an Outpost Zone, a Battle Zone, and a Rearward Zone. Each zone consisted of a series of interconnected trenches manned by designated units. However, in contrast to the old rigid linear defense *(Linienverteidigung)* that had laid out its tenches with parade ground precision, these zones were established with a cunning sensitivity to terrain, available forces, and likely enemy action. (See sketch 1.)

The Outpost Zone *(Vorfeldzone)* was manned in sufficient strength to intercept Allied patrols and to provide continuous observation of Allied positions. When heavy artillery fire announced a major Allied attack, the forces in the Outpost Zone were trusted to move individually or in small groups to avoid local artillery concentrations. When Allied infantry approached, the surviving Outpost forces would disrupt and delay the enemy advance insofar as possible.

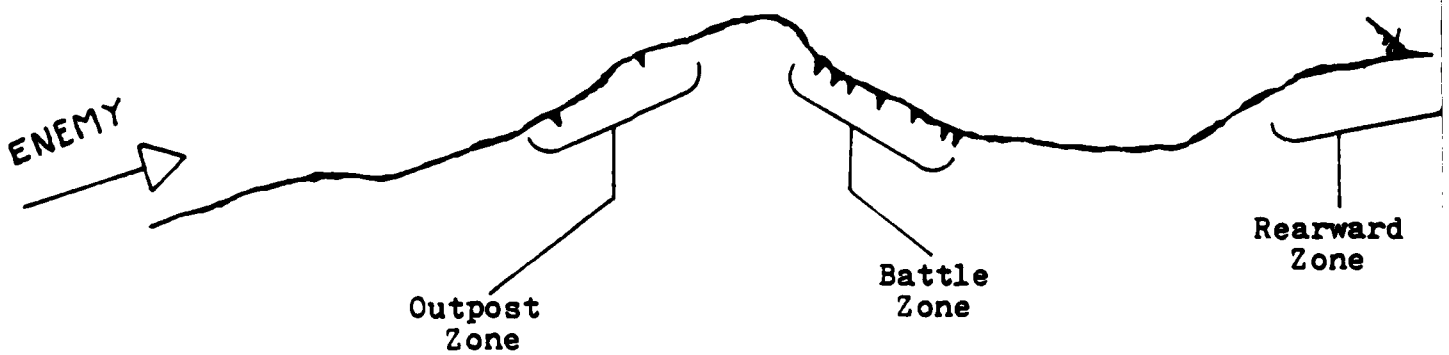
A determined Allied advance that carried through the Outpost Zone would be arrested and defeated within the Battle Zone *(Grosskampfzone)*. This zone would normally extend from 1500 to 3000 meters in depth. The forward portion of the Battle Zone was designated as the Main Line of Resistance *(Hauptkampflinie)*, and was generally the most heavily garrisoned. Ideally, the Main Line of Resistance would be masked from enemy ground artillery observation by siting it on the reverse slope of hills and ridges. In addition to the normal trenches and dugouts, the Battle Zone was infested with machineguns and studded with squad-sized redoubts *(Widerstandnester)* capable of all-around defense.

Allied forces penetrating into the Battle Zone would be forced to fight a series of local engagements against detachments of German troops. These German detachments were free to fight a "mobile defense" *(beweglich zu kämpfen)* within the Battle Zone, maneuvering as necessary to bring their firepower to bear.[4] When the Allied advance began to founder, these same small detachments, together with tactical reserves held in the depth of the Battle Zone, would initiate local counterattacks *(Gegenstösse in der Stellung)*. If the situation warranted, fresh reserves from beyond the Battle Zone would also launch immediate counterattacks *(Gegenstösse aus der Tiefe)* to prevent Allied troops from rallying. If Allied forces were able to withstand these *Gegenstösse*, the Germans would prepare a deliberate, coordinated counterattack *(Gegenangriff)* to eject the enemy from the Battle Zone. The *Gegenangriff* would use not only engaged forces, but also designated assault divisions held in reserve for this purpose. If delivered with sufficient ferocity and determination, all of these German counterattacks would alter the entire complexion of the defensive battle. The Germans would, in effect, fight an "offensive defensive" *(offensive Verteidigung)*, in which the tactical initiative would be seized by the defending forces.[5]

SKETCH 1: The Elastic Defense, 1917-1918



CROSS SECTION OF GERMAN DEFENSE ZONES (IDEAL)



The Rearward Zone *(rückwärtige Kampfzone)* would be located beyond the reach of all but the heaviest Allied guns. This Zone would also hold the bulk of the German artillery. It would also provide covered positions into which forward units could be rotated for rest, and within which counterattack divisions could assemble when an Allied offensive was imminent or underway.

In summary, the Imperial German Army adopted a tactical defensive doctrine built on the principles of depth, firepower, maneuver, and counterattack. The Germans would use the depth of their position, together with their firepower, to stall the Allied offensive blow. Small German units would fight a "mobile defense" within their defensive zones, relying on maneuver to sustain their own strength while continuing to pour fire into the Allied infantry. Finally, aggressive counterattacks at all levels would wrest the tactical initiative from the nominal attacker, allowing the Germans finally to recover their original positions.

Using the new defensive techniques, the Imperial German Army gave a good account of itself in the 1917 battles on the Western Front. In April, the French "Nivelle Offensive" (after the newly-appointed French Commander-in-Chief Robert Nivelle) was stopped cold by the Germans. The British also tested the German defenses with attacks in Flanders at Arras and Passchendaele. Although the British enjoyed some local successes, no serious rupture of the German defensive system was achieved.

Throughout the 1917 battles, the Germans modified and refined the Elastic Defense: the Battle Zone was made deeper, heavy machineguns were removed from the static *Widerstandnester* redoubts and given the mission of providing suppressive fire for the local counterattacks, and German artillery was encouraged to execute rapid displacements to evade counterbattery fire, among other changes.[6] On the whole, however, the novel system of elastic defense-in-depth was thoroughly vindicated. As the German Crown Prince Wilhelm remarked in his memoirs:

> Had we held to the stiff defense which had hitherto been the rule [rather than the Elastic Defense system], I am firmly convinced that we would not have come victoriously through the great defensive battles of 1917.[7]

One ominous development that seemed to challenge the continued effectiveness of the Elastic Defense was the British tank attack at Cambrai in November 1917. There, massed British tanks had broken through the entire German defensive system, and only the combined effects of German counterattacks and British irresolution had restored the German lines. This wholesale use of tanks to sustain the forward advance of an Allied attack seemingly upset the calculus upon which the German defensive concept was based.

Although insightful in other aspects of battlefield lore, the Germans stubbornly continued to discount the combat value of tanks despite the Cambrai lesson. Although impressed by the "moral effect" that tanks could produce against unprepared troops, the Germans felt that local defensive countermeasures (antitank obstacles, special anti-armor ammunition for rifles and machineguns, direct-firing artillery, and thorough soldier training) virtually neutralized the offensive value of the tank.[8] In the German assessment, tanks were similar to poison gas and flamethrowers as technological nuisances without decisive potential.[9] The British success at Cambrai was explained away as the result of tactical surprise, achieved by the absence of the customary ponderous artillery preparation, rather than as a product of the tank attack itself. In consequence, no reassessment of the Elastic Defense was deemed necessary, and none was undertaken. For example, the updated version of the German doctrinal manual for defensive operations published in 1918 made no special reference to tank defense.[10]

The Final Collapse: Unanswered Questions

In 1918, the Imperial German Army launched a series of offensive drives on the Western Front. Between March and August, the Germans surged forward in a desperate attempt to achieve a decisive military victory before infusions of American strength could resuscitate the groggy Allies. Although successful at the tactical level, these attacks were not well conceived strategically.[11] As a result, these "Ludendorff Offensives" achieved only a meaningless advance of the German lines and a fatal depletion of the last reservoirs of German manpower. Its offensive labors so exhausted the German Army that it was incapable even of defending its gains against Allied counterattacks. From August until the November armistice, the Allies repeatedly punctured the feeble German defensive lines. Like a skyrocket when its fuel is spent, the German Army fell helplessly back into ruin and defeat.

The further development of German defensive doctrine was naturally suspended for the duration of the Ludendorff Offensives. When the German Army resumed a defensive posture in the face of Allied counteroffensives in August 1918, German weakness was so pronounced that a fair assessment of doctrinal procedures was impossible. As one German general wrote, "Under such conditions there could be no longer any mention of tactics."[12]

The Ludendorff Offensives had consumed the most combat-worthy divisions in the German Army. The German attacks had been carried forward by specially-designated "assault divisions." When the German offensives faltered, defensive operations fell upon feeble "trench divisions" whose personnel and equipment were inferior to those of the assault units. These trench divisions turned out to be not merely second-rate, but to be flatly "listless and unfit."[13] Without corseting from the burned-out assault divisions, the

trench divisions were unable to hold their own against the Allied counter-offensives. As the Allied counterblows gathered momentum German morale plummeted, further undermining German resistance. Alarmingly, German troops began to surrender in unprecedented numbers. Under these circumstances, German small units could not be relied upon to demonstrate the determination and aggressiveness essential to the Elastic Defense.[14]

The German forces were especially vulnerable to the shock effect of Allied tanks, particularly when used in conjunction with chemical smoke. Looming out of the murk at close range, the tanks often touched off epidemics of "tank fright" *(Tankschreck)*. Ludendorff belatedly conceded that tank attacks "remained hereafter our most dangerous enemies. The danger increased in proportion as the morale of our troops deteriorated and as our divisions grew weaker and more exhausted."[15] Having earlier discounted the value of tanks, the Germans had virtually none of their own with which to bolster the morale of their beleaguered infantry.[16]

The increasingly general use of tanks by the Allies prompted expedient modifications to the Elastic Defense in the latter months of the war. When used by the Allies *en masse*, tanks could overrun single lines or even belts of antitank weapons. Consequently, the Germans distributed all types of antitank weapons in greater numbers throughout the depth of the Battle Zone, transforming it into a "tank defense zone" wherein enemy armor and infantry could both be destroyed.[17] These techniques could normally stall even the heaviest tank attacks, provided that the defending German infantry remained steadfast. As one German commander insisted:

> The infantry must again and again be made to realize that the tanks hardly deserve a battle-value at all and that their threatening danger is overcome when the infantry does not permit itself to become frightened by them.[18]

German commanders exhorted their men to steel their nerves, and to stand bravely as had the "Teutons of old against the Romans."[19] Brave words could not compensate for a lack of brave soldiers, however, and the "surrender bacillus" continued to rage through the German ranks.[20]

The shortage of resources hurt the Germans as much as the lack of combat will. Due to their losses in the Ludendorff Offensives, the Germans no longer disposed of sufficient reserves to deliver the timely counterattacks that the Elastic Defense required. Time and again, Allied penetrations necessitated large-scale German withdrawals lest neighboring frontline units be encircled or enveloped from the enemy salients.[21] Too, the Allies (particularly the British) had refined their own offensive techniques, eschewing their elephantine artillery preparations in favor of short, sharp barrages. Without the customary long artillery pounding to signal Allied intentions, the Germans were less able to shuttle their few reserves to threatened sectors.

The German High Command finally bowed to the inevitable, and an armistice was enacted on 11 November 1918. In later years, the bitterness of defeat clouded the memory of those last months, and many Germans (including high ranking military officers) would attribute Germany's demise to a "stab-in-the-back" by defeatist elements at home.[22] In fact, the Imperial German Army was in serious disarray from August 1918 onwards, and could not have prevented a complete Allied military victory in any event. Frustration and Nazi demagoguery gave the stab-in-the-back story a certain currency during the interwar years, but the popular memory simply did not conform to historical reality.

Memories of the First World War served in other, less sinister ways. The Great War left behind an uncertain and even contradictory military legacy.

Through four grim years, the conflict had been dominated by positional warfare. Consequently, the overriding recollection of the war on the Western Front was of entrenched stalemate, in which the first doctrinal priority was to assure a strong tactical defense. Conversely, the war's final operations had departed dramatically from the positional format.

In the German view, the war had been an attritional contest, ultimately decided by the superior weight of Allied manpower and resources. Unable to match the Allied coalition in either of these categories, the Germans had sought to conserve their military power by doctrinal means. The Elastic Defense stood alone as the best system for conducting an effective positional defense at minimal cost. (Testimony establishing the superiority of the German techniques was provided even by the Allies. The British, for example, attempted to incorporate the German defensive methods into their own postwar Field Service Regulations.)[23] Consequently, a generation of German officers emerged from the Great War steeped in the tactical precepts of the Elastic Defense. To these, the proof of the Elastic Defense had been repeatedly assayed by tests in France and Flanders. On many fields, the Germans had successfully pitted defensive depth, firepower, maneuver, and aggressive counterattack against the brutish weight of Allied artillery, infantry, and even tanks. It was a tactical creed that would not soon be forgotten.

Less clear were the tactical lessons from the war's final months. Then, positional warfare had briefly given way to battles of movement. The Ludendorff Offensives demonstrated the possibility of penetrating Allied trench defenses through attacks by infiltration. The successful Allied counteroffensives from August 1918 onwards showed that even the Elastic Defense was no talisman: weak and demoralized German forces could not turn away overwhelming assaults by tanks and infantry through its doctrinal charms alone. However, in German minds those

Allied victories were due more to the prostration of German armies than to any failure of defensive doctrine. Indeed, isolated examples of German defensive success right up until the armistice seemed to indicate that Elastic Defense would still prevail where determined troops practiced it correctly.

German Defensive Doctrine in the Interwar Years

In the years following 1918, all major armies sought to divine from the Great War's confusing impressions the nature of future wars. Would future battlefields resemble the entrenched *Stellungskrieg* of the Western Front from 1914 through 1917? Or would new tactics, together with the new technology of armored vehicles and motorized movement, produce fluid battles of maneuver? The development of the German "Blitzkrieg" offensive doctrine foresaw the latter scenario, a leap of faith not shared by the French or the British.

The clarity of the German doctrinal vision in defensive matters was less certain. By their very nature, defensive operations imply surrendering the initiative to the enemy. As a natural consequence, defensive measures must be able to accommodate the attacker's tactic-of-choice, a circumstance that breeds caution and even redundancy. For the ourposes of defining defensive doctrine, the German Army was unable to predict for certain whether future wars would be of a "positional" or of a "maneuver" nature. The German Army therefore pursued a doctrinal compromise that would operate effectively in either environment.

The Elastic Defense became the German Army's defensive "doctrine for all seasons." As the familiar, proven method of the First World War, the Elastic Defense was the obvious theoretical starting point for interwar doctrinal development. With minor alternations, it remained in fact the essence of German defensive practice until the beginning of the Second World War. The retention of the basic Elastic Defense concept was not a simple, straightforward process

however. The Elastic Defense seemed "trench-oriented," and so was buffeted by fluctuations in the prevailing German strategic mood. Too, the Elastic Defense needed to have its antitank properties upgraded in order to confirm its continuing validity in an armored warfare environment.

The building of a new German Army began in 1919. Since wholesale desertions had caused the old Imperial German Army to evaporate within weeks of the 1918 armistice, the new Reichswehr* was created virtually from scratch.[24] Among the many immediate problems pressing the Reichswehr and its acting Chief of Staff, General Hans von Seeckt**, was the publication of new field manuals to guide postwar training.

Seeckt sought to compile the most practical and effective combat procedures from the Great War into a single doctrinal manual. First published in 1921, *Führung und Gefecht der verbundenen Waffen* (Leadership and Combat of the Combined Arms) remained the standard operations manual for the Reichswehr until 1933.

The German uncertainty about the "positional" versus the "maneuver" concepts of future war was evident in the new manual. Although Seeckt himself was an ardent advocate of maneuver warfare, his early influence was counterbalanced by other senior officers of the "trench school."[25] To these, the harsh catechism of *Stellungskrieg* demanded the retention of a trench-oriented

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*Technically, the new German Army was the Reichsheer. However, except in official documents, the term Reichswehr was used indiscriminately to describe both the German armed forces in general and the land army in particular. The Reichswehr went through a series of provisional incarnations immediately after the war before assuming its "final" form in 1920.

**Seeckt served in a variety of responsible positions from 1919 to 1926. He was, in turn: organizer of the demobilization of German forces in the eastern theaters; chief German military representative at Versailles; last acting Chief of the General Staff prior to its official dissolution (and even afterwards, since he preserved the General Staff in disguised form); and finally, *Chef der Heeresleitung* (military head of the Reichswehr) from 1920 to 1926.

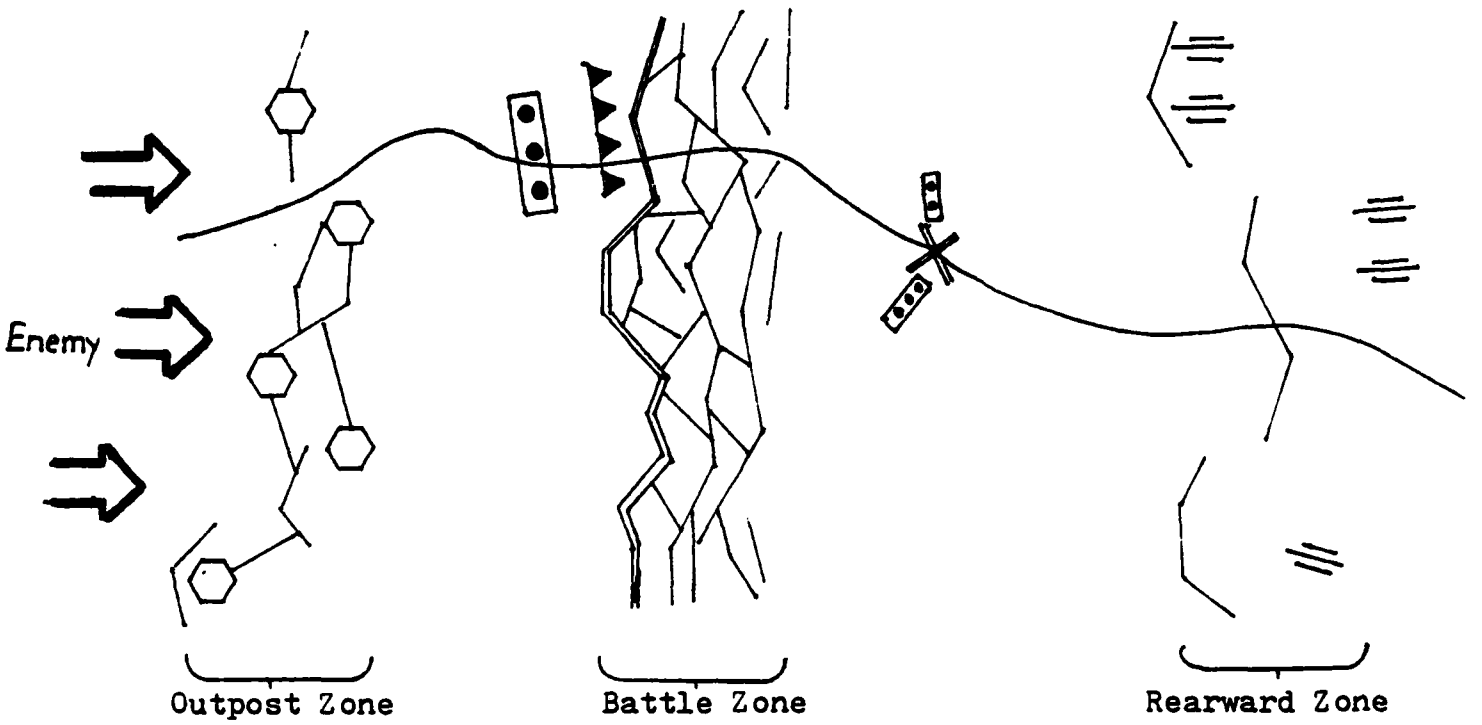
defensive doctrine. *Führung und Gefecht* compromised by conceding that either form of warfare was possible, and showed how the Elastic Defense could be adapted to either circumstance. (See Sketch 2.)

For "stabilized situations," *Führung und Gefecht* prescribed an elastic defense-in-depth that was identical in every major detail to the Elastic Defense described in the Imperial German Army pamphlets of 1917 and 1918. The defense was to be organized in three principal defensive zones as before, within which the defending forces would "exhaust [the enemy's] power of attack by resistance in depth."[26] Attacking enemy forces were to be subjected to a withering combination of small arms and artillery fire throughout the depth of the battle area. Defending units would "seek timely and unnoticed evasion of hostile superiority at one point, while offering tenacious resistance elsewhere (mobile defense)."[27] Finally, fierce counterattacks by engaged units as well as by reserve forces held in readiness to the rear were "of decisive importance."[28] *Führung und Gefecht* thus endorsed the same defensive formula of depth, firepower, maneuver, and counterattack as had been developed during the First World War.

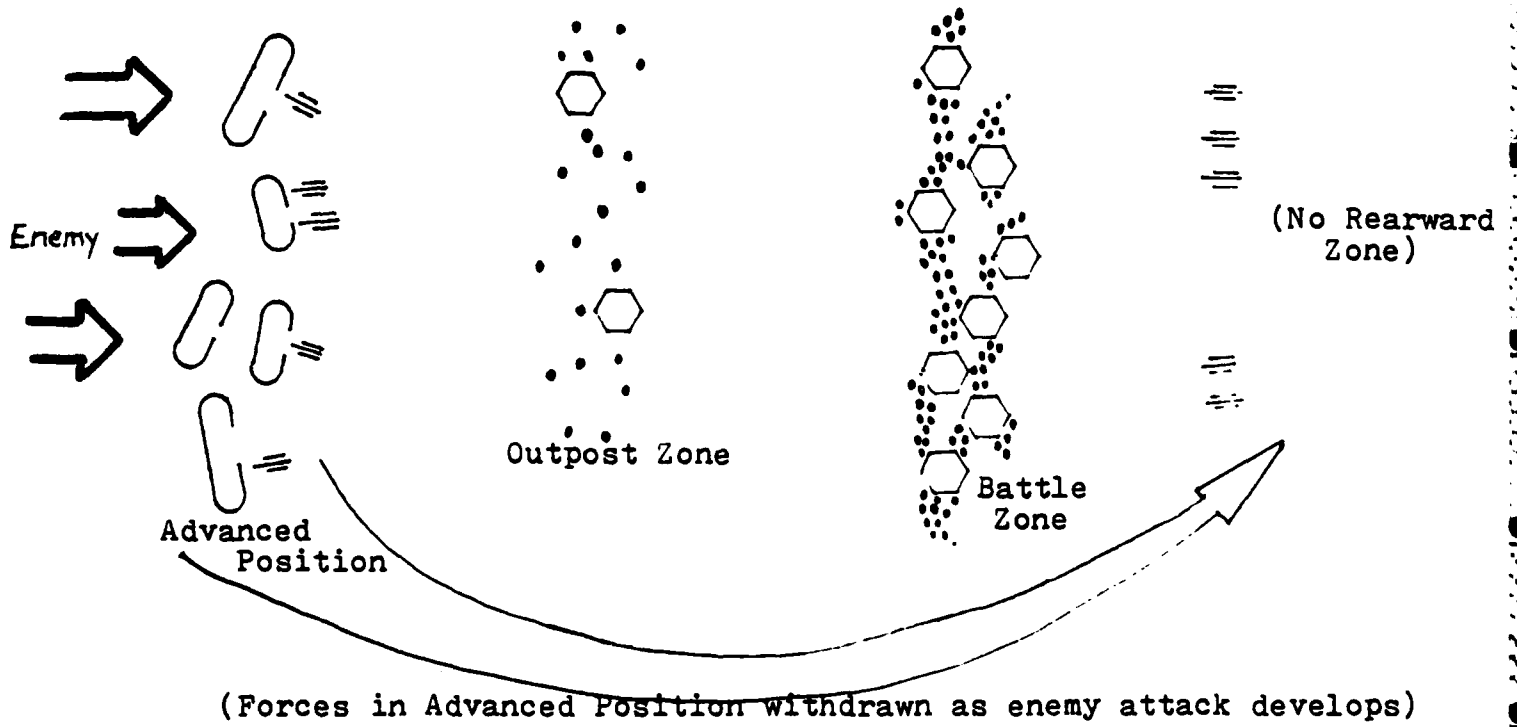
The only departures from World War I usage were minor. Defensive zones were increased in depth, and the distance between them was extended, so as to ensure that "in the event of a breakthrough, a displacement by the enemy artillery will be necessary before the attack can be continued against the next position."[29] Furthermore, the 1921 manual finally deigned to discuss measures for defense against tanks, although these consisted mainly of local obstacles and artillery concentrations along tank avenues of approach.[30]

When defending in "open situations" during battles of maneuver, *Führung und Gefecht* simply advised a somewhat looser application of the Elastic Defense. Since defensive positions could not be thoroughly fortified, both

SKETCH 2: Defense in "Stabilized" and "Open" Situations, 1921



"STABILIZED" DEFENSE: Same as 1917-1918 Elastic Defense with greater depth and simple antitank obstacles



(Forces in Advanced Position withdrawn as enemy attack develops)

"OPEN" DEFENSE: For use in fluid situations

the Outpost Zone and the Battle Zone would consist of a system of "foxholes and weapons pits" without connecting trenches.[31] A Rearward Zone would not be constructed, since the presumed tempo of operations would not allow sufficient time for this purpose. In order to provide greater operational depth and warning, an "Advanced Position" *(vorgeschobene Stellung)* would be created where possible. The Advanced Position would provide early warning of the enemy's approach, confuse the enemy as to the location of the actual defensive zones, and in general constitute an additional defensive buffer when the armies were not in close contact.[32] Despite these slight alterations to the defensive posture, the "defense in open situations" still conformed to the Elastic Defense model. Depth and maneuver were emphasized in order to strengthen the combat power of the defending forces, and the destruction of the enemy was considered to be a function of integrated firepower and counterattack.[33]

The Reichswehr's principal doctrinal publication thus steered an equivocal course between the "positional" and the "maneuver" scenarios, prescribing a form of Elastic Defense for each. However, the Elastic Defense instructions set forth in *Führung und Gefecht* were soon superceded in practice by the willful General von Seeckt.

Seeckt, whose wartime experience had been mostly on the more fluid Russian and Balkan fronts, retained an enthusiasm for maneuver undampened by the gory disappointments of France and Flanders. Seeckt was convinced that a renewed emphasis upon bold offensive maneuver could in future result in rapid battlefield victories.

A man of strong convictions, Seeckt was intolerant of subordinates who did not endorse his own ideas. Those officers of the "trench school" who were unwilling to adapt themselves to Seeckt's theories were either silenced

or dismissed.[34] Seeckt was therefore able to bend the Reichswehr's training sharply in the direction of mobility and maneuver. Although the Elastic Defense remained on the books as official Reichswehr doctrine, Seeckt whipped the German Army into a fervid pursuit of mobility and offensive action that caused the Elastic Defense to be all but ignored in practice.

Seeckt wrote in a 1921 training directive that the strongest defense lay in mobile attack, a policy that cultivated offensive action at the tactical level for even defensive purposes.[35] Seeckt insisted that skillful maneuver could reduce virtually all battlefield actions to a form of meeting engagement *(Begegnungsgefecht)* in which aggressive actions would prevail.[36] Where overwhelming enemy strength precluded the possibility of attack, Seeckt advocated a mobile delaying action *(Hinhaltendes Gefecht)* in order to preserve freedom of maneuver by friendly forces.[37] Reichswehr field exercises emphasized the use of initiative and speed of movement in order to create opportunities for offensive thrusts. Military maneuvers as early as 1921 examined the feasibility of using motor vehicles to enhance mobility and offensive striking power in nominally "defensive" scenarios.[38]

Seeckt's emphasis upon swift and merciless offensive action suited the temper and means of the German Army. German military studies following the First World War were virtually unanimous in blaming Germany's defeat on the exhausting *Stellungskrieg*.[39] Seeckt's theories pointed a way out of the attritional wilderness. By means of rapid offensive blows against even superior rivals, Germany could avoid the attritional quicksand of the Great War and return instead to the battles of maneuver and annihilation at which the Germans had traditionally excelled.

Too, the pitifully small resources allowed the Reichswehr by the Treaty of Versailles precluded positional defense. The abrupt disappearance of her armed forces after November 1918 left Germany to the vengeful mercies of her recent enemies, whose terms were severe. Among other punitive measures, the Versailles Treaty greatly restricted the size, composition, and complexion of the new German Army. The Reichswehr was restricted to a total of 100,000 men organized into no more than seven infantry and three cavalry divisions. On the grounds that the Germans should be denied the means of future aggression, the Allies forbade the Germans to possess tanks, military aircraft, poison gas, heavy artillery, and such other instruments of war as were considered primarily offensive in character. More cynically, the Allied writ also denied the Germans some purely defensive weapons such as antitank and antiaircraft guns, presumably the better to ensure future German vulnerability. Furthermore, the Germans were prohibited from erecting defensive fortifications along their western frontiers.[40] These and other Allied stipulations meant that for the foreseeable future the Reichswehr would be only the shadow of an army, patently incapable of serious defensive operations save those related to internal security. The Reichswehr's defensive impotence was demonstrated in 1920 and 1921, when incursions by Polish and Soviet irregulars along Germany's eastern borders had to be opposed by hastily assembled *Freikorps* units rather than by the inconsequential Reichswehr.[41] When French forces occupied the Ruhr in 1923, German studies assessing the possibility of resistance by the Reichswehr concluded that any such action was militarily impossible.[42]

Theory and reality thus converged to enforce a reliance on maneuver and offensive initiative within the new German Army, since no other type of defensive action was either desirable or practicable. Seeckt's theories aside, the Versailles constraints guaranteed that the Reichswehr could not resort to the

Elastic Defense techniques that had stymied the Allies in 1917 since the Reichswehr clearly lacked the resources to do so.

Both German offensive and defensive tactics remained based upon Seeckt's theories of maneuver and aggressive action until the early 1930's. Then, German offensive and defensive doctrines diverged: offensive practice continued on the road to mobility that led finally to Blitzkrieg, while defensive doctrine reverted to the conservative practices reminiscent of the Great War.

The revival of the more conservative Elastic Defense occurred for three major reasons.

First, a gradual broadening of German military perspective began following General Seeckt's 1926 resignation. Although Seeckt's ideas - and Seeckt himself - continued to be influential for some time, his successors were more tolerant of traditional doctrinal theories.

Secondly, the German Army began quietly to ignore some of the more onerous provisions of the Versailles Treaty, thereby increasing German military strength. This process allowed German military leaders to consider a wider variety of strategic options than the desperate, multi-purpose formula of offensive maneuver championed by Seeckt.[43]

Finally, a rapprochement between the French and German governments in the late 1920's lessened French hostility and, with it, the likelihood of renewed French military intervention. The looming threat of the French Army - its potential for strategic mischief painfully demonstrated by the 1923 occupation of the Ruhr - was greatly dimished by the emerging French reliance on the Maginot Line. With French military resources so strongly committed to the Maginot doctrine of *couverture* from 1930 onwards, Germany's overall military security was better than at any time since 1918.[44]

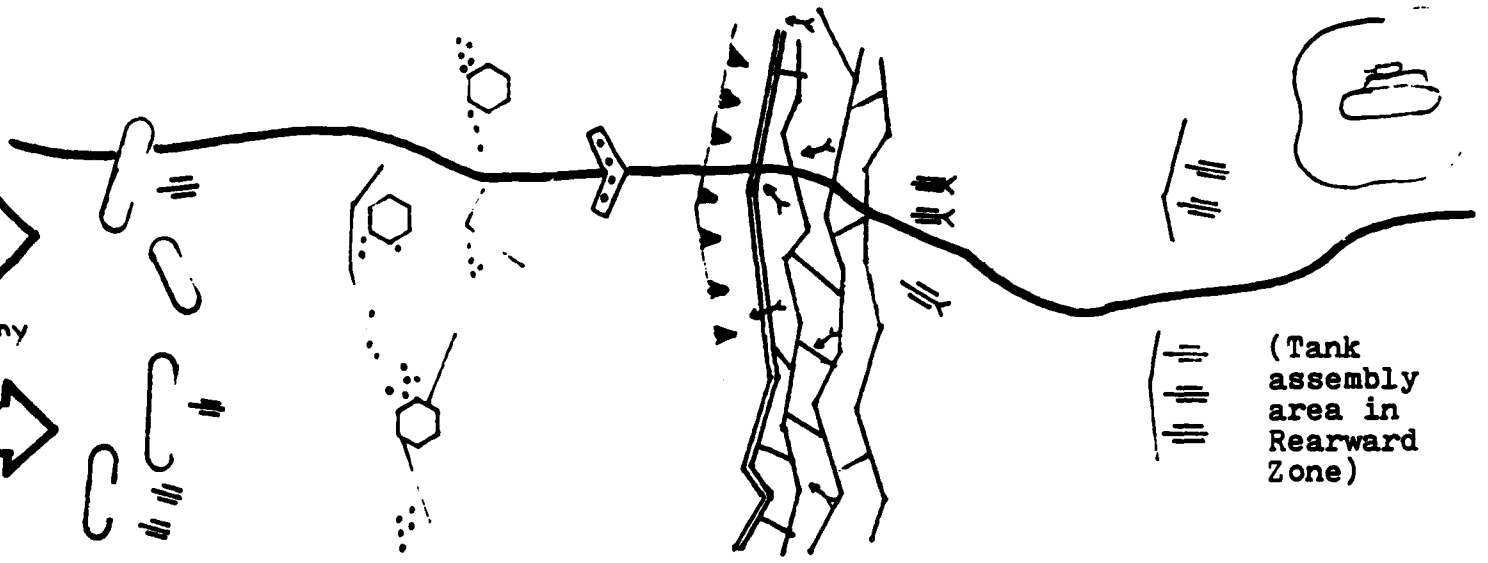
In this atmosphere of greater strength and security, the Reichswehr could take a more well-rounded view of military strategy. The Seecktian emphasis upon aggressive maneuver for both offensive and defensive purposes was relaxed, and the German Army once again acknowledged that traditional defensive operations - including, in certain circumstances, positional warfare - would probably be necessary in future conflicts. Thus, Elastic Defense was reinstalled as the fundamental German defensive technique.

The renaissance of the Elastic Defense was accomplished in the German field manuals published in the 1930's. (These same manuals, with a few changes in later editions, remained in effect at the beginning of the Second World War.) Colonel General Ludwig Beck, Chief of the German General Staff from 1933 to 1938, supervised the writing of a new operations manual to replace *Führung und Gefecht*. First published in 1933, *Truppenführung* (Troop Command) endorsed the traditional German method of elastic defense-in-depth.[45]

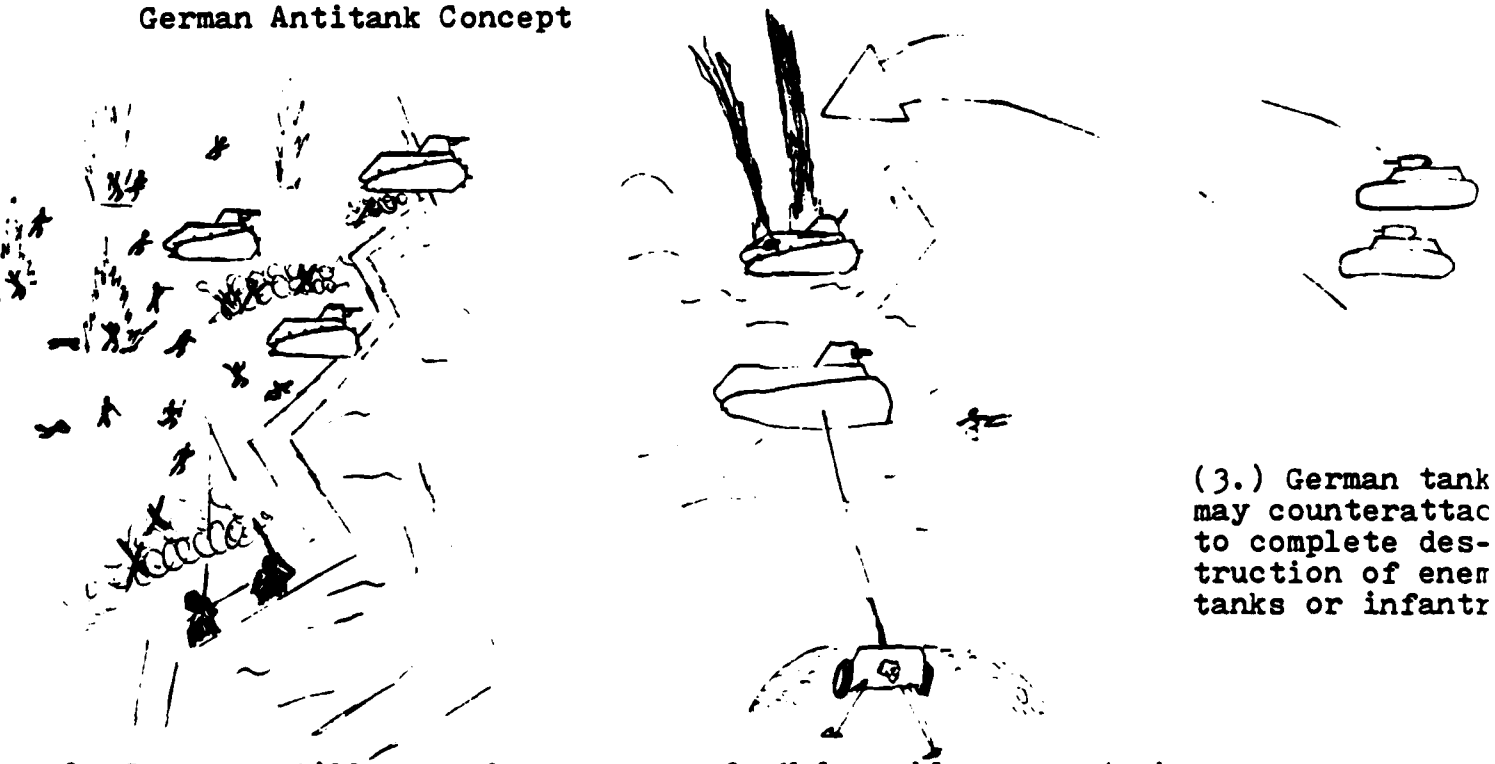
Truppenführung ended the distinction between positional defense and maneuver defense that had been created by *Führung und Gefecht*. *Truppenführung* specifically declared that "the defense of a hastily-prepared, unreinforced position [such as would occur in open warfare] and that of a fully completed position is conducted on the same principles."[46] The Advanced Position that *Führung und Gefecht* had placed in front of the defensive zones in "open situations" was made standard. Consequently, the 1933 version of the Elastic Defense consisted of the same three defensive zones as in Ludendorff's original concept, but with an additional Advanced Position deployed in front.[47] (See sketch 3).

In addition to *Truppenführung*, other specialized manuals such as *Der Stellungskrieg* (1938) and *Die Ständige Front* (1940) elaborated upon the

SKETCH 3: German Elastic Defense, 1933



German Antitank Concept



1. German artillery and small arms fire separates enemy infantry from tanks.

2. Vulnerable enemy tanks destroyed by artillery, AT gunfire, and infantry close assault.

(3.) German tank may counterattac to complete des-truction of enem tanks or infantr

problems of positional warfare in greater tactical detail.[48] These manuals were supplemented by instructional material in professional journals. From 1936 onwards, *Militär-Wochenblatt* periodically published tactical problems hypothesizing static defensive operations. Significantly, the solutions to these exercises discussed the experiences of 1917 and 1918 as illustrative examples of proper technique.[49] Together, these field manuals and journal articles breathed new life into the Elastic Defense doctrine within the German Army, fully reviving the defensive system that had been developed during the First World War.

Other German military authors addressed the strategic ramifications of Elastic Defense, assuring their readers that this did not signal a full return to the disastrous strategy of attrition. General Wilhelm Ritter von Leeb (later to command Army Group North during Operation BARBAROSSA in 1941) authored a series of historical articles on defensive operations in *Militär-wissenschaftliche Rundschau* in 1936 and 1937. Although predicting that future wars would still be decided by offensive maneuver, he argued that strategic defensive operations could not be discounted:

> We Germans have to look to defensive operations as an important, essential method of conduct of war and conduct of combat, since we are in a central position, surrounded by highly equipped nations. Defensive should not be kept in the background as before the last war.[50]

Leeb further stressed that the tried defensive principles of the Great War - depth and counterattack - could still be effective in modern battles of maneuver.[51] A Major General Klingbeil cautioned readers of *Militär-Wochenblatt* in 1938 not to shy away from positional defensive operations on principle, since these could create circumstances favorable for decisive offensive action.[52]

These writings demonstrated the remarkable extent to which German military thinkers had reaccommodated themselves to the possibility of positional warfare. While most professed a preference for offensive maneuver, German theorists conceded that *Stellungskrieg* was likely to be present - at least to a limited extent - on future battlefields.[53] Within this intellectual climate, Beck's revival of the orthodox doctrine of Elastic Defense seemed not only prudent, but even virtually indispensible.

One problem that resisted a simple return to Great War tactical usage was the new problem of armor warfare. The First World War had provided brief glimpses of the potential combat value of tanks and motor vehicles, and from 1919 to 1939 all armies puzzled over how best to exploit these new machines.

In terms of German defensive doctrine, the "tank problem" posed two distinct questions. First, how could German defenses be made proof against attacks by enemy tank and tank-infantry forces? Second, what was the best defensive use of the new German panzer units? The Germans framed their answers to both of these questions within the Elastic Defense schema.

Antitank Defense

Due to the impressive Allied use of tanks in 1918, German officers were disposed to give very serious consideration to antitank defense. Rooted in the memories of the 1918 collapse was the nagging fear that - as Ludendorff had finally conceded - tanks had become the single most effective tool for prying open the German Elastic Defense. This interest was confined to traditional channels by General Beck, however.

Beck, who in *Truppenführung* returned the German Army to the Elastic Defense, was a man of profoundly orthodox views. One of the symptoms of this orthodoxy was Beck's reluctance to embrace the novel ideas of tank warfare.

Beck continued to see the traditional combat arms - infantry, artillery, and even cavalry - as being decisive, and resisted the notion that armored formations could have a pivotal battlefield impact.[54] This logic recalled the emphatic pronouncements of German officers in 1918 to the effect that tanks were merely nuisances to a properly organized elastic defense-in-depth. Given such a conception, Beck deemed antitank defense measures to be secondary to the central problem of halting artillery-supported attacks by enemy infantry. This interpretation was reflected in *Truppenführung*.

According to the new German field manuals, the key to defeating enemy combined arms attacks lay in separating the enemy's tank and infantry forces. German soldiers were trained to concentrate their small arms fire on the enemy infantrymen in order to separate them from any supporting tanks. While shredding the attacking infantry forces, German defenders were supposed to dodge enemy tanks, leaving the destruction of these metal monsters to specially-designated antitank teams.[55] Once the opposing infantry attack had been smashed, any surviving tanks were considered both vulnerable and relatively inconsequential. These tanks, rampaging through the German defensive zones like rogue elephants, could be dispatched almost at leisure by antitank weapons located to the rear.

Specific measures prescribed for antitank defense were mostly codifications of 1918 practices. Tanks would be neutralized by a combination of obstacles, minefields, and antitank weapons. Although antitank rifles *(Panzerbüchse)* would be available in all parts of the German defensive zones, the crew-served antitank guns *(Panzerabwehr Kanonen*, or Paks) and direct-fire artillery would generally be located *to the rear* of the Main Line of Resistance.[56] (The re-armed German Army of 1939 had a seven-man antitank section, armed with three antitank rifles, in each rifle company. Each infantry regiment also contained

a Pak antitank company, and each infantry division had a divisional antitank battalion of three additional Pak companies.)[57] Although Pak sections could be attached to forward elements in certain circumstances, the Germans regarded the more effective use of these guns to be as a "backstop" for the main infantry trench systems. Positioned to the rear, these weapons would be relatively safe from any preliminary artillery bombardment, would be able to observe and interdict the actual advance of enemy tanks, and would be able to engage those tanks without embarrassment from enemy infantry. (See sketch 3). German doctrine also allowed for the creation of special antitank assault groups composed of small teams of infantrymen. These teams would try to destroy enemy tanks with mines and explosive charges from close range. As always, all German units were expected to counterattack vigorously in order to regain any position even temporarily overrun by hostile tanks.

Through the 1930's, German antitank doctrine thus corresponded to the techniques first hammered out in 1917 and 1918. The first task of the defending forces was to halt the enemy infantry; that done, the isolated enemy tanks would be at the mercy of German antitank weapons and close assault.[58] Virtually all German writings about antitank warfare in the interwar period proceeded from the assumption that tanks without infantry were pitifully vulnerable to antitank weapons, an article of faith reaching back to the difficult last days of the Great War. One retired general praised the ability of "nearly invisible" antitank riflemen to prey upon enemy tanks.[59] Another German officer wrote that experience in the Spanish Civil War confirmed that "the defense is superior" to tanks, since every tank-antitank duel in Spain had ended with victory for the antitank gunners.[60]

Such antitank disputes as did erupt in the pre-World War II German Army tended to focus on matters of technical detail. Journal articles discussed, for example, whether greater emphasis should be placed on "hand weapons" (mines and grenades) in order to lessen reliance upon crew-served antitank weapons.[61] Another dispute concerned prime movers for the Paks. Colonel Heinz Guderian, fighting to have the German Army's limited numbers of motor vehicles concentrated in its new panzer divisions, contended that horse-drawn Pak batteries would adequately serve the infantry. Other officers argued - successfully - that the Paks needed to gear their mobility more to the enemy armor than to the friendly infantry.[62]

Defensive Use of German Tanks

One remarkable omission from the list of German antitank weapons was the tank itself. General Ludwig Ritter von Eimannsberger, a prolific writer on antitank matters, characterized most German officers when he wrote in 1934 that "The principle claiming the tank to be the best antitank weapon has already been outlived and rendered untrue."[63] Like other facets of German doctrine, this belief stemmed from remembrances of the Great War, in which German tanks had played no such role. Prewar German tank design provided physical evidence of this prejudice, since few German tanks in production prior to September 1939 mounted a truly effective antitank gun.[64] Furthermore, during the First World War the German Army had developed the conviction that tanks were "expressly weapons of attack." This opinion had been elevated to dogma in interwar German manuals, and was frequently reiterated by Guderian and other German tank enthusiasts.[65]

Although panzers were not considered antitank weapons themselves, the Germans did develop a doctrinal role for their armored forces that both

exploited the tank's offensive nature and conformed neatly to the Elastic Defense format. In defensive battles, panzer units would be held in reserve for delivering the counterattacks vital to the elastic defense-in-depth. The shock and mobility of the panzers would lend weight to the German counterblows, and thus assure the annihilation of enemy infantry or armor mired in the German defensive zones.[66]

Some German officers saw in this system a clean-cut, workable division of labor between tanks and infantry forces. Panzer units would be used exclusively in offensive roles, even within defensive scenarios. Infantry forces, presumably unable to keep up with the rapid battles of maneuver envisioned by the panzer generals, would be indispensable for defensive purposes due to their ability to occupy and hold terrain. That panzer forces might have to conduct defensive operations unrelieved by German infantry divisions was almost totally discounted.[67]

Early Trials: Poland and France

The campaigns in Poland and France provoked no changes to German defensive doctrine. If anything, the spectacular German offensive successes in these two outings seemed to diminish the importance of defensive precautions. Pricked by German panzer thrusts, Polish and French armies had ruptured like balloons without seriously testing German defensive measures in return. In each campaign, the Germans had fought a small number of defensive engagements. Although some valuable tactical lessons were learned from these, they were insufficient to spur a re-evaluation of German defensive techniques.

After-action reports from the Polish campaign revealed a general dissatisfaction with training and small unit leadership within the German Army.[68] Singled out for criticism were a number of reservist units whose training and

cohesion were not up to the rigors of the Elastic Defense.[69] A memorandum detailing deficiences uncovered in Poland, circulated by the Army High Command (*Oberkommando des Heeres*, or OKH) in October 1939, listed defensive operations as one of the areas in need of immediate improvement. This complaint was concerned with performance rather than with doctrine, however.[70]

The campaign in France likewise had not been without its defensive morals. Most disquieting had been the British tank attack at Arras on 21 May 1940. There, the rapid advance of the panzers had separated the German tanks from the following infantry. Falling upon the German infantry forces, the British attack illustrated not only the danger inherent in the de facto German policy of giving separate offensive and defensive roles to their tanks and infantry, but also the inadequacy of the German antitank weaponry as well. It was only the timely fire of German 88mm flak guns and 105mm field guns that prevented the German infantry from being entirely overrun, as shells from the German 37mm Paks and antitank rifles rattled off the British Matildas without apparent effect. German tanks, hurriedly retracing their steps and returning to the scene, were themselves outgunned by both the British tanks and antitank guns.

The close call at Arras caused some ripples of concern within the German Army. This concern did not mature into reform, however. Although the German panzer and infantry forces had become perilously divided during the advance to the Channel, neither the French nor the British had been able to decisively exploit this vulnerability. The Germans therefore shrugged off the potential danger. A few new motorized infantry divisions were activated in the year between the fall of France and the beginning of BARBAROSSA, but not nearly enough to provide defensive security for the panzers or to take up the slack between the mobile units and the trudging infantry forces. Indeed,

the Germans reaffirmed the exclusively offensive role of their panzer divisions: a new panzer operations manual published in December 1940 spent 26 pages discussing attack techniques, but only two *paragraphs* on defense.[71]

More immediately disquieting was the woeful German antitank weaponry. Hitler ordered the punchless Panzer III's upgunned, an overhaul that was completed within the next year.[72] The German Paks, however, could not be so easily replaced or repaired. Although some captured French 47mm guns and a few new 50mm Paks were introduced to augment the 37mm antitank gun, the smaller weapon remained the primary dedicated crew-served antitank weapon of the German infantry divisions at the beginning of BARBAROSSA.[73] As an interim precautionary measure, German field artillery units placed greater stress on close-range antitank engagements during training in the spring of 1941.[74]

Overview: German Doctrine on the Eve of BARBAROSSA

At the beginning of BARBAROSSA in 1941, the German Army thus adhered to a defensive doctrine originally developed to address battlefield conditions of the First World War. Although temporarily shunted aside in the 1920's during a faddish pursuit of offensive maneuver, the conservative defensive practices of 1918 had been reinstated in the German Army by the mid-1930's. German defensive doctrine concentrated on halting enemy infantry attacks by means of a defense-in-depth consisting of a series of defensive zones. Within these zones, enemy infantry forces would be defeated by firepower, tactical maneuver, and vigorous counterattack. In the 1918 tradition, tanks were regarded as a lesser threat than enemy infantry. German antitank measures followed the 1918 outlines: enemy tanks would have their accompanying infantry stripped away, their advance would be obstructed by mines and obstacles,

and a mixture of direct-firing artillery, antitank gunfire, and individual close assault would destroy those tanks that actually penetrated the German defensive positions. German tank units had no defensive role other than to deliver counter-attacks where necessary in order to crush enemy penetrations.

Whatever its potential faults, this doctrine suited the structure of the 1941 German armies. Its few panzer units aside, the Wehrmacht was as overwhelmingly pedestrian as had been the Imperial German Army of 1918. The Elastic Defense fit the skills, capabilities, and disposition of this preponderantly infantry-based force. On the eve of the Second World War, foreign military observers could correctly conclude that, with regard to defensive doctrine, "the present German training manuals show that the new German Army has accepted the legacy of war-experience of its predecessors unreservedly."[75]

Hidden within the modern Elastic Defense doctrine were a number of assumptions. These postulates were:

- that the burden of any sustained defensive fighting would be borne by infantry divisions, supported only as necessary by panzers held in reserve for counterattack purposes;

- that sufficient quantities of German infantrymen would be available in defensive situations to organize a cohesive defense-in-depth;

- that the principal threat to any defensive position was posed by the enemy's infantry forces;

- and, finally, that German commanders in defensive operations would be allowed the sort of discretionary flexibility to select positions and conduct the defense in an "elastic" fashion as had been the 1918 custom.

None of these assumptions had been disproved in the campaigns of 1939 or 1940. However, within the first two years of the Russian campaign, the German Army conducted major defensive operations under circumstances that invalidated them all.

CHAPTER II: BARBAROSSA - THE GERMAN INITIATIVE

The greatest land campaign of the Second World War began on 22 June 1941 when Adolf Hitler ordered German armies eastward against the Soviet Union. Confident that Operation BARBAROSSA would result in a rapid offensive victory over the Russians, the Germans were unprepared for the prolonged, savage conflict that followed. Germany's lack of preparation showed in a variety of ways. Strategic planning was haphazard, logistical support was insufficient, and, given the magnitude of both the theater and the enemy Red Army, the number of committed German divisions wholly inadequate.

The first year of the Russo-German War consisted of two separate phases. The first phase - the phase of German initiative - lasted from 22 June until the first week of December 1941. During that period three German army groups, numbering in all more than three million men, marched toward Leningrad, Moscow, and Rostov. The second phase - the Soviet initiative phase - began at year's end as the final German attacks ground to a halt short of Moscow. From early December until the following spring, the Soviets lashed back at the Germans with a series of furious counteroffensives.

German defensive operations played a major role in each phase. The spectacular early successes of BARBAROSSA tend to obscure the fact that those offensive victories frequently required hard defensive fighting by German units. Once the Soviet winter counteroffensives began, German military operations were of course almost entirely defensive in nature.

In both phases, the German Army was largely unable to execute the defensive techniques prescribed by German doctrine. As the German armies advanced from June to December 1941, the deployment posture of German divisions was governed by offensive rather than defensive considerations. Consequently,

German units seldom had either the time or the inclination to organize the sort of careful defense-in-depth described in their training manuals. Likewise, German defensive operations during the Soviet winter counteroffensives seldom conformed to the procedures laid down in *Truppenführung*. Limitations imposed by terrain and weather, critical frontline shortages of men, supplies, and equipment, and Hitler's reluctance to allow any withdrawals by forward elements prevented a general implementation of the Elastic Defense. Instead, embattled German divisions resorted to expedient defensive methods dictated by the exceptional conditions in which they found themselves.

The Defensive Aspects of Blitzkrieg

In order to avoid the dissipation of a two-front war, the German Armed Forces High Command (*Oberkommando der Wehrmacht*, or OKW) expected to "crush Soviet Russia in a lightning campaign" during the summer of 1941. The key to this rapid victory lay in destroying "the bulk of the Russian Army stationed in Western Russia. . .by daring operations led by deeply penetrating armored spearheads." To achieve this goal, the Germans planned to trap the Soviet armies in a series of encircled "pockets."[1] This strategy would not only chop the numerically superior Soviet forces into manageable morsels, but would also prevent the Soviets from prolonging hostilities by executing a strategic withdrawal into the vast Russian interior.

In the campaign's opening battles, the Germans used *"Keil und Kessel"* (Wedge and Cauldron) tactics to effect the encirclement and destruction of the Red Army forces in western Russia. (See sketch 4). After penetrating Soviet defenses, rapidly advancing German forces - their *Keil* spearheads formed by four independent Panzer Groups - would enclose the enemy within two concentric rings. The first ring would be closed by the leading panzer forces, and would achieve

the operational isolation of the surrounded enemy. Following closely upon the heels of the motorized elements, hard-marching infantry divisions would form a second, inner ring around the trapped Soviet units. Facing inward, these German infantry forces would seal in the struggling Russians, containing any attempted breakouts until the "Cauldron," or pocket, could be liquidated. Meanwhile, the mobile forces in the wider ring would face outward, simultaneously parrying any enemy relief attacks while preparing for a new offensive lunge once the pocket's annihilation was complete.[2]

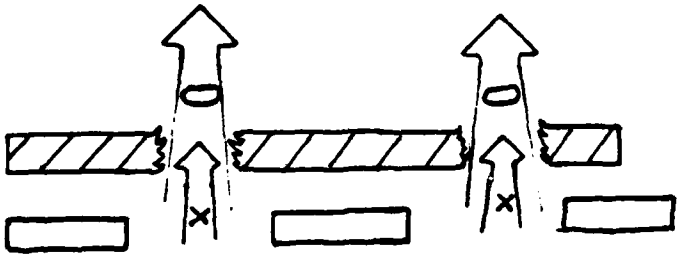
As a matter of general principle, German offensive maneuver sought to place German units into a position from which they could conduct tactical defensive operations.[3] This way the Germans could enjoy both the advantages of *strategic* or *operational* initiative and the benefits of *tactical* defense.* True to this principle, the encirclement operations conducted during BARBAROSSA contained major defensive components. Once a *Kessel* was formed, the temporary mission of both the panzer and the infantry rings was defensive: the inner (infantry) ring blocked enemy escape while the outer (armor) one barred enemy rescue. The defensive fighting that attended the formation and liquidation of these pockets revealed serious problems in the application of German defensive doctrine, however.

Fearsome in the attack, German panzer divisions were ill-suited for defensive missions.[4] Prewar German defensive doctrine had envisioned the use of infantry for defensive combat, and had reserved to panzer units a counterattack role commensurate with their "offensive nature." Panzer divisions were neither

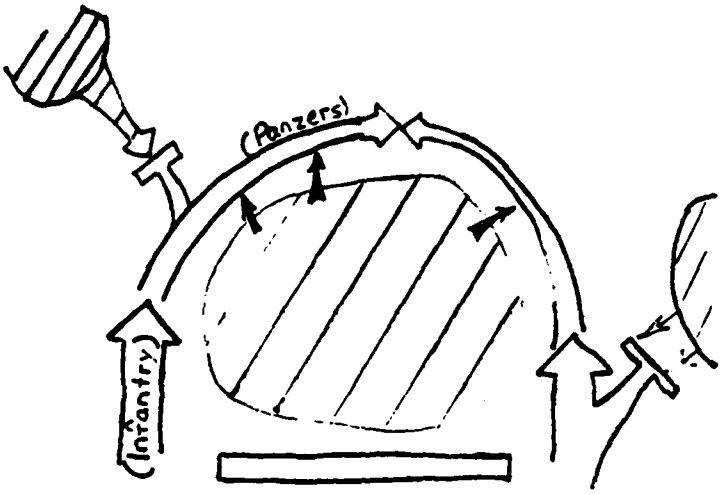
*To avoid confusion, this paper will follow German usage by dividing military actions into tactical, operational, and strategic components. *Tactical* operations are those conducted by small units up to division and, occasionally, corps level. The actions of corps, armies, and army groups comprise the *operational* level. *Strategic* considerations are the province of army group and higher commanders.

SKETCH 4: German "Keil und Kessel" Tactics, 1941

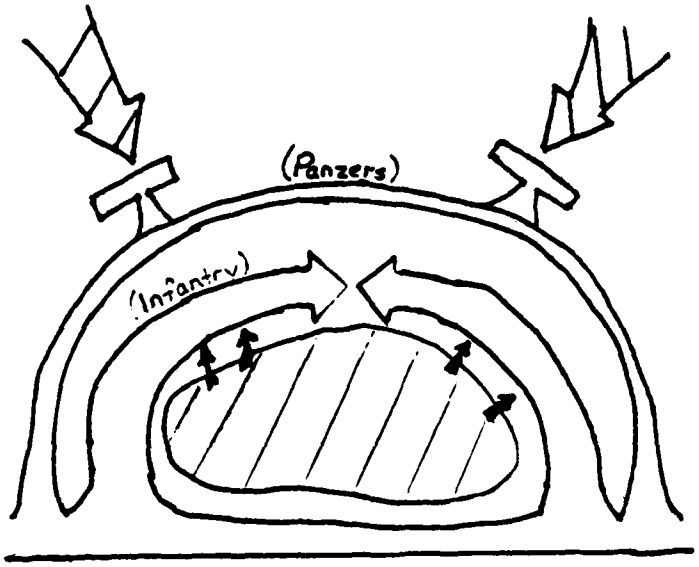
1. German panzer and infantry forces penetrate enemy front.



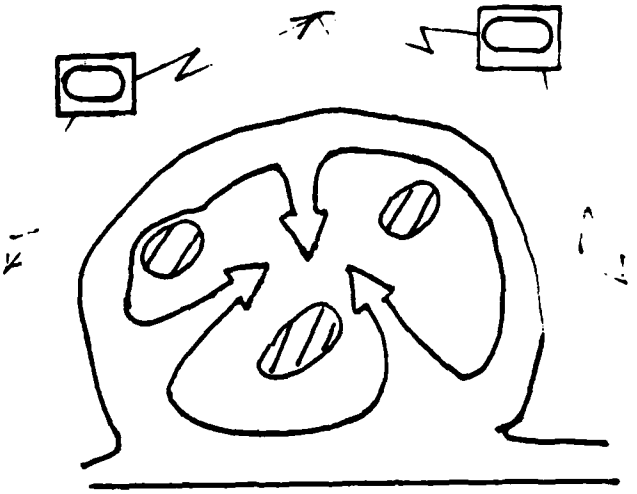
2. Fast-moving panzers exploit breakthrough, encircle enemy. Panzers defend against breakouts and relief attacks. Infantry follows, defending rearward flanks.



3. Marching infantry closes inner ring; both rings defend against enemy attacks.



4. "Kessel" reduced by concentric pressure.



trained nor organized to conduct defensive fighting on their own and, during the deep, rapid advances of BARBAROSSA, the German panzers routinely ranged far ahead of the marching infantry.

During their deep encirclements, panzer divisions found even their own self-defense to be problematic. Field Marshal Erich von Manstein, describing his experiences as a panzer corps commander during the summer of 1941, observed that "the security of a tank formation operating in the enemy's rear largely depends on its ability to keep moving. Once it comes to a halt, it will be immediately assailed from all sides by the enemy's reserves." The position of such a stationary panzer unit, Manstein added, could best be described as "hazardous."[5] To defend itself, a halted panzer unit would curl up into a defensive laager called a "Hedgehog" *(Igel* or *Igelstellung)*. These Hedgehogs provided all-around security for the stationary panzers, and were used for night defensive positions as well as for resupply halts.[6]

The panzer Hedgehogs solved the problem of self-defense, but were not suitable for controlling wide stretches of territory. The German *Keil und Kessel* offensive tactics, however, required the enveloping panzer divisions to control terrain from a defensive posture: first, until the following infantry could throw a tighter noose around the encircled enemy, and then as a barrier against relief attacks by enemy reserves. Not surprisingly, the panzer divisions often had difficulty in performing these two tasks. (On at least one occasion, a German panzer unit had to defend itself from simultaneous attacks on both its "inner" and "outer" fronts. The 7th Panzer Division, having just closed the initial ring around the Smolensk pocket, faced such a crisis on 1 August 1941. Colonel General Franz Halder, the Chief of Staff of the Army High Command (OKH), wrote in his personal diary that "we need hardly

be surprised if 7th Panzer Division eventually gets badly hurt" as a result.)[7] Ideally, German motorized infantry divisions should have assisted the panzers in their defensive labors. However, in 1941 the number of motorized divisions was too few and the scope of operations too great for this to occur in practice.[8]

Until relieved by the infantry, German panzer divisions were hard-pressed to contain encircled enemy forces. As Red Army units tried to escape from a pocket, the German panzers continually had to adjust their lines in order to maintain concentric pressure on the Soviet rearguards and to block major break-out efforts. Containment of such a "wandering pocket" *(wandernder Kessel)* required nearly constant movement by the panzer divisions, a process that prevented even the divisional infantry units from forming more than hasty defensive positions.[9] Even so, until the following infantry divisions closed up the panzer ring around a *Kessel* remained extremely porous.[10] As a result, many Soviet troops avoided German prisoner-of-war cages by simply filtering through the Hedgehog picket line. Although the panzer divisions did their best to disrupt this egress by artillery fire and occasional tank forays, German commanders conceded that large numbers of Russians managed to melt through the German lines.[11]

Soviet relief attacks posed problems of a different sort for the German panzer units. While the Germans devoted themselves to forming and digesting a particular *Kessel*, Soviet units outside the pocket often had time to gather their operational wits and organize a coordinated counterblow. When delivered, these counterattacks fell heavily upon the outer ring of German armor. Defense under these circumstances was more to the liking of the panzers, since they could often use their own mobility and shock effect to strike at the approaching Soviets. However, the German defensive problem was greatly compounded when the Soviet counterattacks included T-34 or KV model tanks, both of which were

virtually invulnerable to fire from German tanks.[12] The predicament of the German armor in these circumstances might have been truly desperate were it not for the fact that most panzer divisions enjoyed the support of accompanying Luftwaffe antiaircraft batteries. Originally assigned to the spearhead divisions to protect them against Soviet air attack, these Luftwaffe batteries - and especially the 88mm high velocity flak guns - had their primary mission gradually altered from air defense to that of ground support.[13] Although German armored units were generally successful in beating off counterattacks, the sheer weight of these coordinated relief attempts - especially when supported by the heavier model Soviet tanks - hammered the panzer divisions as no other form of fighting in the war had yet done.

The German infantry divisions, tramping forward in the wake of the motorized vanguards, had a double responsibility: to provide timely support for the armored spearheads, and concurrently to guard the flanks of the German advance against Soviet counterattacks. General Halder described the marching infantry as a "conveyor belt" defensive screen along which successive units passed en route to the *Kessel* battles at the front.[14] In order to catch up with the mobile forces as quickly as possible, the German infantry was required to advance at a forced-march pace. Those infantry divisions marching immediately to the rear of the Panzer Groups were especially abused by being shunted onto secondary roads in order to avoid congesting the supply arteries of the far-ranging panzers.[15]

Like the panzer forces, the German infantry units had defensive difficulties of their own. The lathered haste of the infantry advance reduced defensive efficiency, since there was little time for organizing defensive positions. In accordance with published German doctrine, infantry units tried to site their emplacements on the reverse slopes of hills and ridges, and stood poised to

eject penetrating enemy forces with immediate counterattacks.[16] As a rule, however, only hasty defensive works could be prepared during halts, and even then infantry units remained deployed more in a march posture than in the alignments specified by the Elastic Defense system.[17]

Rapid as the infantry advance was, this offered no protection from Soviet counterattacks in the way that mobility protected the motorized units. Soviet counterblows were, in fact, almost a daily occurrence for German infantry units from the beginning of the campaign. (In the confusion and paralysis that afflicted the Soviet command system in the early weeks of the war, one of the first directives to filter through to Red Army units was one ordering counter-attacks at every opportunity. This axiom continued to animate Soviet tactics throughout the summer and autumn of 1941.)[18]

In order to supply additional protective fire for German infantry units on the march, artillery batteries of various calibers were spaced throughout the march columns. By providing direct-support fire to nearby units, these batteries simplified the otherwise complex problem of fire control for scattered, moving, and occasionally intermixed, infantry forces.[19] In some units improvised "Flak Combat Squads," consisting of two 88mm and three 20mm anti-aircraft guns, were also distributed among the ground infantry forces to bolster defensive firepower.[20] Conversely, the dispersal of artillery and anti-aircraft units throughout the divisional columns reduced the vulnerability of the guns to ground attack - an important consideration in the chaotic conditions of June and July when bypassed or overlooked Red Army units often turned up unexpectedly along the route of march.

The posting of artillery and flak units in the infantry march columns also lent additional antitank firepower to the foot soldiers. As with the panzers

elsewhere, the infantry were finding their antitank guns (Paks) and antitank rifles to be ineffective against any but the lightest Soviet tanks. The result, as one German commander wrote, was that "the defense against enemy tanks had to be left to the few available 88mm Flaks, the 105mm medium guns, and the division artillery."[21] Although the use of artillery in a direct-fire, antitank role was consistent with German doctrine in *Truppenführung* - and was, for that matter, in keeping with the German practice of 1917 and 1918 - the antitank experience was an unpleasant one for German gunners. The German artillery pieces and their caissons were cumbersome, had high silhouettes, and were too valuable to be risked in routine duels with Soviet tanks.[22]

Given the anemic firepower of the German Paks and the reluctance of the artillerists, the individual German infantryman often became the antitank weapon of last resort. German combat reports frequently spoke of Soviet tanks being knocked out in close combat by German infantrymen using mines and grenade clusters.[23] When Soviet tanks succeeded in overrunning the infantry positions, German infantry losses often rose dramatically as a consequence. On 10 July, for example, the German Eleventh Army reported that elements of its 198th Infantry Division, caught without antitank support, had been badly mauled by a heavy tank attack.[24] Not surprisingly, such incidents caused some German infantry units to be skittish in the face of tank assaults. Experience proved to be the best tonic for this condition: German division commanders reported that any incipient *Panzerschreck* (Tank Fear) disappeared following the first successful defeat of a Russian tank onslaught.[25]

One of the first set-piece antitank actions fought by German infantry in the entire Second World War occurred on 25-26 June near Magierov. There the German 97th Light Infantry Division hastily deployed its own infantry and artillery forces in depth to defeat a division-strength Soviet tank attack. In

this engagement, the Russian tank and infantry contingents were separated and then annihilated in a textbook application of German antitank technique.[26] The divisional after-action report, which was circulated for instructional purposes to other units, summarized the major lessons for German antitank doctrine as follows:

-for maximum effect, antitank guns should be grouped together rather than scattered individually through the defensive area;

-the light infantry field howitzers should be integrated into the antitank defense scheme;

-Pak positions should be secured by the placement of mines; and

-finally, antitank assets should be arrayed in depth throughout the defensive zone.[27]

During the first months of BARBAROSSA, some of the heaviest defensive combat waged by German infantry was done in containing encircled Soviet units. Upon relieving the panzers, the German infantry divisions were responsible not only for reducing pocketed Russian forces by offensive pressure but also for blocking the frenzied Russian attempts to break out. One of the campaign's first defensive engagements to be widely reported by the German press illustrated the tactical difficulty of these battles. While barring the eastward escape of Red Army units from the Bialystok *Kessel* during the night of 29-30 June, the 82nd Infantry Regiment (31st Infantry Division) was subjected to successive attacks by Russian infantry, cavalry, and tank forces. This German regiment had been unable to establish a defense-in-depth, or even a continuous defensive line, due to the extreme width - more than ten kilometers - of the regimental sector. Furious Soviet assaults throughout the night achieved local penetrations of the German line at several points, so that some

German units found themselves attacked simultaneously from front, flanks, and rear. So critical did the situation become that regimental headquarters and communications personnel had to be thrown into the fight to prevent the German forces from being completely overrun. Although the Germans managed to prevent a largescale rupture of their defensive front, they could not block the escape of small bands of Soviet troops who, abandoning their heavier weapons and equipment, stole through the German lines during the chaos of combat.[28]

Luckily for the Germans, Russian counterattacks during the early weeks of BARBAROSSA were frequently uncoordinated and lacking in tactical sophistication. The surprise German onslaught had caught the Red Army in a state of disarray, and the speed and depth of the German advance prevented the Russians from regaining their operational equilibrium.[29] As a result, Soviet counterattacks often lurched forward in a piecemeal fashion, with little effective cooperation between supporting arms or adjacent units. Attacks in the first week of July against the infantry-held flanks of Army Group South used tactics that were "singularly poor. Riflemen in trucks abreast with tanks drive against our firing line, and the inevitable result is very heavy losses to the enemy."[30] One German general, reporting his frontline observations to General Halder, described the Russian attack method as "a three minute artillery barrage, then pause, then infantry attacking as much as twelve ranks deep, without heavy weapon support. The [Russian] men start hurrahing from far off. Incredibly high Russian losses."[31]

By the end of July, the German Army was triumphantly concluding the encirclement battles designed to destroy Soviet forces in western Russia. While shredding the Soviets by means of these Blitzkrieg offensive operations,

German units had fought a large number of tactical defensive engagements. In these German forces had been generally successful, although combat conditions had rarely allowed the full use of standard German doctrinal measures.

Instead of being decisively smashed, however, Soviet military resistance continued unabated. Despite the destruction of several Russian armies in encirclements at Bialystok, Minsk, and Smolensk, as well as in lesser pockets elsewhere, Halder would shortly concede that:

> The whole situation makes it increasingly plain that we have underestimated the Russian Colossus. . .At the outset of the war we reckoned with about 200 enemy divisions. Now we have already counted 360. These divisions indeed are not armed and equipped according to our standards, and their tactical leadership is often poor. But there they are, and if we smash a dozen of them, the Russians simply put up another dozen.[32]

As the entire German strategy for BARBAROSSA had gambled upon shattering Soviet resistance in a few battles of encirclement, this continued Soviet pugnacity confounded German planning, and provoked a strategic reassessment by the German High Command.

German Strategy Reconsidered

In late July, the German leadership was growing perplexed at the strategic situation on the ground. Barely five weeks into the campaign, the German armies were beginning to flounder in the vastness of Russian space. The Russian theater was so immense - and ever-widening as the Germans pushed eastward - that concentrated German force could only be applied in a few areas. The overall ratio of German force to Russian space was so low, in fact, that a continuous German frontline could not be maintained. Instead, sizable gaps routinely existed between major German units. Too, substantial obstacles of geography divided the German army groups: the Pripyat Marsh region interposed between Army Groups Center and South, while forests, streams, and poor roads reduced

lateral movement within and between Army Group North and Army Group Center.

German units were becoming dangerously separated in depth as well as in width. The mobility differences between the motorized and non-motorized elements of the Wehrmacht caused the Germans to advance, in effect, in two distinct echelons. During the frontier battles of encirclement, the Germans had managed this disparity through their *Keil und Kessel* tactics. However, the extended distances over which the Germans were now operating aggravated this problem, opening larger gulfs between the advanced panzers and the following infantry. Increasingly, the German forces were not only advancing separately but fighting separately as well.[33]

The open areas between German units were, of course, populated by bypassed Red Army units, and so these gaps constituted weak points that could easily be exploited by Soviet counterattacks. Already in the campaign, bypassed Red Army forces had waylaid the German 168th Infantry Division, stampeding the German troops. This incident had resulted in the capture of some of the division's artillery, and had caused consternation within the German High Command.[34]

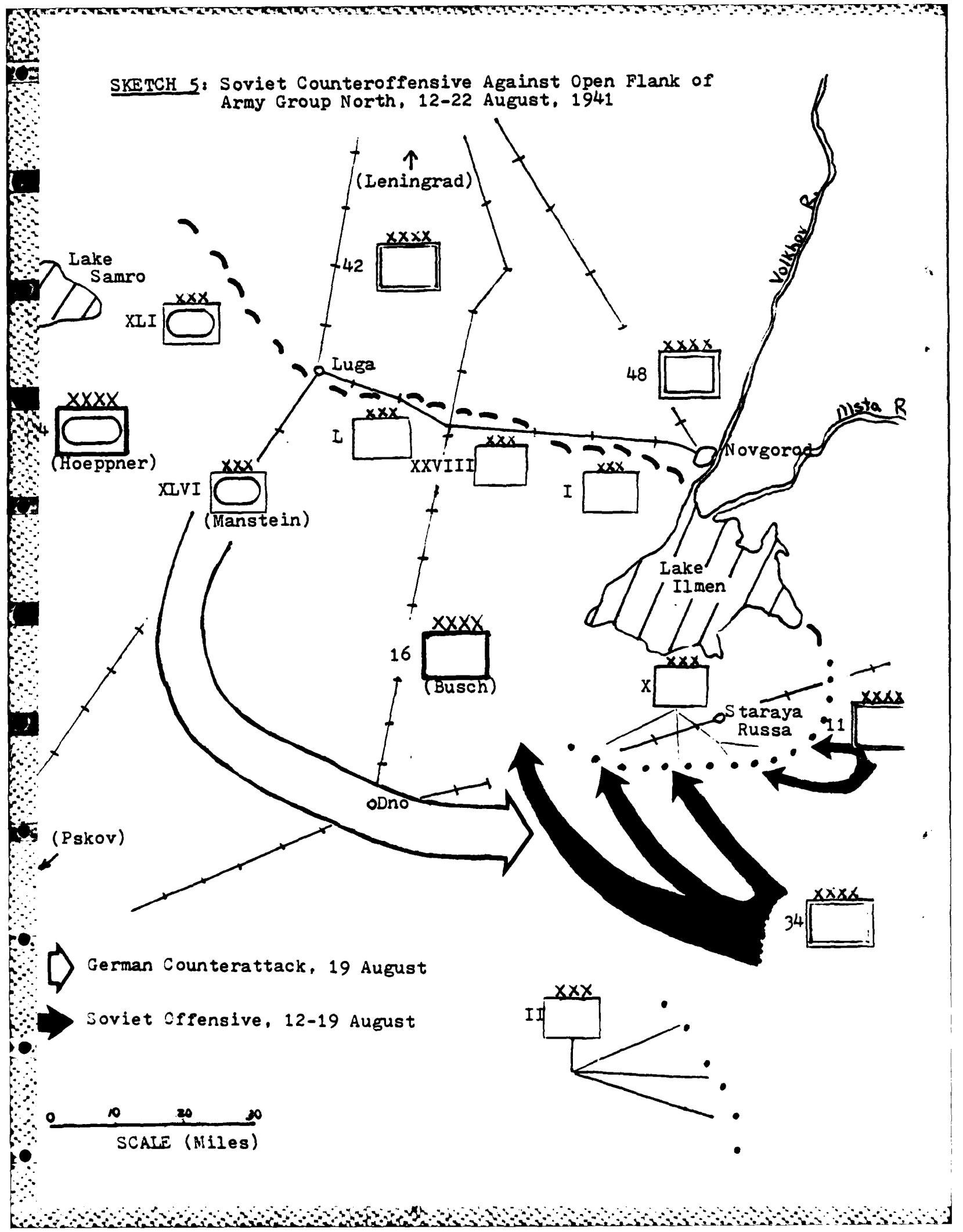
The awkwardness of the German position had not been lost on the Soviets. On 19 July, Army Group Center had reported the capture of a Russian order "indicating that the Russian High Command is aiming at separating the German armor from supporting infantry by driving attacks between them." Halder dismissed this as "a very pretty scheme, but in practice it is something that can be carried out only by an opponent superior in number and generalship. Against our armies. . .I do not see a chance for applying such a policy."[35]

Hitler was less sanguine in his evaluation of the vulnerable German position than was Halder. To the despair of Field Marshal von Brauchitsch (Commander-in-Chief of the German Army) and of General Halder, Hitler in July

had begun to renew the meddlesome interference in tactical operations that he had practiced in the French campaign, directing the diversion of German units to "tidy up" and secure the German flanks against lurking Red Army contingents.[36] Hitler carried this idea further in mid-July, de-emphasizing largescale operations in favor of smashing the enemy "piecemeal by small tactical operations."[37] Explaining the Führer's concept during a visit to Army Group Center headquarters on 25 July, OKW's Field Marshal Wilhelm Keitel announced that, for the time being, future German operations would concentrate on smallscale mopping-up actions. These would complete the destruction of those Red Army elements that had escaped encirclement and destruction in the *Kessel* battles, and would secure the German flanks for future operations. Furthermore, Keitel explained, the smaller scope of these operations would reduce the distance between the German tanks and infantry, thereby reducing the heavy combat losses inflicted on *unsupported* panzers by Soviet counterattacks.[38]

Brauchitsch, Halder, and other senior officers vehemently disagreed with Hitler's designs, arguing that such policies violated the principles of concentration and decisive maneuver. They urged instead an immediate march on Moscow, which they regarded as the military, political, and economic jugular of the Soviet Union. Such strong and nearly unanimous opposition caused Hitler to waver temporarily, and as a result he issued a series of conflicting strategic directives between 30 July and the latter part of August.[39]

While the Germans argued strategy, the Soviets demonstrated that they could, in fact, exploit the fissures in the German front. During the second week of August, strong Russian forces *(34th Army* and parts of *11th Army)* thrust into a gap between the German X and II Corps south of Lake Ilmen. (See sketch 5). Driving north and west from the area south of Staraya Russa,


SKETCH 5: Soviet Counteroffensive Against Open Flank of Army Group North, 12-22 August, 1941
(Leningrad)
Lake Samro
XLI
42
Luga
48
Volkhov R.
Ilista R.
(Hoeppner)
L
XXVIII
Novgorod
XLVI
(Manstein)
I
Lake Ilmen
16
(Busch)
X
Staraya Russa
11
Dno
(Pskov)
34
II
German Counterattack, 19 August
Soviet Offensive, 12-19 August
0 10 20 30
SCALE (Miles)

the Russians advanced nearly 60 kilometers by 14 August and were threatening not only the flank of the German X Corps but the entire rearward communications of the Sixteenth Army and of Army Group North.[40] Locked in desperate defensive combat, the divisions of the German X Corps were unable to establish an elastic defense-in-depth due to extended frontages and a severe shortage of reserves.[41] Furthermore, since the motorized elements of Army Group North were concentrated in Panzer Group 4 north of Lake Ilmen, no panzers were available to counter-attack enemy penetrations as had been envisioned in *Truppenführung*. Field Marshal von Leeb, commander of Army Group North and author of prewar articles on defensive operations, gave a grim situation report to the Army General Staff on 18 August. Halder wrote in his diary:

> Very gloomy picutre of the situation in X Corps. The last man has been thrown into the fighting; the troops are exhausted. The enemy keeps on pushing north of Staraya Russa. Only the engineer companies are left for commitment. The Commanding General, X Corps, and Commander-in-Chief, Army Group [North], think they are lucky if this front holds another day.[42]

Hitler was extremely agitated by this Soviet blow, and created a stir within the German High Command by frantically ordering mobile units stripped from other sectors to deal with this new emergency.[43] Manstein's LVI Panzer Corps (3rd Motorized Infantry Division and the Waffen SS *Totenkopf* Motorized Division) was detached from Panzer Group 4 and brought on a circuitous rearward march to strike the enemy's western flank on 19 August. This surprise counter-stroke quickly caused the Soviet offensive to collapse.[44]

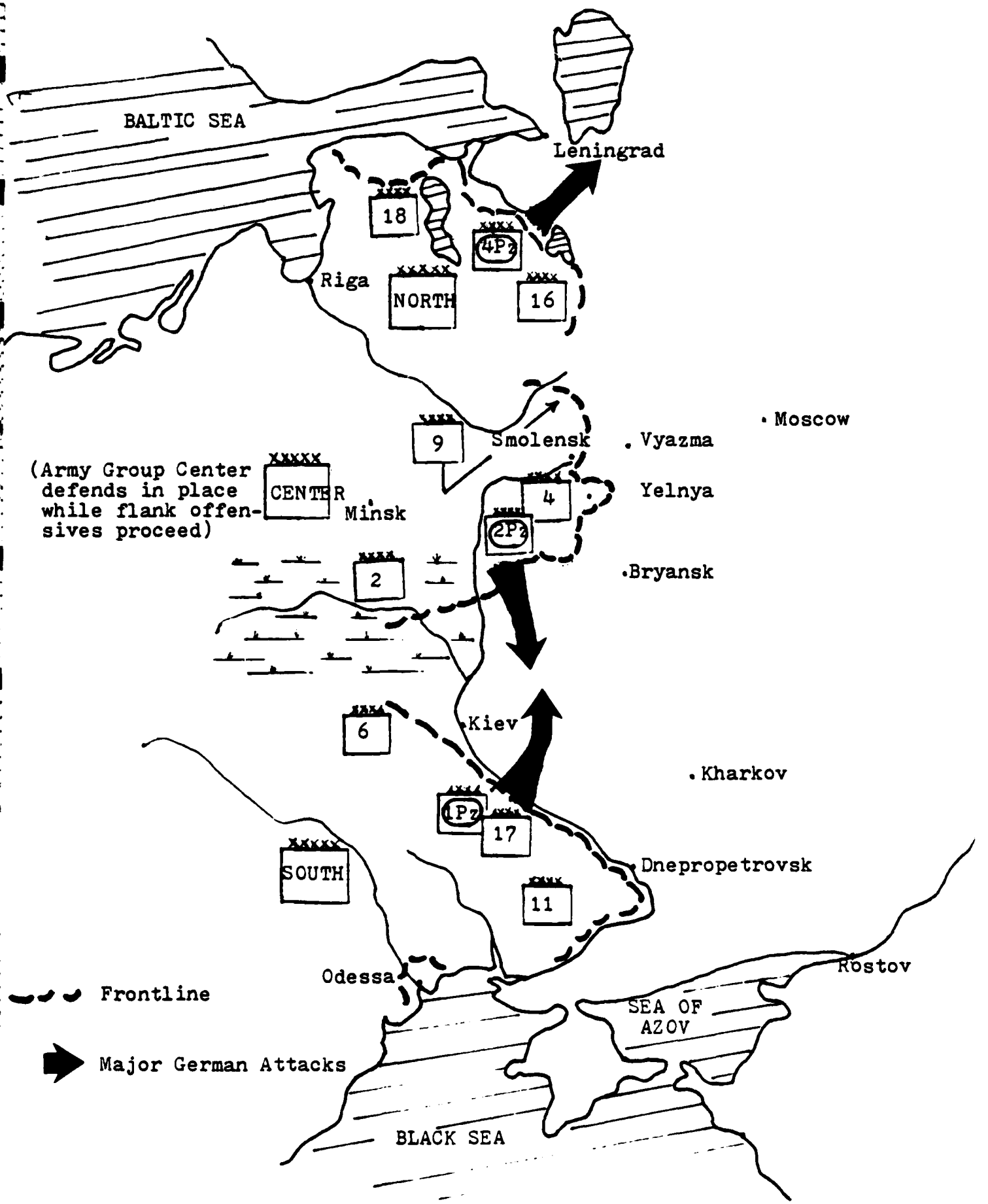
Although the Germans could thus claim victory in this battle - the first substantial defensive crisis on the Russian Front - it had borne little resemblance to the tidy Elastic Defense schema of German doctrine. The width of the front and the scarcity of forces had robbed the Germans of their desired

defensive depth and ready reserves. Consequently, the German defensive line had stood in imminent danger of collapse until saved by the counterattack of Manstein's mechanized posse. Even this use of mobile forces had more correctly been a counteroffensive rather than a counterattack, as it had been marshalled and delivered apart from the defensive battle *per se*.

On 21 August Hitler clarified German strategy by ordering new offensive drives on both wings of the Eastern Front. In the area of Army Group North, German forces would strike toward Leningrad with the intention of isolating that city and linking up with the Finns east of Lake Ladoga. Further south, even stronger elements would advance southward from the right flank of Army Group Center to encircle and annihilate the Soviet armies facing Army Group South in the Kiev salient. This latter action would open the way to the Crimea, to the Don Basin industrial area, and to the Caucasus oil-producing regions. Army Group Center, since the second half of July primarily engaged in defensive fighting while attempting to consolidate and refit its divisions, would assume an outright defensive posture with the rump of its forces.[45] (See Sketch 6).

Hitler justified this new strategy on dubious economic and political grounds, thereby overruling the purely "military" views of his senior officers. It is likely, though, that the recent Soviet offensive near Staraya Russa had helped Hitler to make up his mind by demonstrating the danger of leaving intact Soviet forces on either flank of Army Group Center. In this respect, Hitler's decided course of action - much criticized by German officers in later years as perhaps the decisive mistake of the Second World War - seemed militarily prudent since it eradicated once and for all the threats to the German flanks.[46]

SKETCH 6: Situation and Revised German Strategy, 22 August 1941



Offensives to the north and south meant that any drive on Moscow would have to be indefinitely postponed. Two months earlier, at the beginning of BARBAROSSA, the concentration and power of the German forces had been sufficient to allow simultaneous offensives on all parts of the front. By late August, however, German units were too dispersed and their combat potential too diminished to repeat such a feat.

Since the beginning of the campaign, the line of contact with Russian forces had stretched by nearly 50%; yet, few reinforcements had been added to the German order of battle. German combat units were fatigued from the combination of rapid advance and heavy combat experienced thus far. On 24 August, for example, Halder judged the combat strength of the German infantry divisions to average but 60% of full capacity, while the panzer divisions he rated at only 50%.[47] German combat power was adversely affected by logistical considerations as well. Available stocks of fuel, food, and ammunition had sunk to dangerously low levels in many units, and supply deliveries were growing more erratic as distances increased. The execrable Russian roads had exacted a heavy toll of the mobile units, so that German tanks and other motor vehicles were in dire need of extensive maintenance. (Incredibly, through July Hitler had ordered the withholding of tank replacements from the East in order to build new divisions for later use elsewhere. This policy compounded the already difficult maintenance and equipment replacement problems of the panzer divisions.)[48] German personnel replacements - originally gauged on the basis of a short campaign - were running low.[49] Too, the replacement of lost weapons and other equipment was proceeding slowly: the German war economy had not been geared up for BARBAROSSA, and so current production lagged behind consumption. Indeed, in anticipation of a rapid victory in Russia, German

armaments production was already shifting emphasis away from army munitions. (This would result in a net 29% *decline* in monthly weapons output by December 1941 from earlier peak production.)[50]

With German forces thus dissipated, the diverging operations to the north and south ordered by Hitler dashed the hopes of the Army High Command for a climactic advance on Moscow. In order to lend weight to the attack on Leningrad and the great envelopment at Kiev, Army Group Center would have to relinquish most of its armor and a large share of its infantry. General Hermann Hoth's Panzer Group 3, responsible for holding a portion of Army Group Center's now-static front, would do so with nonmotorized infantry divisions inasmuch as both of its panzer corps (XXXIX and LVII Panzer Corps) were to be sent to assist Army Group North. Guderian's Panzer Group 2 (less one corps) and General Freiherr von Weichs' Second Army were ordered south to fall upon the rear of the Soviet *Southwest Front* guarding Kiev.

Shorn of its offensive cutting edge, Army Group Center would thus have to remain on the defensive until the operations on its left and right were concluded. The defensive battles waged by Army Group Center from the end of July through September are instructive for being the first German attempt to sustain a largescale positional defense in the entire Second World War.

Defense by Army Group Center, July - September

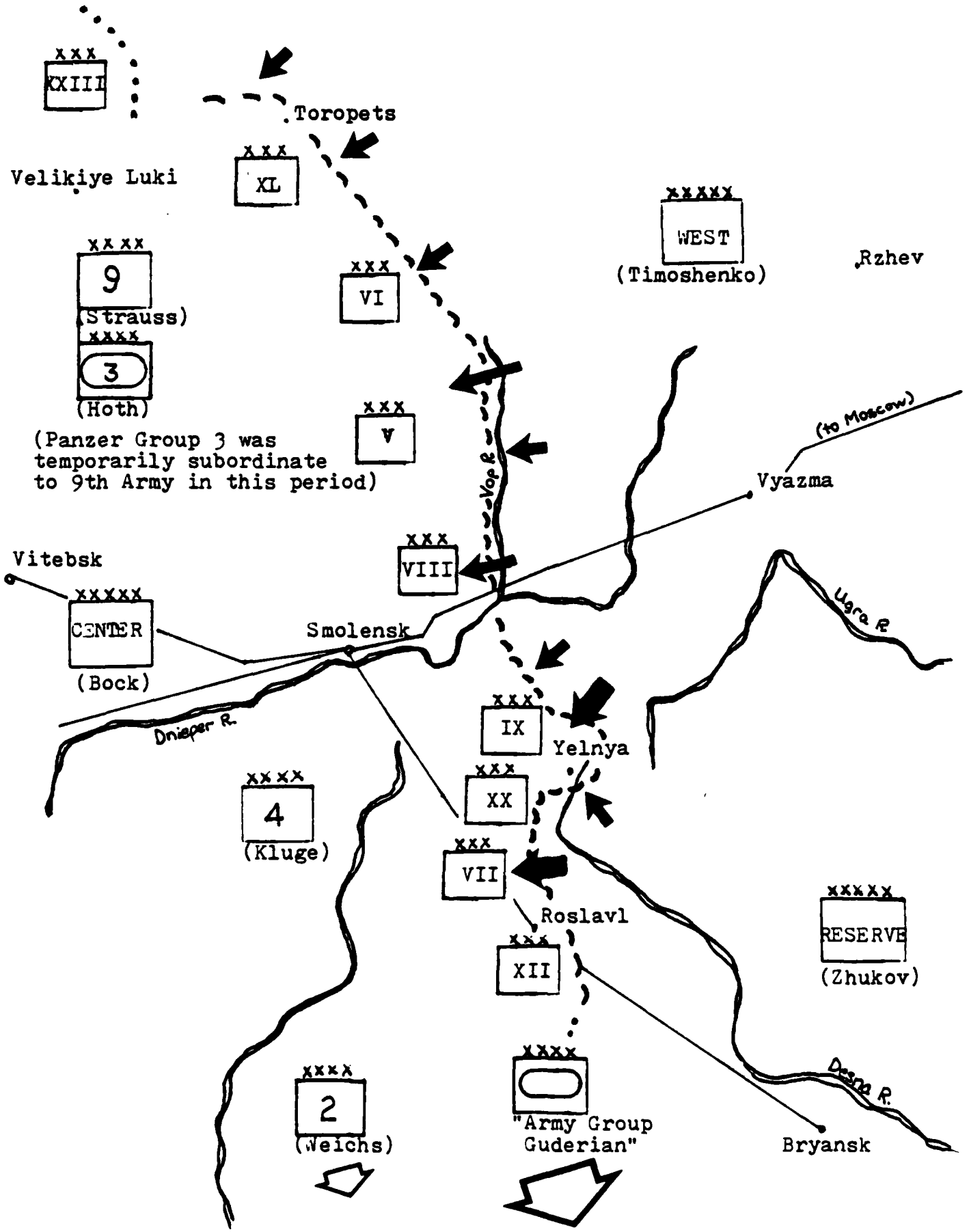
Army Group Center's most recent offensive success had been the closing of a large pocket at Smolensk in late July. While this cauldron was being liquidated, the German forces had endured the predictable Soviet assaults against their inner and outer encircling rings. Although hard-pressed at several points, the German lines had remained generally intact.[51] Desperate

to spring open the trap around Smolensk, the Soviet High Command had released fresh Red Army forces to reinforce the counterattacks. Particularly ferocious were the relief attacks hurled against the German lines north of Roslavl and near Yelnya by Marshal Timoshenko's *Western Front.*[52] (See sketch 7). The Soviet thrust from Roslavl misfired as forces of Panzer Group 2 deftly swallowed the attacking Russians into a new *Kessel* at the beginning of August. However, the Red Army attacks on the narrow, exposed German salient at Yelnya began a six-week battle for that town.

Seized by the XLVI Panzer Corps of Guderian's Panzer Group on 20 July, the Yelnya salient enclosed a bridgehead over the Desna River and high ground valuable to the continuation of German offensive operations toward Moscow. If Yelnya had strategic value as a "balcony" from which future offensive operations might be launched, it also offered tactical liabilities. Surrounded on three sides by powerful Soviet forces, its rearward communications clogged with German units fighting to subdue the Smolensk *Kessel,* Yelnya was also some 275 miles from the nearest German supply dumps.[53] With other German forces distracted by the Soviet attack from Roslavl, Yelnya had to be held by the same motorized units (10th Panzer Division and the SS *Das Reich* Motorized Division) that had captured it until Guderian could bring up marching infantry.

These two German mobile divisions fought at a severe disadvantage. Both units were fatigued and understrength from their earlier offensive efforts. Ammunition and fuel were in short supply. The confining terrain within the salient nullified their mobility and shock effect. The 10th Panzer Division suffered from the shortage of infantrymen endemic to such units, and so was poorly-suited for positional defense.[54] To offset these handicaps, Guderian requested that close air support by the Luftwaffe be concentrated in the

SKETCH 7: Defensive Battles of Army Group Center, August-September



Yelnya area.[55] After a brief appearance in the skies over Yelnya, German air support was abruptly withdrawn: its operating strength depleted by wear and a shortage of advanced airfields, the Luftwaffe began husbanding its resources for use in operations of "strategic" significance. In preference to the "tactical" defense at Yelnya, the Luftwaffe concentrated its planes in the sector of the Second Army in order to protect the southern flank of Army Group Center.[56]

Timoshenko continued to concentrate forces opposite Yelnya, and began a new series of attacks on 24 July. For two weeks thereafter, Soviet attacks battered the German lines at Yelnya virtually without interruption. On 30 July, for example, the German defenders threw back thirteen separate attacks on their positions.[57] One measure of the growing German peril came on 3 August, when Guderian ordered his last available reserve - the guard company for the Panzer Group headquarters - thrown into the fighting at Yelnya.[58] In a telephonic report to General Halder on the same date, Field Marshal Fedor von Bock, the commander of Army Group Center, worried aloud about his lack of reserves against the costly Russian attacks. Bock further commented that he could not guarantee against a "catastrophe" at Yelnya with present resources.[59]

The catastrophe feared by Bock was averted through the timely arrival of infantry reinforcements. These infantry divisions became available as Russian resistance in the Smolensk *Kessel* died away on 5 August. Guderian quickly switched infantry divisions into the Yelnya salient, hoping that their greater defensive capacities would repel the Russian assaults. Flak batteries of the Luftwaffe's 1st Antiaircraft Artillery Corps were also brought up to bolster the Yelnya defenses.[60] By 8 August, all of Guderian's mobile units - including those previously holding Yelnya - had been withdrawn from combat and had commenced refitting.[61]

As German infantrymen dug in along the Yelnya perimeter, the character of the fighting there changed. On the German side, Hitler had confirmed the necessity of holding Yelnya during a conference with Brauchitsch and Bock at Army Group Center headquarters on 4 August.[62] Consequently, the German defense at Yelnya was no longer in the nature of an expedient holding action until offensive thrusts could be renewed. Instead, the newly-arrived infantry deployed as best they could into a determined defense posture. Acknowledging this, Halder noted on 6 August: "At Yelnya, we now have regular position warfare."[63] The Soviets too shifted their stance somewhat. With the capitulation of the trapped Red Army forces at Smolensk and Roslavl, a breakthrough by Timoshenko's forces no longer had any major strategic purpose. Therefore, from 8 August Soviet attacks temporarily subsided as the Russians awaited the next move by the Germans.[64]

When it became clear to the Russians that the Germans were not going to follow their Smolensk triumph with an immediate drive on Moscow, Soviet attacks again flared up along the central front. The German passivity offered the Russians a unique opportunity: a chance to batter an entire German army group under conditions of Soviet choosing. Marshal Timoshenko's *Western Front* pressed new attacks between Velikiye Luki and Toropets against the German Ninth Army, which was holding the northernmost portion of Army Group Center's sector. General Georgi K. Zhukov's newly-assembled *Reserve Front* was ordered to renew attacks on the inviting Yelnya salient. These assaults began during the second week of August.[65]

Field Marshal von Bock discerned the threat to Army Group Center posed by these attacks. Bock had no desire to see his units ground up piecemeal in battles of attrition, and preferred instead to resume the fluid battles of

maneuver that had earlier characterized the campaign. When the Soviet attack at Staraya Russa produced the mid-August crisis in Army Group North's area, Bock exploded at Hitler's panicky orders to shift mobile forces there from Army Group Center. To Halder on 15 August, Bock argued that the best course of action against the numerically superior enemy facing his Army Group was an early return to the offensive. Any transfer of armored striking power would probably destroy the basis for such a front-wide offensive by Army Group Center. A prolonged defense, Bock continued, was

> impossible in the present position. The front of Army Group [Center], with its forty divisions sprawled over a 130 kilometer front, is exceedingly overextended, and a change-over to determined defense entails far-reaching planning, to the details of which no prior thought has been given. The present disposition and line is in no way suited for sustained defense.[66]

In doctrinal terms, Bock recognized that the width of the front held by the Army Group precluded Elastic Defense, since insufficient forces were available to create defensive depth and counterattack-ready reserves. Also, Army Group Center's frontline trace was defined by its recent offensive advances, and so was unlikely to provide many terrain advantages for defense. Furthermore, Bock's recognition that no provisions had been made for a prolonged defense would shortly be affirmed in battle: German forces lacked the stockpiles of supplies and ammunition necessary for sustained positional warfare.

Bock's worst fears came to pass on 21 August when Hitler stripped Army Group Center of most of its mobile divisions in order to support the attacks toward Leningrad and Kiev. While bulletins hailed new German victories on both flanks, Army Group Center manned a thin defensive dike against a tide of Red Army attacks. As Bock had warned, the weak forces and improvised defensive posture of the army group virtually invited disaster.

General Adolf Strauss' Ninth Army manned the northern half of Army Group Center's stationary front. Marshal Timoshenko's new attacks against Ninth Army benefitted not only from heavy artillery and rocket bombardments, but from Soviet air superiority as well.[67] As Bock had warned, the German divisions were overextended and lacked depth: divisional frontages often exceeded twelve miles in width, and the German defenses normally consisted of a string of strongpoints rather than a continuous defense-in-depth.[68]

Soviet attacks created local crises along the Ninth Army front on an almost daily basis from 11 August onward. On Strauss' right, heavy Russian attacks in the VIII Corps sector repeatedly punctured the front of the 161st Infantry Division. On 17 August, the German front was held only by counterattacks employing the 161st Division's last few reserves. Renewed Russian assaults in the same sector broke open the front on succeeding days, and captured some of the 161st Division's artillery on 19 August. Its line penetrated again on 21 August, the 161st Division had to be pulled out of the fighting altogether on 24 August. At the time of its withdrawal from combat, the 161st Division was reported to be at only 25% strength - a measure of the punishment absorbed by the entire VIII Corps during this period.[69] Further north, tank-supported attacks against the Ninth Army's V and VI Corps also endangered the German front, achieving many small break-ins. Under enormous pressure and in an attempt to tighten its defensive grip, the V Corps withdrew its lines to better defensive terrain on 25 August.[70] Even this measure proved to be unavailing, for on 28 August Bock reported to Halder that it was doubtful whether the V Corps sector could be held for even five more days.[71] On 27 August, the Soviets made a deep penetration into the front of the German 26th Division (VI Corps).[72] The German counterattacks to drive back this threat were so narrowly successful that Bock and Halder discussed diverting the entire LVII Panzer Corps to the threatened front of Ninth Army. (This unit was en route to Army Group North for

the Leningrad operation.)[73]

While Ninth Army warded off these blows, the Soviet *Reserve Front* of General Zhukov was pummeling the German salient at Yelnya. In spite of German attempts to fortify the Yelnya position, that sector of the German front remained short of the Elastic Defense ideal.

As with Ninth Army, first among the German problems at Yelnya was the chronic shortage of men. Even after infantry divisions had moved into the salient in the first week of August, the German forces there were not sufficient to organize an elastic defense-in-depth. Two General Staff officers, reporting the results of a Yelnya fact-finding trip to General Halder, flatly described the German units there as "overextended."[74] When the German Fourth Army took over control of the Yelnya sector from Guderian's headquarters on 22 August, conditions at Yelnya appalled the Fourth Army's Chief of Staff, General Günther Blumentritt. As he later wrote:

> When I say that our lines were thin, this is an understatement. Divisions were assigned sectors almost twenty miles wide. Furthermore, in view of the heavy casualties already suffered in the course of the campaign, these divisions were usually understrength and tactical reserves were nonexistent.[75]

With manpower in such short supply, German defenses in the Yelnya area generally consisted of a single trenchline instead of the multi-zoned Elastic Defense. No Advanced Position or Outpost Zone stood in front of the Main Line of Resistance, since troops for these posts could not be spared. Without adequate forward security, many units even had to abandon the reverse-slope deployment preferred by the Germans for its protection from enemy observation and fire.

An illustrative case is that of the 78th Infantry Division. While preparing to relieve another division at Yelnya, officers of the 78th Division were appalled to discover during a forward reconnaissance on 19 August that

the German front consisted mostly of a thin line of disconnected rifle pits. No rearward positions had been prepared and, due to a shortage of mines and barbed wire, only a handful of obstacles stood in the way of any Soviet attack. The German lines were poorly sited, being almost entirely exposed to enemy positions on higher ground. As a result, any daylight movement within the German lines invited a rain of enemy artillery and mortar shells. (So dominant was the Soviet fire that German casualties had to remain in their foxholes until after dark before they could be evacuated.)[76] Upon occupying their designated sector of the Yelnya salient on 22 August, leaders of the 78th Division found conditions there to be, if anything, even worse than they had first supposed. A battalion commander in the 238th Infantry Regiment noted that the strength and accuracy of Soviet fire precluded all efforts to improve German entrenchments by day, while the necessity of guarding against Soviet infiltration at night prevented the formation of nocturnal work parties. Nor could adequate reserves be found to reinforce threatened sectors: after manning its twelve-mile-wide sector, the entire 78th Division held less than one full battalion in reserve.[77]

Unable to rely to any great extent upon the Elastic Defense principles of depth and local counterattack, the Germans were also hampered in their attempts to shrivel Russian attacks with firepower. German small arms fire was diluted by the wide unit frontages, and an enduring shortage of artillery ammunition around Yelnya diminished large caliber fire support.[78] With artillery rounds in short supply, the Germans could not afford to conduct counterbattery fire or even counterpreparations against suspected enemy attack concentrations. In sharp contrast, the Russians hammered the German lines in profligate style. The Soviet bombardments included not only artillery and mortar shells of all calibers, but also the fearsome new Katyusha rockets and strikes by Russian planes.[79] German prisoners taken by the Soviets at Yelnya confessed that the heavy shelling - espec-

ially in comparison to the miserly German response - badly hurt German morale.[80] More directly, since bombardment always plays a major role in positional warfare, the greater weight of Soviet artillery fire probably caused a proportionately higher German daily casualty rate.

At the beginning of the renewed Yelnya battles, the German defense did resemble established doctrine in one important respect: panzer units were held nearby in the rear of the German front. Although theoretically available for counterattack, these forces - the XLVI Panzer Corps recently relieved on the Yelnya perimeter - with one exception did not intervene in the fighting. Through late August, the XLVI Panzer Corps (the *Grossdeutschland* Motorized Infantry Regiment, 10th Panzer Division, and SS *Das Reich* Motorized Division) was belatedly refitting, and so was quarantined from counterattack use. Even as these units were refitting, Guderian was badgering Bock to release them to reinforce the drive on Kiev. After a series of heated arguments, *Grossdeutschland* and *Das Reich* were finally ordered south.[81] By that time, however, Bock judged that Fourth Army's deteriorating front could only be salvaged by a major panzer counterattack, and so detached the 10th Panzer Division from the XLVI Panzer Corps and assigned it to the Fourth Army. Thus it was that the 10th Panzer Division, alone of all the available mobile reserves, finally plunged into the fighting on 30 August.[82]

In its general outline, Fourth Army's battles for the Yelnya salient followed the same sequence as the fighting in the Ninth Army's area. Prodigious Soviet bombardments and local attacks eroded the defending German divisions.[83] As German reserves were exhausted, the Russians exploited minor break-ins to prise open the German defensive front. A major break occurred on 30 August, when the Soviets drove a ten-kilometer wedge into the Fourth Army's 23rd Infantry Division. (It was this serious penetration - which carried to a depth on line with the VII Corps headquarters - that prompted the commitment of the 10th Panzer Division.)[84] Al-

though the panzer counterattack temporarily stabilized the situation, Brauchitsch, Bock, and Halder agreed on 2 September that Yelnya was no longer tenable in view of the strained condition of the Fourth Army. Consequently, German troops abandoned the Yelnya salient in a planned withdrawal on 5 September.[85]

Russian attacks against Ninth Army were broken off on 10 September, and the assaults against the Fourth Army ceased six days later. In both areas the Soviets could point to limited territorial gains as the fruits of their efforts.[86] Indeed, the operational withdrawal from Yelnya was the first imposed on the German Army in the entire Second World War. However, the full significance of Army Group Center's defensive battles during August and early September could not be measured solely in real estate lost or won.

Like a great winded beast, Army Group Center had stood stolidly in place for more than six full weeks while the Russians stormed against its front. The Russians had been able to attack at times and places of their own choosing. The Soviets had possessed advantages in numbers of men and in quantities of materiel. The Germans had waged an improvised defense on unfavorable ground. A doctrinal Elastic Defense relying on depth, local maneuver, firepower, and counterattack had been impossible due to extended unit frontages and inadequate combat resources.

As a result of these conditions, its resistance had cost Army Group Center an extraordinarily high price in blood. Whereas the Elastic Defense system was designed to minimize personnel losses in position warfare even in the face of enemy superiority, the extemporaneous methods enforced on German units in the central front battles resulted in heavy casualties. In the Ninth Army sector, one entire division (161st) had been rendered temporarily *hors de combat*, while all of the divisions in the V and VIII Corps had their combat strength seriously diminished. In Fourth Army, the hardest fighting had occurred in the Yelnya salient, where nine German divisions had seen combat since the end of July. In these, in-

fantry losses had been particularly high. The 263rd Infantry Division, for example, had taken 1200 casualties in only seven days of combat at Yelnya. The 78th Infantry Division reported the loss of 1155 officers and men in just over two weeks, while the 137th Infantry Division lost nearly two thousand in the same amount of time.[87] These losses probably represented twenty to thirty per cent of the total infantry strength of these divisions at the time the defensive battles began.

These personnel losses permanently diminished the combat power of Army Group Center. As General Halder had foreseen earlier, German personnel replacements were running out. The Chief of the General Staff noted on 26 September that convalescents returning to duty constituted the only remaining short-term source of replacement manpower.[88] Although a few replacements trickled down to Bock's tired divisions during September, Army Group Center still reported a net shortage of 80,000 men on 1 October. As most of these unreplaced losses were infantrymen, the German ability to seize and hold terrain was seriously eroded.[89] Furthermore, growing shortages of frontline officers and noncommissioned officers also affected the combat worthiness of German units. For example, the war diarist of Army Group Center noted that, two and a half months after its near-destruction by Timoshenko's forces in August, the 161st Division was continuing to suffer needless casualties due to the division's lack of experienced junior leaders.[90]

The continuous defensive fighting had also prevented Army Group Center from building up any appreciable stocks of ammunition. In fending off the attacks on Ninth and Fourth Army, the Germans had consumed ammunition almost as quickly as the overtaxed supply columns had delivered it. This meant that Army Group Center would have to await the stocking of forward supply dumps prior to resuming the offensive, or else continue to operate on an ever-lengthening logistical thread. (As events turned out, Army Group Center did a little of

both.)[91]

Army Group Center's positional battles left other, less visible scars as well. Timoshenko's attacks on Ninth Army had disrupted the timetable for shifting mobile units northward to support Leeb's attack on Leningrad. Their nerves fraying, a degree of command antagonism had developed between Bock and Leeb as the two Field Marshals haggled over the availability of these forces. The command relationship between Field Marshal von Bock and General Guderian had also been permanently soured by arguments over the control and use of mobile reserves in the Yelnya area. This growing friction between senior commanders would scarcely have mattered were it not for the fact that the health and influence of Field Marshal von Brauchitsch, the German Army's Commander-in-Chief, were in decline. (Brauchitsch would finally suffer a heart attack on 10 November.) Without a firm and steady hand to adjudicate such disputes, coordination between German armies would increasingly fall to the dilettantish Hitler. The strenuous defensive battles of August and September helped to bring these problems to a boil.

Prelude to Winter

In the overall context of the BARBAROSSA campaign, Army Group Center's defensive stand was overshadowed by the German thrust toward Leningrad and the Kiev encirclement. The successful execution of these operations, which pulverized Russian concentrations on both flanks of the front, seemed at the time a reasonable return for Army Group Center's ordeal.

Reinforced by panzer elements stripped from Army Group Center, Leeb's Army Group North had advanced to the line Lake Ladoga - Volkhov River - Lake Ilmen - Valdai Hills - Demyansk. (See Sketch 8.) This drive had been especially draining on the tank and motorized infantry forces, whose progress was slowed by marshy, forested terrain as well as by desperate Soviet resistance.

Soviet night counterattacks were particularly bothersome, denying rest to the exhausted German assault troops. Even soldiers of the elite Waffen SS *Totenkopf* Division grumbled that the gruelling routine of attacking by day and defending by night was nearly unendurable.[92] Nevertheless, by early September the German advance had cut Leningrad's land communications, and Leeb's units stood poised to capture the city itself. At this point, however, Hitler again asserted his strategic prerogative by ordering that Leningrad not be stormed. Instead, Leningrad was to be closely invested by German troops and compelled to fall of its own weight.[93]

In the south, the encirclement of Soviet forces in the Kiev salient had produced the most spectacular *Kessel* victory to date: 665,000 prisoners, 824 tanks, and 3,018 artillery pieces had fallen into German hands by 26 September.[94] Until the Kiev cauldron could be liquidated by the infantry units of the German Second and Sixth Armies, the usual difficult defensive battles were fought by the panzer and infantry divisions forming the encircling rings. (On 17 September, General Halder wrote that "the encircled enemy units are ricocheting like billiard balls within the ring closed around Kiev.")[95]

Even as the strangulation of Leningrad and the reduction of the Kiev pocket were underway, Hitler ordered German forces reconcentrated in the sector of Army Group Center. Flushed with success, on 6 September Hitler ordered preparations for a belated attack on Moscow.

Adolf Hitler's turnabout decision to attack Moscow did not stem from any last minute conversion to the strategic views of his military advisors. Rather, the impending victories at Leningrad and Kiev had fired Hitler's imagination, prompting him to envision a renewed grand advance into the Russian depths. The centerpiece of this effort was to be a new series of *Kessel* battles by Army Group Center that would destroy the Soviet armies ranged before Moscow. In

the south, Field Marshal Gerd von Rundstedt's Army Group South would drive into the void created by the Kiev victory, aiming toward Kharkov, Rostov, and the Don Basin industrial area. Leeb's Army Group North would continue to throttle Leningrad while protecting the northern flank of Army Group Center.[96] In Hitler's mind, these strategic projections constituted a final, triumphal phase of BARBAROSSA: the crushing of the last Red Army field forces, the capture of the enemy capital, and the plundering of Russian economic wealth.

Most German commanders endorsed the concept of an attack on Moscow, though they regarded it to be a far more precarious operation than did the ebullient FÜhrer. Their concern stemmed from the reduced combat and logistical capacity of German forces, the continuing resistance of the Red Army, and the approach of the autumnal rainy season, all of which lengthened the odds against a successful offensive. Weakened by the defensive battles against Timoshenko and Zhukov, Army Group Center in particular was incapable of offensive action unless heavily reinforced. Since nearly all German divisions in Russia were already committed, reinforcements could only be mustered by disengaging units from other parts of the front and redeploying them in Army Group Center's area. Such a reshuffling of German forces would cause tremendous logistical and command difficulties, and would fritter away most of the remaining good weather as well. Hitler, however, discounted these difficulties, remarking airily on 5 September that the Moscow attack "should if possible be launched within 8-10 days." (This estimate was so fatuous that Halder promptly dismissed it as "impossible.")[97]

As Hitler remained adamant in his demands for immediate action, the second half of September was spent moving German forces into position for Operation TAIFUN (as the attack was named). In all, more than twenty-five divisions joined (or rejoined) Army Group Center. This maneuvering further snarled German communications as units crisscrossed each other's supply lines. Not all units earmarked for the Moscow attack could even be concentrated by the 2 October start

date: Guderian's Panzer Group 2 had to be given an independent, more southerly axis of advance in order to shorten its return march from the Kiev battles, while some panzers returning from Army Group North arrived too late to participate in the opening phases of the attack.[98] So confused was the shifting of units that Panzer Group 3 (Hoth) and Panzer Group 4 (General Erich Hoeppner) swapped their entire commands during the month of September.[99]

Luckily for the Germans, the Soviets did little to interfere with these offensive preparations. Red Army forces facing Army Groups Center and South were themselves weakened from the battles of August and early September, and so used this time to restore their own strength.

The Russians did remain active in the sector of Army Group North, launching a series of sharp attacks in the hopes of breaking the German grip on Leningrad. Between 18 and 28 September, for example, a flurry of Soviet attacks buckled the thin lines of the Waffen SS *Totenkopf* Division south of Lake Ilmen. German losses in this fighting were so heavy - one SS battalion lost 889 men, including all of its officers, between 24 and 29 September - that the division commander warned on 29 September that the continued combat worthiness of his unit was in doubt.[100] The 30th Infantry Division, dug in on the left of *Totenkopf*, likewise defended itself against seemingly endless waves of Russian tanks and infantry. On the German side, effective defense was plagued by the same ailments here as elsewhere: an excessively wide division frontage (over 30 kilometers for the 30th Infantry Division), defensive positions consisting of only a single trenchline without depth or obstacles, and no reserves. After German artillery successfully crushed several Russian breakthroughs, the Soviets switched their tactics to the creation of shallow penetrations of great width. This left the Germans no choice but to close these gaps by counterattack, suffering heavy casualties in doing so. In this way, the 30th Division lost 31 officers and 1440 enlisted

men in three weeks of nightmarish defensive fighting.[101]

The German drive on Moscow began on 2 October, and immediately developed "on a truly classic pattern."[102] Three German panzer groups smashed through the Soviet devenses, and enclosed more than six Soviet armies in two great cauldrons at Vyazma and Bryansk. Though made purposely shallow in order to spare the panzer forces the agony of prolonged defensive fighting, these pockets yielded more than 550,000 prisoners by the third week of October.[103] As in previous *Kessel* battles, German units fought many extemporaneous defensive engagements in order to contain trapped Red Army divisions.[104] Soviet relief attacks from outside the pockets failed to materialize, however. The German pincers had enclosed the bulk of the combat-worthy Russian units guarding Moscow, and the few that remained outside of the pockets were busy forming a new defense line in front of the Soviet capital.[105] These successes so heartened General Halder that the Chief of the Army General Staff predicted in his diary on 8 October that "with reasonably good direction of battle [that is, no fatal interference by Hitler] and moderately good weather, we cannot but succeed in encircling Moscow." Halder's optimism was echoed by Otto Dietrich, the Reich Press Chief, who announced on 9 October that "for all military purposes, Soviet Russia is done with."[106]

The optimism following the battles of Vyazma and Bryansk was premature. Beginning on 7 October, heavy rains fell through the remainder of the month, turning the Russian countryside into a quagmire and stifling Army Group Center's offensive operations. Here and there German forces continued to slog ahead, such tactical progress being made with great difficulty. However, the mud paralyzed the German logistical system, which depended entirely upon motorized and horse-drawn vehicles to draw supplies overland from the rearward railheads. While the muddy season also dampened Soviet operations, the Russians enjoyed

two important advantages over their enemies: a shorter line of communications, and a nearly-intact rail net. The rain-induced pause that suspended major operations for five crucial weeks in October and November thus worked greatly to the Soviet benefit. When German attacks over frost-hardened ground resumed on 14 November, the way to Moscow was again barred by fresh Red Army forces and formidible defensive works.

On the southern portion of the front, Field Marshal von Rundstedt's Army Group South had greater success in sustaining its offensive drive. General Ewald von Kleist's First Panzer Army* formed the cutting edge of the southern attack, and advanced rapidly along the Azov coast toward Rostov. Rain, mud, and Soviet counterattacks slowed the advance of the Seventeenth Army and Sixth Army ranged on Kleist's northern flank, with the result that the German armored spearhead virtually lost contact with the infantry forces echeloned to its rear. Despite this progress, Rundstedt doubted the German ability to crush the remaining Red Army forces facing him and to reach the far-flung territorial objectives demanded by Hitler. Rundstedt unsuccessfully urged that German operations on the southern front be curtailed.[107]

The German III Panzer Corps seized Rostov on 20 November, capturing intact a bridge over the Don River leading to the Caucasus oil-producing regions coveted by Hitler.[108] Immediately, Russian counterattacks began to hammer the German salient at Rostov from three sides, while other Red Army forces swept down into the gap between First Panzer Army and Seventeenth Army. With Army Group South's offensive energies exhausted, and with no strategic purpose to be served by holding Rostov in a risky defensive battle against superior Soviet forces, on 28 November Rundstedt ordered First Panzer Army to withdraw to the Mius River where a winter defense line could be consolidated.[109] This proposal was mili-

* 1st and 2nd Panzer Groups were redesignated panzer armies on 5 October.

tarily prudent, and conformed to the German defensive tradition of conserving combat power while not holding terrain for its own sake.

Hitler, however, did not regard strategic problems in traditional ways. In the mind of the German dictator, the prestige value of Rostov outweighed any risk that German forces might have to run in order to hold it. On 30 November, after a vitriolic conversation with Brauchitsch, Hitler countermanded Rundstedt's withdrawal order by directing that German forces stand and fight on the Don. Affronted at this interference in his command, Rundstedt asked to be relieved. Hitler promptly granted Rundstedt's request, and named Field Marshal Walter von Reichenau to be the new commander of Army Group South.[110]

The change in army group leadership did not alter the tactical situation around Rostov. Russian pressure against First Panzer Army overwhelmed Reichenau's attempts to hold forward defensive positions, and on 1 December Hitler allowed Army Group South to fall back to the Mius defense line earlier advocated by Rundstedt. Of Hitler's obstinacy and interference, Halder noted with grim satisfaction that "now we are where we could have been last night. It was a senseless waste of strength and time, and to top it, we lost Rundstedt also."[111]

First Panzer Army's defensive efforts at Rostov and during the withdrawal to the Mius line were harrowing. In fact, the fighting retreat of the German southern wing might have ended disastrously were it not for heavy Luftwaffe attacks against the advancing Soviets.[112] Kleist's Panzer Army was composed almost entirely of panzer and motorized infantry formations which, as previously explained, were inherently less able to hold ground than were German infantry divisions. This problem was exacerbated by the increasing appearance of new Soviet T-34 tanks, against which the German tank and antitank guns made little impression. In one case, the German 60th Motorized Infantry Division had some of its Paks literally "rolled flat" by T-34s during defensive fighting within

Rostov itself.[113] Secondly, the German forces held a defensive front that was excessively broad, and did so with units that were badly depleted in strength. The III Panzer Corps, for example, initially held its 100-kilometer-long perimeter around Rostov with only one panzer and two motorized divisions.[114] Russian attacks, characterized by Halder as "well-led" and "numerically far superior," inflicted heavy casualties on these thinly-spread German units.[115] On 22 November, for example, the 16th Panzer Division mustered only 350 riflemen in its defensive positions guarding the German flank north of Rostov. Heavy Soviet assaults cost one of 16th Panzer's weakened infantry battalions seventy men in one day, a loss that decimated that unit.[116] The temperature, which dipped to more than minus twenty degrees Centigrade, diminished the obstacle value of streams and rivers by freezing them solid, and rendered the ground so hard that defensive positions could only be gouged out with explosives. Finally, the smooth withdrawal of German forces to the Mius line was interrupted by Hitler's temporary "stand and fight" order. This order reached German forward units after the retreat had already begun, with the result that considerable confusion reigned during the next two days as combat forces and rear echelon service units became entangled in marches and countermarches.[117]

By the end of the first week of December, Army Group South had established a winter defense line running generally from the Mius River north along the Donets River. Likewise, Army Group North's positions had stabilized in a vast salient extending from Leningrad eastward to Tikhvin, and then south to Lake Ilmen and the Valdai Hills. The lines of Leeb's Army Group fell short of the goal set by Hitler of linking up with the Finns, but no further offensive actions could be expected. Only on the central portion of the front did the Germans cherish hopes of further offensive success.

Bock's Army Group Center had surged forward on 15 November in a last,

desperate grab for Moscow. This attack had immediately collided with prepared Soviet defenses manned by newly-reinforced Russian armies. Dogged by a deficient logistical system, severe shortages in personnel and equipment, and the onset of harsh winter weather, the German offensive made slow progress. Although Hitler wildly urged Bock to undertake deep envelopments, in fact the armies of Army Group Center had so dwindled in strength and mobility that only frontal attacks could be mounted.[118] By the end of the month, German units were reaching the extreme limit of their endurance. Although the maps in Hitler's headquarters still portrayed a great offensive, at the front the scattered and feeble thrusts by German units increasingly resembled the reflexive spasms of a dying animal.[119]

Even before their hopes of capturing Moscow totally died away, German planners were evaluating the requirements for extended defensive operations through the Russian winter. Whatever the outcome of the Moscow battles, the German armies in Russia would be unable to conduct new offensive operations until the following spring. Consequently, as it became apparent that no final Soviet collapse or capitulation was going to occur, German staff officers bent their efforts to planning for a winter defense on the Russian Front.

As early as 19 November, with Operation TAIFUN still in full swing, Hitler conferred with his military advisors on the building of an "East Wall" defensive line, but the dictator put off any decision until a later date. Four days later, Halder discussed the construction of a rearward defense line and fortifications with Army Group Center's Chief of Staff, General Hans von Greiffenberg. On 29 November, after a review of the situation on the Eastern Front with the head of the General Staff's Operations Section, Halder authorized the preparation of orders for a general winter defense.[120] Drafted over the next week, this order became "Fuhrer Directive 39" when signed by Hitler on 8 December.

Taken at face value, Fuhrer Directive 39 had much in common with the canny

1917 withdrawal to the Hindenburg Line that had inaugurated the German Elastic Defense. Although framed in strategic terms, Führer Directive 39 (and the OKH implementing instructions that accompanied it) generally followed the traditional principles of elastic defense-in-depth. The Army Commander-in-Chief (Brauchitsch) was directed to designate a winter defense line. At his discretion, this line could be located to the rear of current German positions, although rearward fortifications were to be prepared prior to any tactical withdrawals. (Significantly, in light of subsequent events, this showed an initial willingness even on the part of Hitler to relinquish terrain that did not contribute materially to German goals.) The defense line itself was to be held with minimum forces, allowing combat units - and especially panzer and motorized divisions - to be refitted in reserve positions further to the rear. These rehabilitation and reserve areas were to be located sufficiently near to the front lines to facilitate rapid reinforcement of threatened sectors. Defensive positions themselves would be sited for optimum defensive effectiveness and comfortable troop quartering. Moreover, the order emphasized the construction of rearward defensive positions, using whatever manpower could be scraped together, to provide additional defensive depth.[121]

Führer Directive 39 was significant for yet another reason: it implicitly conceded that the German armies had failed to achieve BARBAROSSA's strategic objectives. The Soviet Union, though suffering enormous losses in the summer and autumn battles, had not been conquered in a "single, lightning campaign." Moscow, belatedly named the climactic operational objective, remained beyond the German reach. Führer Directive 39 blamed these failures on the premature winter weather and resultant supply difficulties. More crucial, however, was the vastly depleted German combat power. The offensive exertions of the previous five months had so sapped German strength that German units had become unfit

for combat of any sort, whether offensive or defensive.

In a situation analogous to that encountered by the Allies in 1918 following the Ludendorff Offensives, Soviet counterattacks were revealing German units to be scarcely able to hold the ground they had recently won. Red Army soldiers, testing German lines outside of Moscow with local counterattacks, discovered to their surprise that German resistance was spotty. Exploiting tactical successes, these Soviet counterblows gradually swelled in scope and intensity. By the beginning of December, the Soviet High Command had come to recognize the frailty of the German position, and threw all available forces into a general counteroffensive. Beginning on 6 December, this counterstroke tore open the German front and created the greatest strategic crisis yet faced by the Germans in the war.

Thus it was that Führer Directive 39, though significant in reflecting German defensive intentions, failed to have any real effect on the conduct of winter operations by the German Army. Issued on 8 December, the German defensive order had already been rendered obsolete by events. As in the defensive battles during BARBAROSSA's drive eastward, German winter defensive tactics were to be dictated more by local conditions than by doctrinal prescription.

CHAPTER III: WINTER BATTLES, 1941-1942

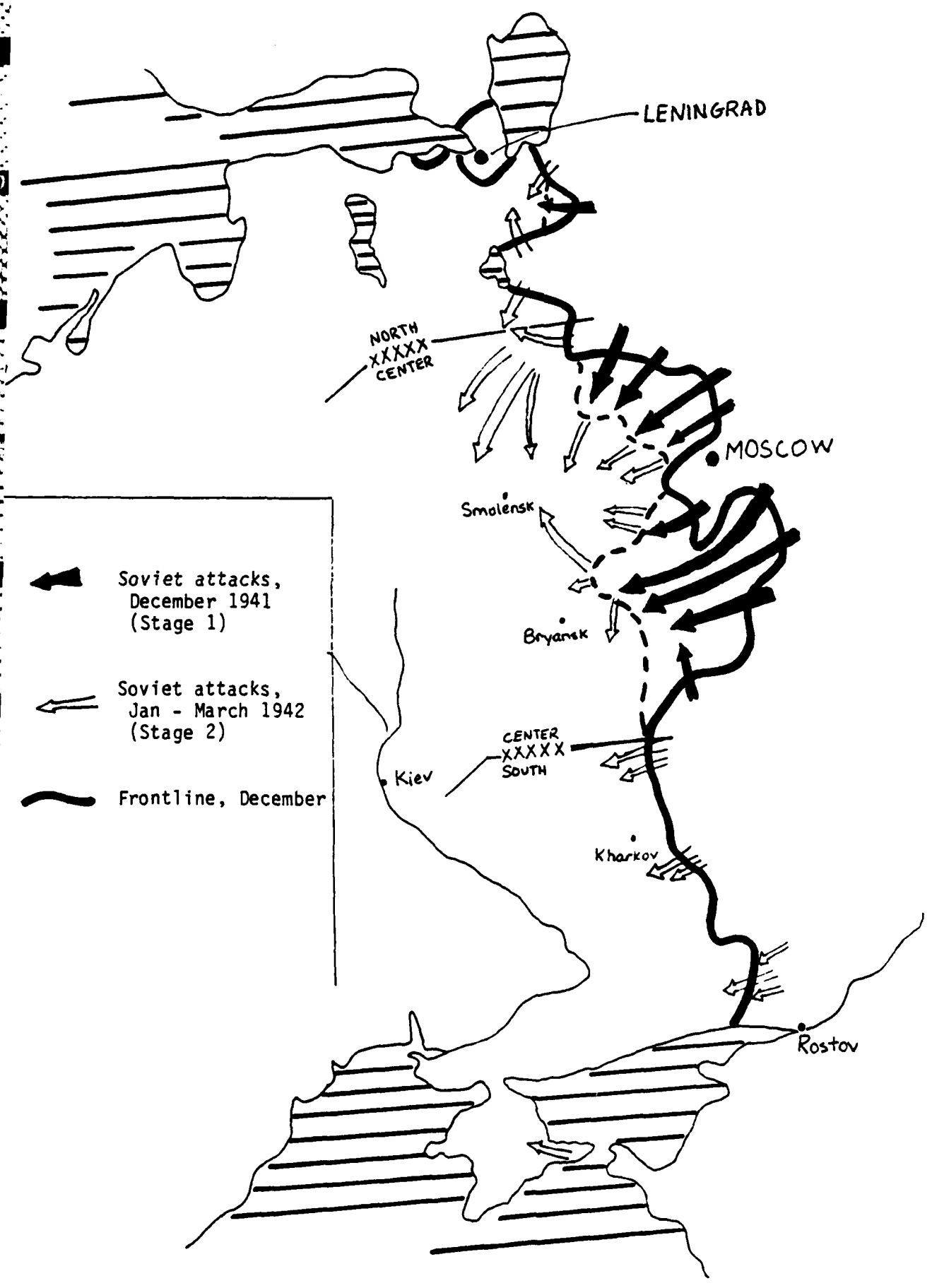
The Russo-German War entered its second major phase in December 1941. For the previous five months the Germans had held the strategic initiative, but on 6 December the Red Army seized the initiative, counterattacking first against Army Group Center and later against all three German army groups (see Sketch 8). Lasting through the end of February, these attacks upset the calculations of Führer Directive 39, which had assumed that the front would remain quiescent until the following spring.

The Soviet winter counteroffensives prompted significant changes to German strategy and to German tactical methods. These alterations emerged over the course of the winter fighting, and helped to shape German defensive practices throughout the remainder of the war.

At the strategic level, the December crisis on the Eastern Front caused Hitler to override the recommendations of his military advisors by enjoining a face-saving "no retreat" policy that callously risked the annihilation of entire German armies. Then, his patience with independent-minded officers finally at an end, the German dictator followed this strategic injunction with a purge of the German Army's senior officer corps that left the Führer in direct, daily control of all German military activities. These events had ominous longterm implications: Hitler's personal command rigidity, together with his chronic insistence upon "no retreat" in defensive situations, eventually corrupted both the style and substance of German military operations.

The winter of 1941-1942 left its mark on German defensive tactics as well. During the defensive battles from December to February, German attempts to conduct a doctrinal Elastic Defense were generally unsuccessful. Instead, German units gradually fell to battling Soviet attacks from a chain of static strongpoints (*Stützpunkte*). This defensive method was based on tactical expedience, and was successful due as much to Soviet disorganization as to German steadfastness.

SKETCH 8: Soviet Winter Counteroffensives, December 1941 - March 1942



Standing Fast

The German High Command was slow to appreciate the magnitude of the Soviet counteroffensive effort. For weeks prior to the Russian onslaught, German units had been reporting incessant enemy counterattacks during their own drive toward Moscow. So routine had these counterattacks become that German analysts failed to recognize immediately the Russian shift from local counterattack to general counteroffensive. The German leadership seems to have projected its own conclusions onto the Soviets: heavy losses, supply difficulties, and severe weather conditions seemingly ruled out any further largescale offensive operations. The intelligence annex supporting Führer Directive 39, for example, discounted the Red Army's ability to mount more than limited attacks during the coming poor weather period.[1]

High-level German leaders also underestimated the abject weakness of their own units. The TAIFUN offensive had overextended the German eastern armies, and their spent divisions now lay scattered like beached flotsam from Leningrad to Rostov. As a discouraged General Guderian wrote on 8 December:

> We are faced with the sad fact that the Supreme Command has overreached itself by refusing to believe our reports of the increasing weakness of the troops... [I have decided] to withdraw to a previously selected and relatively short line which I hope that I shall be able to hold with what is left of my forces. The Russians are pursuing us closely and we must expect misfortunes to occur.[2]

The greatest immediate danger loomed on the front of Army Group Center. Committed to offensive action until swamped by the Soviet counterblow, the divisions of Field Marshal von Bock's army group had prepared few real defensive works. On 8 December - the same day that Guderian was ordering a retreat by his Second Panzer Army - Army Group Center's war diary recorded Bock's own assessment that the whole of his army group was incapable of stopping a strong counteroffensive.[3] The most exposed forces were those of 3rd and 4th Panzer Groups north of Moscow, and of Guderian's Second Panzer Army south of the Russian capital. Occupying

salients formed during the late Operation TAIFUN, the plight of these panzer and motorized divisions was cruelly ironic. Once again offensive success had turned into defensive peril, as the formations most heavily beset by Soviet attacks were also those least able to sustain a positional defense.

Caught off balance by the Soviet counteroffensive, the Germans lacked any real concept for dealing with the deteriorating situation on the central front. The Chief of the German Army General Staff wrote in his diary that "the Supreme Command [Hitler] does not realize the condition our troops are in and indulges in paltry patchwork where only big decisions could help. One of the decisions that should be taken is the withdrawal of Army Group Center..."[4] Still smarting from the earlier abandonment of Rostov by Army Group South, however, Hitler was unwilling to countenance any such retreat. Instead, German countermeasures during the first two weeks of the Russian offensive recalled the frantic half-measures taken during the summer defensive crises at Yelnya and Toropets: minor local withdrawals and piecemeal attempts to contain Soviet breakthroughs. For example, the hasty withdrawal of Second Panzer Army's beleaguered divisions from the area east of Tula was done solely on Guderian's own initiative and not as part of a coordinated general plan.

Although reducing the immediate likelihood that exposed units would be cut off and destroyed, these measures did not address the fundamental German strategic problem. The thin lines of exhausted German troops seemed everywhere to be on the verge of collapse, few reinforcements were available, and puny local countermeasures merely invited greater danger. For instance, even as Guderian's forces were recoiling from Tula, gaps opened between those units through which sizable Russian forces poured into the German rear.[5] Then a massive Soviet attack on Guderian's right flank overran and virtually annihilated the German 45th, 95th, and 134th Infantry Divisions of Second Army between 9 and 15 December.[6] This

complete destruction of German divisions was unprecedented in the Second World War, and an unmistakable omen of impending disaster. By the third week of December, deep Soviet penetrations on both flanks of Bock's army group threatened to ripen into a double envelopment of the entire central German front. After touring the splintered German lines, ailing Field Marshal von Brauchitsch confessed to Halder that he could "not see any way of extricating the Army from its present predicament."[7]

In fact, only two alternatives offered an escape from the deepening crisis. One choice was to conduct an immediate largescale withdrawal, trusting that German forces could consolidate a rearward defensive line before Soviet pursuit could inflict decisive losses. The other choice was to stand fast and weather the Soviet attacks in present positions. Neither course of action guaranteed success, and each was fraught with considerable risk.

A winter retreat would cost the Germans much of their artillery and heavy equipment, which would have to be abandoned for lack of transport. Due to Hitler's reluctance in November, no rearward "East Wall" defensive line had been prepared, and so a withdrawal promised little improvement over the tactical situation presently faced.[8] Too, as already shown on Guderian's front south of Moscow, retrograde operations could easily lead to even greater crisis if enemy units managed to thrust between the retreating German columns. Finally, a retreat through the Russian winter conjured up the shade of Napoleon's 1812 *Grande Armee*. Though morale in the depleted German divisions still remained generally intact despite the harsh conditions, German officers fearfully reminded each other of the sudden moral collapse that had turned the French retreat into a rout nearly a century and a half before.[9]

The alternative seemed even more desperate. A continued defense from present positions could succeed only if German defensive endurance exceeded Russian

offensive endurance - a slim prospect considering the exhausted state of the German forces. The chances for success were best on the extreme northern and southern wings, where the Leningrad siegeworks and the Mius River line offered some protection. Between these two poles, however, a "stand fast" defense would surely cost the Germans heavily. The absence of reserves and the lack of defensive depth made it certain that some units would be overrun or isolated during the course of the winter. Moreover, this course of action forfeited the possibility of a new German offensive in the central sector the following spring or early summer, since surviving German divisions there would require substantial rebuilding.

Conditioned by their professional training to weigh risks carefully and to conserve forces for future requirements, German commanders and staff officers preferred the potential dangers of a winter retreat to the certain perils of standing fast. Guderian, for example, regarded "a prompt and extensive withdrawal to a line where the terrain was suitable to the defense...[to be] the best and most economical way of rectifying the situation," while Brauchitsch and Halder agreed that "Army Group [Center] must be given discretion to fall back... as the situation requires."[10] In anticipation that this course of action would be followed, Russian civilians and German labor units were hurriedly pressed into work on a rearward defense line running from Kursk through Orel to Gzhatsk.[11]

Once again Adolf Hitler confounded the plans of his military advisors. Hitler had watched the disintegration of the German front with great dismay, and had convinced himself that each retreat simply added momentum to the Soviet offensive. On 16 December the German dictator telephoned Bock to order Army Group Center to cease all withdrawals and to defend its present positions. German soldiers would take "not one single step back." At a late night conference the same evening, Hitler extended the stand-fast order to the entire Eastern Front. A general withdrawal, he declared, was "out of the question."[12]

Hitler marshalled both real and fanciful arguments to justify his decision. Citing information collected by his personal adjutant, Colonel Rudolf Schmundt, Hitler ticked off the disadvantages of retreat: German units were sacrificing artillery and valuable equipment with each withdrawal, no prepared line existed to which German forces could expeditiously retire, and "the idea to prepare rear positions" amounted to "drivelling nonsense."[13] Furthermore, Hitler argued, attempts to create fallback positions weakened the resolve of the fighting forces by suggesting that current positions were expendable. All of these arguments were at least partially correct, even if senior military officers preferred to discount them.

Hitler's rationalizations went even further, however. Contrary to the visible evidence, Hitler insisted that the Russians were on their last legs after suffering between eight and ten million military casualties. (This estimate exaggerated Soviet losses by almost one hundred per cent.) The Red Army artillery, he claimed, was so decimated by losses that it no longer existed as an effective arm - a claim for which there was no evidence whatsoever. Hitler asserted that the sole asset remaining to the enemy was superior numbers of soldiers, an advantage of no real value since these were "not nearly as good as ours." In a strange twist of logic, Hitler even argued that the enormously wide frontages held by German divisions proved the enemy's weakness, since otherwise the Soviets would have exploited this vulnerability to a greater extent than they had already done. (Coming at a time when the entire German front was threatening to give way in the face of Soviet offensive pressure, this claim was totally outrageous.)[14]

One major factor in Hitler's decision went largely unspoken by the dictator. Tyrants, it is said, fear nothing so much as ridicule, and Adolf Hitler feared the embarrassment that retreat would cause to the Reich's - and to his own - military prestige. Moreover, on 11 December Hitler had recklessly declared war

on the United States, a move that unnecessarily compounded Germany's military problems. Under the circumstances, the spectacle of German armies in unseemly retreat before Russian *Untermenschen* would have been a serious blow to Hitler's credibility. And so, German soldiers were exhorted to "fanatical resistance" in place "without regard to flanks or rear."[15]

Having rejected yet again the recommendations of his military advisors, Hitler decided to rid himself once and for all of uncooperative senior officers. This would not only end the tugs-of-war between Hitler and the Army High Command over military strategy, but would satisfy Hitler's desire to curb the enduring independence of the German Army's officer corps as well.

Adolf Hitler had an irrational mistrust of the aristocratic, apolitical officers who held most of the higher positions within the German Army. Their professional aloofness and political indifference had long irritated Hitler, who regarded them as obstacles both to his own strategic visions and to his personal power. Since becoming Chancellor in 1933, he had skillfully worked to curtail the Army's independence. Upon the death of the aged Weimar President von Hindenburg in 1934, Hitler had suborned an oath of personal loyalty from all members of the armed forces, a step that exceeded the doomed Republic's constitutional practice. In 1938, Hitler had engineered the disgrace and removal of Field Marshal Werner von Blomberg and General Werner Freiherr von Fritsch, who were respectively the Minister of War and Commander-in-Chief of the Army. At that time, Hitler had absorbed the duties of War Minister into his own portfolio as Führer, and had diluted the traditional autonomy of the German Army by creating a new joint Armed Forces High Command, the *Oberkommando der Wehrmacht* (OKW). Hitler had then staffed the senior OKW posts with sycophants like General (later Field Marshal) Wilhelm Keitel and General Alfred Jodl, so that the OKW amounted to little more than an executive secretariat for Hitler and an operational impediment to the Army High

Command (OKH). As his knowledge of military matters had grown during the war, Hitler had come to overrule with greater frequency and confidence the campaign advice of his army advisors. During BARBAROSSA, the Army's resistance to Hitler's interference had repeatedly antagonized the Führer, and so he now resolved to purge troublesome officers.[16]

Field Marshal von Brauchitsch, the German Army's Commander-in-Chief, was among the first to follow Rundstedt into retirement. Weakened by a November heart attack, Brauchitsch had neither the moral courage nor the physical strength to resist the Führer's trespasses. Hitler had made no secret of his growing disdain for the ill Field Marshal, subjecting him to humiliating tongue-lashings and treating him openly as a gold-braided "messenger boy."[17] On 19 December, Hitler finally sacked Brauchitsch, and took over the position of Army Commander-in-Chief himself.

The timing of Brauchitsch's relief was masterful. Although it was not so stated officially, Brauchitsch was made to seem the scapegoat for the failure of BARBAROSSA and for the winter crisis on the Eastern Front. Hitler himself propagated this view to his inner circle, later referring to Brauchitsch as "a vain, cowardly wretch who could not even appraise the situation, much less master it. By his constant interference and consistent disobedience he completely spoiled the entire plan for the eastern campaign."[18]

Though Brauchitsch truly had been a weak and relatively ineffective Army Commander-in-Chief, the real issue in his relief was not military competence but political loyalty and personal subservience. Lest this lesson be misunderstood, Hitler pointedly informed Halder that:

> This little affair of operational command is something that anybody can do. The Commander-in-Chief's job is to train the Army in the National Socialist idea, and I know of no general who could do that as I want it done. For that reason I've decided to take over command of the Army myself.[19]

No sooner was Brauchitsch out of the way than Hitler turned his wrath on balky field commanders. With Hitler directly supervising their operations, front-line officers no longer enjoyed the insulation previously provided by the person of Brauchitsch. Furthermore, with the Führer doubling as Army Commander, military subordination effectively became synonymous with political allegiance. Officers who too candidly criticized Hitler's strategic designs or commanders who took independent action at variance with Hitler's instructions were implicitly guilty of affronting the Führer's personal authority. Whereas during the war's earlier campaigns such independence might have gone unremarked or unchecked, henceforth such actions might lead to swift relief or even worse.

Hitler, bent on a personal vendetta against the German Army's leaders, was given ample opportunity to make examples of offending officers during the winter defensive crisis. Suffering from failing health, Field Marshal von Bock had already lost the Führer's confidence over Army Group Center's failure to storm Moscow. When the Field Marshal persisted in predicting disaster unless allowed to retreat, he was abruptly retired effective 20 December. General Guderian evaded orders to stand fast on the grounds that such actions endangered his Second Panzer Army and, after a tense face-to-face meeting with Hitler on 20 December, was relieved from active duty on 26 December.[20] General Erich Hoepner, like Guderian an aggressive panzer leader, enraged Hitler in early January by ordering units of his Fourth Panzer Army* to retreat westwards to avoid encirclement. Hoepner was summarily relieved of his command, and Hitler ordered that Hoepner be stripped of all rank and privileges, including the right to wear his uniform in retirement, for good measure.[21] Strauss, the Ninth Army commander who had directed the German defense against Timoshenko's attacks in August and September, was cashiered a week after Hoepner for being overly pessimistic in his reports.

*Panzer Groups 3 and 4 were redesignated Panzer Armies on 1 January 1942.

Field Marshal von Leeb, the commander of Army Group North, found his prewar defensive theories swept aside by Hitler's insistence on a rigid defense. When Leeb explained that a dangerous and unnecessary salient near Demyansk should be abandoned to create badly-needed reserves, Hitler countered by arguing that such salients were in fact beneficial since they tied down more Russian than German forces. Leeb, "being unable to subscribe to this novel theory," was relieved on 17 January.[22] Nor were army and army group commanders Hitler's only targets. Corps commanders, division commanders, senior staff officers - in all more than thirty generals and other high-ranking officers - were sacked by Hitler during the winter months of 1941-1942.[23]

Hitler took other steps to secure his control over the German Army. Disregarding seniority and even combat experience, Hitler elevated officers of unquestioning loyalty (such as General Walter Model) or officers of known Nazi sympathies (such as Field Marshal Walter von Reichenau) to senior positions. (Model replaced Strauss as commander of Ninth Army, while Reichenau succeeded Rundstedt at Army Group South. Reichenau's previous position as Sixth Army commander was filled by the loyal but unimaginative General Friedrich von Paulus, an energetic staff officer whose unflinching obedience would lead to tragedy at Stalingrad a year later.) To ensure close future control over promotions and assignments, Hitler raised Schmundt to general officer rank and placed his former aide in charge of the Army Personnel Office. In one further step to cement his authority Hitler forbade voluntary resignations, thereby denying the German officer corps the traditional soldierly protest against unconscionable commands.[24]

While the removal of unruly senior officers made the German Army more docile, these turnovers adversely affected German military performance in three ways.

First, the cashiering of so many field commanders in the midst of desperate defensive fighting disrupted the continuity of German operations. Newly-appointed

leaders (who frequently brought with them new chiefs-of-staff as well) normally required some period of adjustment before they could discharge their new duties with complete confidence. In fact, some of the replacements could not make this adjustment at all. General Ludwig Kübler, who replaced Field Marshal von Kluge as Fourth Army commander when the latter moved up to replace Bock, found Hitler's standfast strategy intolerable and requested his own relief barely a month after assuming command.[25] The net effect of all this turmoil was to minimize bold initiatives at the front, and to concede virtually all strategic and operational control to the Führer by default.

Secondly, by sweeping away those officers who had the temerity to challenge his strategic views, Hitler silenced an important source of advice and assessment. For the remainder of the war, responsible criticism of the Führer's designs was muted by the threat of punishment. And so, for the next three years German military strategy would lurch from disaster to disaster due mainly to Hitler's having banished or intimidated those whose courage, skill, and judgment best qualified them to act as independent advisors.

Finally, by removing so many senior leaders and by inserting himself into the chain-of-command as Army Commander-in-Chief, Hitler profoundly altered the command philosophy of the German Army. For generations, commanders in the Prussian and German armies had been schooled to direct operations according to the principle of *Auftragstaktik*. This principle constrained commanders to giving broad, mission-oriented directives to their juniors, who were then allowed maximum latitude in the accomplishment of their assigned tasks. Senior leaders trusted implicitly in the professional discretion of their subordinates, and German operations characteristically evinced a degree of imagination, flexibility, and initiative matched by few other armies. So deeply ingrained was this philosophy that actions contrary to orders were seldom regarded as disobedience, but rather as laudable dis-

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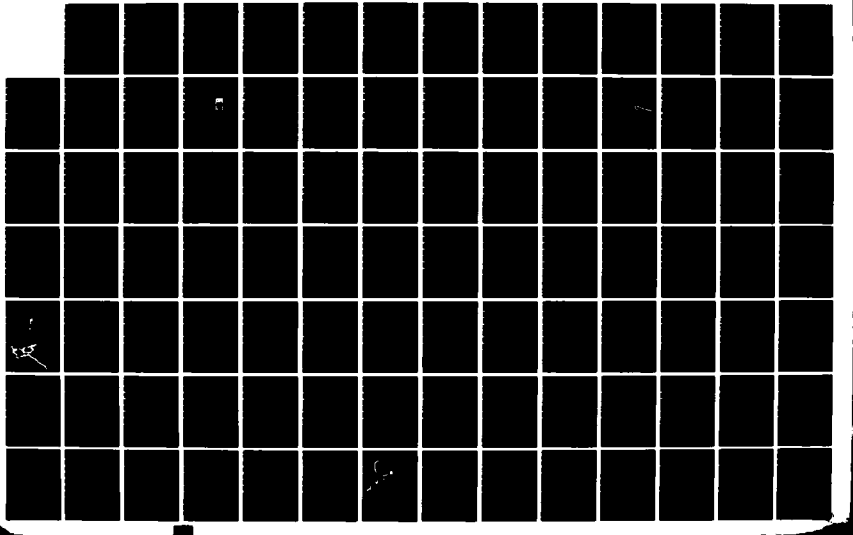
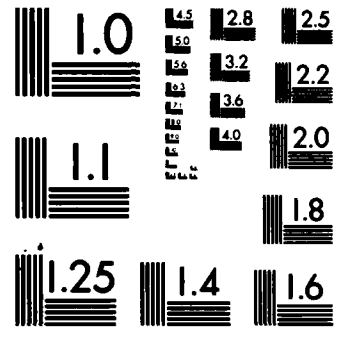




MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

plays of initiative and aggressiveness. According to a German military aphorism, mules could be taught to obey but officers were expected to know when to disobey.[26]

Hitler's rigid and overbearing insistence on the literal execution of all orders corrupted *Auftragstaktik*. That Hitler, the "Bohemian corporal," did not understand this system or, more likely, that he had no patience for it had been demonstrated early in the BARBAROSSA campaign. Halder had diagnosed Hitler's leadership style as lacking "that confidence in the executive commands which is one of the most essential features of our command organization, and that is so because it fails to grasp the coordinating force that comes from the common schooling of our Leader Corps."[27] The harm done to the German command philosophy was not confined to upper echelons only, however.

Hitler's stifling, obedience-oriented style was transmitted throughout the German Army, so that operations at all levels suffered its sclerotic effects. Senior field commanders, themselves answerable to the implacable Führer, were thus pressed to control more closely the operations of their own subordinates. This corrosive process was abetted by two features of the World War II battlefield. The first was modern radio communications, which enabled senior commanders to direct even remote combat actions themselves. This not only invited greater interference, but spawned timidity at lower levels by conditioning subordinates to seek ratification of their own decisions from their superiors before acting. Secondly, the chronic lack of German reserve units - a circumstance particularly pervasive on the Eastern Front - reduced the ability of senior commanders to rectify the mistakes of subordinates, and so encouraged the centralization of battle direction at higher levels. As General Frido von Senger und Etterlin, a veteran of both the Russian and Mediterranean theaters, wrote after the war:

> Reserves enable the commander to preserve a measure of independence. He may feel obliged to report his decisions, but as long as his superior authority has his own reserves with which to influence the general situation, that authority will only be too ready to leave the subordinate

> commander to use his as he thinks best. If the forces shrink so much that these normal reserves are not available ... then the forces so detailed are put at the disposal of the highest commander in the area, while the local commanders... can no longer expect to exert any decisive influence on the operations.[28]

German leaders were therefore driven to a more and more centralized style of command. Hitler's insistence on literal obedience restricted independence from above, while the lack of battlefield reserves reduced the latitude for initiative from below. The result was a decline in the operational flexibility that had been traditional in German armies for over a century.

Though removed from Russian battlefields, these trends had a major impact on the conduct of German defensive operations from the winter of 1941-1942 onward. Hitler's orders to the German Army to "stand fast" established the framework of German defensive strategy. The cashiering of recalcitrant senior officers gave authority to that strategy, and gradually narrowed the discretionary latitude of subordinate leaders to act independently. It remained for the combat units themselves, coping as best they could with dreadful weather and a tough enemy, to give substance to the German defense.

Strongpoint Defense: Origins

At the tactical level, German defensive practice during the winter of 1941 was dictated by three factors: Hitler's "stand fast" order, the appalling weakness of German units, and the harshness of the Russian winter weather. These ingredients forced a German defensive system consisting mostly of a network of loosely-connected strongpoints backed by local reserves. This "strongpoint defense" had no basis in prewar German doctrine, and was in fact wholly extemporized to fit the particular circumstances existing at the time. As the 197th Infantry Division reported at the end of the winter fighting:

> A strongpoint-style deployment can only be an emergency expedient (*Notbehelf*), especially against the combat methods of the Russians with their skill at penetration and infiltration. On the basis of his previous training, the German soldier is not disposed to a strongpoint-style defense.[29]

Though some Germans would later represent the strongpoint defense as being a shrewd method of slowing a superior enemy by controlling road junctions, any such success was largely coincidental. The strongpoint defense was first and foremost a *tactic of weakness*. German commanders did not elect to fight from village-based strongpoints due to any cunning assessment of Soviet vulnerabilities. Rather, the German winter defense coagulated around towns because Hitler forbade voluntary withdrawals, because German divisions were too weak to hold a continuous line, and, lastly, because the winter weather flayed unprotected German units that tried to stand in the open.

When the German armies on the Eastern Front went over to the defensive in early December, they did so without any expectation that a major Soviet counteroffensive was imminent. Therefore, most German divisions deployed into a thin linear defense similar to that used by the units of Army Group Center during the defensive battles of August and September. Lacking the depth and reserves of a true Elastic Defense, this linear formation merely stretched forward German units into a semblance of a continuous defensive front. Such a tissue-thin deployment could only have served to prevent largescale infiltration or, at the very best, to fend off local attacks. The 31st Infantry Division, holding a broad divisional sector southwest of Moscow, "had to return more or less to the old [pre-1917] Linear Tactics, and had to foresake a defensive deployment in depth" due to lack of forces. The division's Main Line of Resistance (*Hauptkampflinie*, or HKL) consisted of a "thin string of infantry sentry posts, with large uncovered areas in between." The HKL was held together chiefly by the fire from the 31st Division's few surviving artillery pieces. The artillery gun positions, fitted out as small infantry redoubts, provided the only defensive depth.[30]

The Soviet counteroffensive completely overwhelmed this flimsy German defense line, and those German units not destroyed outright were swept rearward in a series of running battles against superior Red Army forces. The 31st Division,

its own sector quiet until 14 December, had its front lines perforated on that date by several Soviet attacks. When the scratch German reserves failed to restore the division's front, the 31st Division - like most German units on the central portion of the Eastern Front - initiated a fighting withdrawal in the hope of re-establishing a linear defense further to the rear.[31]

Pitifully weak in men and firepower, and generally inferior to the Russians in winter crosscountry mobility, the Germans found it difficult to break contact with the enemy and to slip away across the frozen landscape unmolested. German infantry companies and battalions were so understrength that they could not be further subdivided in order to create rearguards. Consequently, an entire battalion (scarcely amounting to a single undermanned rifle company in most cases) commonly had to remain in place to cover the remainder of a regiment as it withdrew. The outlook for these rearguards was grim:

> [The rearguards] carried the large burden of the fighting. Frequently they had to stop and delay the pursuing enemy, while other Russian elements were already attacking their flanks or rear. Then they had to fight their way out, or pass through the enemy lines at night to join their own forces.[32]

Needless to say, many rearguard detachments were swallowed whole by the advancing Soviets.

Even with the occasional sacrifice of the rearguards, units clambering rearward over the snowy wastes remained extremely vulnerable to attack or ambush by fast-moving Soviet pursuit columns. One battalion of the 289th Infantry Regiment (98th Division) was set upon by Soviet forces during a withdrawal and nearly annihilated, losing all of its antitank weapons and machineguns.[33] The 35th Infantry Division learned to put its engineers to work blasting hasty defensive positions into the frozen ground along proposed withdrawal routes in order to provide emergency cover during retreats. On occasion this backfired, however, as when Soviet cavalry and ski troops slipped into the German rear, occupied the

intermediate positions, and raked the approaching Germans with deadly small arms fire.[34] Seemingly beset by relentless Red Army forces from all sides, many German units began to exhibit an acute fear of being encircled or outflanked (*"Kesselangst"*).[35]

Soviet tanks posed the greatest threat to the retreating Germans. The Russian T-34s had excellent crosscountry mobility, and had little to fear from German light antitank weapons. The few heavy guns still possessed by the Germans tended to wallow helplessly in the deep snow, unable to deploy or to engage the Russian armor.[36] German officers noted that epidemics of *Panzerschreck* - the old fear of tanks - were again afflicting entire units, and local withdrawals sometimes turned into headlong, panic-stricken flight at the first appearance of Soviet tanks.[37] Though kept well in hand by their own leaders, retreating soldiers of the 31st Division passed telltale evidence of disintegration in other units: quantities of artillery, engineering equipment, supplies, trucks, and other vehicles all abandoned in place by fleeing German forces.[38]

Such local incidents aroused concern not only for German morale - as previously seen, shockwaves about the steadfastness of German units reached to the highest levels - but also about German small unit leadership. The wastage in combat officers and noncommissioned officers since the beginning of BARBAROSSA had been terrific. By mid-December, lieutenants were commanding many German infantry battalions, while nearly all platoons and many companies were led by sergeants or corporals. Even the continued effectiveness of these few leaders was suspect due to the cumulative strain of fatigue and uninterrupted combat.[39]

The first general use of strongpoint defensive positions began during these early withdrawals. Frequently out of contact with neighboring forces and lacking sufficient time to prepare real defensive works, retreating units formed self-defense "Hedgehog" perimeters in the same way that the rapidly-advancing panzers

had done during the previous summer. The 31st Infantry Division, for instance, abandoned all pretense at linear defense as soon as its own withdrawals began.[40] Likewise, the 137th Infantry Division pinpointed its own adoption of strongpoint tactics to the beginning of difficult retrograde engagements southeast of Yukhnov. According to the division's former operations officer, from that point on:

> ...for all practical purposes the campaign consisted of a battle for villages. Positions in open terrain were seldom possible due to the weather conditions, and only then when we remained several days in one position and the engineers could aid in blasting through the meter-deep frost.[41]

Hitler's "no retreat" order of 16 December curtailed the flurry of piecemeal withdrawals by German forces. This directive forced German units into a positional defense by forbidding even local retreats without permission from the highest authority. The strongpoint style of defense, having come into wide use as a protective measure during the pell-mell retrograde operations, was extended into a general defensive system across most of the German front. This strongpoint defense bore little visible resemblance to the Elastic Defense postulated in prewar manuals, and evolved solely in response to the peculiar conditions surrounding the winter battles. In addition to the "no retreat" dictum, two other elements of the German predicament further elaborated the strongpoint scheme: the weakness of German units, and the subzero winter weather.

From the beginning of the Soviet winter counteroffensive, the strengths of German divisions stood at such low levels that no continuous front could realistically be sustained. This was true not only at the operational level, where gaps between German divisions, corps, and armies had been routine since July, but even at the tactical level as well. At the start of the Soviet drive, the "continuous" line held by Army Group Center was in fact already a discontinuous series of unit fronts. Divisions of the German Fourth Army were allotted sectors thirty to sixty kilometers wide, although most infantry companies contained only twenty-five to forty men.[42] Such strengths were clearly insufficient even to man a solid defen-

sive front.

Losses during the first days of the Soviet counterthrust extinguished any lingering possibility of a continuous linear defense. In the Ninth Army's 35th Infantry Division, cold and Soviet attacks whittled the average rifle company strength from ten NCOs and sixty men on 7 December to five NCOs and twenty men just five days later.[43] Panzer Group 3, bearing the brunt of the Soviet counteroffensive northwest of Moscow, reported on 19 December that its XLI Corps and LVI Panzer Corps fielded only 1,821 and 900 total combatants respectively.[44] In a desperate attempt to create greater infantry strength, officers and men from nonessential rear services were hurried forward, as were troops from artillery and antitank batteries whose weapons had been destroyed or abandoned. Though providing some relief, the number of additional riflemen thus created had no substantial impact.[45]

Losses in weapons and equipment paralleled those in personnel. By mid-December field artillery pieces, antitank guns, motor vehicles, and tanks were all in particularly short supply. Panzer Group 4 estimated on 18 December that only 25-30% of its heavy weapons remained in action, while Panzer Group 3 counted only twenty-one artillery pieces of 100mm or larger still operational among its six divisions. LVI Panzer Corps had lost so much of its equipment that it remained a corps-sized unit in name only: its four panzer divisions together mustered only thirty-four tanks, and its 6th Panzer Division had no running tanks whatsoever.[46] This lack of heavy weapons further diminished the German ability to hold continuous positions, while the shortage of effective motorized forces foreclosed the possibility of any type of mobile defense as well.

The overall weakness of German units made a renewed linear defense impossible. Not only could assigned frontages not be covered, but any such extended deploy-

ment would further disperse what few troops and weapons remained. Consequently, to prevent German combat power from evaporating altogether, German company and battalion commanders instinctively drew their beleaguered units into small strongpoint garrisons when Hitler ordered them to "fanatical resistance" in place.

A third major factor shaped the adoption of village-based strongpoints by German defenders: the severe winter weather. Even by Russian staadards, the winter of 1941-1942 was particularly harsh. From December until early March, military operations were hampered by heavy snowfall and by the few hours of winter daylight. Yet by far the most significant aspect of the winter weather was the extreme cold. During the winter battles, German and Russian forces clashed in temperatures routinely ranging from ten to thirty degrees below zero Centigrade, with brief cold spells exceeding minus forty degrees.[47] Contrary to German belief, the cold was an impartial adversary that dogged the operations of both sides with equal intensity. However, the Germans were generally more vulnerable to the debilitating effects of the subzero temperatures due to a near-total lack of winter clothing and equipment.

Hitler blamed the Army High Command for the failure to provide winter necessities, ignoring any intimation that he might himself bear some culpability for the German military predicament. In a clever propaganda stroke, Nazi Party functionaries launched a massive emergency drive in late December to collect winter clothing from the German public. Direct action by the Party and the people, it was implied, would rapidly correct the scandalous frontline conditions wrought by General Staff bungling.[48] Coming at a time when Hitler was relieving "incompetent" and "disloyal" officers left and right, this program confirmed the popular impression that Adolf Hitler's personal intervention into the German Army's affairs was not only warranted but even overdue. So persuasive was this logic - and so thorough the propaganda effort to sell it - that even some high-

ranking German military officers remained convinced after the war that slipshod General Staff planning had produced the shortage of winter equipment.[49]

The truth was far different.

German soldiers fought without winter clothing or special equipment for the simple reason that the German supply system could not transport these items forward from rear depots. Normal winter-issue items (woolen vests, caps, earmuffs, scarves, and sweaters) were stocked in Germany and Poland, and General Halder had repeatedly discussed the need to provide these and other essentials to the fighting forces before the onset of winter. On 10 November, however, Halder had learned that transportation difficulties would delay deliveries of winter clothing to the front until late January 1942 or even later.[50]

The German logistical system, already tottering from the strain of providing fuel, food, and ammunition to three army groups over the primitive Russian transportation net, had been brought to the brink of total collapse by the arrival of winter. Sporadic partisan activity and an epidemic of locomotive breakdowns had greatly curtailed German rail-haul capacity. (For instance, the number of German supply trains to the Eastern Front totalled only 1,420 in January 1942 compared to 2,093 for September 1941.)[51] Losses to motor vehicles and draft horses had further snarled supply distribution, and frantic attempts to press Russian pony-drawn *panje* wagons into service provided little relief. Moreover, the severe cold was increasing the consumption rate of certain supply commodities. For example, German soldiers were using large quantities of grenades and explosives to fracture the frozen earth in order to create makeshift foxholes. Likewise, vehicle fuel consumption was increasing as drivers idled their motors round-the-clock to prevent engine freeze-up.[52] Such problems further strained the German logistical system, which was already consuming whatever transportation assets were available simply to provide essential combat supplies to embattled

units. Inherently bulky, winter clothing made less efficient use of scarce movement capacity than such vital cargoes as ammunition and medical supplies. And so winter clothing for the most part remained crated in warehouses in Poland and Germany, awaiting a lull in the logistical crisis when it could be shuttled forward without compromising other commodities.[53] In the meantime, German soldiers had to fend for themselves as best they could.[54]

Without winter clothing to protect them against the subzero temperatures, German units gravitated to Russian towns and villages in order to find shelter. This shelter was, quite literally, essential to German survival as troops without winter clothing contracted frostbite in short order unless treated to periodic "warm ups," and units deployed in the open overnight courted wholesale death by freezing. Even with the Soviet winter counteroffensive in full swing, cold weather casualties exceeded combat losses in most German units. One German infantry regiment, heavily engaged at the beginning of the Soviet attack, estimated that its losses in two days of fighting amounted to only 100 battle casualties compared to 800 cases of frostbite.[55] As the LVII Panzer Corps' war diary succinctly stated on 26 December: "The weather increasingly stands as the troops' greatest enemy."[56]

Russian villages not only offered immediate protection from the cold, but also provided relief from many of the collateral problems of winter warfare as well. Food could be warmed and drinking water thawed, thereby reducing the cases of stomach dysentery that lengthened German sick lists. Wounded soldiers could receive medical care without immediate fear of death due to gangrene or exposure. Villages normally had supplies of straw, with which German soldiers could pad the boo and uniforms against the cold. Indoors, soldiers could more easily attend to personal hygiene - a matter of some consequence considering

that more than 10,000 cases of typhus would be reported before spring.[57] Finally, small arms and other items of equipment could be cleaned and warmed inside heated huts. This last task had a significance beyond normal preventive maintenance: the extreme cold made gunmetal brittle, and weapons kept outside tended either to jam or to suffer malfunctions such as broken bolts and firing pins.[58]

By mid- to late-December, much of the German defensive front in Russia had come to consist of a series of local strongpoints (*Stützpunkte*). (Hitler, with an orator's ear for colorful metaphor, preferred the term "Hedgehog" - *Igelstellung* - to the more bland term *Stützpunkt*. By the end of the war, many officers were emulating the Führer's verbal usage, though *Stützpunkt* remained the technically-correct term appearing in German doctrinal publications.) Within these *Stützpunkte*, battered German units defended themselves as best they could against waves of Russian attacks. This strongpoint defensive system had emerged as the only plausible solution to the difficult winter situation. Given that Hitler forbade any largescale withdrawal, the strongpoint defense offered German forces a chance to defend themselves in place. Given that German combat strength had wasted away to the point where a continuous defensive line could not be held or even manned, a strongpoint network concentrated what few resources remained without abandoning large chunks of territory entirely to Russian control. Given that the winter weather posed as dangerous a threat as the Soviet enemy, village-based strongpoints provided essential shelter.[59]

When combat reports characterized a strongpoint defense as the price of standing fast under the existing battlefield conditions, Hitler quickly issued a new directive giving his own approval to this expedient technique. Dated 26 December, this secret order began by reiterating Hitler's command that no ground be relinquished voluntarily. Glossing over the problems that had forced the strongpoint system onto the German armies, the Führer then emphasized the

ways in which this technique could be turned against the Russians:

> The defensive system must be strengthened to the utmost, especially by *converting all towns and farms into strongpoints* and by maximum echelonment in depth [italics in original]. It is the duty of every soldier, including support troops, to use every means to hold these shelters to the last. The enemy will therefore be denied use of these localities. He will thus be exposed to the freezing cold, and will be denied use of the roads for supply purposes, thereby hastening his collapse... These principles must be fully communicated to the troops.[60]

German soldiers at the front scarcely needed the Führer's advice on how to fight their Russian foes. The prevailing circumstances left no feasible alternative to the holding of village strongpoints. What remained to be seen was how effective this system would be in halting the Soviet counteroffensive and in saving German units from piecemeal annihilation.

Strongpoint Defense: Conduct

Driven to the shelter of Russian towns and villages as an emergency measure, German troops did their best to fortify these positions against the inevitable Soviet assaults. The details of defensive technique varied from division to division according to local conditions and experiences. A major difficulty, now becoming apparent to German commanders for the first time, was the fact that previous defensive training had been deficient. As one senior officer later wrote, German troops

> so far had been inexperienced in this sort of thing... It is surprising indeed how often and to what extent veteran officers, who had already participated in World War I, had forgotten their experiences of those days. The fact that [German] peacetime training shunned everything connected with "defensive operations under difficult winter conditions" proved now detrimental for the first time [emphasis in original].[61]

To compensate for their inexperience, German units shared combat know-how by exchanging hurriedly-prepared battle reports. An early memorandum of this type was prepared by the Fourth Army on 23 January 1942, and recounted techniques used effectively by the 10th Motorized Division. Reduced to the strength of

a mere infantry regiment, the 10th Motorized had for three weeks defended a fifty-kilometer sector against an estimated seven Red Army divisions by means of a strongpoint defense.

The 10th Motorized Division's report explained how, in preparing to defend a village strongpoint, officers began by surveying the available buildings to identify those best suited for defensive use. Houses that did not aid in the defense were razed, both to deny the Red Army future use of them as shelter and also to improve German observation and fields of fire. Houses selected as fighting positions were then transformed into miniature fortresses capable of all-around defense: snow was banked against the outer walls and sheathed with ice, overhead cover was reinforced, and firing embrasures were cut and camouflaged with bedsheets. When available, multi-barrelled 20mm Flak guns were integrated into the defense in special positions. These consisted of houses whose roofs were purposely torn off, whose floors were reinforced (to hold the additional weight of guns and ammunition), and whose exterior walls were covered with a snow-and-ice glacis to gunbarrel height. These "Flak nests" helped to keep both Soviet aircraft and infantry at bay.[62]

Russian farming communities tended to be located on hills and ridges, and defensive strongpoints established within them normally had commanding observation and fire over the surrounding cleared fields.[63] Defensive combat from such positions was, again according to the report submitted by the 10th Motorized Division, primarily "a question of organization" requiring careful use of all available heavy weapons and artillery. When enemy attacks seemed imminent, German artillery fire and air attacks - when available - would be directed against known and suspected enemy assembly areas. As Soviet forces approached the strongpoint, the fire of heavy mortars, antitank guns, and heavy machineguns joined in. Such fire was carefully controlled, since experience showed that "it is

inappropriate to battle all targets with single artillery pieces and batteries. It is much more important to strike the most important targets using timely, concentrated fire to destroy them." If enemy forces were able to get close enough to launch a close assault against the fortified buildings, the careful preparations of the defenders kept the odds strongly in their favor. Any enemy infantrymen that worked their way into the village were either cut down by interlocking fires from neighboring buildings, or else wiped out by the counterattacks of specially-designated reserves. These reserve squads were armed with submachine-guns and grenades, and were launched against any penetrating enemy troops before the latter had a chance to consolidate.[64]

Over the course of the winter fighting, German units came to realize that strongpoints confined to small villages had serious drawbacks as well as advantages. For one thing, Soviet armor posed a deadly threat to house-based defenses. Buildings could not be hidden by camouflage, and so Russian tanks had little difficulty in identifying or engaging the German positions concealed therein. Moreover, if successful in driving them from their building shelters, the enemy tanks could slaughter the fleeing Germans almost at leisure.[65] Secondly, strongpoints sited entirely inside villages conceded control of the surrounding area to the Red Army. This reduced German reconnaissance, and left the strongpoints themselves susceptible to encirclement or to stealthy night attacks. (Even in its early report the 10th Motorized Division had conceded that night attacks were a major problem for village strongpoints. Noting that the Russians frequently used night attacks to disrupt the carefully-orchestrated German fire plans, the 10th Motorized felt compelled to keep a minimum of 50% of the strongpoint garrison on full alert at night "with weapons in hand" to guard against surprise Soviet assaults.)[66] Finally, most rural Russian villages occupied only a relatively small area, with huts and houses clustered close together.

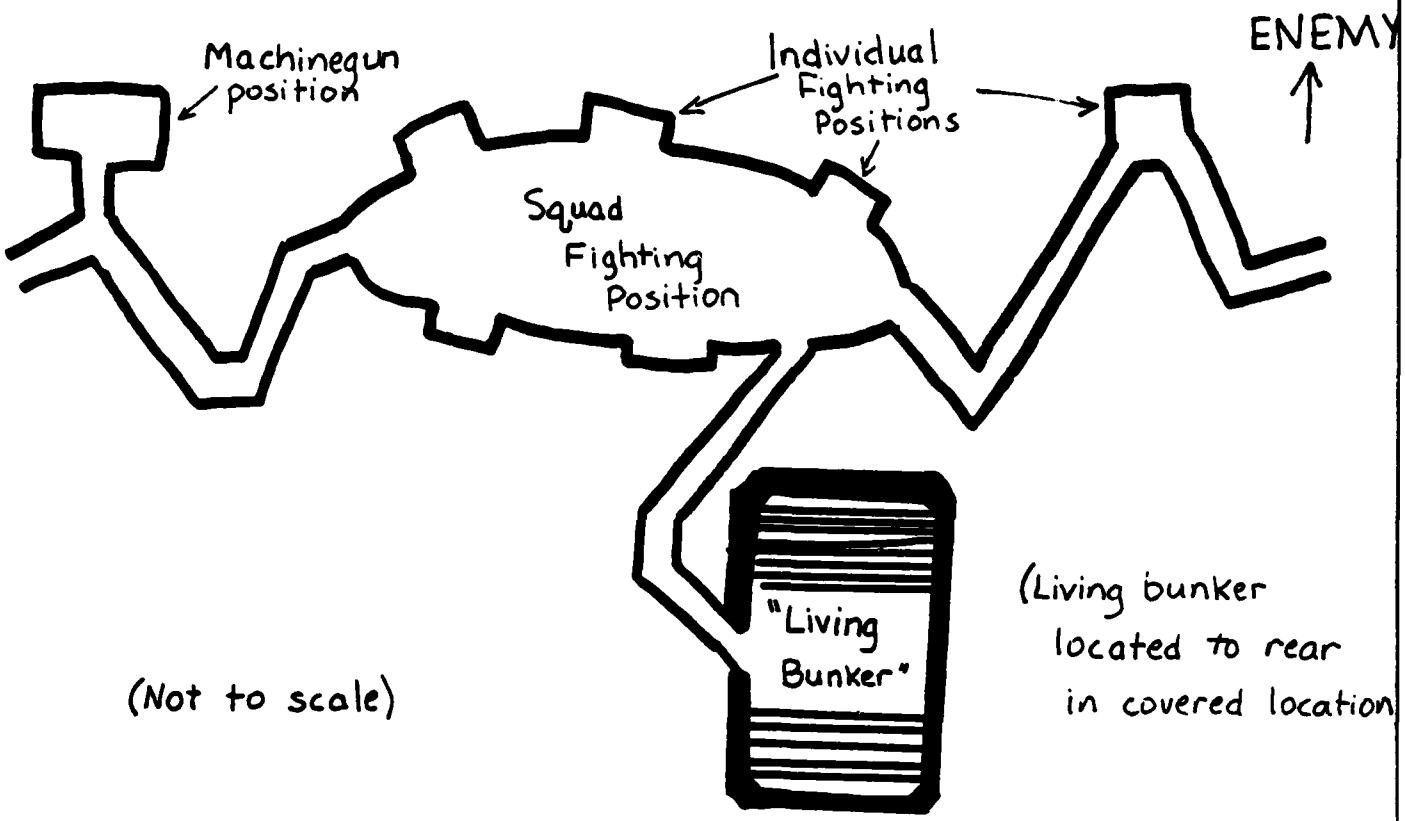
According to an after-action report of the 87th Infantry Division, strongpoints restricted to such congested areas constituted "Man Traps" (*Menschenfallen*) since they made ideal targets for Soviet artillery.[67] The 35th Division's report concurred with this assessment, declaring emphatically that "even the defense of such a [village] strongpoint must be made in the surrounding terrain."[68] Likewise, the 7th Infantry Division learned to avoid unduly concentrating troops in villages even when no other positions had been prepared.[69]

Based on these considerations, German units gradually refined their strongpoint defenses by pushing defensive perimeters out beyond village limits. This helped to conceal the forward German positions, increased security against surprise attack, and gave sufficient dispersion to avoid easy annihilation by Soviet artillery. These extended perimeters also reduced the distance between neighboring units, and made it more difficult for Russian patrols to locate the gaps between strongpoints. Though tactically sound, the extended perimeter was accepted only reluctantly by tired soldiers, and "rigorous" measures were sometimes needed "to convince the troops of the necessity of occupying as uninterrupted a front line as possible in spite of the cold weather."[70]

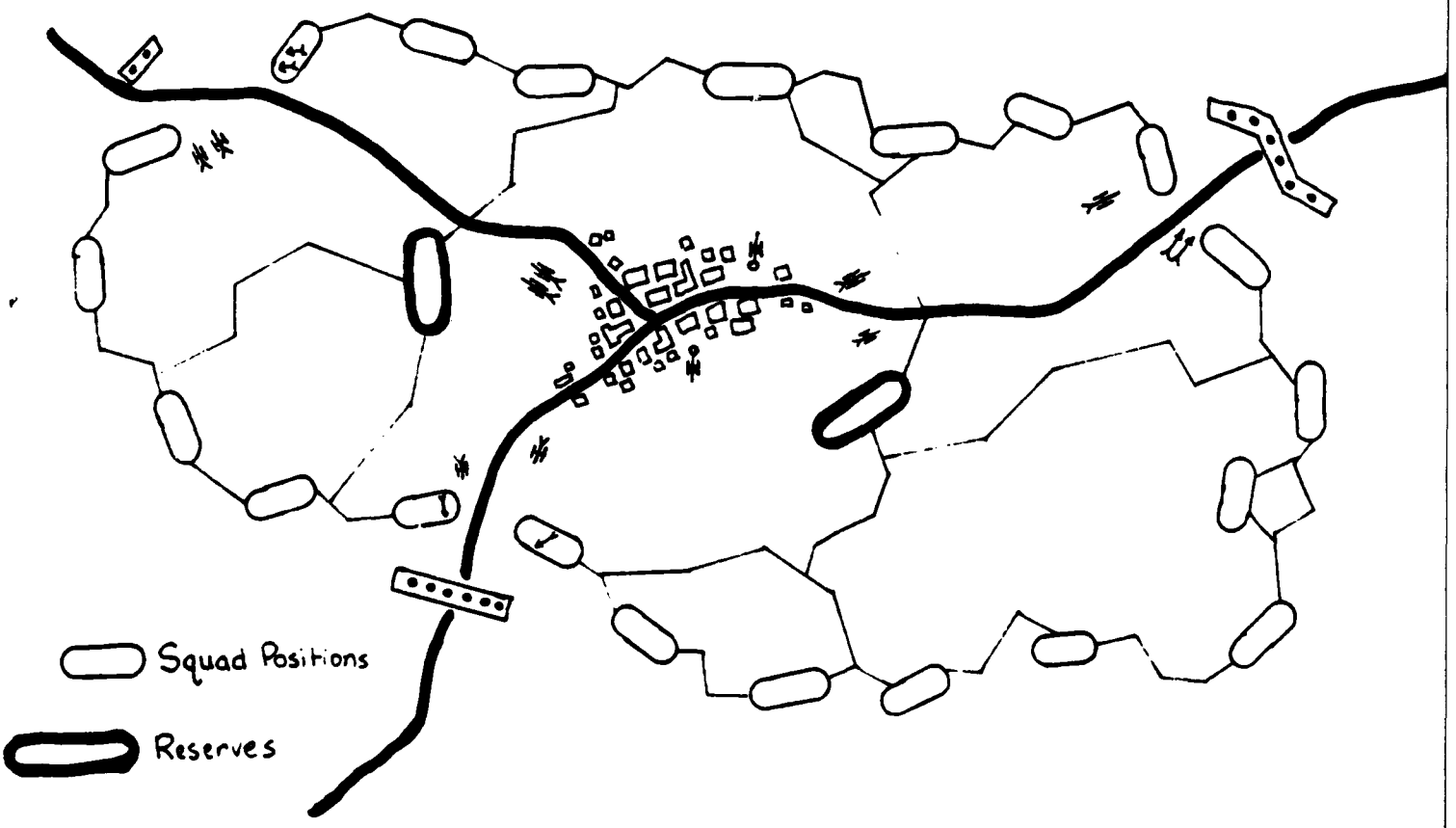
Within these extended strongpoints, command and support personnel, artillery, and reserve detachments were normally located in and around the builtup area itself. An outer defensive perimeter, consisting of interconnected infantry fighting positions, encircled this central core (see Sketch 9). Although each unit developed its own priority-of-work, the construction of the outer defensive works ususally began with the building of hasty fighting positions. Then followed, in varying order, the construction of small, warmed "living bunkers," the improvement of fighting positions, the clearing of communications paths through the snow, the clearing of fields of fire, and the emplacement of mines and obstacles.[71]

As a rule, a soldier in the German Army kept a "living bunker" (*Wohnstand*

SKETCH 9: German Squad Fighting Position, and "Extended Strongpoint"



"Extended Strongpoint"



or *Wohnbunker*) that was separate from his fighting position (*Kampfstand*). The quarters bunkers, replete with overhead cover, cots, stoves, and charcoal heaters, were built in sheltered pieces of ground and were connected to the fighting positions by short trenches. In the event outpost sentries sounded an alarm, soldiers would scramble from the warmth of their quarters to their battle stations. The living bunkers for forward troops were made just large enough to accommodate "the smallest combat unit (squad, machinegun crew, or antitank team). Thus, these bunkers generally hold about six men; otherwise they become *Menschenfallen* under heavy bombardment." Reserve forces deeper inside the strongpoint perimeter were commonly sheltered in larger, platoon-sized bunkers.[72]

German infantry squads not only lived together in warmed bunkers, they also fought together from squad battle positions. These positions might be protected by individual rifle pits to the flanks, and might also act as alternate locations for nearby machinegun teams.[73] Thick ice walls, armored by pouring water over poncho-covered bundles of sticks and logs, were a favored method of protecting the fighting positions and the connecting trenches.[74] The 35th Division found that the squad battle positions should be left devoid of overhead cover, allowing embattled troops to observe, fire, and throw grenades in all directions. Protection from shell splinters and hand grenades was provided by small individual foxholes and sumps dotted around the squad position. By day, crew-served weapons were kept inside the living bunkers to protect them from the cold, while at night increased readiness required that these weapons be prepositioned outside for immediate use.[75]

The Russian winter caused special problems for the laying of minefields and the construction of obstacles. Pressure-activated antipersonnel mines proved to be singularly unreliable. Enemy ski troops were able to glide over fields of pressure mines without hazard, and heavy accumulations of snow cushioned

the mines so that detonation even by footslogging infantry was uncertain. Snow also smothered the blast of those mines that did explode. Tripwire-detonated mines were both more reliable and more effective, posing a threat even to Soviet ski troops. (The 87th Infantry Division reported, though, that tripwires had to be strung with excessive slack lest the extremely cold temperatures cause the wires to contract and the mines to self-detonate.)[76] The use of antitank mines was generally restricted to roads and other obvious armor avenues of approach, as neither mines nor engineers were available in sufficient numbers to lay belts of antiarmor mines elsewhere. Since German antitank mines were pressure-detonated, care had to be taken to ensure that the mines were laid on hard surfaces and that snow did not muffle their explosive effects. The 35th Division, after the blast of buried mines failed to damage the tracks of enemy T-34s, found it advisable to paint its antitank mines white so that they could be left nearly exposed on hard-packed road surfaces.[77]

The construction of effective obstacles required some ingenuity. Deep snow, of course, was a natural obstacle to crosscountry movement for troops lacking skis and snowshoes. (One German attributed the survival of encircled German forces at Demyansk to the fact that "even the Russian infantry was unable to launch an attack through those snows.")[78] However, as snowbanks did not always locate themselves to maximum defensive advantage, it was necessary to devise effective supplemental barriers. Simple barbed wire obstacles were helpful, with a double-apron style fence (*Spanische Reiter*) being most effective - especially when coupled with antipersonnel mines and warning devices. Unfortunately, barbed wire remained generally in short supply due to the ruinous German logistical system, and wire fences could be covered by drifting snow. Thus the 7th Infantry Division held its few flimsy wire obstacles to be valuable chiefly for the sake of morale and early warning.[79] To compensate for the barbed

wire shortage, German troops contrived a variety of expedient entanglements. Some units rounded up large quantities of harvesting tools from Russian villages, and fashioned from these "Knife Rest" obstacles consisting of sharpened scythe blades supported by wooden frames. Even when covered by drifts these nasty blade-fences impeded or injured Soviet infantrymen wading through deep snow toward German positions.[80] In and near wooded areas, German felled trees to make abatis-type barriers. Snow walls, measuring two to three meters high and thick, were built - mostly with civilian labor - as a means of impeding Russian tanks.[81] Some German units tried to keep Soviet forces at arm's length by burning down all Russian villages forward of their own positions. Denied the warmth and shelter of these buildings, Red Army troops would have to spend their nights some greater distance away from the German lines, and could close to attack only after a lengthy approach march.[82]

Formidible though these strongpoints might be, they occupied only a small fraction of the assigned German frontline. Thus, though German officers continued to use the doctrinal term "HKL" (*Hauptkampflinie*, or Main Line of Resistance) to describe the German forward trace, the HKL contituted a "line" only in a very general sense. Due to the large gaps between strongpoints, the former commander of the 6th Infantry Division later complained that even the use of "the term HKL is misleading. The HKL was a line drawn on a map, while on the ground there stood only a weak strongpoint-style security zone."[83] The 6th Army's war diary also noted this discrepancy, describing the German winter positions as a mere "security line" of strongpoints that did not amount to a "HKL in the sense envisioned by *Truppenführung*."[84]

The intervals between strongpoints stood as the potential Achilles Heel of the German defensive system. Russian forces seemed to have an uncanny ability to locate the unoccupied portions of the German front. If left unmolested,

Red Army troops could maneuver through these gaps to encircle individual strongpoints. Cut off from outside aid and resupply, the besieged German defenders could then be forced either to capitulate or to conduct a desperate breakout. Alternatively, Soviet units could force their way between strongpoints and move directly against valuable objectives deeper in the German rear. While posing a less immediate tactical threat to German regiments and divisions, this option imperiled the fragile German logistical network and, indirectly, the longterm survival of entire German armies. The Red Army even found ways to exploit gaps in sectors where current Soviet plans did not call for offensive operations. Russian press gangs brazenly shuttled through a large wooded gap between Demidov and Velikiye Luki, for example, to raise Red Army conscripts in the German rear. In other areas, the Soviets used openings in the German front to convey cadre, weapons, and equipment to fledgling partisan bands behind the German lines.[85]

As combat experience revealed the gravity of these problems, the Germans became more determined in their efforts to exert some sort of control over the space between strongpoints. The 5th Panzer Division, discussing the problems of strongpoint defense in its after-action report, concluded that "constant control of the territory between builtup areas (strongpoints) is of decisive importance. Only thus can envelopment attempts by the enemy be promptly frustrated."[86]

"Constant control" of the entire front was, of course, by definition beyond the capacity of the strongpoint garrisons. Where adjacent strongpoints could adequately observe the surrounding open spaces, German units used artillery and mortar fire to disrupt largescale Soviet infiltration. Darkness, poor weather, wooded terrain, and distance all reduced the German ability to detect and to interdict clandestine Soviet movement by fire, however. For these reasons, as the 87th Infantry Division reported, "the closing of gaps by fire alone is

not always sufficient."[87] German patrols also stalked the gaps between strongpoints, trying at least to detect - if not to prevent - Russian encroachment. Even this limited patrolling strained German resources, particularly at night: few *Stützpunkt* contingents could confidently spare infantrymen for nocturnal patrols for fear of Soviet night attacks on the strongpoints themselves.[88] German commanders therefore came to realize that neither artillery fire nor ground patrols could thwart determined Russian efforts to pass between widely separated strongpoints.

Where strongpoints were sited closer together, the Germans relied upon traditional doctrinal methods to expel Russian penetrations. With the bulk of their modest infantry strength confined to strongpoints, German forces could not exercise small unit maneuver in the manner described in *Truppenführung*; however, the Elastic Defense principles of depth, firepower, and counterattack effectively neutralized all but the most overwhelming Soviet attacks (see Sketch 10).

Since infantry strength was so limited, defensive depth had to be improvised. One technique was to arrange the forward strongpoints checkerboard-style, so that backup strongpoints guarded the gaps between advanced positions. The 331st Infantry Division, in fact, reported that one of the essential conditions for a successful strongpoint defense was that the redoubts be staggered one-behind-another in order to create defensive depth of sorts.[89] In a memorandum reflecting on its own winter experiences, the 98th Division described how this arrangement entangled enemy breakthroughs "in a net of strongpoints."[90] Where sufficient forces allowed the luxury of this technique, the strongpoint system most nearly resembled the defense-in-depth set forth in *Truppenführung*.

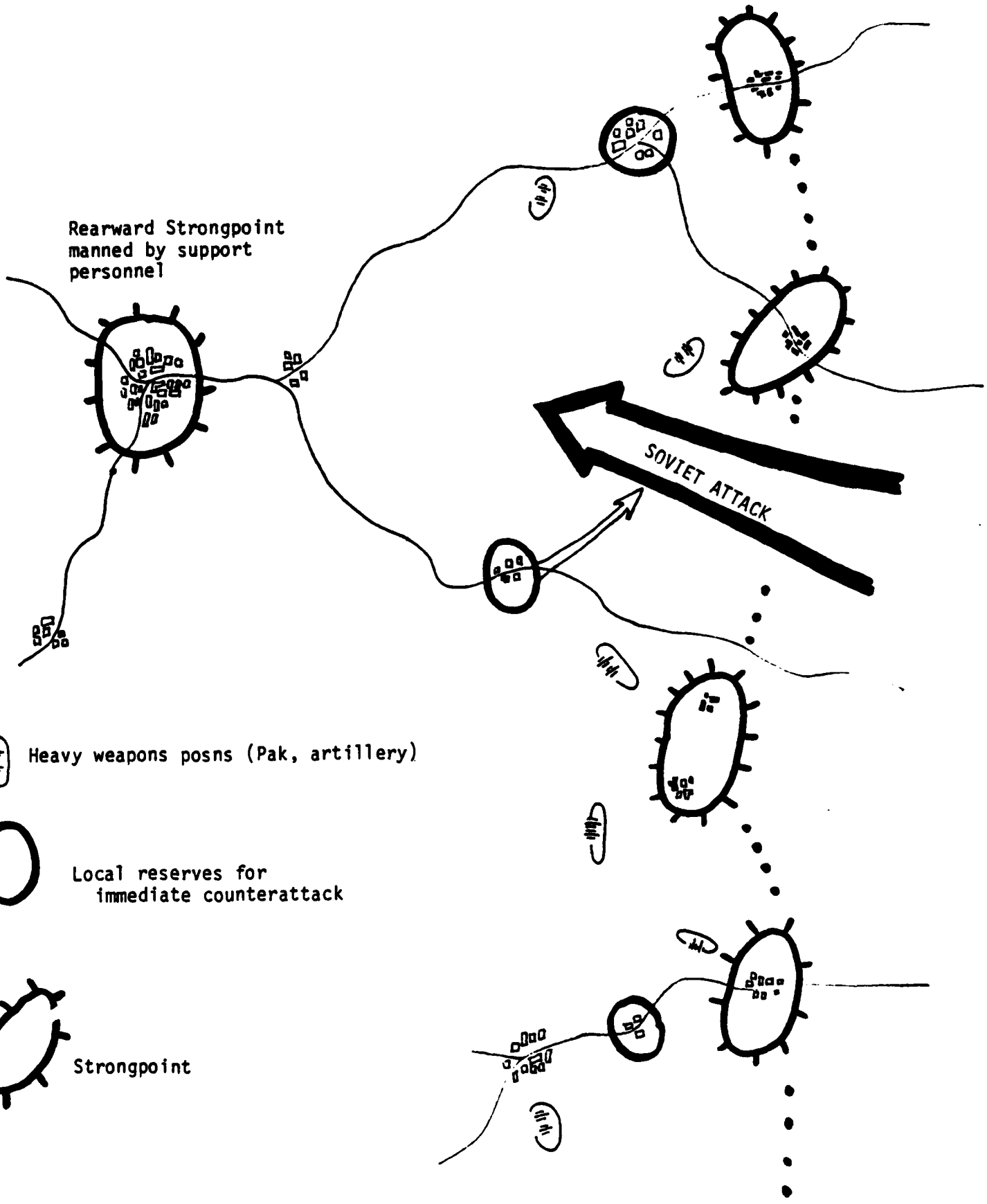
Insufficient numbers of troops or broad unit frontages often prevented the overlapping of combat strongpoints in depth, however. Another expedient method of generating defensive depth - and the one specifically ordered by

Hitler's 26 December directive - was to convert all rearward logistical installations into additional strongpoints. Though manned only by supply and service personnel (occasionally augmented by *Landeschutz* security units composed of overage reservists), these strongpoints prevented the Soviets from freely exploiting tactical breakthroughs. Such "support strongpoints" also protected the valuable logistical sites from surprise attack, and served as rallying points for German personnel separated from their units in the confusion of battle.[91]

One other technique for giving depth to the German defense was to array heavy weapons (light "infantry" howitzers, antitank guns, Flak guns, artillery pieces) and artillery observers in depth behind the forward strongpoints. Enemy forces penetrating beyond the strongpoint line could thus be continuously engaged by direct and indirect fire to a considerable depth. (The 197th Infantry Division recommended graduating artillery assets for a distance of five kilometers behind the HKL.) Though weakening the direct-fire capabilities of the forward strongpoints somewhat, this technique did not require displacement of the snowbound German guns in order to fire on penetrating Soviets. Furthermore, the fortified gun positions also served as additional pockets of resistance against further Russian advance.[92] The 87th Division saw in this a confirmation of prewar doctrinal methods, noting that "the arrangement of heavy weapons and their deployment in depth according to the tactical manuals proved successful."[93] Perhaps - but under the circumstances this technique assumed the proportions of a very desperate expedient since it risked sacrificing the precious German artillery simply to contain ground assaults.

The German heavy weapons were far more valuable for their ability to smash penetrating Soviet formations by fire. By means of careful fire control, German commanders trusted their concentrated firepower to slow, disrupt, and occasionally

SKETCH 10: German Strongpoint Defense Tactics, Winter 1941-1942



even to destroy Soviet penetrations outright. As explained in one after-action report, "Rapid concentration of the entire artillery on the enemy's main effort [*Schwerpunkt*] is decisive."[94] To that end, German divisions meticulously integrated the fires of all major direct- and indirect-fire weapons (including infantry mortars and heavy machineguns), as well as the fires of neighboring units, into a single division fire plan. This fire plan was then executed on order of the frontline unit commanders so that attacking Russian troops were suddenly ripped by simultaneous blasts of concentrated artillery and small arms fire. The 35th Division explained that intense flurries of shells, falling on Soviet assault units "just at the moment of attack can stampede even the best troops (*können die beste Truppe kopflos machen*)."[95]

However clever the Germans were in fabricating defensive depth, and however skillfully they brandished their limited firepower, the fact remained that determined Soviet attacks could not be vanquished by these means alone. More often, depth and firepower were mere adjuncts to the third traditional ingredient of German defensive operations: counterattack. Combat reports by German units were unanimous in citing immediate, aggressive counterattacks (*Gegenstösse*) - even if conducted with limited means - as the best way to crush Russian penetrations. Deliberate counterattacks (*Gegenangriffe*) - which, it will be recalled, doctrinally were those more carefully-coordinated counterblows using fresh units - were regarded as less effective due to the shortage of suitable uncommitted forces and the German lack of winter mobility. As the operations officer of the 78th Division stated, "A *Gegenstoss* thrown immediately against an enemy break-in, even if only in squad strength, achieves more than a deliberate counterattack in company or battalion strength on the next day."[96] There existed, however, a fine line between aggressiveness and recklessness, and few German units were in a position where they could afford to suffer even moderate personnel losses from an ill-conceived counterattack. Consequently, the 35th Division counselled

that, where the Russians had been allowed any time at all to consolidate or where the depth of the enemy penetration made immediate success unlikely, German reserves be used simply to contain the enemy rather than squandered in weak or uncoordinated piecemeal counterattacks.[97]

The immediate counterattacks were carried out by small reserve contingents positioned initially in villages behind the forward strongpoints. According to one division commander, these forces were assembled even despite the relative weakening of the forward positions. The strength of these counterattack detachments varied: some units held as much as one-third of their total strength in reserve, while others made do with smaller forces. Invariably, however, the counterattack forces were given as much mobility as possible. Where available, skis and snowshoes were issued to the reserve units; where these were unavailable, Russian civilians were set to work trampling paths through the snow along likely counterattack axes. To ensure the proper aggressive spirit, some units assembled their reserves from "especially selected, capable, and daring men."[98] These desperadoes were armed "for close combat" with machine-pistols and handgrenades. For maximum shock effect, the counterattack forces were maneuvered against the flanks of enemy penetrations, preferably in concert with heavy supporting fires from all available weapons.[99]

Thus, though the strongpoint system of defense differed from *Truppenführung* in many particulars, the German expedient methods bore the unmistakable imprint of traditional principles in their use of depth, firepower, and (especially) counterattack. General Maximilian Fretter-Pico, who served through the winter battles of 1941-1942 with the 97th Light Infantry Division, described the German extemporaneous techniques in words that captured the essential spirit of the Elastic Defense:

> These defensive battles show that an active defense, well-organized in the depth of the defensive zone and using every conceivable means

> to improvise combat power, can prevent a complete enemy breakthrough. A defense must be conducted offensively even in the depth of the defensive zone in order to weaken [enemy] forces to the maximum extent possible [emphasis in original].[100]

In many cases, the strongpoint style of defense did achieve remarkable successes against great odds. Fretter-Pico's 97th Light Infantry Division, for example, held its own against some 300 separate Soviet attacks between January and March 1942, its subordinate units executing in that time more than one hundred counterattacks.[101] Other units were less successful, with some divisions being almost completely torn to pieces by the Russian counteroffensives. The varied effectiveness of the German defensive expedients is best understood in the context of the overall strategic situation.

The Winter Campaign - Overview

The Soviet winter counteroffensive unfolded in two distinct stages. The first stage, beginning on 6 December and lasting approximately one month, consisted of furious Russian attacks against Army Group Center. The goal of these blows was to drive the Germans back from the gates of Moscow and, in so doing, to destroy the advanced German panzer groups if possible. These attacks breached the thin German lines at several points, and sent Hitler's armies reeling westward until the "stand fast" order braked their retreat. By the end of December the front had temporarily stabilized, with most German units on the central sector driven to a form of strongpoint defense.

Encouraged by the success of these first attacks, Stalin ordered an even grander counteroffensive effort on 5 January 1942. This second stage mounted major Soviet efforts against all three German army groups, and aimed at nothing less than the total annihilation of the Wehrmacht armies in Russia. Tearing open large gaps in the German front, Soviet armies advanced deep into the German rear and created the most dangerous crisis yet in mid-January. Grim reality

finally succeeded where professional military advice had earlier failed, and Hitler authorized a largescale withdrawal of the central German front on 15 January. Even with this concession, the German position in Russia remained in peril until Soviet attacks at last died out in late February.

In order to appreciate the tactical effectiveness of the German winter defensive methods, it is important to understand as well the nature of the Soviet counteroffensives. German defensive actions did not take place in a tactical vacuum. Rather, their value can only be measured in relation to the peculiarities of Russian offensive methods during the winter of 1941-1942.

Throughout the winter, German defensive efforts benefitted from the awkwardness of Soviet offensive operations. The strongpoint defensive tactics adopted by German units exploited certain flaws in Russian organization, leadership, and combat methods. This exploitation was not purposeful: as already seen, the German use of strongpoints was compelled by other factors, and anyway many of the particular Soviet internal handicaps were unknown to the Germans. The fact remains that the effectiveness of the German strongpoint measures was enhanced by peculiar Red Army weaknesses.

Though achieving great success in their winter counteroffensives, the Soviet armies really were overwhelming only in relation to their enfeebled German opponents. The BARBAROSSA campaign had inflicted frightful losses on the Red Army, and the Russian forces assembled for the December attacks were a mixed bag of fresh Siberian divisions, burned-out veteran units, and hastily-raised militia. At almost every level these Russian forces were troubled by inadequate means and inferior leadership.

The first Soviet attacks against Army Group Center were carried out by the *Western Front*, now under the command of the ubiquitous General Zhukov. Planning for the assault was begun only at the end of November, and so prepar-

ations were far from complete when the counteroffensive jumped off. Though nine new Russian armies were concentrated around Moscow, the assaulting forces also included many divisions ordered straight into the attack after weeks of fierce defensive fighting. Excepting some Siberian units, even the newly-deployed formations were understrength, poorly trained, and lacking in equipment. The rebuilt *Tenth Army*, for example, had no tanks or heavy artillery, and was short infantry weapons, communications gear, engineering equipment, and transport as well. Although the *Tenth Army* nominally fielded ten rifle divisions, its overall strength - including headquarters and support troops - scarcely amounted to 80,000 men. Ammunition shortages also afflicted Zhukov's command, with many units having sufficient stocks to supply only their leading assault elements. Large mobile formations were virtually nonexistent: *Western Front* forces included only three tank divisions, two of which had almost no tanks. Most of the available tanks were instead scattered among fifteen small tank brigades, each having a full establishment strength of only forty-six machines.[102]

These problems were compounded by amateurish leadership and faulty doctrine. Instead of concentrating forces on narrow breakthrough sectors, inexperienced Soviet commanders and staffs assigned wide attack frontages (nine to fourteen kilometers) to each rifle division by the simple method of "distributing forces and equipment evenly across the entire front."[103] Marshal S.I. Bogdanov, recalling his experiences in the Moscow counteroffensive, noted a similar deficiency in the use of the few Soviet tank forces, namely "the tendency to distribute tanks equally between rifle units...which eliminated the possibility of their massing on main routes of advance." Furthermore, the Soviet tanks were cast solely in an infantry-support role. "All tanks," continued Bogdanov, "which were at the

disposal of the command, were assigned to rifle forces and operated directly with them...or in tactical close coordination with them..."[104] These errors further diluted the Soviet combat power and weakened the Russian capacity to strike swiftly into the enemy rear with sizable mobile forces.

Zhukov's *Western Front* armies nevertheless possessed more than enough brute strength to overwhelm the weak German lines opposite Moscow. They did so with notable lack of finesse, however, often butting straight ahead against the flimsy German positions when ample opportunity existed to infiltrate and outflank the invaders. "Although the [German] enemy was constructing his defense on centers of resistance and to slight depth (3-5 km)," wrote one Soviet analyst, "and there were good opportunities for moving around his strongpoints, our units most frequently conducted frontal assaults against the enemy."[105] When breakthroughs were achieved, followup thrusts minced timidly forward as Soviet commanders looked fearfully to their flanks for nonexistent German ripostes.[106] Oafish Red Army attempts to encircle German formations closed more often than not on thin air. Impatient at these mistakes, General Zhukov issued a curt directive to *Western Front* commanders on 9 December decrying the profligate frontal attacks as "negative operational measures which play into the enemy's hands." Zhukov ordered his subordinates to avoid further "frontal attacks against reinforced centers of resistance," and urged instead that German strongpoints be bypassed completely. The bypassed German strongpoints would hopefully be isolated by the Soviet advance, and then later reduced by following echelons. To lend speed and depth to his spearheads, Zhukov also ordered the formation of special pursuit detachments composed of tanks, cavalry, and ski troops.[107]

Though picking up the pace of the Russian drive, these measures failed to increase appreciably the bag of trapped German units, and may even have helped

to save some retreating German forces from destruction. As previously discussed, German units turned to strongpoint methods of self-defense during this chaotic period of retreat. These strongpoints massed the slender German resources in a way that the diffuse Soviet deployment did not, thereby reducing the relative German tactical vulnerability. Zhukov's Front Directive of 9 December prohibited Russian divisions from breaking down these centers of resistance by direct assault, even though the Red Army forces could certainly have accomplished this in many instances. In accordance with Zhukov's instructions, the Bolshevik forces tried instead to snare the retreating Germans by deep maneuver. At this stage of the war, however, the Red Army possessed neither the skill, the experience, nor (except for the few pursuit groups) the mobility to pull these operations off crisply and effectively. Time and again German divisions dodged would-be envelopments or, when apparently trapped, carved their way out of clumsy encirclements.[108] Even the sleek pursuit groups ordered up by Zhukov failed to cut off German forces. Though these mobile detachments - often acting in concert with Soviet airborne forces - caused alarm in German rear areas, their cavalry and ski troops were generally too lightly armed to do more than ambush or harass German combat formations.

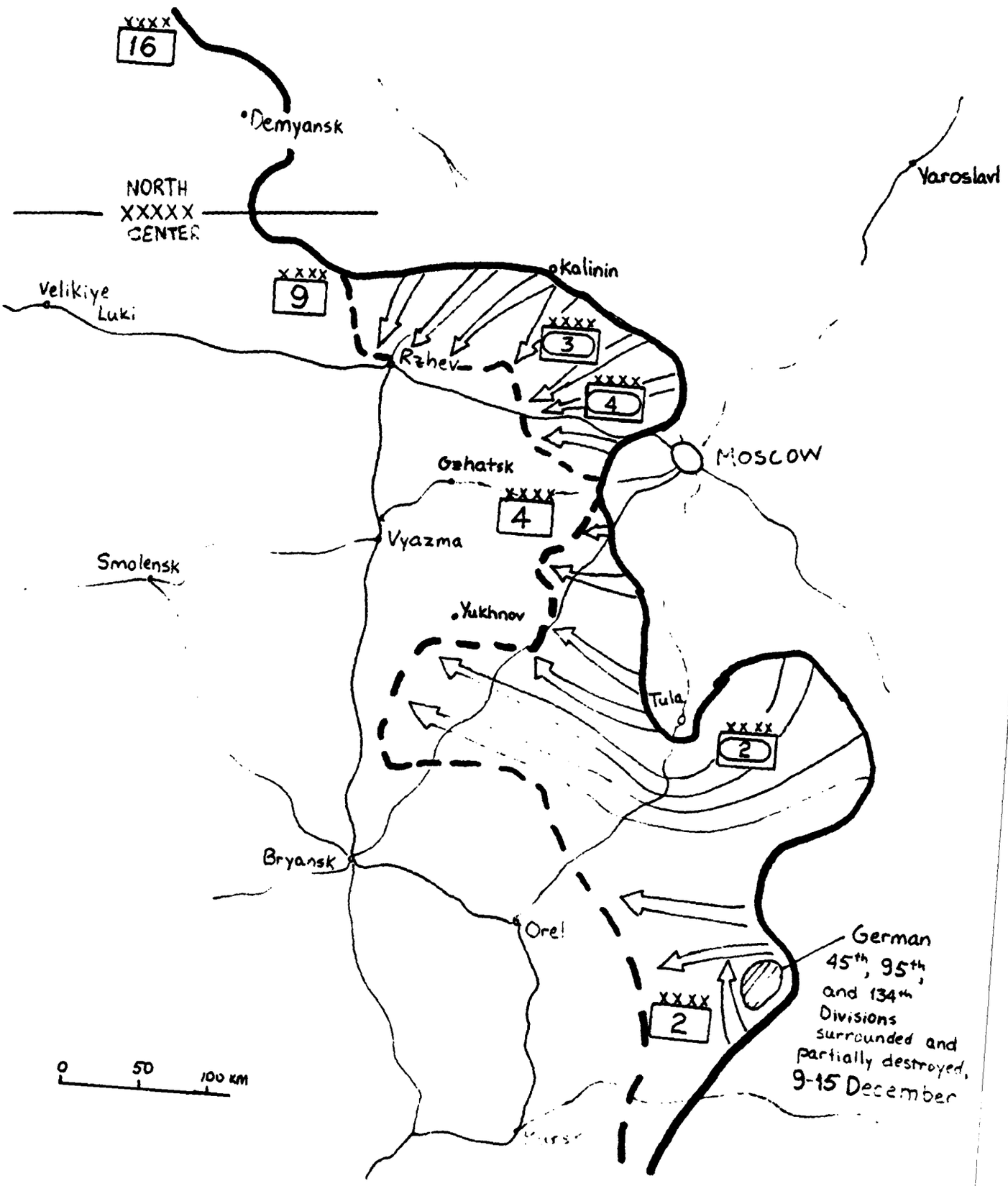
The first stage of the Soviet winter counteroffensive drove the Germans back from Moscow, but failed to achieve the destruction of the advanced German panzer forces (see Sketch 11). The divisions of Army Group Center, slipping into a strongpoint style of defense as they retreated, by luck adopted a tactical form that the advancing Russians were not immediately geared to smother. Even though many German divisions were mauled at the outset of the Red Army counteroffensive, other German units probably owed their subsequent survival to the purposeful Soviet avoidance of bludgeoning frontal attacks and to the

maladroitness of Soviet maneuver.

When Hitler ordered the German armies to stand fast on 16 December, the opening Soviet drives had already spent much of their offensive energy. The initial Russian attacks had been planned, as Zhukov later wrote, merely as local measures to gain maneuver space in front of Moscow.[109] The near-total dissolution of Army Group Center's front exceeded the most optimistic projections of the Soviet High Command. Having planned for a more shallow, set-piece type battle, the Russians lacked a ready ability to sustain far-ranging attacks with supplies, replacements, and fresh units. On the contrary, Russian offensive strength waned drastically as Red Army divisions moved away from their supply bases around Moscow. Consequently Hitler's dogmatic "no retreat" directives, issued at a time when some Soviet units were already operating fifty to one hundred miles from their starting lines, stood a much greater chance of at least temporary success than would have otherwise been the case.

During the latter part of December both sides struggled to reinforce their battered forces. Hitler ordered the immediate dispatch of thirteen fresh divisions to the Eastern Front from other parts of German-occupied Europe.[110] The arrival of these units proceeded slowly, retarded by the same transportation difficulties that dogged the German supply network in Russia. To speed the transfer of badly-needed infantrymen, Luftwaffe transports airlifted several infantry battalions straight from East Prussia to the battle zone - a measure of questionable merit since the reinforcements arrived without winter clothing or heavy weapons.[111] The frantic German haste to introduce these new units into the fighting led to bizarre incidents. In one case, the detraining advance party of a fresh division was thrown straight into battle even though many of the troops involved were musicians from the division band.[112] In still another case, elements of two separate divisions were combined together into an ad hoc

SKETCH 11: Soviet Attacks Against Army Group Center, December 1941



battle group as they stood on railroad sidings, and hurried into the fray without further regard to unit integrity or command structure.[113]

In a curious parallel to Hitler's actions, Soviet leader Josef Stalin assumed personal control over the strategic direction of Russian operations in late December. In Moscow, Stalin saw in the Red Army's surprising early success the makings of an even grander counteroffensive to crush the invaders and win the war at one stroke. Pushing forward Russian reinforcements as fast as they could be assembled, Stalin sketched out his new vision for this second stage of the Soviet counteroffensive. The *Leningrad, Volkhov,* and *Northwestern Fronts* would bash in the front of Army Group North and lift the siege of Leningrad. The *Kalinin, Western* and *Bryansk Fronts* would annihilate Army Group Center by means of a colossal double envelopment. In the south, the Soviet *Southwestern* and *Southern Fronts* would crush Army Group South while the *Caucasus Front* undertook amphibious landings to regain the Crimea (see Sketch 12).

This Red Army avalanche fell upon the Germans during the first two weeks of January, beginning the second stage of the winter campaign. As during the first stage, German defensive actions benefitted from Soviet offensive problems.

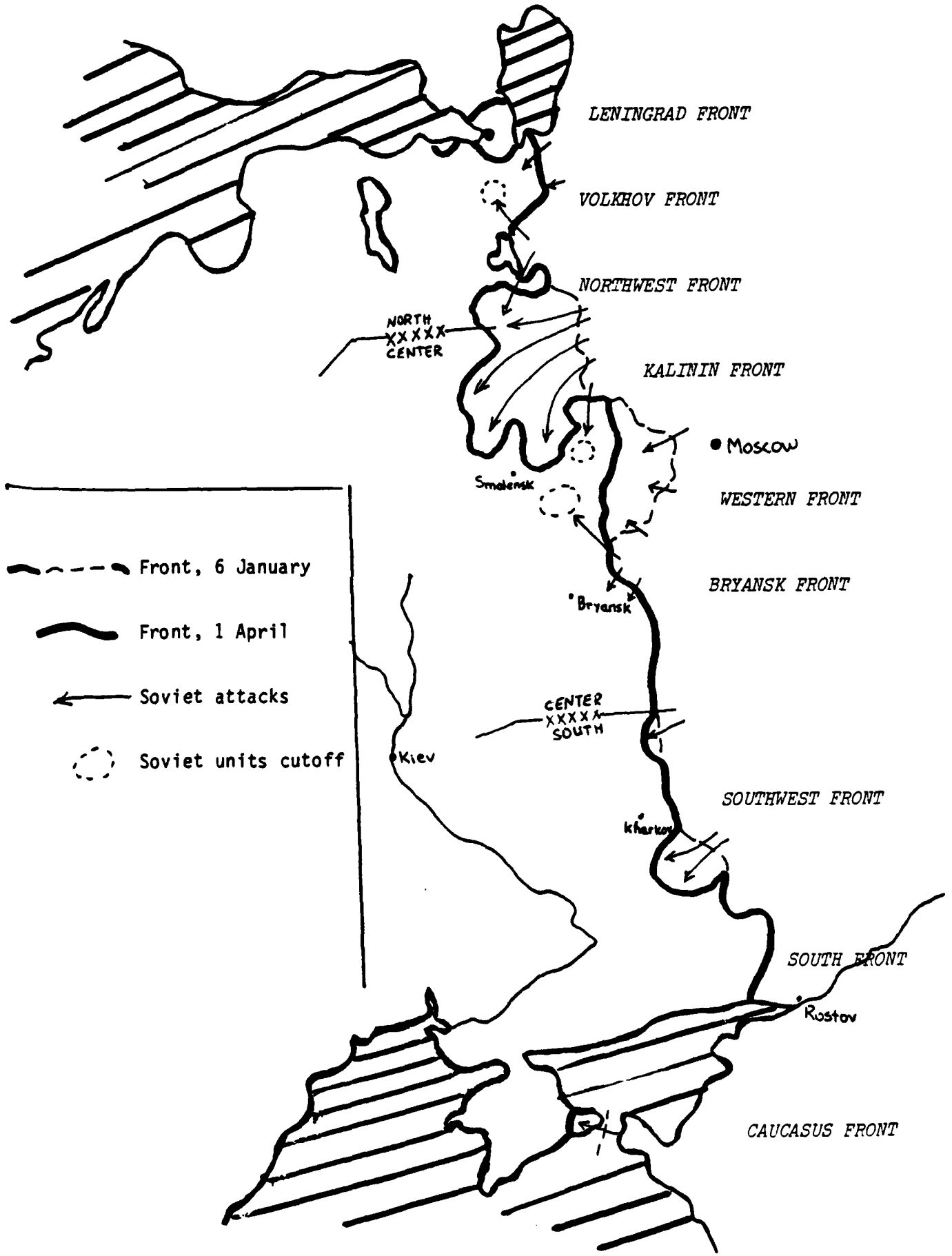
A fundamental flaw in the new Soviet operation was the strategic concept itself. Whereas the first stage counterattacks had been too cautious, the second stage objectives were far too ambitious and greatly exceeded what could be done with Red Army resources. The attacking Soviet armies managed to penetrate the German strongpoint belt in several areas, but once into the German rear none of the Russian drives retained sufficient strength or impetus to achieve a decisive victory. Stalin had willfully ignored the suggestions of Zhukov and other Soviet generals to the effect that decisive operational success required less grand objectives and greater concentration of striking power.[114] Instead, Stalin insisted that the opportunity had come to begin "the total destruction of the

Hitlerite forces in the year 1942."[115]

The advantage to German defensive operations from this conceptual fault was profound. Lacking the necessary reserves to assure the defeat of major breakthroughs, German armies were spared decisive encirclement and possible annihilation by the dissipation of Soviet combat power. After breaking through the German strongpoint crust, Russian attacks eventually stalled on their own for lack of sustenance. On several occasions, major Soviet formations became immobilized in the German rear, slowly withering until mopped up by German reinforcements. The Soviet *Second Shock Army*, under the command of General A.A. Vlasov, slashed across the rear of the German Eighteenth Army in January only to become bogged down there in forest and marsh. Unsupplied and unreinforced, Vlasov's nine divisions and several separate brigades remained holed up in the German rear until finally capitulating in June 1942.[116] Likewise, the Soviet *Thirty-third Army* and a special mobile "operational group" composed of General P.A. Belov's reinforced *1st Guards Cavalry Corps* struck deep into the vitals of Army Group Center near Vyazma, only to be stranded there when German troops blocked the arrival of Russian support forces. A similar fate befell the Russian *Twenty-ninth Army* near Rzhev.[117] In these and other cases, the dispersion of Soviet combat power in pursuit of Stalin's grandiose objectives prevented the reinforcement or rescue of the marooned forces.

Though failing to provoke a general German collapse, these deep drives unnerved the German leadership. As Soviet forces groped toward Army Group Center's supply bases and rail lines-of-communication in mid-January, the German "stand fast" strategy grew less and less tenable. Near despair, General Halder wrote on 14 January that the Führer's intransigent leadership "can only lead to the annihilation of the Army."[118] The next day, though, Hitler relented by authorizing a belated general withdrawal of Army Group Center to a "Winter Line"

SKETCH 12: Soviet Winter Counteroffensive (2nd Stage), January-March 1942.



running from Yukhnov to Rzhev. Hitler imposed stiff conditions on the German withdrawal: all villages were to be burned before evacuation, no weapons or equipment were to be abandoned, and - most distressing of all to German units with vivid memories of the piecemeal withdrawals in early December - the retreat was to be carried out "in small steps."[119] Indicative of Hitler's penchant for meddling in tactical detail, this last constraint proved particularly painful. Senior German commanders, conforming to Hitler's preference for a more centralized control of operations, took it upon themselves to dictate the intermediate withdrawal lines to their subordinate divisions. Often the temporary defensive lines were simply crayon marks on someone's command map, and several units suffered unnecessary casualties in defense of hopelessly awkward positions laid out "on a green felt table" at some higher headquarters.[120] Even with the retreat to the Winter Line, then, it was fortunate for the German cause that the Soviet High Command had obligingly dissipated its forces.

Logistics also remained a continuing Soviet problem. In his eagerness to exploit the first stage successes, Stalin ordered the January wave of offensives to begin before adequate logistical preparations had been made.[121] Zhukov later complained bluntly that as a result "[logistical] requirements of the armed forces could not be met as the situation and current tasks demanded." To emphasize this point, the *Western Front* commander recited his own ammunition supply problems:

> The ammunition supply situation was especially bad. Thus, out of the planned ammunition supplies for the first ten days of January, the *Front* actually received: 82mm mortar shells - 1 per cent; artillery projectiles - 20-30 percent. For all of January: 50mm mortar rounds - 2.7 per cent; 120mm shells - 36 per cent; 82mm shells - 55 per cent; artillery shells - 44 per cent. The February plan was no improvement. Out of 316 wagons of ammunition scheduled for the first ten days, not one was received.[122]

The general shortage of artillery ammunition had a direct bearing on the

Red Army's failure to crush the German strongpoint system. German defenders, it will be recalled, regarded Soviet artillery to be an extremely dangerous threat to their strongpoints, and took such measures as were possible to disperse their defensive positions and reduce the effectiveness of the Russian fire. Even so, that more German strongpoints did not become fatal *Menschenfallen* stemmed from the fact that, in general, "the [Soviet] artillery preparation was brief...due to a shortage of ammunition, and was of little effectiveness."[123] Zhukov's units, for example, were limited to firing only one to two rounds per tube per day during their renewed offensive advances. In a report to Stalin on 14 February, Zhukov complained that

> as shown by combat experience, the shortage of ammunition prevents us from launching artillery attacks. As a result, enemy fire systems are not suppressed and our units, attacking insufficiently neutralized enemy positions, suffer very great losses without achieving appropriate success.[124]

Misguided tactics also undermined the Soviet artillery's effectiveness. In accordance with faulty prewar tactical manuals, Red Army gunners distributed their pieces as evenly as possible along the front, a practice that prevented the massing of fires against separated strongpoints. Moreover, Russian artillery units frequently located themselves too far to the rear to be able to provide continuous fire support to attacking units battling through a series of German *Stützpunkte*. Instead, according to Artillery General F. Samsonov, "the artillery often limited its operations only to artillery preparation for an attack. All this slowed down the attack, often led to the abatement of the attack, and limited the depth of the operation."[125]

These artillery problems were symptomatic of the general lack of Soviet combined arms coordination during this period. Attacking Russian tanks often outdistanced their accompanying infantry, leaving the infantry attack to stall in the face of German obstacles and small arms fire while the tanks barged past

the German strongpoints. The Soviet armor, shorn of its infantry protection, was accordingly more vulnerable to German antitank measures. Occasionally, Soviet tanks would halt in full view of German gunners until the assigned Russian infantrymen could catch up, or else turn around and retrace their path past German positions in search of their supporting foot soldiers.[126] Both of these measures played into the hands of German antitank teams. As a result of the general confusion and lack of tactical cooperation between artillery, infantry, and armor forces, Soviet commanders conceded the vulnerability of their own assaults to German counterattack.[127] Indeed, the German strongpoint methods preyed mercilessly on these Soviet gaffes: German fire concentrations separated tanks and infantry, antitank guns located in depth throughout the strongpoint network picked off the naked Russian armor, and the carefully-husbanded German reserves - maneuvering without fear of Soviet artillery interference - delivered the *coup de grace* by counterattacking the groggy remnants of any Red Army attack.

In an attempt to rectify these shortcomings, Stalin issued a directive to his senior commanders on 10 January directing better artillery support, closer tank-infantry cooperation, and - like Zhukov's directive a month earlier to the *Western Front* - greater use of infiltration and deep maneuver. As a diagnosis, this document showed great insight into the Red Army's tactical faults. As a corrective measure, this directive (and supplementary orders that succeeded it) came too late: most Soviet forces were already heavily engaged in the second stage offensives by the time it was issued, and there was little opportunity to reorganize and retrain Soviet units before spring.[128]

By the end of February, Stalin's great offensive had run its course. German armies, reinforced at last by the few fresh divisions summoned to the Eastern Front by Hitler, re-established a continuous defensive front, relieved some German pockets isolated behind Russian lines, and stamped out those Red Army forces

still holding out in the German rear. The frontline itself stood as stark evidence of the confused winter fighting: instead of spanning the front in a smooth arc marred by a few minor indentations, it snaked tortuously back and forth, its great swoops and bends marking the limits of Russian offensive and German defensive endurance.

On the German side, the best that could be said of the winter campaign was that the German Wehrmacht had survived. Strapped by Hitler's strategic rigidity, their strength exhausted, and lacking proper winter equipment, the German eastern armies had successfully withstood the two-stage Soviet onslaught using an improvised strongpoint defensive system. Though fighting as well as could be expected under the circumstances, and even incorporating those aspects of their doctrinal Elastic Defense that could be made to fit the situation, German Army officers recognized that they had come within a hairsbreadth of disaster. Shaking their heads at their own good fortune, they dimly realized that the survival of the German armies owed as much to Russian tactical clumsiness and strategic miscalculation as to German steadfastness. This realization clouded German attempts to draw doctrinal conclusions from the winter fighting.

German Doctrinal Assessments

Adolf Hitler regarded the winter defensive battles to be his own personal triumph, won against heavy military odds and in spite of the advice of the German Army's senior officers. In rhetorical terms that made it seem as if he had personally braved Russian bullets - Hitler's last visit to front commanders had been in late November - the Führer gave his own assessment of the campaign to Dr. Josef Goebbels on 20 March 1942. As the Propaganda Minister wrote in his diary:

> Sometimes, the Führer said, he feared it simply would not be possible to survive. Invariably, however, he fought off the assaults of the

> enemy with his last ounce of will and thus always succeeded in coming out on top. Thank God the German people learned about only a fraction of this...The Führer described to me how close we were during the past months to a Napoleonic winter. Had he weakened for only one moment, the front would have caved in and a catastrophe ensued that would have put the Napoleonic disaster far into the shade.[129]

Hyperbole aside, the winter fighting had borne Hitler's peculiar stamp, first in the refusal to allow withdrawals and then, after 15 January, in his insistence that Army Group Center's retreat be conducted in small costly steps. Moreover, the Führer's leadership style was already corroding the bonds of trust and confidence between various field commanders. As a precaution against the dictator's wrath, some officers were beginning to keep written copies of their orders to subordinates as proof that Hitler's instructions had been passed on unaltered. (Field Marshal von Kluge, since December the commander of Army Group Center, frequently took refuge in this artifice.) Recriminations were another symptom of this disease. On 30 April 1942, for example, Kluge demanded an official inquiry to ascertain why the 98th Division (whose combat strength was less than 900 men) had failed to carry out orders to crush a fortified Soviet bridgehead at Pavlovo held by superior enemy forces. That twelve officers and 450 men had fallen in the attack scarcely mollified Kluge, who wanted scapegoats [130]

The Russian winter battles left their imprint on the Führer as well. The success - if the avoidance of disaster could be described as such - of the "stand fast" strategy reinforced Hitler's conviction that his own military instincts were superior to the collective wisdom of the front commanders and the General Staff. It also convinced him that will and determination could triumph over a materially stronger enemy. Armed with these delusive notions, Hitler would order German troops to stand fast on many future battlefields, though more often with disastrous than with victorious results. The seeds of future "stand

fast" defeats at Stalingrad and El Alamein, and in Tunisia, the Ukraine, and Normandy were planted in Hitler's mind during the winter struggle of 1941-1942.

On a less grand level, the German Army set about drawing its own conclusions about the winter fighting. Responsibility for these assessments was divided. The Operations Branch of the General Staff was responsible for seeing that major "lessons learned" were immediately reported and disseminated to interested field commands. The General Staff's Training Branch had responsibility for the more deliberate adjustment of doctrine through the publication of new field manuals and training directives. Finally, field commanders from the army group level downward all had some latitude and authority in developing tactical practices for their own forces.

After-action reports from frontline units constituted the primary information base upon which these agencies depended. This information was amplified when necessary by fact-finding visits to forward units by General Staff officers, or by interviews with officers returning to Berlin from frontline duty. (Even General Halder, the Chief of the Army General Staff, frequently made room on his daily calendar for such consultations.)[131]

The most thorough early assessment of the winter fighting was ordered by Fourth Panzer Army. On 17 April 1942, Fourth Panzer Army sent a memorandum to its subordinate units ordering them to prepare comments on general winter warfare experiences. As guidance, this memorandum posed more than forty specific questions about tactics, weapons, equipment, and support activities. Thirteen of these questions dealt directly with defensive doctrine, and included such matters as the choice of a linear defense versus a strongpoint system, the siting of strongpoints, construction of positions, antitank defense, location of major weapons, construction of obstacles, patrolling, and composition and role of reserves.[132] While the resulting reports provided valuable technical information

in all areas, comments on antitank defense and on strongpoint warfare in general caused the greatest doctrinal stir.

The German Elastic Defense had been designed primarily for positional defense against infantry, and opposing tanks had been regarded simply as supporting weapons for the enemy's foot troops. The BARBAROSSA campaign and winter fighting had exposed the woeful inadequacy of German antitank guns against Russian armor, and so Soviet tank attacks - with or without infantry support - were emerging as a major threat in their own right. In its response to the Fourth Panzer Army memo, the German XX Corps noted that, due to the weakness of German antitank firepower, otherwise weak enemy attacks posed a severe danger to German defenses if the attacking force was supported by even one heavy tank.[133] Overall, the reports returned to Fourth Panzer Army emphasized this fact, and gave careful consideration to the defensive measures necessary to defeat Soviet tanks.

German prewar antitank doctrine had focused on separating enemy tanks and infantry. Since June, battles against Russian armor had confirmed the theoretical effectiveness of this technique. Under attack by Red Army tank-infantry forces, German units had good success in driving off or pinning down the Soviet infantry with artillery, small arms, and automatic weapons fire. This tactic was abetted by the generally poor Soviet combined arms cooperation, as admitted in Stalin's 10 January directive. The ease with which Russian tanks and infantry were split apart was remarked upon by several German commanders, and some noted the occasional tendency of the enemy to break off successful tank attacks when the accompanying infantry was stripped away.[134] Confirming the general thrust of German antitank doctrine, the 35th Division's report declared that "the most important measure is to separate the tanks from the infantry."[135]

What troubled German commanders was not the splitting of enemy armor and

infantry, but the subsequent practical difficulties in destroying Soviet tanks. German prewar thinking, reflecting the wisdom passed down from the Great War, had regarded tanks without infantry support to be pitiable mechanical beasts whose destruction was a relatively simple drill. Given the ineffectiveness of German antitank guns, such was clearly not the case on the Russian Front.

Most German antitank guns needed to engage the well-armored Russian tanks at extremely close range in order to have any chance at all of destroying or disabling them. The best way to accomplish this was to place the antitank guns in a defilade or reverse-slope position behind the forward infantry. Hidden from direct view, the Paks then had a good chance for flank-shots at enemy tanks rolling through the German defenses. The disadvantage of this system, of course, was that the Paks could not engage Soviet armor until it actually entered the German defensive area.[136]

The only German weapon able to kill Soviet tanks at extended ranges was the 88mm Flak gun. However, this weapon was so valuable and, due to its high silhouette and limited traverse, so vulnerable that it too was commonly posted well behind forward German positions. Thus hidden, the heavy Flak guns were safe from suppression by Russian artillery and from early destruction by direct fire; they could not, however, use their extended range to blast enemy tanks far forward of the German lines.[137] Thus, neither the lighter Paks nor the heavy 88mm Flak guns provided an effective standoff antitank capability.

The lack of powerful antitank gunfire placed enormous pressure on German infantrymen in two ways. First, it was not uncommon for German infantry positions to be overrun by Soviet tanks. Assaulting in force, Russian armored units were virtually assured of being able to rush many of their tanks through the German shortrange antitank fire, over the top of German fighting positions, and into the depths of the German defenses. The shock effect of this wracked the

nerves of German soldiers, who found little comfort in an antitank concept that in practice regularly exposed them to the terror and danger of being driven from their positions by Soviet T-34s. Echoing sentiments first voiced by German commanders twenty-five years earlier, one officer warned, "The fear of tanks (*Panzerangst*) must disappear. It is a question of nerves to remain [in fighting positions being overrun]."[138]

Secondly, German infantrymen were given the dangerous task of destroying Russian tanks by close combat measures (mines, grenades, fire bombs). Though such methods had been discussed in prewar manuals and journal articles, the powerlessness of the German antitank guns forfeited a far greater burden to the beleaguered infantry than anyone had foreseen. For an infantryman, attacking a Soviet tank was not easy. He had to crouch undetected until the tank passed close to his hiding place, and then spring forward to attach a magnetic mine to the tank's hull or else to disable the tank's tracks or engine with a grenade. In doing so, the soldier exposed himself to machinegun fire from other tanks (which, naturally, were particularly alert for such attacks), and was also liable to being crushed by a suddenly-swerving tank or even wounded by the explosion of his own antitank device. To facilitate the close assault of enemy tanks, some German units hit upon the idea of releasing smoke on their own positions as the enemy tanks closed in order to cloak the movements of the German infantry. This tactic was dangerous, however, as such smoke interfered with aimed German fire against any Russian infantry and also tended to enhance the shock value of the noisome armor.[139] Protesting the unbearable strain that infantry-versus-tank combat placed on German soldiers, the 7th Infantry Division stated bluntly in its report: "It is wrong to pin the success of antitank defense on the morale of the infantry." The 7th Division's report advocated a thickening of forward antitank weapons, including the forward placement of Flak 88's, "to smash [Soviet]

tank assaults forward of the German defenisve line [emphasis in original]."[140]

German strongpoint tactics during the winter fighting increased the problems of antitank defense. Strongpoints were subject to attack from all directions, thereby complicating the siting of the relatively immobile German antitank guns. German infantrymen preferred the protection of continuous trenches when attacking enemy armor, since these gave them a covered way to scuttle close to the tanks without undue risk of detection.[141] However, strongpoints - and particularly those confined to villages - were difficult to camouflage, and so Russian tanks could circle around outside the defensive perimeter, blasting away at the German positions and probing for a weak spot, without fear of surprise attack by hidden German infantry. In the same way, Soviet armored thrusts through the gaps between strongpoints also avoided the lurking German infantrymen. For this reason, many German commanders found it expedient to prepare connecting trenches between strongpoints solely for the purpose of moving infantry antitank teams into the path of bypassing Russian tanks.

After nearly one year of brutal combat in Russia, antitank defense thus loomed as a major vulnerability in German defensive operations. German antitank guns lacked penetrating power and were relatively immobile. Soviet tank assaults exposed German infantrymen to terrific strain, both from the general likelihood of being overrun and from the necessity to combat Russian tanks with primitive hand-held weapons. The experiences of winter combat had, if anything, shown that these difficulties were even greater under those conditions. Fortunately for the Germans, the Soviets' tactical ineptitude and early tendency to disperse armor into small units spared the Germans even harsher trials.

Early combat reports, such as those ordered by Fourth Panzer Army, spurred adjustments to German antitank measures. Efforts to improve German antitank weaponry were given great emphasis, resulting in the eventual introduction of

heavier guns. The production of German self-propelled assault guns was also accelerated, partly in answer to the need for a more mobile antitank-capable weapon. Moreover, new German tanks received heavier, high-velocity main guns capable of duelling the Soviet T-34s, and older model German tanks were refitted with heavier cannon as well.[142]

German efforts to shore up their antitank capabilities went beyond technological remedies. Since it remained necessary in the short-term to rely heavily on infantrymen (and, in some units, combat engineers) to destroy tanks in close combat, the German Army did its best to prepare German soldiers for that task. Various instructional pamphlets were printed to give detailed advice on the vulnerabilities of Russian tanks and on the most effective methods for disabling them. The Second Army, for example, rushed out a "Pamphlet for Tank Destruction Troops" to its own units in February 1942 even before the winter battles had subsided.[143] General Halder reviewed the reports of frontline units, and conferred with the Training Branch on the preparation of a new army manual on antitank defense.[144] Nor was the psychological dimension neglected: on 9 March 1942 a new, morale-boosting Tank Destruction Badge was authorized for wear by soldiers who single-handedly dispatched enemy tanks.[145]

German combat reports also generated a great deal of interest in the strongpoint defense system. The assessments culled by Fourth Panzer Army contained sharp differences of opinion on this point. The 252nd Infantry Division dismissed the strongpoint methods, arguing that "village strongpoints have not proven themselves effective in the defense. After short concentrated bombardment they exact heavy losses. A continuous defensive line is in every case superior to the strongpoint-style deployment." The 252nd Division rejected the supposed strongpoint advantages, pointing out that "experiences with the strongpoint defense were muddy...It did not prevent infiltration by enemy forces,

especially at night. It [strongpoint defense] cost considerable blood and strength to destroy penetrating enemies by counterattack."[146] Other assessments were less harsh, conceding the value of strongpoints as an expedient measure. Though expressing a strong preference for a doctrinal linear defense-in-depth, the XX Corps grudgingly acknowledged the importance of strongpoints under certain conditions: "A continuous defense line is successful and strived for. A strongpoint-style defense may be necessary when insufficient forces are available for a continuous front. It is only tolerable for a limited time as an emergency expedient."[147]

Though no unit had suggested a general adoption of strongpoint defensive measures over the Elastic Defense system, the widespread use of *Stützpunkte* seemingly called standard doctrinal methods into question. General Halder therefore decided upon a deeper investigation into the strongpoint issue. On 6 August 1942, the Chief of the General Staff ordered a survey of frontline units on the terse question, "Strongpoints, or continuous linear defense?"[148] The purpose of this study was not to reach a consensus opinion; rather, it was to seek information of doctrinal value from as many different sources as reasonably possible. In the case of the Fourth Army, for example, responses were prepared by every subordinate corps and division, and by most regimental and many battalion commanders as well.

The monographs returned as a result of General Halder's inquiry provided a thorough critical assessment of German defensive tactics during the previous winter. In practice, all German units had compromised the doctrinal Elastic Defense methods to some extent, and most divisions had at least experimented with strongpoint measures. In their reports, the surveyed commanders argued the relative merits of the strongpoint system, and tried to define precisely its advantages, disadvantages, and suitability for general defensive use.

Predictably, the most commonly cited advantages were the obvious ones of shelter and concentration of limited resources. Several veteran officers pointed out other, less obvious benefits of strongpoint warfare as well. Units disposed in strongpoints were more easily controlled than those arrayed in a linear defense, thus simplifying the leadership problems of weary officers and NCOs.[149] Within strongpoints, wrote the commander of the 289th Infantry Regiment, even poorly-trained soldiers could be kept under tight rein by their junior leaders.[150] Similarly, the chief-of-staff of the Second Army considered strongpoints beneficial to discipline and training, a vital matter since "the training status of the troops and the quality of the infantry junior leaders has noticeably declined."[151] Strongpoints also bolstered the sagging morale and pugnacity of individual soldiers: troops spread out in a linear defense tended to perceive themselves as solitary fighters (*Einzelkämpfer*), and often were less steadfast under fire than those fighting in the close company of strongpoint garrisons. The 331st Division worried especially about its growing numbers of young and inexperienced replacements in this regard.[152]

Against these advantages, German officers listed the serious problems that, in their experience, had attended the use of strongpoints. Individual *Stützpunkte* invited isolation and destruction in detail by superior Soviet forces. Separated strongpoints had been unable to secure the German front against enemy penetrations, and so strong Russian forces had frequently managed to shoulder their way between strongpoints and deep into the German rear. Smaller Soviet infiltration parties had wrought havoc throughout the German defensive area. In some cases, the use of strongpoint tactics by one division had even exposed the flanks of neighboring formations deployed in a linear defense.[153]

Though German officers also found fault with their own occasional use of linear defenses, those faults were generally attributed to insufficient

resources (excessively wide sectors, lack of depth, unavailability of mobile reserves). The criticisms of the strongpoint-style defense, however, were systemic criticisms that pointed out inherent, fundamental flaws in the strongpoint concept. Strongpoints, in the view of German commanders, would *always* be subject to isolation, and Soviet forces would *always* be able to force passage between strongpoints, even if the Germans disposed of larger forces. These flaws cast into doubt Hitler's prediction that the mere control of villages and road junctions would arrest Soviet offensive momentum. As one divisional report delicately put it, this contention remained "unproven in practice."[154]

Consequently, German officer sentiment ran strongly against a general reliance on strongpoint defenses. It remained, in the mind of most German officers, an emergency expedient called forth by the exceptional conditions of the 1941-1942 winter campaign. In their answers to Halder's query, many commanders hastened to point out that, as combat conditions had allowed, their units had abandoned their exclusive reliance on strongpoints in favor of more traditional methods. As one battalion commander explained:

> Except as under the special conditions reigning during the 1941/42 winter campaign, one should reject the strongpoint system and strive for a continuous HKL. The strongpoint system can only be an emergency measure for a short time, and must form the framework for a continuous line as was the case during the winter.[155]

Though firm in their endorsement of an orthodox defense-in-depth, some units expressed their intent to incorporate some strongpoints into any future defensive system. With the passing of winter, German divisions on the Eastern Front set about putting their positions into better order, aided by the arrival of fresh divisions and a trickle of replacements. As they did so, German lines increasingly resembled the Elastic Defense prescribed in *Truppenführung*. Within this burgeoning defense-in-depth, strongpoints were occasionally retained as combat outposts or, more commonly, as redoubts within the depth of the Main

Battle Zone (*Hauptkampffeld*). In contrast to the winter strongpoints, however, these positions generally were smaller, and were knitted into the defensive system with connecting trenches. The XLIII Corps, summarizing the views of its subordinate divisions, saw nothing new in this: "The best style of defense is that laid down in *Truppenführung* - many small, irregularly-located nests, deployed in depth, composing a defensive zone whose forward edge constitutes the HKL [emphasis in original]."[156] In the overall context of German defensive doctrine, this addition of greater numbers of small strongpoints was relatively minor. (Small *Widerstandsnester* redoubts had been part of the original German Elastic Defense as early as 1917, and a few officers even cited passages from *Truppenführung* allowing for such measures.)[157] The incorporation of numerous strongpoint redoubts as a regular feature of German defenses reflected more the continuing shortage of adequate forces than any revision of doctrinal practice.

The stream of winter after-action reports prepared by German units did not result in any major new doctrinal publications. *Truppenführung* remained the German Army's basic doctrinal reference for defensive operations. After extensive study, the winter defensive crises were written off as products of extraordinary circumstances. The exceptional conditions of the previous winter - which, the Germans hoped, would not be repeated in the future - invalidated any general doctrinal judgments that might otherwise have been made. Furthermore, any hasty revision of German defensive doctrine would have seemed, in the summer of 1942, to be a superfluous and even defeatist gesture. For, while General Halder and other members of the General Staff were sifting through grim after-action reports from the winter fighting, German armies were again on the march in Russia. On 5 April 1942, Hitler had ordered a new German summer offensive to win the war in the east in one more Blitzkrieg campaign.

CHAPTER IV: NEW VICTORIES, NEW DEFEATS

Operation BLAU, the German 1942 summer offensive in Russia, was vital to Germany's hopes for victory in the Second World War. Both a revived Britain and a newly-belligerent United States could soon be expected to open new fronts in Africa, the Mediterranean, or in France. Consequently, in terms of the Third Reich's grand strategy, a failure to knock Russia out of the war in 1942 would leave Germany embroiled in a hopeless multi-front war against stronger adversaries.

Operation BLAU entailed substantial military risk. The recent winter battles had left the German eastern armies so drained of strength that they could not all be fully rebuilt to pre-BARBAROSSA levels with the limited resources available. By concentrating the flow of replacements and new equipment to selected units, a powerful offensive phalanx could be created on a narrow portion of the front. This could only be done at the expense of the remainder of the German forces in the east, in which combat strength would remain at relatively low levels. In the event that the few assault armies failed to land a knockout blow, however, the burden of sustained combat would then fall upon the other, less capable German divisions. Hitler's 1942 summer offensive thus implicitly gambled German longterm combat endurance against the chance for a rapid Blitzkrieg-style victory over the Russians.

The main objective of BLAU was the seizure of the Caucasus oil-producing regions. While Army Groups North and Center stood on the defensive, a reinforced Army Group South would make the great attack. For the offensive, Army Group South would be split into two separate maneuver elements. Army Group B, the more northerly fragment, would drive forward south of Voronezh, extending the German defensive front along the Don River. Its eastern terminus anchored at the Volga River industrial city of Stalingrad, Army Group B's lines would face generally northeastward, protecting the flank and rear of Army Group A's

operations. Army Group A, in turn, would attack due east as far as Rostov, and then wheel southward toward the prized oil fields (see Sketch 13).[1]

For such a crucial undertaking, Operation BLAU suffered from surprisingly muddled strategic thinking. Even if successful, the Caucasus offensive would leave most of the Soviet armed forces intact. Following its recent winter counteroffensives, the bulk of the Red Army remained massed along a 300-mile front west of Moscow, with other significant concentrations opposite Leningrad and Kharkov. Though it could be expected that strong Soviet forces would be drawn into the southern fighting, it was unlikely that these could be subjected to encirclement and *Kessel*-style destruction as during the previous summer. (Indeed, the German strategic deception plan for BLAU intentionally aimed at keeping Soviet forces in place before Moscow.)[2] Consequently, for a plan whose overriding strategic purpose was the timely and conclusive wrapping-up of operations in the Russian theater, BLAU oddly made no provision for dealing with the greater portion of Soviet military might.

Instead of striking at the Russian armed forces, the Germans aimed instead at winning the war by economic means. And yet, though the Caucasus oil regions were by all accounts a valuable economic target, the precise strategic purpose to be served by their seizure remained fuzzy. German analyses tended to emphasize the benefit to Germany's war effort that the oil fields' capture would bring, and far less consideration seems to have been given to how this seizure would wound the Soviets. Caucasus petroleum would admittedly help Germany's own war economy; that its loss would fatally undermine the war-making potential of the Soviet Union - which had access to other, albeit lesser, sources of oil - was less certain.[3] Moreover, any harm to the Soviet war economy that did result from the German southern drive would at best develop only gradually, and so would not serve the German goal of swiftly terminating the war in the east.

German planners, including in this case not only Hitler but the Army General Staff as well, would therefore seem not to have completely thought through the relationship between Germany's strategic ends and Operation BLAU's military means.

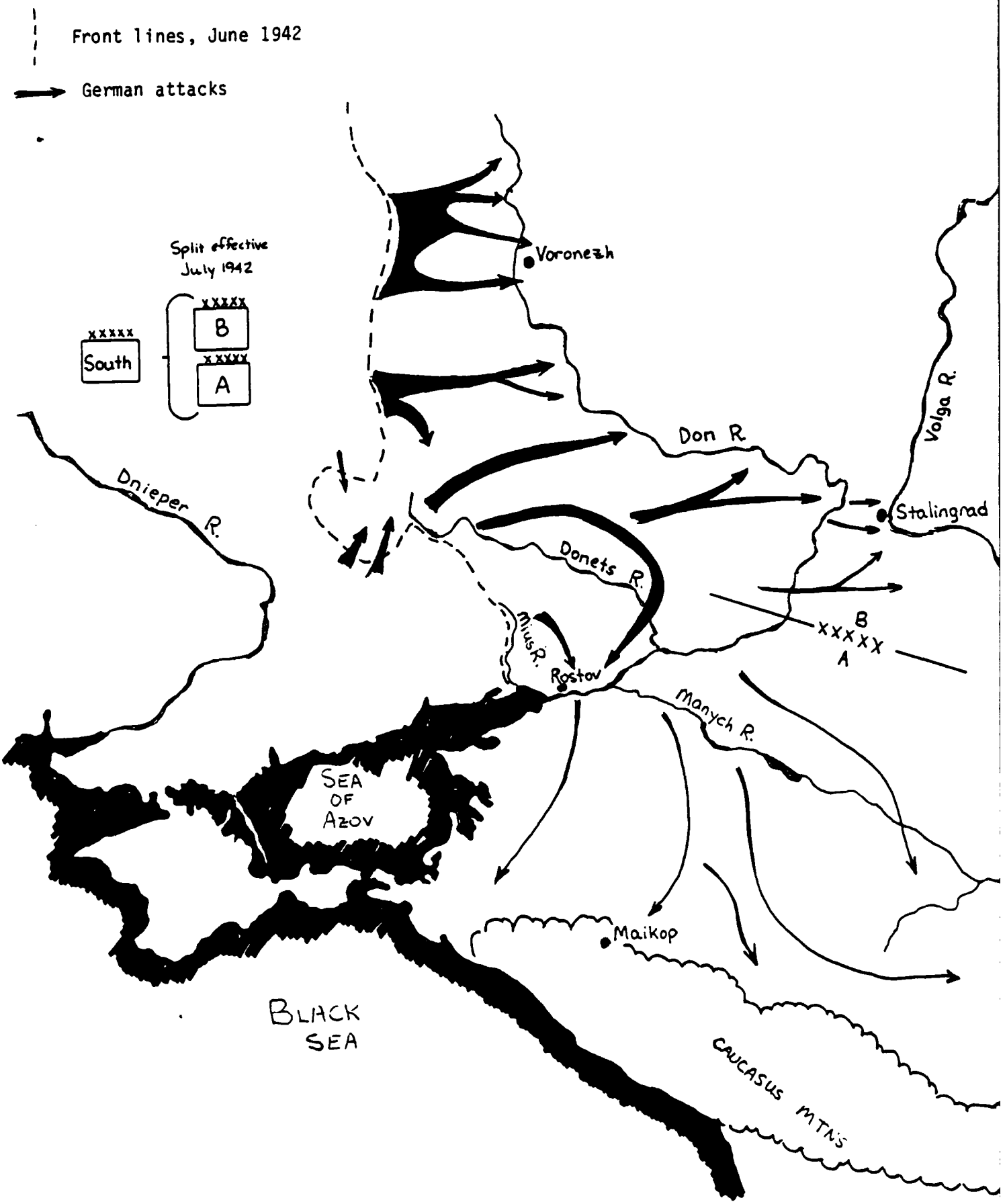
These faults were not immediately apparent amidst the renewed optimism of June 1942. What was obvious was the clear division of tasks between the "defensive front," composed of Army Group North and Army Group Center, and the "offensive front" poised further to the south. (German officers actually used the terms "offensive front" and "defensive front" as a sort of verbal shorthand to describe the missions of the various army groups.)[4] The development of German defensive doctrine through 1942 is most easily pursued in a separate evaluation of these two parts.

Problems on the "Defensive Front"

The German "defensive front" twisted for nearly one thousand miles, stretching from the area north of Voronezh to the Gulf of Finland. The German armies holding this were, broadly speaking, those that had suffered most during the Soviet winter counteroffensives. Concurrent with their development of the BLAU attack plans, German planners gave considerable attention to bolstering the defensive strength of the lines held by Army Group Center and Army Group North.

During February and March of 1942, Hitler and other senior leaders again toyed briefly with the idea of fortifying an "East Wall" defensive barrier along a portion of the front. The main inspiration for this scheme came from General Friedrich Olbricht of the Army Supply Office. On his own authority, Olbricht had undertaken some preliminary studies for such a bulwark, and as German plans for the coming summer began to take shape he shared these ideas with other influential officers. Since the weakened frontline divisions could

SKETCH 13: Plan BLAU, June - November 1942



not be expected to provide work parties for such a project, Olbricht proposed shifting Army training facilities temporarily into the combat zone and using trainees as the principal East Wall labor force. General Fritz Fromm, the commander of the Replacement Army, was under heavy pressure to conjure up replacements for the shattered combat divisions as quickly as possible, and so was naturally reluctant to agree to any program that might interfere with that process. However, Fromm conceded that such a construction project, using replacement personnel supervised by limited-duty officers with recent combat experience, might be possible provided that no more than six hours a day were devoted to construction work.[5]

With Fromm's concurrence in hand, Olbricht ordered his staff to prepare a detailed "Proposal for the Construction of a Strategic Defense Line in the East" at the end of January. Elaborating his basic concept, Olbricht called for the building of a fortified defense-in-depth along a line to be designated by the Army Chief-of-Staff. Providing that adequate materials and support personnel were made available, Olbricht estimated a total actual construction time of just over three months. Olbricht circulated this written proposal to interested agencies within the Army and OKW staffs, making occasional amendments to accommodate minor criticisms. The general response to the East Wall concept was almost unanimously favorable, and as a result a formal written recommendation was submitted through Halder to the Führer at the beginning of February.[6]

Hitler, with the winter defensive trials behind him and the prospect of a new win-the-war offensive in front of him, bluntly rejected the East Wall construction scheme as an unnecessary diversion of precious resources. In a written memorandum to Olbricht, Hitler forbade further consideration of

such an elaborate fortified line with the words, "Our eyes are always fixed forward." By way of further explanation, Hitler let it be known that such a grandiose defensive project would convey an unfavorable impression to Germany's allies.[7] At the time Hungary, Rumania, and Italy were all being pressed to invest more troops in the forthcoming summer campaign, and Hitler wished to forestall any doubts that these satellites might have about BLAU's prospects.

Instead of an East Wall, the German defensive front in Russia would be built up from the existing strongpoint lines. As a preparatory step, forward units were ordered on 12 February 1942 to re-establish a continuous defense line as soon as possible after the spring muddy period.[8] On 26 April, after the issuance of Hitler's final directive for the conduct of BLAU, General Halder gave instructions for the strengthening of the German defensive front: engineer troops were to be put to work assisting in the preparation of field fortifications, key rearward towns and installations were to be converted into major strongpoints, and "fortified areas" were designated behind the German front to act as supplemental defensive lines in case of need.[9]

Despite OKH efforts to prop it up, the defensive front of Army Groups Center and North remained shaky due to insufficient forces. In preparation for Operation BLAU, Army Group South* was given strict priority of replacements in order to bring its divisions up to full complement by June. The effect of this preferential rehabilitation was to create two distinct classes of German units on the Eastern Front. The assault forces mustering in the south were generally well-equipped and offensive-ready. However, the ninety-odd divisions assigned to the two northern army groups by design became second class organizations in which major deficiencies in personnel, weapons, and

* The division of Army Group South into Army Group A and Army Group B did not become effective until the beginning of July.

equipment were to be tolerated indefinitely.

The personnel shortage in the divisions manning the defensive front was particularly acute. Replacements reaching Army Groups Center and North in May and June scarcely covered the combat losses of those months alone, to say nothing of filling the ranks ravaged by the winter fighting.[10] The quality of the replacements trickling into the northern army groups was also cause for concern: in order to flesh out the spindly divisions assigned defensive missions, General Halder had authorized these to receive men who had completed only two months training.[11] Even so, the manpower shortfall remained so intractable that sixty-nine of the seventy-five infantry divisions assigned to the defensive front had their infantry establishment reduced from nine to six battalions.[12] This one-third curtailment of authorized infantry strength - accompanied by a proportional reduction in divisional heavy weapons in some cases - left these German infantry divisions permanently less combat-worthy than the "standard" divisions still deployed in Army Group South. All problems considered, the average infantry division assigned to Army Groups North and Center probably deployed about one-half the combat power of a full-strength division.[13] In defensive terms, these reduced-strength divisions were less able to hold terrain in a positional defense and were less suited for prolonged attritional combat than the nine-battalion divisions fielded at the outset of BARBAROSSA.

Because of the need to endow Army Group South's forces with as much mobility and striking power as possible, the defensive front divisions were purposely starved of vehicles and weapons. Infantry divisions along the static front received no replacement motor vehicles and few replacement horses. In some cases, motor vehicles were actually taken away from northern units and reallocated to divisions assigned to the southern attack. These measures reduced

the mobility of the defensive units, leaving them totally unsuited for fluid operations.[14]

The few mobile reserves held by Army Group North and Army Group Center also suffered equipment deprivations. Noting that the southern buildup would completely exhaust Germany's stocks of tanks, vehicles, and weapons, General Halder concluded that the mobile reserves for the defensive front could expect to "get nothing and must try to get along on what they still have, acting as 'fire brigades' on the defensive front." Unlike the panzer and motorized divisions assembling in the south, those committed to the northern fronts were not allowed to stand down for rehabilitation. On the contrary, these divisions were actually stripped of some of their organic support vehicles, and even had their offensive edge blunted by other makeshift compromises. The panzer divisions, for example, were allotted no replacement tanks and so fielded only a single understrength armor battalion each. Divisional reconnaissance units for the panzer and motorized formations were frequently remounted on bicycles. Logistical support for the mobile units, which previously had been fully motorized, was partially transferred to horsedrawn wagons. This stopgap severely reduced the mobile forces' sustained effectiveness in fluid combat.[15]

Neglected by the Army High Command's allocations of fresh resources, the defensive army groups thus settled down to hold their designated fronts with stunted infantry divisions. The reserve underpinnings of the defensive front were admittedly weak: the panzer and motorized forces, which according to German doctrine were to be used in defense as a mobile counterattack force, had had much of their mobility and shock power siphoned off. In many ways, Operation BLAU had wrought the same transformation of the German Army as had the Ludendorff Offensives of 1918. A few picked units would carry the burden of attack, while lower-quality "trench divisions" were trusted only to hold ground in relatively

quiet sectors. That the old Imperial German Army had disintegrated when the trench divisions proved unequal to the demands of the Elastic Defense seems to have gone unremarked in 1942.

Thawing snow and spring rains impeded the construction of German defensive works, since neither trenches nor bunkers could be properly excavated in the muddy gumbo. Luckily, the liquefied landscape brought a halt to Russian attacks, as dismayed German soldiers watched their winter snow trenches and ice parapets dissolve into the slush.[16] Not until late May or early June had the ground at last dried enough to allow the laying out of serious defensive positions.

Insofar as their blighted units and broad sectors allowed, the German armies along the defensive front tried to organize their defenses "by the book." The actions of the German I Corps, settling into a portion of the Eighteenth Army's front south of Leningrad, were typical in this respect.

The I Corps' four divisions got a late start on their defensive preparations, having first to tidy up the so-called "Volkhov *Kessel*" containing Soviet General Vlasov's ill-fated *Second Shock Army*.[17] That bit of operational housekeeping done, the I Corps began digging in along its assigned portion of the German front in early July. Organization of the corps' defense was guided by a corps order issued on 8 July. Spelling out an abbreviated Elastic Defense (no Advanced Position was possible due to the proximity of the enemy), the corps commander directed that "the course of the HKL [Main Line of Resistance] and of the Combat Outposts are to be set strictly in accordance with the principles of *Truppenführung*."[18] As a matter of particular urgency, subordinate commanders were to see that a continuous trenchline linked together all positions along the HKL. Throughout the entire depth of the Main Battle Position (*Hauptkampffeld*), all weapons pits, command bunkers, and reserve dugouts were

were to be transformed into small *Stützpunkte* capable of sustained all-around defense. The order further specified the depth of the *Hauptkampffeld* in each subordinate unit's area, and directed that "in each division sector a minimum of one infantry battalion will be held back as division reserve. Moreover, each sub-sector will designate its own local reserve, its strength depending on the situation."[19]

Due attention was also paid to fire support and antitank measures. The I Corps defensive order discussed in considerable detail the coordination of artillery fire necessary to block enemy attacks against the German defensive front. Displaying an uncommon sensitivity to the shock effect of overrunning armor, the corps commander stated that "the prevention of enemy tank break-ins is decisive to the coming defensive battles." Conceding that German antitank fire alone was unlikely to hold enemy armor at bay, dense thickets of mines and antitank obstacles were prescribed to keep Russian tanks out of the German defensive positions.[20]

The German Army's defensive methods required a high degree of skill and aggressiveness from individuals and small units. Prolonged periods of trench routine could dull these critical qualities, however. In recognition of this, the I Corps commander warned that "alertness, combat proficiency, and morale should not be allowed to suffer due to increased construction work [on fortifications]," and directed that a refresher combat training program be continuously conducted within the defensive positions. Furthermore, he noted, small unit leaders played a key role in maintaining the daily combat-readiness of their men and therefore needed to be spared burdensome administrative duties:

> Positional warfare brings the danger of the over-exuberant growth of memo-writing, and with it a bureaucratization of the war. This development is to be resisted from the beginning. The preparation of defensive positions can be promoted without voluminous documentation. Small unit

> leaders belong with their men and at their workplaces, not at the writing table. The number of written reports required of forward units is therefore to be kept to an absolute minimum.[21]

Following the winter battles, in which tactical methods had been largely extemporized to fit special conditions, such orders were helpful in restoring direction to German defensive efforts. Though striving to follow these doctrinal methods, German units found that their conduct of defensive operations remained plagued by practical difficulties, with the result that actual defenses seldom approached the ordered standards.

The abiding shortage of infantry posed the greatest stumbling block. A General Staff officer, reporting his findings after a trip to the Second Army's static front in early August, noted that rifle companies numbering only forty to fifty men were defending sectors in excess of three kilometers in width.[22] Such low troop densities caused some abridging of German doctrine, with the result that very few units actually conducted a full-blown Elastic Defense. The traditional defensive principles of maneuver and depth were especially compromised, placing even greater importance on the role of firepower and counterattack.

Small unit maneuver had been an important ingredient of the German Elastic Defense since its inception during the First World War. German soldiers had been taught to scamper out of the way of local Allied pressure, moving to positions of advantage within the defensive zones until the enemy attack faltered under German artillery and small arms fire. This idea of small unit maneuver had been revived in *Truppenführung* in 1933, and remained part of the German doctrinal concept through the early years of the Second World War. Small unit maneuver had proved awkward during the winter strongpoint battles, and in practice remained difficult on the Russian Front during the summer of 1942.

For want of riflemen, German company and battalion commanders were allowed

far less freedom to maneuver their units than doctrinal texts recommended. Due to German numerical weakness, any penetration of the forward defense lines was extremely dangerous, and needed to be promptly contained or swiftly eliminated by counterattack. The key lay in keeping enemy incursions as small as possible, and German commanders struggled to resist any widening of Soviet breakins virtually at all costs. German soldiers were taught to "pinch" relentlessly inward against the shoulders of local penetrations, a movement that did constitute maneuver of sorts.[23] However, such rigidity of purpose was contrary to the doctrinal ideal, which promoted a less structured shifting of units. Secondly, the peculiar problems of antitank defense precluded excessive movement within threatened sectors. On the contrary, German soldiers were bidden to remain in place so that they could attack any Russian tanks with mines and grenades. Finally, Hitler's rabid "no retreat" dictum continued to enervate German defensive operations, and so even tactical withdrawals in the heat of combat were discouraged. The I Corps commander, for example, advised his subordinates that "my explicit approval is required for every rearward displacement of the HKL."[24]

After-action reports also confirmed the extent to which lack of manpower robbed German defenses of their desired depth. As the 1st Infantry Division admitted in its report on summer defensive operations, "the demanded depth was seldom achieved due to the wide sectors and low combat strength."[25] Orders like that of the I Corps directing the preparation of deep defensive zones frequently went unfulfilled for lack of personnel. Elsewhere, when rearward positions were actually constructed they often remained almost totally vacant. In many units, the only manned positions in the depth of the German Main Battle Position were Pak nests, artillery firing positions, and battalion and regimental command posts. Some units hurried signallers and supply personnel into

into rearward trenches when Soviet attacks seemed imminent, while others emptied forward dispensaries of walking wounded and posted these into the support positions. The shortage of riflemen prevented some units from distributing their heavy weapons in depth as they desired, as all available machineguns were needed along the HKL to help cover the impossibly wide frontages. This not only weakened German resistance in depth, it also caused the unnecessary loss of valuable weapons to Soviet artillery preparations and longrange direct fire.[26] The 121st Infantry Division found the manpower squeeze to be so excruciating that its frontline companies were unable to man even combat outposts forward of the HKL. The division's total defensive deployment actually amounted to a dangerous charade: a single continuous trench with little forward security or rearward depth. As the division's after-action report explained, even a strongpoint-style defense was deemed impossible since enemy infiltration would then have quickly ascertained how weak the German positions truly were.[27]

In the face of such desperate weakness, the traditional principles of firepower and counterattack became the real pillars of the German defense. The most desirable qualities of German fire support were the ability to mass fire on Russian main efforts, a process that required careful planning and coordination; and the ability to shift fire quickly from target to target as frontline crises demanded. In some cases, the extreme width of division sectors spread German artillery assets to such an extent that any echeloning of guns in depth would have seriously diluted available firepower. Where this proved to be the case, reports recommended abandoning artillery deployment in depth in favor of concentrating maximum fire along the thinly-manned forward edge of the German defense.[28] Though battery locations were still improved so as to act as emergency rearward *Stützpunkte*, this decision reflected the criticality of smashing Soviet assaults by fire as far forward as possible since little resis-

tance could be mustered in the empty depths of the German defenses. (German antitank guns continued to be deployed in some depth, and so represented almost the only weapon system that was not drawn forward by the severe manpower shortage.)[29]

The role of reserves was equally critical. Where Soviet units ruptured the forward trenchlines, immediate counterattack (*Gegenstoss*) offered the best - and often the only - chance of averting a major breakthrough. German commanders considered speed to be of more importance even than mass: small reserve forces stationed close behind the front were preferred to larger, though more distant, counterattack forces.[30] In a reluctant concession to improved Soviet tactics, German commanders occasionally parcelled out tanks, self-propelled assault guns, and additional antitank weapons to their reserves in order to generate maximum striking power against enemy combined arms forces. (This dispersing of tanks and assault guns to forward units for local counterattack was to become an increasingly contentious doctrinal issue as the war progressed.)

The German strengths and weaknesses could not be concealed from the Soviets. A shrewd summary of German problems was discovered in captured Russian documents, and distributed in an OKH Training Branch report entitled "Experiences with Russian Attack Methods in Summer 1942." Published in September, this memorandum listed the following as the Soviet assessment of German defensive problems:

> Weakness of units. Strongpoint system. Defense therefore contains gaps and lacks depth. Clinging to towns and wooded areas, where they are easily trapped. Only tiny local reserves, and counterattacks with distant reserves are therefore mostly too late...Numerical weakness in tanks facilitates [Russian] antitank measures against counterattacks. Poor construction of positions and obstacles makes it possible to break through their fire and overwhelm infantry.

The Training Branch report warned that, although Soviet training and tactical skill lagged behind that of the Germans for the present, "the Russian is building his attack techniques on these supposed weaknesses and strengths of the German

defense."[31]

This Soviet knowledge was built up during dozens of probing attacks against the German lines throughout the summer. Though diminished in strength by the diversion of forces to the southern battles, these Russian assaults placed considerable pressure on the German defensive front.

In July and August, Soviet thrusts punctured Army Group Center's front on several occasions, causing local crises that were only controlled by repeated counterattacks of Kluge's meager armor reserves. According to General Halder, a "very heavy penetration" of the Ninth Army's front during the first week of August placed "severe strain" on the German forces despite the intervention of three understrength panzer divisions.[32] In Army Group North's area, a powerful Russian attack south of Lake Ladoga in late August penetrated eight miles into Eighteenth Army's sector. This breakthrough could not be contained with available reserves, and so a major portion of Field Marshal von Manstein's Eleventh Army (reassembling for an attack on Leningrad after mopping up the Crimean Peninsula) had to be thrown into a major counterattack.[33] Even though mastered after fierce fighting, these repeated crises clearly demonstrated the frailty of the German defensive front.

While not achieving major victories, the Russian attacks on the German front succeeded in wearing down the defensive forces beyond tolerable levels. By September, the German High Command was admitting that a drastic improvement in defensive capabilities was going to be necessary before winter. Although made without fanfare, this decision had significant strategic implications inasmuch as it conceded that, despite BLAU's early success, a Russian collapse was not imminent and yet another winter defensive campaign would therefore be necessary.

The German leadership addressed the worsening defensive problem from two

different directions. First, Hitler took it upon himself to look into the status of German defenses and to issue a new Führer Order decreeing new defensive standards and procedures. Second, several programs were begun to increase the infantry strength of German forces on the Eastern Front.

The Führer Defense Order of 8 September 1942

Adolf Hitler interpreted the growing defensive difficulties in Russia to be the result of a leadership failure within the German Army. From the experiences of the past winter, Hitler had concluded that the Army's senior officers were timid and lacked the stomach to face crisis. Further evidence of this, in the dictator's view, had come during the summer of 1942. It had then appeared to the Führer that whenever Russian attacks breached the German lines, frontline commanders had done little but whine about insufficient forces and submit panicky requests to conduct local retreats. Despite standing orders against withdrawals, many recalcitrant commanders continued to allow their subordinate units freedom of maneuver within the depths of their defensive zones, a policy that - in Hitler's mind - was merely a device for excusing retreat. Furthermore, based on his own Western Front combat experience as an infantry soldier during World War I, Hitler considered himself to be an expert on defensive tactics and his military advisors to be fuzzy-headed amateurs without personal knowledge of defensive combat. Stirred by these perceptions, Hitler decided to put his own personal stamp on the conduct of German operations.

On 8 September 1942, Hitler issued his most detailed defensive instructions of the entire war. This Führer Defense Order addressed not only current projects for upgrading German defenses; it also soared into a rambling discussion that mixed general operational principles and detailed tactical instructions into a confusing melange. Woven into this exposition were occasional personal reminiscences and dubious historical examples. Written in Hitler's ranting style,

the entire document ran some eleven-plus pages. (General Halder, who had vainly protested the unprofessional tone and content of earlier Fuhrer missives, found this document to be so objectionable that he refused to let his own name appear on the published version even though it bore an Army General Staff letterhead.)[34]

Hitler began benignly enough, offering bland observations about the purpose of defensive combat. Defenders, he wrote, should not seek merely to contain attacks, but should seize these opportunities to "smash enemy forces with every available weapon." Hitler then entered into a discussion of tactical details that, though in concert with *Truppenführung* and current combat practice, scarcely merited the attention of the Führer and Supreme Commander of the German Wehrmacht. For example, Hitler discussed at some length the proper positioning and control of local reserves; he lectured commanders on the correct use of artillery and air strikes to smite enemy assault concentrations; and he ordered a general beefing up of positions-in-depth in order better to absorb Soviet penetrations.[35]

Warming to his subject, Hitler then began casting out ideas that showed an ominous misunderstanding of German doctrinal theories and of Russian Front combat realities. Hitler emphasized the desirability of crushing Soviet attacks forward of German trenches, thereby avoiding altogether the problem of enemy penetrations into the German defensive positions. Seizing upon the experiences of many weakened units, Hitler declared that it was always essential for overmatched troops to stand and fight rather than to disengage by maneuver. Although this idea had some validity in certain cases (as reported by those frontline commanders who felt that maneuver by weak forces fatally widened penetrations), it was flatly contrary to the entire elastic defense-in-depth concept.

Hitler then vented his displeasure with the Army's combat leaders. In the Führer's jaundiced view, many (perhaps even most) Russian penetrations

occurred due to a failure of determination and will on the part of German commanders. "There is no doubt," he declared, "that some positions have been abandoned without absolute necessity." The arguments in favor of local retreats, he continued, namely that in the vast Russian reaches the loss of terrain was of little consequence or that more advantageous conditions could be created by withdrawal, "are basically false." Gathering steam, Hitler tossed in examples in which immobile German artillery had been abandoned in place when Russian forces had overrun certain sectors. Where artillery pieces lacked sufficient mobility to redeploy, Hitler fumed, then the artillerymen too should be prepared as a matter of honor to stand and defend their positions with hand weapons until, the last round fired and no help arriving, they blow up their own cannons.[36]

What Hitler really desired, and what the disjointed Führer Defense Order gradually made clear, was to turn back the clock on German doctrinal development, returning to a rigid, terrain-holding linear defense such as had been practiced before the adoption of the Elastic Defense during the winter of 1916-1917. "I deliberately turn back with this concept [of a continuous linear defense] to the style of defense such as was employed with success in the harsh defensive battles *up to the end of the year 1916* [emphasis added]." In these battles, Hitler recalled, the enemy had possessed overwhelming superiority in men and material, even "incomparably higher than is the case at some places on the Eastern Front," and so had managed to inflict heavy casualties on the defenders. "In spite of this, the enemy achieved only insignificant advances after weeks of fighting at heavy loss to himself."[37] Therefore the Führer urged commanders, infantrymen, and even artillerymen to a more tenacious resistance in place because "elastic" defense conceded the temporary loss of terrain to superior attacking forces, a concession that went against the grain of Hitler's megalomania.

As most of his officers recognized, Hitler's use of the 1916 combat example was counterfeit. In holding up the Imperial German Army's sacrifices in the Battle of the Somme as a model of tactical virtuosity, Hitler ignored the resulting denouement: the German Army had purposely altered its defensive doctrine after the costly 1916 battles precisely because its own losses were unacceptable using the rigid linear tactics, and because the Elastic Defense made more efficient use of Germany's limited manpower. Though more efficient, the Elastic Defense required a temporary relinquishing of terrain when tactical necessity dictated - a notion that Hitler desired to banish from the minds of his battle leaders.

Hitler did not lionize pre-1917 methods because he seriously considered them to be better than the Elastic Defense. Rather, he simply could not willingly accept the ebb and flow of defensive combat that was inherent in "elastic" methods. For Hitler, there could be no ebb: the enemy must be held at the forwardmost defense line or, failing that, assailed at whatever cost with the blind intent of restoring the HKL as quickly as possible.

Although these general observations were implicitly critical of the Army's doctrinal practices, Hitler stopped short of an outright rejection of Elastic Defense. Indeed, one of the most confusing aspects of the Führer Defense Order was the way in which Hitler glibly combined established doctrinal concepts (depth, firepower, counterattack) with his own fevered visions of defensive warfare. However, careful readers noted that, buried within Hitler's prose, were three specific concepts that were patently incompatible with standard German practices.

First, Hitler proposed shifting units in order to mass forces in the path of Russian attacks. He wrote that:

> When the attacker himself uncovers a particular section of the front in order to concentrate strong forces in another attack sector, so must the defense respond by the same method and to an equal extent... It is

> necessary immediately to pull divisions out of thickly defended areas so that they can be shifted to the threatened sectors.[38]

Under normal circumstances, the reinforcing of threatened sectors would amount to little more than ordinary military prudence. However, combined with Hitler's obsessive insistence on holding terrain, such lateral shifting of forces promised only to place greater concentrations of German troops on the Red Army's anvil, causing them to be hammered to pieces by the weight of Russian blows. The Elastic Defense sought to wear out enemy attacks by depth, maneuver, and firepower, and then to defeat enemy assault forces by timely counterattacks against enemy weakness. Hitler's scheme planned to mass German strength against greater Soviet strength, thickening German defenses at points threatened by Russian attack. Such a procedure might be successful in blunting Soviet offensives without significant loss of territory; however, it would invariably do so - as on the Somme in 1916 - at enormous cost in German lives.

Secondly, Hitler announced his personal intention to intervene even more frequently in the conduct of defensive operations in the East. In yet another historical allusion of doubtful veracity, Hitler compared this to actions during the Great War in which Hindenburg and Ludendorff had taken direct control of operations on the Western Front. To this end, the Führer ordered front commanders to provide him with detailed maps (down to a scale of 1:25,000) of their positions, assessments of unit capabilities, and their current supply status so that he could have all relevant information to exercise close personal control over future battles.[39] Corresponding to Hitler's previously-displayed proclivity to interfere in battlefield operations, this announcement - which portended Hitler's direction of even division-level engagements - struck yet another blow at *Auftragstaktik* and the independence of subordinate leaders.

Finally, Hitler reiterated his insistence on standing fast in the face of

defensive crisis. In an underlined passage, the Führer Defense Order stipulated that "no army group commander or army commander has the right to allow on his own authority the execution of a tactical withdrawal without my specific approval." Rather than worrying about withdrawal or evasive maneuver, frontline commanders should dedicate themselves to a new defensive slogan: "Trenches and always more trenches."[40]

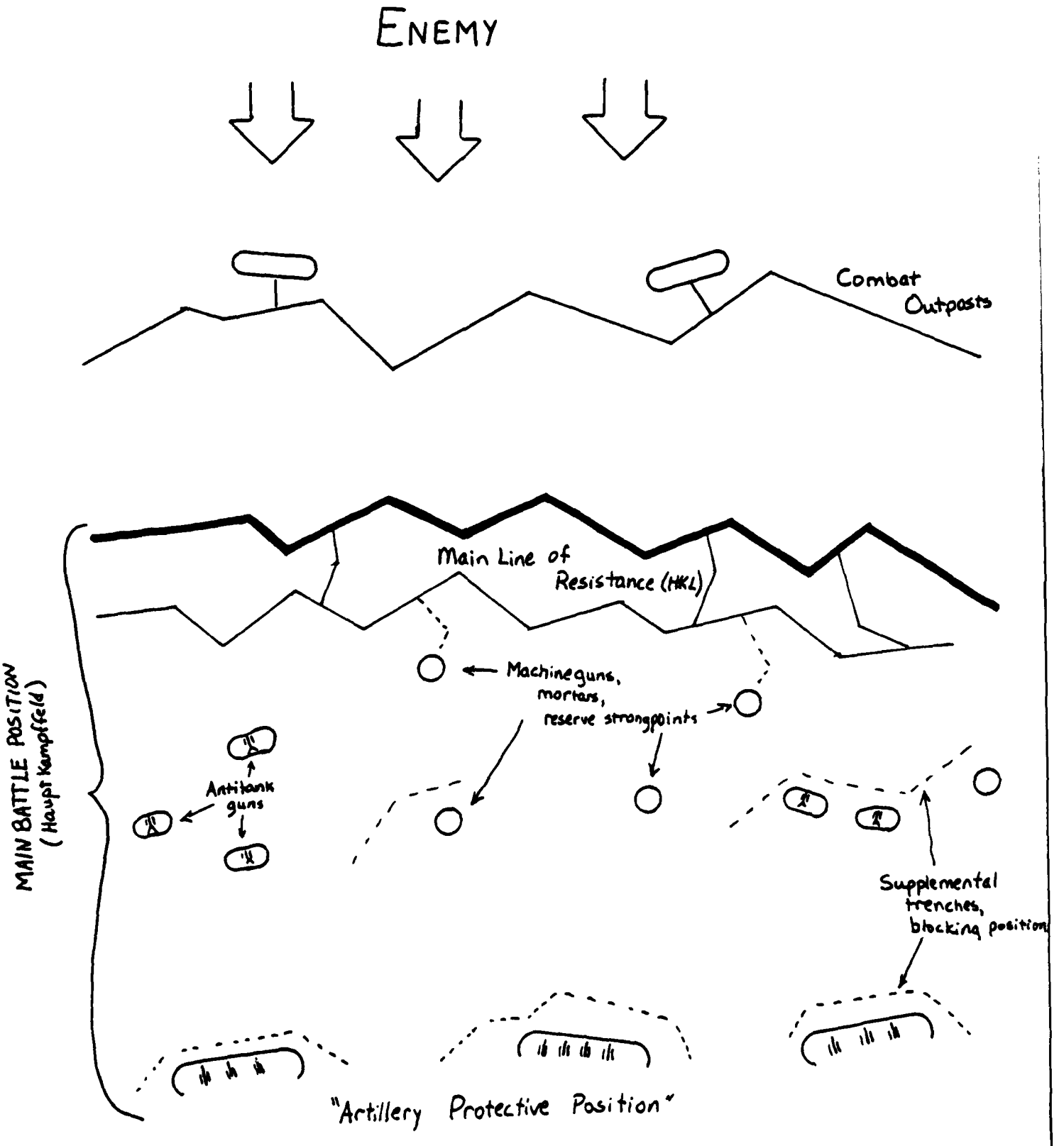
With these instructions, Hitler signalled to his combat commanders his desire for an unrelenting positional defense, one that would hold terrain without regard to casualties or doctrinal niceties. He also made it clear that he was prepared to exert his own authority to the utmost to ensure compliance. This Führer Defense Order must have made German officers uneasy, promising as it did to paralyze their conduct of defensive operations with still more of Hitler's doctrinal quackery.

For the short term, the damage to German defensive doctrine remained potential rather than actual as autumn rains interrupted operations for a time. Furthermore, in implementing the Führer Defense Order's instructions frontline commanders tried to minimize its disruptive impact by heeding only those portions that supported existing methods, and by blithely ignoring Hitler's more obnoxious suggestions. Army Group Center contented itself with issuing a brief order directing improved trenchworks and a second directive prescribing the further fortification of logistics centers and the construction of largescale antitank obstacles (mostly ditches) in its rear using civilian labor.[41] General Gotthard Heinrici, the commander of the Fourth Army, discussed both the Führer Order and its implications with his subordinates at a formal command-and-staff meeting on 25 September, but limited his written instructions to a defensive memorandum dealing exclusively with technical matters.[42] The commander of the LVI Panzer

Corps, noting that the Führer's order "requires the construction of a defensive position of a sort equivalent to those of the 1914-1918 World War," ingenuously forwarded a requisition for construction materials that included 75,000 rolls of barbed wire, 68,000 antitank mines, and 50,000 antipersonnel mines.[43] (This request was hopelessly optimistic, as these quantities were more than triple the amounts previously delivered during the entire summer. However, such requests were part of "playing the game," and allowed one to blame future failure on the nondelivery of required supplies.)

The most visible immediate effect of the Führer Defense Order was some improvement and standardization of German defenses. The Fourth Army, for example, condensed Hitler's instructions into a directive specifying a standard defensive layout (see Sketch 14). The forwardmost trenches and security positions constituted the Combat Outposts (*Gefechtsvorposten*). Some distance behind the *Gefechtsvorposten* stood the Main Line of Resistance (*Hauptkampflinie* or HKL). The HKL was to consist of two heavily-fortified trenches in which the bulk of the German combat strength would be concentrated, sufficient to "guarantee" the successful repulsion of enemy attacks. Accordingly, the Fourth Army directed that maximum effort be devoted to the strengthening of the HKL and its affiliated bunkers. Extending rearward from the HKL was the Main Battle Position (*Hauptkampffeld*). The *Hauptkampffeld* was dotted with small strongpoints containing any heavy weapons (machineguns, Paks, and so forth) not needed for the immediate defense of the HKL. The Fourth Army memorandum also specified the construction of additional blocking positions within the *Hauptkampffeld*. Bowing to Hitler's demands, local reserves would shelter within these blocking positions to stymie any Soviet penetrations and to restore the HKL as quickly as possible by counterattack. At the rearward limit of the *Hauptkampffeld* stood the Artillery Protective Position (*Artillerie Schutzstellung*). Located one to three kilometers

SKETCH 14: Fourth Army Defensive Positions, Late 1942
(Bulk of infantry concentrated in HKL)



behind the HKL and just forward of the bulk of the German artillery, the *Artillerie Schutzstellung* was functionally defined as the containment line for enemy tank penetrations. "At the latest," ordered Fourth Army, "enemy panzer break-ins should come to a halt before this [position]."

Altogether, these successive defense lines (*Gefechtsvorposten, Hauptkampflinie, Hauptkampffeld,* and *Artillerie Schutzstellung*) constituted the First Position. Behind this, a Second Position - organized exactly as the first - was to be surveyed and prepared for emergency occupation in the event of a major Soviet eruption through the German defenses. The Second Position would, in accordance with the Führer Defense Order, be sited sufficiently far to the rear that enemy artillery could not engage it without displacing from pre-attack locations.[44]

This physical deployment replicated the Elastic Defense to a degree that should have satisfied the most pedantic doctrinal purist. Aside from some differences in nomenclature - for example, the successive positions were no longer referred to as independent "zones" but rather were regarded more as parts of a common whole - the Fourth Army's scheme was almost completely in accord with combat practices of 1917-1918 and later doctrinal publications. Even the idea of an Artillery Protective Position was not new, having been used in many instances on the Western Front during World War I.[45]

For all this similarity, some slight shifts in emphasis made their way into the frontline instructions. The use of local reserves had undergone a subtle shift in purpose: instead of awaiting the enemy's disruption and exhaustion within the depths of the defense, reserves were now expected to strike enemy penetrations as soon as they occurred in order to win back the original front. This change was motivated by Hitler's impatience at even the temporary loss of ground, and implied that the commitment of German reserves would hence-

forth be triggered more by the loss of terrain than by the vulnerability of the enemy. Likewise, the new instructions illustrated some of the ambiguity of Hitler's own thinking. For all the emphasis on holding forward along the HKL, there was a concurrent - and apparently contradictory - emphasis on improving defensive positions in depth, and especially on the creating of a duplicate Second Position far behind the original front.

Though duty-bound to implement Hitler's general designs, German commanders were not blind to either the contradictions or the impracticalities of the Führer Defense Order. Even as he was dutifully ordering his Fourth Army to implement the Führer's directive, General Heinrici dispatched a secret "eyes only" letter to Army Group Center decrying the impossibility of achieving those standards. In Heinrici's area, the dearth of combat troops had already spread his divisions to the uttermost limits, leaving no manpower whatsoever to undertake new construction or to man more extensive positions. Along the Fourth Army's front, it was not uncommon for trenches to be posted at night with only one two-man team for every 60-100 meters of trench. Furthermore, competing daily requirements for local security, patrols, trench repair, training, equipment maintenance, and rest made it impossible to fulfill current tasks adequately, much less to bring Hitler's fatuous dreams to life. The simple fact was, Heinrici declared, that even present positions could not be fully secured with existing forces, as evidenced by the steady loss of prisoners and casualties to Soviet raiding parties.[46]

Heinrici's complaints cut to the essence of the German defensive problem: lack of men. Though Hitler might figure to banish the German Army's defensive problems by the issuance of a frothy directive, the Führer Defense Order could not be fully implemented for the same reason that the I Corps' instructions had gone unfulfilled earlier in the summer. The German divisions manning the

defensive front lacked sufficient numbers of soldiers to conduct more than an expedient defense, whatever Hitler's headquarters might decree. Any real improvement in German defensive dispositions awaited a substantial raising of German troop strength.

Bolstering Combat Manpower

In gross terms, the Wehrmacht's manpower problems were insoluble. Germany simply had too few men of military age to meet its expanding requirements. However, this reality was made even harsher by Germany's consistent mismanagement and misuse of the manpower that it did possess.

Adolf Hitler's Third Reich allocated its manpower resources with all the precision of an oriental bazaar, forcing the German Army to jostle its way through various military, paramilitary, economic, governmental, and Nazi Party organizations like a none-too-wealthy rug merchant in search of a bargain. Each of these competing agencies jealously defended its claims to draft-age men by means of patronage and political intrigue, thereby robbing the Army of choice manpower badly needed at the front. The two greatest offenders - and the ones with the best connections to Hitler - were the SS and the Luftwaffe.

Germany's conscription apparatus was managed by the Armed Forces High Command (OKW), which denied the SS a share of the draftees. The SS, which preferred to fill its ranks with pure volunteers anyway, circumvented this exclusion by energetically recruiting younger men who were not yet eligible for the draft. (At the beginning of the war, German conscription called only men twenty years old or older; many SS recruits were as young as sixteen.) Benefitting from Nazi Party propaganda and Hitler Youth indoctrination, the SS was thus able to siphon off large numbers of highly-motivated volunteers for service in its own Waffen SS field units.[47] Although Waffen SS units served at the front under Army control, the duplicate training machinery and administrative bureaucracy

maintained by the Waffen SS wasted thousands of men who could otherwise have been used as combat troops. Moreover, many of the high-quality enlistees drawn to the Waffen SS were needed in the Army as potential noncommissioned officers and technical specialists.

At the beginning of BARBAROSSA in 1941, Waffen SS field units numbered six full divisions and a handful of separate battalions and regiments. Battle losses and a gradual enlargement of Waffen SS forces continued to draw men away from the Army at a steady rate until August 1942, when Hitler sanctioned a massive enlargement of SS units that would double Waffen SS forces within a year.[48] Therefore, precisely at the time that the German Army was frantically casting about for ways to raise its own frontline strength in late summer 1942, the Waffen SS was becoming an even more voracious consumer of German manpower.

Even more frustrating to the German Army was the conduct of *Reichsmarschall* Göring's Luftwaffe. Like the SS, the Luftwaffe benefitted from an elitist image amongst German youth and so consistently attracted large numbers of zealots who were prime soldier material. With the curtailment of its offensive air activities since the 1940 Battle of Britain, the Luftwaffe found itself with a surfeit of ground support personnel. An attempt by the Army to claim these men for retraining as infantry replacements during the summer of 1942 was parried by Göring, who argued to Hitler that transferring these "genuinely National Socialist" young men to the Army would contaminate them by exposure "to an army which still had chaplains and was led by officers steeped with the traditions of the Kaiser."[49] Instead, in mid-1942 Göring ordered that 170,000 surplus air personnel be organized into twenty-two Luftwaffe "Field Divisions" for employment as ground units at the front. In the Army's view, this was a remedy that promised no relief since these Luftwaffe units would almost certainly be of low quality due to inexperience and lack of trained leadership. As Field

Marshal von Manstein explained in his memoirs:

> To form these excellent troops into divisions within the framework of the Luftwaffe was sheer lunacy. Where were they to get the necessary close-combat training and practice in working with other formations? Where were they to get the battle experience so vital in the east? And where was the Luftwaffe to find divisional, regimental, and battalion commanders?[50]

The answers to these questions became apparent in late 1942, when several Luftwaffe Field Divisions fell apart at their first taste of combat on the Russian Front. These 170,000 men, who as infantry replacements could have nearly replenished the bedraggled divisions of Army Groups Center and North, thus added very little combat strength to the German forces in the east.

The German Army shared some blame for the shortage of infantrymen. The infantry, respected in the Prussian and German armies since the days of Frederick the Great as "Queen of the Battlefield," had been eclipsed in popular affections by the glamor and publicity given to the mobile troops during World War II's early campaigns. Though conscripts could still be made to fill the ranks of infantry divisions, flocks of enterprising young soldiers avoided infantry service by volunteering for the new darlings of the German Army, the panzer and motorized forces. By late summer 1942, some senior officers detected a growing "unpatriotic" tendency on the part of recruits to abhor infantry duty, and to seek assignment to other, less demanding jobs.

In an attempt to counteract these perceptions, on 27 July 1942 General Halder authorized an information campaign with the intention of "glamorizing the infantry."[51] A memorandum to field commanders from the German Army's Chief of Infantry on 1 August invited suggestions from field commanders for regenerating the German infantry forces. General Heinrici in reply suggested a number of wide-ranging reforms, including preferential career development for infantry NCO's, improved pay and benefits, and a better effort to counter the recruiting

guiles of the Waffen SS, Luftwaffe, Navy, and Reich Labor Service. Heinrici also cited a pervasive "East Complex" as a major deterrent to infantry enlistments, explaining that the desolate Russian landscape and harsh battle conditions in the east were causing widespread melancholia among frontline soldiers there and discouraging recruits from volunteering for infantry service.[52]

Other measures taken to ease the infantry crisis included using volunteer laborers (*Hilfswillige*, or *Hiwis*) - most of whom were paroled Russian prisoners-of-war - on work projects behind the German front. While not directly increasing the number of infantrymen, the use of *Hiwis* at least reduced the demand for German auxiliary personnel somewhat.[53] Secondly, officers of frontline infantry units were allowed to make recruiting sweeps through service and support units, attempting to persuade rear echelon soldiers to volunteer for infantry duty. To prevent rear echelon units from "protecting" their favorite personnel, an order from the Army High Command warned that even "indispensable clerks" were to be released if willing, since "only the Front Fighter is indispensable. For all others will a replacement be found."[54] To enforce this edict, a General Walter von Unruh was deputized by Hitler to comb rear area units to identify excess personnel. Unruh's writ as "Hero Snatcher" (*Heldenklau*) included absolute authority to order individuals transferred to the front in the Führer's name.[55] Such policies offered minor relief, but could not greatly affect the overall combat worthiness of German units.

More substantial measures soon followed. In yet another Führer Order, Hitler announced his displeasure at the intolerably low combat strengths of fighting units in relation to their support "tail," and ordered an immediate accounting by all army commanders of their subordinate divisions' total ration strength versus infantry combat strength.[56] In a companion directive, General Kurt Zeitzler (who had succeeded the disenchanted General Halder as Chief of

Staff in September) ordered an immediate ten per cent reduction in all OKH, army group, army, corps, and division headquarters personnel. All freed manpower was to be sent to the front as combat replacements. Zeitzler also directed that the personnel in rearward support units should regularly be reduced in proportion to forward combat losses, with the dislocated officers, NCO's, and men sent forward. In this way, Zeitzler declared, the support units would share the inconvenience of reduced establishments and even actual casualties along with the fighting forces, thereby eliminating the traditional estrangement between "combat troops" and "rear echelons."[57]

General Zeitzler also ordered all rearward forces, including high-level staffs, supply troops, and signal personnel, to organize combat-ready "alarm units." In addition to performing their normal duties, these *Alarmeinheiten* were to receive refresher infantry training, and were ideally even to be rotated periodically into the front lines for a few days' exposure to real combat conditions. In crisis situations, these alarm units were to be assembled and placed at the disposal of forward commanders for use as supplementary reserves.[58]

His energy and enthusiasm for his new job as yet undimmed by Hitler's stultifying command style, Zeitzler dashed off other memos addressing morale, leadership, and unit organization. In an order entitled "Front Fighters" dated 29 October 1942, Zeitzler charged all officers with ensuring that the fighting troops received the best possible treatment and creature comforts - even if this meant that service troops went without.[59] Worried that the constant attrition of junior leaders might jeopardize the esprit of small units, Zeitzler directed that all requests-for-transfer submitted by junior officers and NCO's for reassignment to combat duties be given immediate, unconditional approval. The new Chief of Staff also specified that all such leaders returning to duty

from convalescent leave were to be returned if possible to their old units, as were officers and NCO's serving on detached duty at training depots or elsewhere.[60] Noting that combat losses and lack of adequate replacements had caused many divisions to disband one-third of their infantry battalions, Zeitzler urged on 20 November that all veteran comapnies be kept intact regardless of losses even if reassigned to new parent units. "Every soldier is attached to his own particular company. Cohesiveness takes a long time to develop in new units - often it never develops at all. Thus it is better to keep together original companies..."[61]

Collectively, these measures show the growing German awareness of the severe pressures placed on their divisions by the lack of adequate manpower. For want of men, German commanders were being forced to compromise doctrinal Elastic Defense methods, sacrificing especially the traditional use of depth and small unit maneuver to absorb enemy attacks without inordinate loss. The manpower shortage was causing internal strain as well, wearing away at the morale, training, and general combat-worthiness of German units. The desperate expedients taken to redistribute personnel within the German Army eased the stresses somewhat, but the ultimate solution to Germany's manpower problems lay far beyond the Army's control. Moreover, catastrophic losses during the coming winter at Stalingrad and elsewhere would turn the screw even tighter on Germany's already overtaxed eastern armies.

Winter Battles on the Defensive Front

In the gathering autumn of 1942, German soldiers and civilians were haunted by the specter of a second winter campaign in Russia. Seeking to allay those fears, in early October the Luftwaffe's *Reichsmarschall* Hermann Göring told a cheering crowd in the Berlin *Sportpalast:* "This time we are immune. We already know what a Russian winter is like."[62]

With respect to the weather, Göring's prediction proved accurate. Drawing on their own experiences plus the knowledge exchanged in after-action reports, German divisions braced themselves for the expected cold temperatures and harsh conditions. In terms of supplies, training, and shelter, German units were far better prepared for winter warfare than they had been the previous year. However, protection against the weather did not necessarily make German forces immune from Russian bullets. Even though Soviet strength had shifted to the south, the Red Army forces facing Army Groups Center and North were sufficiently powerful to batter the German defensive front, causing several defensive crises during the course of the winter's fighting.

The autumnal "bucking up" of German defenses prompted by the Führer Defense Order also served as early preparation for winter. The 58th Infantry Division, for example, directed on 17 September that the mandated improvements in its own defenses be made in such a manner that "the troops can spend the winter in the position."[63] One criterion emphasized at all levels was the construction of a continuous defense line so as to avoid the costly and hazardous strongpoint tactics of the previous winter. One specific passage of the Führer Defense Order had even addressed this issue. Noting that a strongpoint-style defense had been compelled in "certain sectors" as an "emergency measure" during the winter of 1941-1942, Hitler had made it clear that such expedient measures were peculiar to the previous winter and in no way constituted a doctrinal model for winter defensive tactics. Instead, Hitler "demanded" a continuous defense line even during winter months, a requirement that for once corresponded exactly with the opinions of frontline commanders as expressed in their own earlier after-action reports.[64]

Hitler added specific operational guidance on 14 October 1942. On that date, the Führer issued "Operations Order 1" giving instructions for winter

activities. Operations Order 1 implicitly conceded that Germany's strategic ambitions for 1942 had not been realized. Instead, Hitler promised, success in the coming winter battles would protect recent German gains, creating favorable conditions for the "final destruction of our most dangerous enemy" sometime in 1943. While directing that German attacks at Stalingrad and in the Caucasus should continue, Hitler ordered the armies along the defensive front to prepare for a winter campaign. Reiterating the constraints of the September Führer Defense Order, he directed that winter positions were to be defended to the last under all circumstances. Hitler added that German units were not to avail themselves of "evasive maneuvers" or withdrawals, that enemy penetrations were to be contained as far forward as possible, and that any units isolated by Russian breakthroughs were to hold in place until relieved. Moreover, "the significance of a continuous HKL must once more be especially emphasized." And, in what was becoming virtually a personal trademark, Hitler warned that every leader was unequivocally responsible for the "unconditional execution" of his instructions.[65]

Three weeks later, with intelligence reports predicting the imminent onset of powerful Russian attacks, Hitler directed the Chief of the Army General Staff to remind army commanders of their defensive responsibilities. At a situation conference on 2 November, Hitler told General Zeitzler to issue a new memorandum "based on the Führer's Winter Directive [Operations Order 1] setting forth again the principles according to which operations are to be conducted." Apparently forgetting for the moment his own proscriptions against strongpoint defenses - the Führer did not hold himself to the same standards of obedience that he demanded from field commanders - Hitler added that "particular emphasis is to be given to the demand that every *Stützpunkt* is to be defended to the last."[66] While the reference to strongpoints may have caused some officers in attendance

to blink in momentary confusion (for a continuous defense line was still the prescribed standard, and strongpoint defenses remained officially anathema), Hitler's basic message was clear. In the coming winter battles, German defenders would fight bitterly to retain their initial positions, and no tactical flexibility would be granted for the execution of "elastic" defensive methods that required the relinquishing of any terrain.[67]

While Hitler rattled orders to his generals, German soldiers continued to gird for winter warfare. Where time and manpower allowed, defensive positions were improved to meet Hitler's qualifications. Foraging parties hunted through Russian villages for sleds and snowshoes. German panzer units received extra-wide snow tracks for their tanks and assault guns to give greater cross-country mobility over snow and slushy ground. (Unfortunately, the wider tracks did not fit German railroad flatcars or standard military bridging, and had to be removed each time these vehicles used one of those items.)[68] Most divisions assembled special ski units, earmarking these units for use as local counterattack forces. In the 132nd Infantry Division, for example, troops of the division's "bicycle battalion" traded their bicycles for skis and continued in their role as the division's only mobile reserve.[69]

As is often the case, actual conditions at the front did not always measure up to the hearty standards decreed by higher headquarters. Frontline visits by General Georg Lindemann, the commander of the Eighteenth Army, revealed enduring deficiencies among his units. Touring the front of the L Corps outside Leningrad in early November, Lindemann found that, in spite of repeated orders to the contrary, gaps still existed in the forward trenchlines. Explaining the lack of improvements, the corps commander pointed out to Lindemann that "due to the tremendous shortage of personnel only maintenance of the [existing] position is possible."[70]

Though somewhat stronger than during the last winter, German divisions still manned extended fronts with understrength units. The 121st Infantry Division, holding part of Army Group North's line, had an average battalion strength of only 200 men, and could muster only one composite bicycle/ski company and one "alarm company" (composed of service troops) as division reserves. In the 254th Division, each regiment held only one infantry and one pioneer platoon in reserve behind frontline troops that, according to the division commander, were "extremely tired."[72]

Manned by worn out and understrength division in haphazard positions, the German defensive front invited Russian penetrations. The defensive lines of Army Groups Center and North zigzagged back and forth, their twists and turns adding hundreds of unnecessary miles to the trenches held by German troops. The two army group commanders had each requested Hitler's permission to conduct limited withdrawals. These retreats, they argued, would free troops to thicken the German defenses and form reserves. Hitler rebuffed both, scorning the notion that the surrender of terrain could in any way work to German advantage.

The most vulnerable portions of the German lines were the so-called Rzhev Salient in Army Group Center, the Demyansk Salient south of Lake Ilmen, and the narrow neck of land held by Eighteenth Army east of Leningrad around Schlusselburg. In each of these areas, German forces were geographically exposed. The Rzhev and Demyansk positions dated back to the winter fighting of 1941-1942, and represented "stand fast" lines held by German divisions despite deep Soviet envelopments on each flank. At Schlusselburg, the strip of land held by the Germans along the southern shore of Lake Ladoga was all that kept outside Soviet forces from lifting the land siege of Leningrad. A Russian breakthrough at any one of these points could easily result in the encirclement and destruction

of sizable German forces, especially considering Hitler's repeated injunctions against local retreats.

Soviet attacks during the winter of 1942-1943 tested the German front in each of these sectors, but failed to achieve the catastrophic breakthrough desired. At Schlusselburg, the Russians did manage to seize a thin sliver of land linking Leningrad with their main forces, but did so without inflicting any decisive loss on the Germans. The Russian onslaughts did pin down nearly all of the reserves belonging to Army Group Center and Army Group North, however, leaving virtually no forces available for transfer to the southern front once the Stalingrad debacle had begun.[73]

The one Soviet offensive that managed to destroy even a division-sized German force on the defensive front occurred at Velikiye Luki. There, though less exposed than the forces at Demyansk or in the Rzhev Salient, the German defensive deployment tolerated gaps in rough terrain to north and south of the town. Even the German main positions were not completely tied together, with only lightly-manned trenches linking platoon and company strongpoints. A Soviet advance on 25 November through the gaps surrounded 70,000 German troops from two different divisions in and around Velikiye Luki. For the next two months, German forces were embroiled in a savage battle to spring open the Velikiye Luki trap, an effort that eventually consumed elements of three additional divisions in desperate rescue attempts.[74]

In terms of defensive doctrine, the battles around Velikiye Luki - as with the fighting at Schlusselburg, Demyansk, and Rzhev - produced few surprises. As had already been demonstrated dozens of times in other places, inadequately-manned German positions could be swamped by superior Soviet forces in winter combat. Unlike the winter of 1941-1942, the divisions on the northern front made little attempt to use strongpoint tactics, instead clinging grimly to their continuous defense lines per Hitler's orders. The lack of manpower doomed this

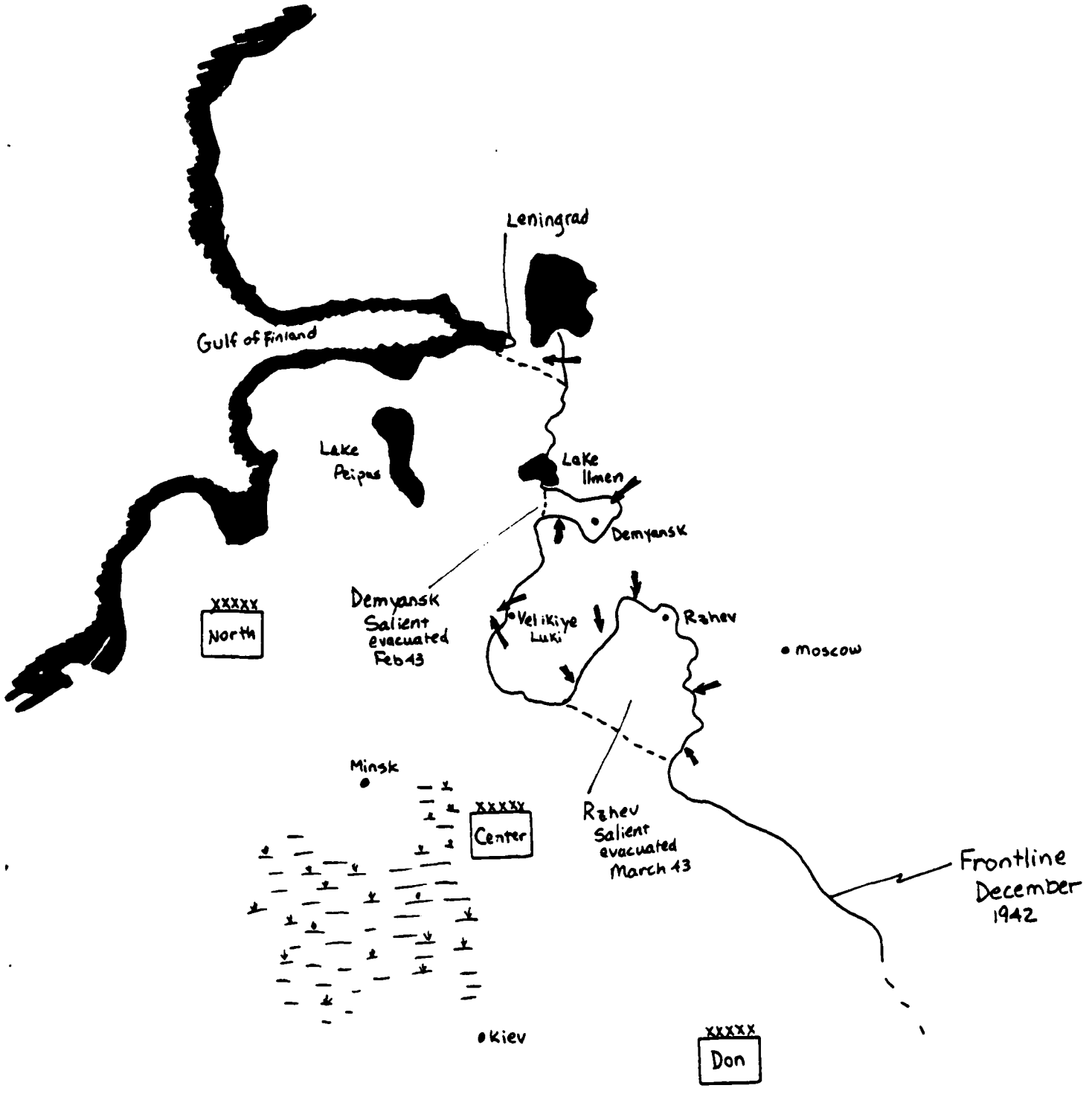
effort to failure. As one former corps commander wrote:

> To be sure, there were no gaps - the reader will recall their serious consequences in the winter campaign of 1941/42 - in the... front. The positions formed a continuous line during the early fighting, but it was impossible to man them adequately (a division had to hold a sector of from forty to fifty kilometers). Neither were there any major reserve forces. Only small, local reserves were available. Whatever could be spared had been transferred to the armies on the southern front.75

German troops, stolidly holding on to intact bits of front in accordance with the Führer's instructions, did manage to sustain pathetic little islands of resistance against the Russian flood. Ultimately, however, the retention of such points proved completely meaningless in the absence of strong mobile reserves. The German forces pocketed around Velikiye Luki, for example, eventually became a substantial operational liability, tying down precious reserves to no purpose other than to rescue them from a trap wrought largely by Hitler's rigid constraints. The commitment of German forces to such relief expeditions weakened German defenses at still other points, and prevented the shifting of additional divisions to the concurrent decisive battles between Stalingrad and Rostov.

The same had generally been true at Demyansk and Rzhev. There, German reserves were drawn into attritional battles which, though preventing Soviet breakthroughs and the consequent encirclement of exposed German forces, accomplished little apart from satisfying Hitler's bent for holding ground. In early 1943, with the forces of Army Group Center and Army Group North near utter exhaustion, and with no further reserves available to prevent future Russian penetrations of the defensive front, Hitler finally authorized the abandonment of both the Demyansk and Rzhev salients. These withdrawals substantially shortened the front - in the case of Rzhev, Operation BUEFEL (Buffalo) reduced the German frontage from 340 to 110 miles - but came too late to allow either the building of a new fully-manned defense line or the transfer of

SKETCH 15: Soviet Attacks on Army Groups Center and North, Winter 1942-1943



additional units to other sectors.[76]

Hitler refused to acknowledge that his rigid defensive instructions tied the hands of field commanders by precluding the potential advantages of elastic defense-in-depth. Hitler, it seemed, could be convinced of the need to authorize retreats or line-shortening withdrawals only after entire German armies had been shredded in positional warfare under disadvantageous conditions. Even when the Führer finally authorized rearward movement, such withdrawals offered little tactical relief since German losses in the interim had usually been so great that even the new, shorter lines could not be properly secured.

The Southern Front

In comparison to the stripped-down divisions left holding along the defensive front, the German southern attack forces assembled for Operation BLAU seemed sleek and powerful. This appearance was deceiving. The divisions assigned to Army Group South (later divided into Army Groups A and B) suffered from many deficiences that compromised their offensive and defensive capabilities.

In May 1942, most of the infantry divisions in Army Group South stood at about 50% strength. Although brought nearly up to strength over the next six weeks, the southern divisions had little time or opportunity to assimilate their new troops. Only one-third of the infantry divisions committed to the upcoming attack could be taken out of the line in early spring for rehabilitation; the remaining divisions stayed in their old winter defensive positions, trying to train and integrate their replacements even as they fought desultory defensive battles against minor Russian attacks.[77] As a result, the general standard of training in the southern assault forces stood far below that of the German armies of 1939-1941. Losses in officers, NCO's, and technical personnel during the winter battles of 1941 - many German units were now regretting the use of artillerymen, signallers, and other specialists as infantry during the winter months since

they were so hard to replace - further sapped the combat abilities of the German forces. Moreover, even after stripping vehicles and equipment from the northern forces the divisions of Army Group South lacked their full complement of motor transport. According to a General Staff study in late May, the spearhead forces (those divisions that would actually lead the attacks toward Stalingrad and the Caucasus) would jump off with only 80% of their vehicles, and the follow-on infantry divisions and supply columns would be slowed by shortages of both horses and vehicles.[78] For all of the ruthless economies inflicted on their poorer relatives to the north, Army Groups A and B would therefore be more clumsy, less mobile, and have less staying power than the German armies that had launched BARBAROSSA a year before.

Operation BLAU gave two distinct missions to Army Group B. First, it was to carve its way eastward along the southern bank of the Don River some 300 miles to Stalingrad. Secondly, it was to post a defensive screen along its northern flank as it went, protecting its own rear and the further unfolding of Army Group A's attack to the south. Though not the decisive thrust - Army Group A would actually push into the Caucasus toward the strategic oilfields - the mission of Army Group B was crucial to German success.

Army Group B's farflung tasks could not be accomplished with the German divisions at hand. Consequently, the most critical jobs were given to the more powerful German armies, and less demanding tasks were allotted to a polyglot of allied contingents. The Sixth Army and the Fourth Panzer Army were charged with the main attack, while the veteran Second Army would seize Voronezh and then form the link between Army Group Center's defensive front and Army Group B's flank pickets. The job of covering the long northern flank was handed to allied armies of lesser fighting value.

In the spring of 1942 Hitler had prevailed upon the Reich's military part-

ners to ante up additional combat forces to augment the German armies. Rumania, Hungary, and Italy all reluctantly consented to deploy additional forces on the Eastern Front, though they each insisted that their contingents fight under their own army headquarters rather than as separate divisions in German corps and armies.[79] By early August, thirty-six allied divisions were committed in the southern portion of the front, roughly forty per cent of the total number of Axis divisions in that region. Even though German liaison staffs were assigned to these forces, the combat effectiveness of the allied armies was generally poor.[80] By relegating the allied forces to purely defensive missions along the German flanks, the German High Command figured to minimize the demands placed upon these forces while still conserving Wehrmacht divisions for crucial combat roles.

Through early summer, the forces posted along Army Group B's northern flank had little difficulty in fending off Soviet assaults. An after-action report by the Second Army on 21 July 1942 following the defeat of Soviet counterattacks near Voronezh was particularly reassuring. Written at the request of the General Staff's Training Branch in Berlin and circulated throughout the German Army's higher echelons, this report allayed lingering fears caused by the Red Army's winter successes in 1941-1942. "Russian infantry in the attack is even worse than before," the report began. "Much massing, greater vulnerability to artillery and mortar fire and to flanking maneuver. Scarcely any more night attacks."[81] This report brightened the prospects for successful defense along Army Group B's northern flank.

Despite this reassurance, the vulnerability of Army Group B's left wing remained a tender point. Hitler's own interest in this potential weakness dated to early spring, when he had ordered Second Army reinforced with several hundred antitank guns as an additional guarantee against the collapse of BLAU's

northern shield.[82] In anticipation of its defensive operations, Second Army had been assigned numerous engineer detachments, labor units, and Organization Todt work parties for general construction and fortification purposes. After its successful attack on Voronezh in early July, Second Army made a determined attempt to fortify its portion of the exposed flank using these assets throughout the remainder of the summer.[83]

To the east beyond Second Army, however, the Don flank was held by troops of the Hungarian Second Army, the Italian Eighth Army, and the Rumanian Third Army. Other Rumanian formations, temporarily under the command of Fourth Panzer Army, held the open flank south of Stalingrad. As expected, these forces proved to be mediocre in combat, leading German commanders to be even more uneasy about this long, exposed sector. By September, General Maximilian von Weichs, the commander of Army Group B, regarded his northern flank to be so endangered that he ordered special German "intervention units" (*Eingreifgruppen*) rotated into reserve behind both the German- and allied-held portions of his left wing.[84]

The use of *Eingreif* units was not new to German defensive doctrine. The Elastic Defense of 1917 and 1918 had used *Eingreifdivisionen* to reinforce deliberate counterattacks against particularly stubborn enemy penetrations. In 1942, however, the role of these intervention units went beyond counterattack. They could also provide advance reinforcement - "corsetting" - to threatened sectors since, according to Weichs' explanation, the Russians "seldom were able to conceal preparations for attack." The *Eingreifgruppen* could thus be used to support faltering allied contingents, hopefully steeling their resistance until additional help could arrive.

In October, Weichs' concerns were taken up by General Zeitzler, the new Chief of the Army General Staff. In a lengthy presentation to Hitler, Zeitzler argued that the allied lines between Voronezh and Stalingrad constituted "the

most perilous sector of the Eastern Front," a situation that posed "an enormous danger which must be eliminated." Though making sympathetic noises, Hitler refused to accept Zeitzler's conclusions and ordered no changes to German deployments or missions.[85]

While he rejected Zeitzler's suggestions that German forces withdraw from Stalingrad, Hitler did authorize minor actions to help shore up the allied armies. One of these measures was the interspersing of additional German units - primarily antitank battalions - among the allied divisions. Consistent with Hitler's published defensive instructions, in the event the allied units were overrun these units were to "stand fast and limit the enemy's penetration or breakthrough. By holding out in this way, they should create more favorable conditions for our counterattack."[86] Another insurance measure was the repositioning of a combined German-Rumanian panzer corps behind the Rumanian Third Army. This unit, the XLVIII Panzer Corps, consisted though of only an untried Rumanian armored division and a battleworn, poorly-equipped German panzer division. This corps, weak as it was, was not placed under the control of the Rumanians or even of Weichs; rather, it was designated as a special "Führer Reserve" under the personal direction of Hitler, and so could not be committed to combat without first obtaining his release.[87] Finally, from October onward German signal troops were assigned throughout the allied armies so that the German High Command could monitor the day-to-day performance of those forces without having to rely on reports from the allies themselves. Few of these measures were carried out without some friction: the Italians, for example, huffily rejected German suggestions for improving their defensive positions.[88]

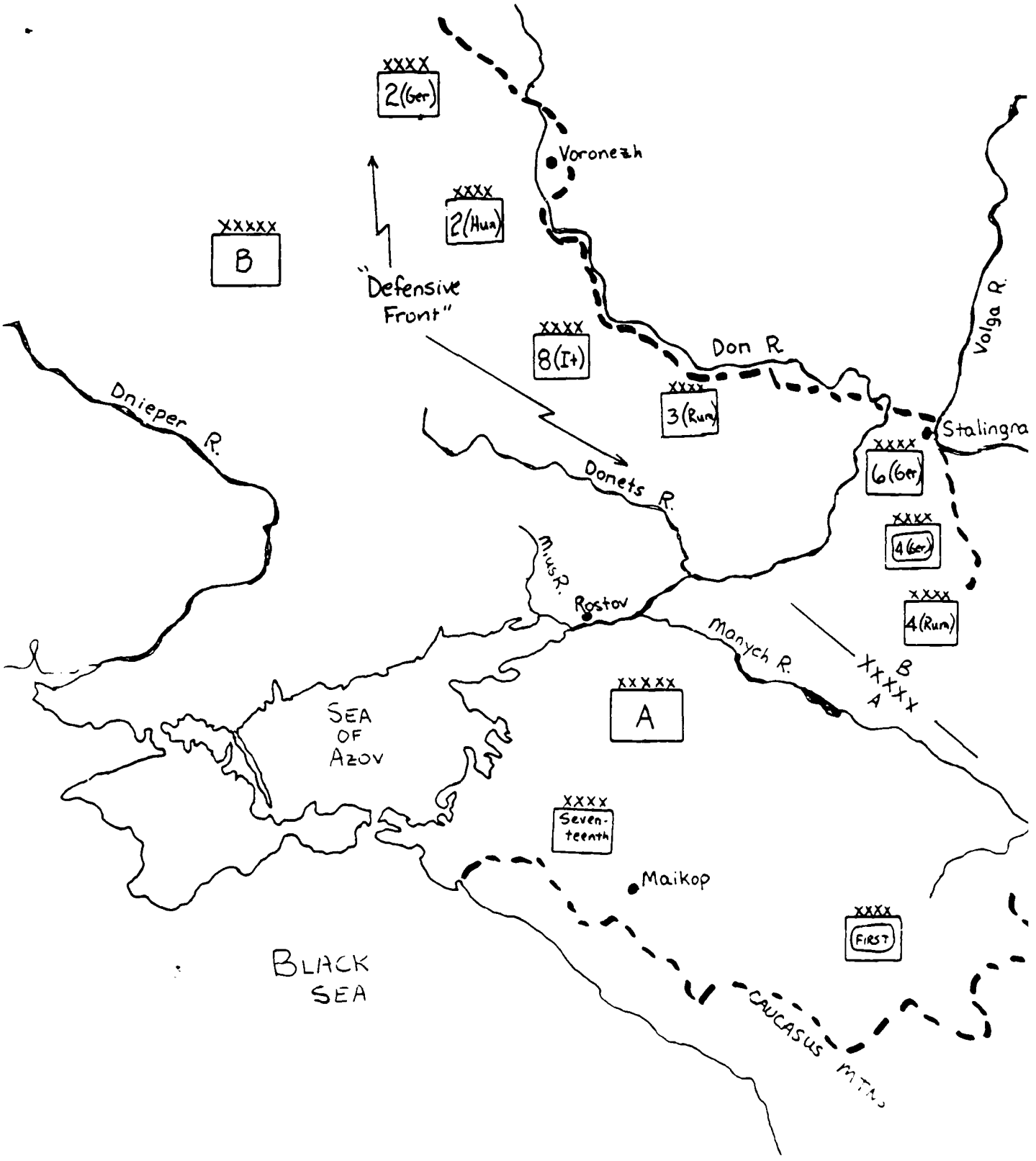
Allied units were not the only soft spots on the defensive flank. Several newly-raised German divisions, hastily consigned to Army Group B in June in

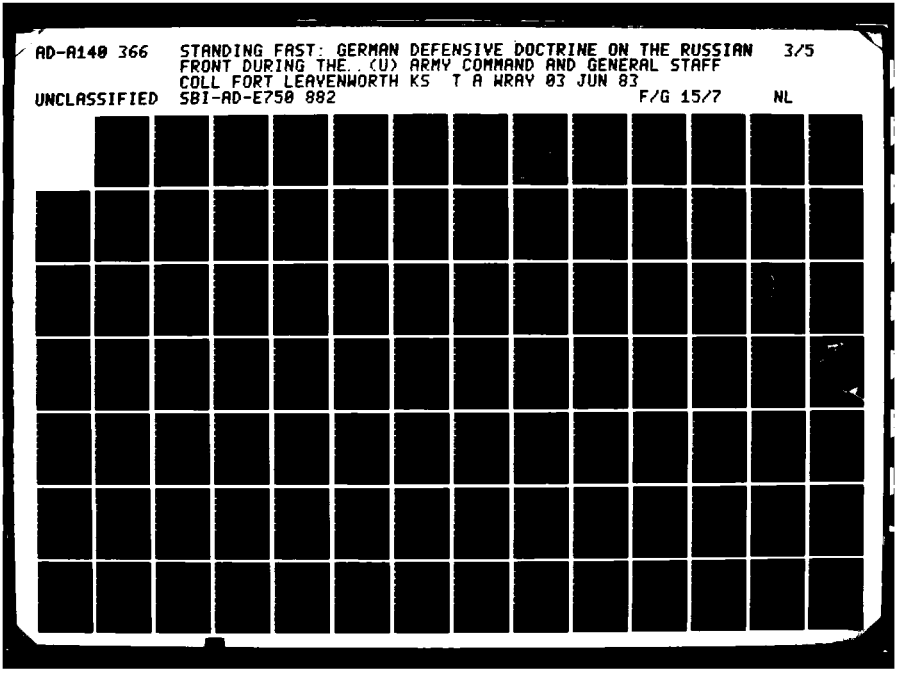
order to flesh out its order-of-battle, had also become cause for concern by autumn. Barely days before its preliminary June attack on Voronezh to secure the German flank, for example, the Second Army had received six brand-new German divisions. Though game enough in their initial attacks, poor training and inexperienced leadership quickly caused these units to come unravelled. In one case, the 385th Infantry Division reportedly suffered "unnecessarily high losses" - including half of its company commanders and five of six battalion commanders in just six weeks - due to deficient training. This fiery baptism ruined these divisions for later defensive use. The loss of so many personnel in such a short period of time left permanent scars, traumatizing the divisions before time and battle experience could produce new leaders and heal the units' psychological wounds. A frank assessment by Second Army on 1 October 1942 advised Army Group B that these once-new divisions were no longer fully reliable even for limited defensive purposes, and warned that heavy defensive fighting might well stampede them. Unless they could be pulled out of the line for rest and rehabilitation, these divisions - which accounted for nearly half of Second Army's total infantry strength - could only be trusted in the defense of small, quiet sectors.[89]

The German southern offensive thus trusted its long northern flank to a conglomeration of listless allied and battleweary German units. Like the forces further north on the defensive front of Army Groups Center and North, these armies were stretched taut, manning thin lines with few reserves beyond insubstantial local forces. Barely strong enough to hold small probing attacks at bay during the summer and early fall, these armies lacked the strength to meet a major Russian offensive without substantial reinforcement (see Sketch 16).

Shielded by this doubtful defensive umbrella, Operation BLAU made good

SKETCH 16: German Defensive Front, November 1942




AD-A140 366 STANDING FAST: GERMAN DEFENSIVE DOCTRINE ON THE RUSSIAN 3/5
FRONT DURING THE.. (U) ARMY COMMAND AND GENERAL STAFF
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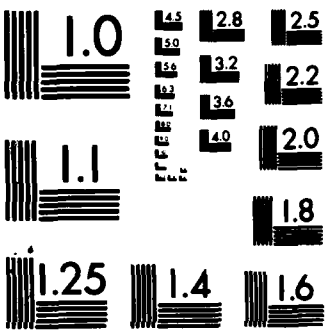


MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

initial progress. Despite nagging shortages of fuel and other supplies, as well as Hitler's confused switching of forces and missions, by late August Army Group A had cleared Rostov and penetrated the northern reaches of the Caucasus Mountains. General Friedrich Paulus' Sixth Army was slowly gnawing its way into Stalingrad, the projected eastern terminus of Army Group B's defensive barrier.

At this point, the German campaign lost whatever coherence it might earlier have possessed. Forgetting that the mission of Army Group B was but secondary to that of the advance toward the oilfields, Hitler became obsessed with capturing the city of Stalingrad. Ordering not only Sixth Army but even the cream of Fourth Panzer Army into the city, Hitler committed the German forces to a prolonged battle of attrition for control of Stalingrad's rubbled streets and factories. By late autumn, Operation BLAU had degenerated into a test of military manhood between Hitler and Stalin on the Volga.

Whatever the outcome of the battle for possession of Stalingrad, by October it was clear to all that another winter defensive campaign was not far off. In Operations Order 1, Hitler ordered winter defensive preparations on all parts of the front, though in that same directive he bade the Stalingrad fighting continue. Yet even the Sixth Army in and around Stalingrad began to take preliminary steps for a winter defense. After discussions with Sixth Army staff members, an OKH liaison officer dispatched a memorandum to Berlin in mid-October assessing the feasibility of fortifying a miniature "East Wall" on the Volga steppes, and recommending the transfer of additional engineer units to Paulus' command for that purpose.[90]

The German defensive arrangements along the Don River held together only until 19 November. On that date, a Red Army offensive flattened the Rumanian

Third Army northwest of Stalingrad, and knifed southward toward the rear of the German Sixth and Fourth Panzer Armies. A day later another Soviet attack burst through the Rumanian lines south of Stalingrad. On 23 November these pincers met near Kalach, severing Sixth Army's land supply routes. The collapse of the Axis defenses along the Don River and the encirclement of Sixth Army transformed the situation on the southern front, casting the Wehrmacht forces there into a desperate struggle for their very survival.

The ensuing winter defensive battles in southern Russia can be divided into three separate phases. In the first phase, lasting from 19 November until 23 December 1942, the Germans scrambled to hold an advanced defensive line near the confluence of the Don and Chir rivers from which they could support relief operations toward Stalingrad. Once the attacks to relieve Sixth Army were irretrievably beaten back, the focus of German defensive efforts shifted. During the second phase, lasting from the last week of December 1942 to mid-February 1943, German divisions fought to block another huge Soviet envelopment, this one aimed at the rear of the entire German southern wing near Rostov. Finally, from mid-February until the spring thaw, the third phase of the winter battles saw the restabilization of the front south of Kursk.

German defensive operations differed in each phase. These differences reflected variations in mission, the strength and composition of German forces, and the actions of the enemy. In no case, however, were these chaotic defensive actions conducted along "doctrinal" lines. Instead, from the initial collapse of the Rumanian armies in November 1942 to the stabilization of the front in March 1943, German defensive operations were once again almost completely extemporaneous.

The fate of the beleaguered German Sixth Army in Stalingrad formed the focus of the first phase's fighting. Ordered to "stand fast" and repeatedly

assured by Hitler that Sixth Army would be relieved, General Paulus swiftly put his forces into a giant "hedgehog" defensive posture.

The establishment of an effective defensive perimeter was made doubly difficult by a desperate shortage of infantrymen (the bulk of these had fallen in the earlier house-to-house fighting) and by the lack of prepared positions. On the eastern face of the Stalingrad pocket, German troops continued to occupy the defensive positions built up during previous fighting for the city. However, the southern and western portions of the perimeter lay almost completely on shelterless steppe, and the hasty defenses sketched out there never amounted to more than a few bunkers and shallow connecting trenches. (The steppes were almost treeless, thus providing no lumber for heating fires or for building covered defensive positions.) Significantly, the subsequent Soviet attacks to liquidate the Sixth Army came almost exclusively from the south and west against the least-well-established portions of the German defenses. Well-built positions to the north of Stalingrad were rashly abandoned without orders on 23 November by the German LI Corps whose commander, General Walter von Seydlitz-Kurzbach, hoped thereby to provoke an immediate breakout order from Paulus. This hasty action sacrificed one entire division (the 94th Infantry Division was overrun by Red Army forces during the movement to the rear and annihilated), and also gave up the only other well-constructed positions within the Stalingrad *Kessel*.[91]

Sixth Army's self-defense was made still more difficult for lack of resources. Lack of fuel prevented the use of Paulus' three panzer and three motorized divisions as mobile reserves. Hoarding its meager fuel supplies for a possible breakout attempt, Sixth Army wound up employing most of its tanks and assault guns in static roles. Likewise, shortages of artillery ammunition and fortification materials left the Germans without these two staples of defensive combat. Heroic attempts by the Luftwaffe to airlift supplies into Stalingrad were hope-

lessly inadequate: daily deliveries never exceeded consumption, and so the overall supply problem grew steadily worse in all areas. In some ways, the aerial resupply effort was counterproductive. Scores of medium bombers were diverted from ground support and interdiction missions to serve as additional cargo carriers, a move that emptied the skies of much-needed German combat airpower at an extremely critical period.[92]

For both tactical and logistical reasons, then, the German "Fortress Stalingrad" was in reality no fortress at all. Surrounded by no less than seven Soviet armies, Sixth Army was marooned on poor defensive ground without adequate forces, prepared positions, or stockpiles of essential supplies. Forbidden by Hitler to cut its way out of encirclement, the Sixth Army's destruction was a foregone conclusion unless a relief attack could re-establish contact.

In response to this crisis, on 20 November Hitler decreed the establishment of a new Army Group Don under Field Marshal von Manstein. Manstein was charged with restoring order on the shattered southern front and, even more importantly in the short term, with directing the relief offensive to save Sixth Army. For this purpose, Hitler promised Manstein six fresh infantry divisions, four panzer divisions, a Luftwaffe Field Division, and various other contingents.

Sixth Army's temporary aerial supply and eventual relief required the Germans to hold a forward defense line along the Chir River, where the most advanced positions were only about forty miles from the Stalingrad perimeter. This line covered the main departure airfields for the airlift, and could also serve as an excellent jumping off point for a counterattack to link up with Sixth Army.

While Manstein worked out his plans for a relief attack, the Chir River line was held by whatever forces could be scraped together. Initially, these consisted of mixed combat units swept aside by the Russian offensive, *Alarmein-*

heiten called out from various support units, service troops, rear area security forces, convalescents, and casual personnel on leave. These were formed together into ad hoc battle groups and plugged into an improvised strongpoint defense along the Chir "like pieces of mosaic."[93]

That this rabble managed to hold the Chir line - and even some bridgeheads on the eastern bank - was due as much to Soviet indifference as to German improvisational skills. Through early December, the Soviet High Command was content to tighten its coils around Stalingrad, and made little effort to exploit the German disarray further west. In so doing, the Soviets were avoiding their great strategic mistake of the past winter, when Stalin's failure to concentrate forces on major objectives frittered away excellent opportunities to no decisive gain.

By mid-December, however, the fighting on the Chir front heated up, with both sides committing substantial forces to this crucial area. On 12 December, Manstein began his relief attack toward Stalingrad. Intending to pin down German forces and to prevent reinforcement of the rescue effort, Soviet forces hurled themselves against the Chir line at several points. The Germans, meanwhile, reinforced the ragtag elements along the Chir with fresh units, most notably the reconstituted XLVIII Panzer Corps (11th Panzer Division, 336th Infantry Division, and 7th Luftwaffe Field Division). The defensive battles waged by XLVIII Panzer Corps in mid-December are instructive, demonstrating both the capabilities and the limitations of German defenders during this phase (see Sketch 17).

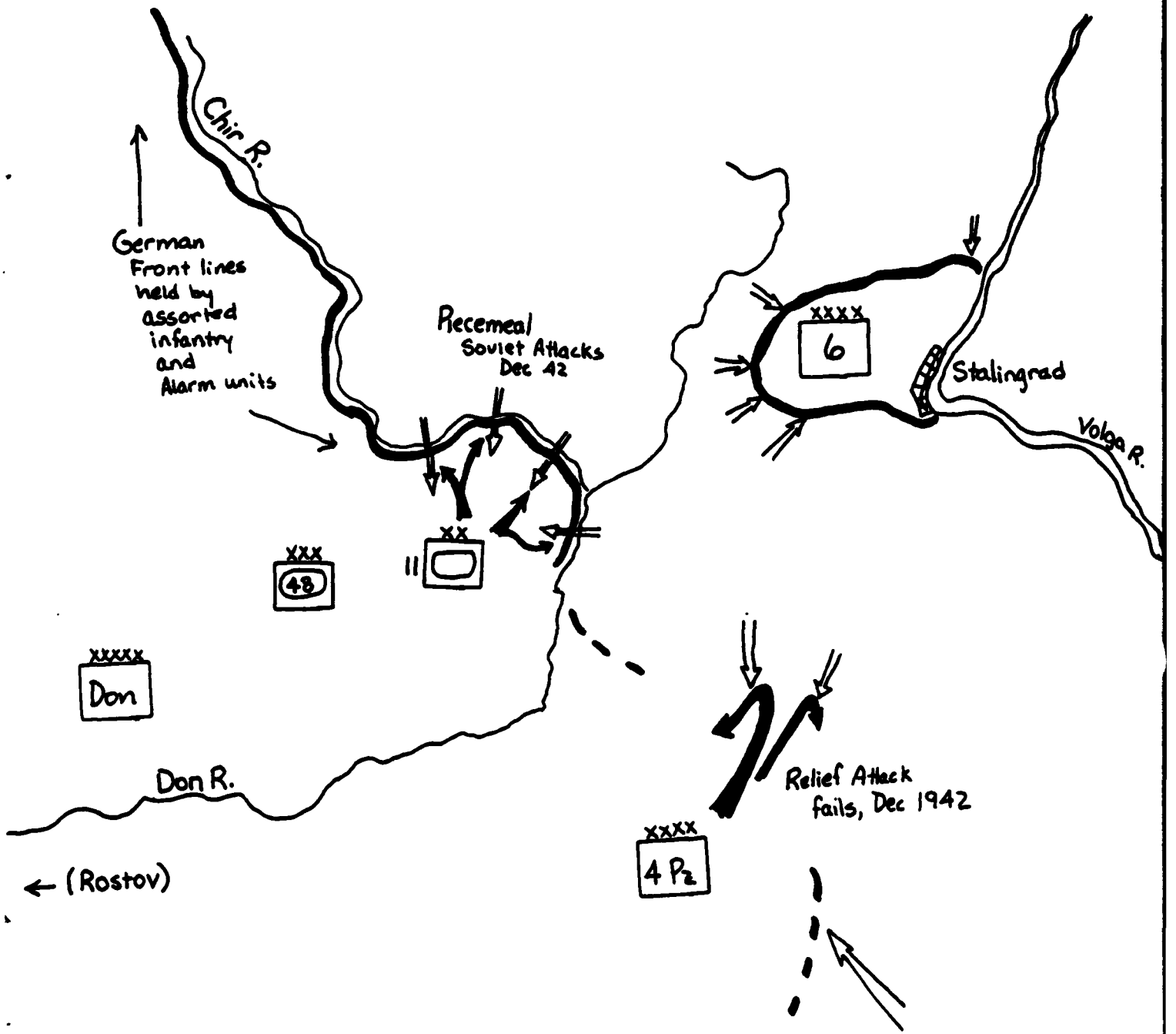
The XLVIII Panzer Corps intended to hold its sector of the Chir front with its two infantry divisions forward and its panzer division in reserve. The 336th Division was an excellent, full-strength unit recently arrived on the Russian Front from occupation duty in France. Even though reinforced somewhat with Luftwaffe Flak and ground combat units, the division could only man

its assigned front by putting all of its assets forward, holding only a handful of infantry, engineers, and mobile flak guns in reserve. Even so, the 336th Division formed "the pivot and shield" for the German defense.[94] The 7th Luftwaffe Field Division, though well-equipped and fully-manned, was poorly trained and lacked leaders experienced in ground combat. Behind the infantry, General Hermann Balck's 11th Panzer Division was assembling in preparation for duty as a mobile counterattack force. The 11th Panzer Division had recently been transferred from Army Group Center and, though its infantry strength was fairly high, had only a single battalion of Panzer IV's in its tank regiment.[95]

On 7 December, even as the Germans were still settling into position, Soviet tank forces penetrated the left flank of the 336th Division. The Germans had not yet had time to lay mines or erect antitank obstacles, and their few Paks could not be effectively massed on the relatively flat, open steppes. Facilitated by the weakness of the German antiarmor defenses, the Russian tanks forced their way through the thin infantry defenses, overran part of the division's artillery, and thrust some fifteen kilometers into the division rear. In a three-day running battle, the 11th Panzer Division carved up this Russian tank force with repeated counterattacks against its flanks and rear. Despite the heady successes enjoyed by Balck's panzers and panzergrenadiers (infantry) - reports claimed 75 destroyed Russian tanks - the fighting was not all one-sided. One infantry battalion of the 336th Division, for example, was overrun three different times by Russian tanks between 7 and 10 December.[96]

Even tougher fighting followed. Beginning on 11 December, fresh Russian attacks charged against the Chir front, forcing several local penetrations. Though eventually broken by counterattacks and the fire of the 336th Division's artillery, these Soviet probes threatened to erode the German defenders by attrition. In one case, a German battlegroup holding one of the bridgeheads south

SKETCH 17: Winter Battles, December 1942



of the Don-Chir confluence lost eighteen officers and 750 men in ten days of combat.[97] Breakthroughs in the 336th Division's front between 13 and 15 December produced an extremely confused situation, with groups of enemy and friendly troops finally so intermixed that German artillery could not be used effectively for fear of firing on its own forces.[98] Moreover, Soviet tanks again rolled as far as the German artillery positions, overrunning some guns and knocking out others by direct fire.[99] By nightfall on 15 December, the situation of the 336th Division had become so grave that, according to one staff officer, the division's continued survival depended "exclusively on outside help."[100]

Again, the German position on the Chir was saved by the intervention of the 11th Panzer Division. Acceding to appeals from the 336th Division for additional antitank support, the 11th Panzer diverted three of its precious tanks to buttress the flagging infantry, while the balance of the German armor hammered the Soviet flanks. By 22 December, the Chir front was again quiet as both sides slumped into exhaustion.[101]

The battles on the Chir River had been a masterpiece of tactical improvisation by the Germans. Though reinforcements gradually brought regular combat troops into the fighting, the initial German defense had been conducted almost entirely by hastily-organized contingents of service troops. While the performance of these units in no way matched that of regular combat veterans, their gritty stand in this case fully vindicated the German Army's policies of training, organizing, and exercising rear echelon *Alarmeinheiten* on a regular basis.

Doctrinally, the committed German infantry forces in the XLVIII Panzer Corps' sector lacked the manpower and local reserves to conduct a competent defense-in-depth. Additionally, the German defense was throttled by Hitler's standing orders against tactical retreat, leaving the forward divisions little choice but to hold on to their initial positions even when penetrated or overrun.

Short of antitank weapons, the German infantry was almost powerless against the Soviet armor. Were it not for the availability of the 11th Panzer Division as a "fire brigade" counterattack force, the German defenders would almost certainly have been doomed to eventual annihilation in their positions clustered along the Chir.

The deft counterattacks by 11th Panzer Division repeatedly exploited speed, surprise, and shock action to destroy or scatter numerically superior Soviet forces. The generally open terrain, its turf and streams equally trafficable to armored vehicles due to subfreezing temperatures, provided a nearly ideal battlefield for mobile warfare. Indeed, the battles between German and Russian tanks resembled far more the "meeting engagement" style of defensive fighting envisioned by General Hans von Seeckt in the 1920's than the doctrinal Elastic Defense.

German command and control measures were well-suited to fluid combat. According to postwar accounts by General Balck, command within the 11th Panzer Division was exercised almost entirely by means of daily verbal orders, amended as necessary on-the-spot by the division commander at critical points in the fighting.[102] Liaison between the panzer units and the forward infantry divisions also seems to have been managed largely on a face-to-face basis.[103] These casual arrangements were abetted by the rather simple coordination problems that developed during the Chir fighting. The positions of the forward German infantry were well known and, due to Hitler's insistence, seldom changed. The broad sectors and relatively low force densities on both sides tended to create convenient spaces between units. Balck's well-trained and experienced forces seldom operated in more than two or three maneuver elements. General Balck was thus able to truncate normal staff procedures largely because there were very few moving parts in the German machine, and even those were comfortably

separated. However, such rude methods sacrificed many of the benefits of synchronization and close coordination. By General Balck's own admission, for example, little effort was made to integrate indirect fire with the German maneuver forces.[104]

The German defensive efforts benefitted from other favorable circumstances. The Soviet attacks on the Chir front were not conducted in overwhelming strength, and were intended primarily as diversions to pin German forces and to prevent reinforcement of the Stalingrad relief expedition. Secondly, the Russian assaults were piecemealed in time and space. Instead of a single, powerful attack in one sector, the Red Army forces jabbed at the Chir line over a period of nearly two weeks with several smaller blows. This allowed the Germans to make the most of their limited armor reserves.[105] Equally beneficial was the poor Soviet combined arms coordination in these battles. The Russian attacks were borne mainly by tank forces, and the Soviet infantry played only a minor accompanying role. This allowed the Germans to concentrate their panzers solely upon the destruction of the enemy armor, and to pay scarcely any attention at all to the enemy riflemen.[106] This greatly magnified German combat power, placing a premium on the superior tactical akill of the German tank crews while allowing the weaker German infantry to remain huddled in their dugouts. Furthermore, the Red Army artillery remained amazingly silent throughout, leaving the Russian tank forces to fight without the benefit of suppressive fires. Soviet airpower likewise failed to take a hand.[107]

The German defensive successes on the Chir River were victories of a limited sort. First, despite their tactical virtuosity, even the German panzers were unable to wrest the operational initiative from the Soviets. Throughout the December actions, the Germans were compelled to respond to Red Army gambits,

fighting a series of attritional engagements against the luckily uncoordinated Soviet blows. The Russians retained complete freedom of maneuver, and by a more skillful massing or coordinating of effort could in all likelihood have crushed the German resistance. Secondly, though the Germans managed to inflict serious losses on their enemies, they also suffered substantial casualties of their own. The hapless 7th Luftwaffe Field Division disintegrated during the Chir battles, and by mid-January its ragged remnants had been amalgamated into other formations. The 11th Panzer Division, whose bold exploits saved the Chir position on several occasions, saw its combat power diminished by half from the beginning of December. Thirdly, though driving back Soviet attacks, neither the 11th Panzer Division nor the balance of the XLVIII Panzer Corps was able to hold the ground that it won by counterattack. To defend terrain required infantry, and neither the panzer formations nor the overextended German infantry divisions had sufficient riflemen to conduct a positional defense.[108] Conversely, German tanks performed best in a fluid combat environment, and were notably less successful when trying to drive Red Army troops from positions where they had been able to consolidate. For example, the Soviets did manage to hold a few well-entrenched bridgeheads on the western bank of the Don-Chir riverline despite repeated attacks by German armor.[109]

Though rebuffed by the skill and steadfastness of the German defenders, the Soviet attacks against the Chir River line did succeed in preventing reinforcement of Manstein's relief attack on Stalingrad. Under Manstein's concept, the XLVIII Panzer Corps was to have joined those elements of Fourth Panzer Army (LVII Panzer Corps) making the main relief attempt from further south. However, as already seen the XLVIII Panzer Corps had its hands full staving off its own destruction, and never entered into the offensive effort. Without

that support, and without even the full reinforcements that Hitler had originally promised, the German drive to open a corridor to Sixth Army had to be abandoned after 23 December. From that time on, the prime goal of German defensive efforts shifted to blocking a new major Soviet offensive thrust to sever the entire Axis southern wing.

The new Russian offensive began by scattering the Italian Eighth Army still in position on the northern Don. Driving southward toward Rostov, this attack would cut the communications of both Army Group Don and Army Group A unless blunted. More immediately, this attack enveloped the German defense line on the Chir, making the German position there untenable. This not only spoiled all prospects for a renewed attack to free Sixth Army, it also resulted in the eventual loss of the forward airfields supplying Paulus' encircled divisions.[110]

In contrast to the earlier jabs against the Chir line, the new Russian advance swept forward on a broad front, brushing aside the counterattacks of the weak 27th Panzer Division (posted to stiffen the Italians) as if they were bee stings. Clearly the sleight-of-hand defensive tactics used so successfully on the Chir River would not be sufficient to cope with this new threat.

In forging a response to this fresh crisis, German commanders had to overcome two major difficulties. The first of these was the lack of combat forces. The cream of the German Army, groomed in the spring of 1942 to carry out Operation BLAU, was now either wintering uselessly in the Caucasus (Army Group A) or else withering away in Stalingrad or in attempts to relieve it (Sixth Army and Fourth Panzer Army). The various impromptu commands set up to manage the defense of the Chir and the lower Don were barely adequate for that task alone, and stood little chance in a set-piece battle against this massive Soviet drive.

Nor could reinforcements be shifted from other parts of the front: the drained units of Army Groups Center and North had their own problems dealing with the lesser Soviet attacks on their positions. (So penurious had the Germans become in the parcelling out of their threadbare combat forces that a new reporting system was instituted in December 1942, requiring army commanders to submit a top secret subjective evaluation of their units' combat worthiness on a regular basis.)[111]

The second problem shackling German operations was their own Byzantine command arrangement. Afield in the southern portion of the Eastern Front were three autonomous army groups (Army Groups A, B, and Don). No single commander or headquarters coordinated the efforts of these army groups save for the Führer himself. From his East Prussian headquarters, Hitler continued to render his own dubious brand of command control. Inspired by the success of his "stand fast" methods the previous winter, the Führer now balked at ordering the timely withdrawal and reassembly of the farflung German armies, even petulantly resisting the transfer of divisions from the lightly-engaged Army Group A to the mortally-beset Army Group Don. Hitler's opening response to the new Soviet offensive against the rear of the German southern wing was to decree a succession of meaningless halt lines, ordering the overmatched German forces to hold position after position "to the last man."[112]

Field Marshal von Manstein, upon whose Army Group Don the responsibility for halting the Soviet offensive fell, confronted both of these issues headon. In a series of teletype messages to Hitler, Manstein pleaded for the release of several divisions from the idle Army Group A in the Caucasus in order to put some starch into the German defense. Though transferred too late to assist the relief attack on Stalingrad, Hitler at last ordered first a few divisions and then finally all of First Panzer Army moved from Army Group A to Manstein's

control.[113]

Manstein also pressed Hitler on the matter of command authority. In late December, Hitler offered to place Army Group A under Manstein's operational control. However, this consolidation of authority was not consummated because, as Manstein later explained, Hitler "was unwilling to accept my conditions" that there be no "possibility of interference by Hitler or of Army Group A's invoking... decisions in opposition to my own."[114] Less than two weeks later, furious that Hitler was still insisting on a "no retreat" policy and forcing him to beg permission for each tactical withdrawal, Manstein presented the Führer with an ultimatum. On 5 January, Manstein sent a message to the Chief of the Army General Staff for Hitler's consideration in which he concluded:

> Should... this headquarters continue to be tied down to the same extent as hitherto, I cannot see that any useful purpose will be served by my continuing as commander of Don Army Group. In the circumstances, it would appear more appropriate to replace me...[115]

Hitler chose to ignore Manstein's ultimatum, but he did at last concede a singular (though temporary) degree of autonomy and flexibility to Manstein for the conduct of defensive operations. Though Hitler's draconian stand-fast policy remained officially in effect, Manstein was allowed freedom of maneuver by means of a face-saving charade: instead of asking permission, Manstein would simply inform OKH of Army Group Don's intention to take certain actions unless specifically countermanded, and Hitler by his silence would consent without actually abandoning his hold-to-the-last-man scruples.[116]

As a result of this arrangement, Manstein was allowed to conduct operations from early January until mid-February largely unfettered by either Hitler's customary interference or the Führer's rigid "no retreat" dictum. Neither before nor after was another commander allowed to enjoy these two privileges

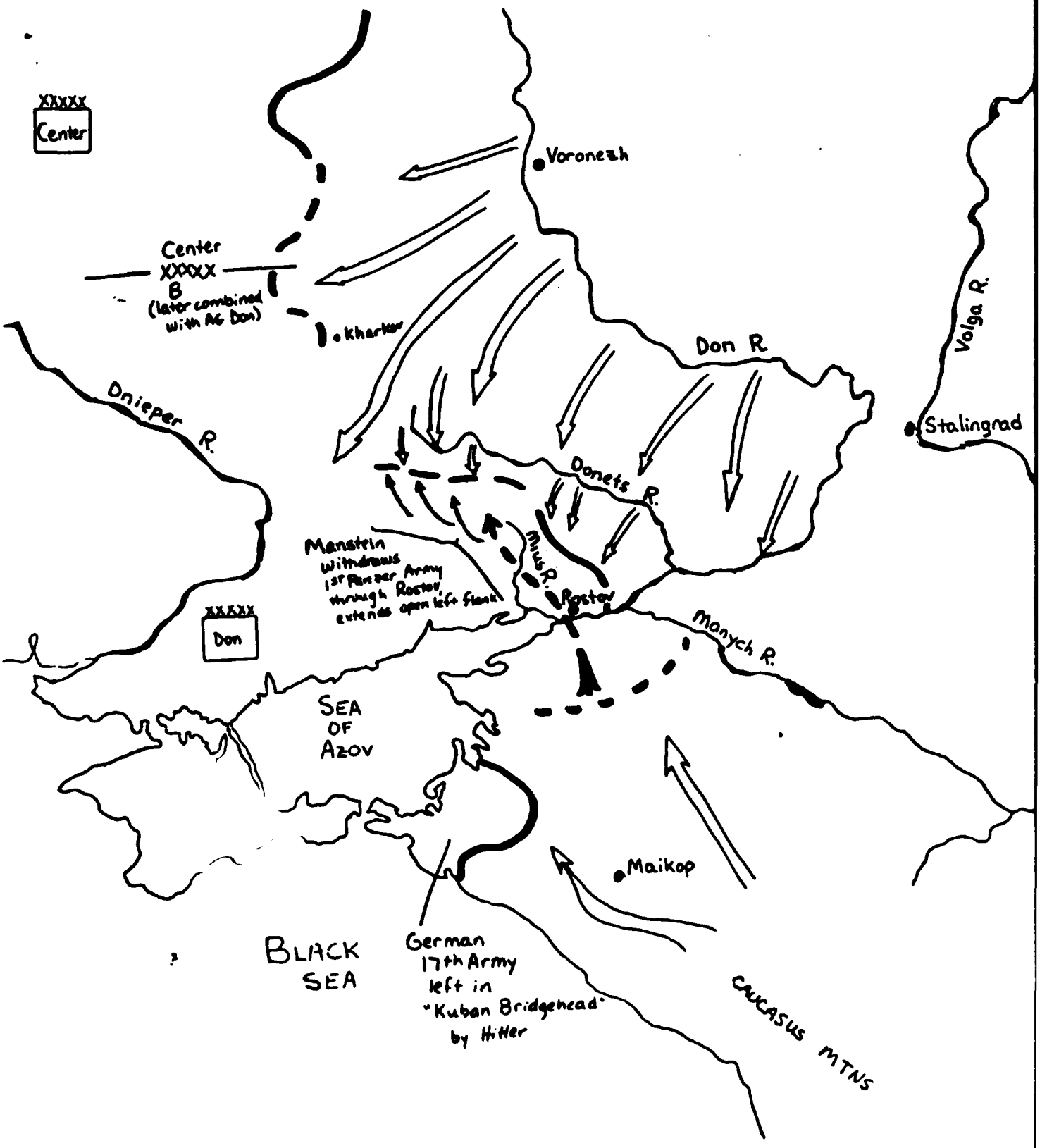
on such a large scale. Consequently, German defensive operations during this second phase of the southern winter battles evinced a measure of flexibility, economy, and fluid maneuver unsurpassed on the Russian Front during the entire war.

In the meantime, the operational situation had deteriorated further. Still more Soviet attacks had dashed the Hungarians along with the Italians, completing the disintegration of the original flank defense line along the Don east of Voronezh. By late January, hardly any organized Axis resistance remained between the surviving units of Army Group B (Second Army) at Voronezh and the hard-pressed forces of Army Group Don along the lower Don and Donetz rivers. The German Sixth Army, now in its death throes at Stalingrad, ironically provided one source of hope: the longer Paulus' troops could hold out, the longer they would continue to tie down the powerful Russian forces encircling them and thereby delay the reinforcement of the widening Soviet attacks far to the west.

Manstein's overall concept of operations was to combine the withdrawal of First Panzer Army's units from the Caucasus with the establishment of a defensive screen facing northward against the onrushing Soviets. One by one, the divisions of First Panzer Army were pulled through the bottleneck of Rostov and redeployed to the northwest, extending the makeshift German defensive line ever westward. The Soviets could still outflank this line by extending the arc of their advance to the west, and in fact did so even while maintaining frontal pressure along the Donetz (see Sketch 18). Each of these wider envelopments, however, delayed the final reckoning and allowed Manstein to leapfrog more units into position. Moreover, the further the Soviets shifted their forces to the west, the more tenuous the Russian supply lines became.[117]

This operation was exceedingly delicate. Any major Soviet breakthrough

SKETCH 18: Manstein "Castles," January - March 1942



or uncontested envelopment could cut through to the rail ganglia upon which both Army Group A and Army Group Don depended for their supplies. Army Group Don thus had to accomplish simultaneously three different tasks: to slow the Soviet frontal advance; to shift units from east to west to parry Soviet envelopments; and to preserve its forces by allowing timely withdrawals to prevent encirclement or annihilation.

These tasks had to be performed under several tactical handicaps. First, even with the gradual reinforcement by First Panzer Army, Manstein's forces remained generally inferior to those of the enemy. Discounting the late arrivals, most of Army Group Don's divisions were extremely battleworn, having been in continuous combat for over two months. Too, the preponderance of the German forces were less mobile than the Soviet tank and mechanized forces opposing them, a factor that weighed heavily against Manstein's hopes of exploiting the Germans' superiority in fluid operations.

Secondly, many of Manstein's forces were grouped together under impromptu command arrangements. The German order-of-battle included several nonstandard control headquarters identified simply by their commanders' names, such as "Army Detachment Hollidt," "Group Mieth," and "Battle Group Adam." Even many of the divisions assigned to the various headquarters lacked normal cohesion. For example, by January 1942 the 17th Panzer Division was defending with an attached infantry regiment (156th Infantry Regiment) which possessed neither the training nor the vehicles to allow it to cooperate smoothly with the division's tanks and organic panzergrenadiers.[118] Similarly, within Army Detachment Hollidt in mid-January two Army infantry divisions contained substantial attachments from two shattered Luftwaffe Field Divisions, while one so-called "division" (403rd Security Division) was actually a division headquarters in control of several thousand troops whose furloughs had been abruptly cancelled.[119]

These ad hoc forces generally lacked the sure precision that comes from habitual association and common experience, and this internal friction was magnified by the rapidly-changing combat conditions confronting Army Group Don. Moreover, none of the improvised groupings were structured for sustained combat, and so they lacked the service and support assets that normally would have serviced such large units.[120]

Thirdly, though relatively fresh and well-organized, the First Panzer Army divisions arriving from the Caucasus had special problems of their own. In Manstein's words, these forces suffered from the "hardening up process which inevitably sets in whenever mobile operations degenerate into static warfare." Their relatively inactive sojourn in the Caucasus from September to January had caused these "troops and formation staffs [to] lose the knack of quickly adapting themselves to the changes of situation which daily occur in a war of movement." The first symptom of this stagnation was the snail-like pace of the Caucasus disengagement: having accumulated "weapons, equipment and stores of all kinds... which one feels unable to do without for the rest of the war," the divisions of First Panzer Army invariably requested "a long period of grace in which to prepare for the evacuation." When finally committed to combat along the Donetz, these forces maneuvered lethargically at first, their earlier snap and elan dulled by the routine of positional warfare.[121]

Finally, the Germans were plagued by the enormous mobility differential between their own infantry and panzer forces. In previous campaigns this problem had been most evident in offensive operations, as during BARBAROSSA when the swift panzers had outrun their infantry support. In southern Russia in January and February of 1943, this disparity proved equally disruptive in defensive operations, vastly increasing the difficulty of orchestrating German maneuver.

Of necessity, the German defensive tactics were structured around the less mobile infantry forces. The infantrymen, their numbers frequently including engineers, Flak units, and various *Alarmeinheiten*, generally held the forward defense lines.[122] Due to the lack of heavy antitank weapons, defense positions were preferably sited along the rivers, streams, or ravines (*balkas*) cutting through the area in order to gain some protection from Russian tanks. Occasionally the defenses were laid out in a continuous line; more often, however, infantry units deployed in strongpoints to protect their flanks and rear from armor attack. The 17th Panzer Division, a veteran of heavy fighting on the Don, Chir, and Aksai rivers, was forced to deploy its infantry battalions in individual battle groups. These were so widely separated that the divisional artillery batteries could not support them all from a central location, necessitating the temporary attachment of even heavy guns to the battle group commanders.[123] Describing the fighting along the Donetz River in January (in which the 17th Panzer Division played a prominent part), Field Marshal von Manstein observed that the enemy was halted "first and foremost" by "the bravery with which the infantry divisions and all other formations and units [e.g. *Alarmeinheiten*] helping to hold the line stood their ground against the enemy's recurrent attacks."[124]

Armored forces complemented the infantry's forward defense. The mobility of these formations allowed commanders to shuttle them about the battlefield, throwing their weight into developing crises. The most common mission for the armor was counterattack. However, with their motorized panzergrenadiers the tanks could also act as rearguards to allow other, less mobile units to disengage or to regroup.[125] This latter quality in particular was so crucial during the fluid battles in January and February that some regular infantry divisions concocted their own motorized contingents by commandeering all

available motor vehicles for use as troop carriers. Army Detachment Hollidt's 294th Infantry Division built such a mobile unit around several self-propelled 20mm and 88mm Flak guns, and used this composite group almost exclusively as a forward covering force or rearguard during that division's defensive battles.[126]

The panzer formations could also launch spoiling attacks on enemy assembly areas, buying time until other German forces could redeploy or dig in. In early January, for example, the 17th Panzer Division had spectacular success with such an attack. Supported by one infantry regiment, General von Senger rammed his one weak tank battalion into a Soviet assault concentration, destroying 21 enemy tanks and 25 antitank guns against the loss of only three panzers before withdrawing. In undertaking such a thrust, the division commander

> resisted any temptation to distribute his tanks for the protection of his infantry, or even to husband them as a counterattacking force against Russian penetrations. In risking them in a far-flung [offensive] operation... he not only made them unavailable for the defense of the division's threatened southern sector but also accepted the danger of their being cut off entirely... But his danger was rewarded. By seizing the initiative, he was able to inflict heavy losses on the Russians at small cost, disrupt the Soviets' offensive preparations, and gain valuable time for his division and the entire army front.[127]

Such "calculated boldness" in the use of mobile forces was possible due to superior German training and leadership. As one German officer recalled:

> The German superiority at this time lay not primarily in their equipment but in their standards of training. The training of tank crews never ceased, even in combat. In the 17th Panzer Division it was the practice to hold a critique after each engagement, in which successes and failures were discussed, just as after peacetime exercises.[128]

Equally important was the aggressiveness and flexibility of the German leaders. Commenting on the operations of its improvised mobile rearguard, the 294th Division's after-action report explained that "the choice of a leader is especially important" since such units "are not led according to field manuals or even according to any fixed scheme."[129]

Despite its aggressiveness and skillful use of mobile forces, Manstein's defense of the German southern wing was not a "mobile defense" in the classic sense. Army Group Don's forces could not be totally insensitive to the loss of territory, since to have done so would have endangered the vital rail lines leading through Rostov. Furthermore, the bulk of Manstein's formations were relatively immobile, and so could only be used in a succession of static defenses. Although playing an important role, the German panzer and motorized forces operated principally as *Eingreifgruppen* (intervention forces) in support of the pedestrian infantry.[130]

The German defensive method was actually a potpourri of tactical techniques. What set these battles apart from others was Manstein's style of control. What Manstein did do - and what Hitler, as a rule, did not - was to provide firm operational guidance to his subordinates, and then to allow those commanders to use their forces and the terrain to maximum advantage. Hard-fighting infantry units offered bitter stationary resistance, ideally from prepared positions. Mobile panzer and motorized bands delivered sharp counterattacks to help sustain the infantry positions, and occasionally kept the enemy off balance with pre-emptive spoiling attacks. In the event the infantry's main positions became engulfed, the panzers and panzergrenadiers helped the slower forces to disengage. The mobile formations also fought delaying actions while subsequent main positions were being organized. Major defense lines were designated well in advance, allowing units to make deliberate plans for their withdrawals. The occupation of successive positions was geared both to enemy pressure and to Army Group Don's mission mandates. (This practice alone added a great deal of coherence to German operations. Hitler usually procrastinated about allowing retreats until, when finally ordered, the withdrawals had to be done pellmell

to avoid encirclement.) For example, in fighting its way back from the Chir to the Donetz in January, a distance of roughly one hundred miles, Army Detachment Hollidt occupied no less than nine intermediate defense lines. Its movement from the Donetz to the Mius in February followed the same pattern.[131]

In contrast to standard defensive doctrine, these battles were fought almost entirely without tactical depth. Indeed, the very fluidity of the battles in south Russia stemmed in large measure from the German inability to absorb the Soviet attacks within successive defense zones. Lacking the forces to establish a deeply echeloned defense, the Germans instead combined maneuver - including both lightning attacks and withdrawals - with stubborn positional defense to give artificial depth to the battlefield. In this way the Germans were able to brake major Soviet attacks, preventing catastrophic breakthroughs while still preserving the integrity and freedom of action of their own forces.

As with the XLVIII Panzer Corps' December battles on the Chir River, these tactics - like the traditional Elastic Defense - were essentially attritional. Russian attacks were contained or worn down one-by-one, and even though German units might occasionally seize the tactical initiative by some aggressive riposte, the *operational* initiative remained with the Soviets. However often single German panzer divisions tweaked the enemy's beard, the Red Army's major maneuver units were never in danger of sudden annihilation.

This was so because the scarcity of German forces and the great distances in southern Russia kept German units dispersed. In blocking the Soviets' relentless broad-front advance the Germans operated completely from hand to mouth, and were therefore unable to engineer any operational massing of their own. Significantly, from the time that the three-division Stalingrad relief attack was called off in late December until the conclusion of the winter's second

phase in late February, all of the German panzer divisions on the southern front were employed piecemeal in response to local emergencies. No two panzer divisions ever combined their meager assets to make a concerted blow. For instance, Army Detachment Hollidt, which in mid-January fielded four panzer divisions, retained only one of these under its own control and farmed the other three out to its individual subordinate commands for "fire brigade" use in support of their infantry divisions.[132] While effective in stemming local Russian attacks, this task organization made it impossible to concentrate powerful mobile forces for larger scale operations.

Manstein appreciated this fact, and from mid-February began laying the groundwork for a different employment of the German armor. The fresh SS Panzer Corps, just offloading near Kharkov with two crack Waffen SS panzer divisions, together with other reinforcements formed the nucleus of an operational *masse de manoeuvre*. Convinced that casualties, mechanical breakdowns, and lengthening supply lines had to have taken their toll of the Russians, Manstein divined a glowing opportunity to seize the operational initiative with a counteroffensive of his own. Manstein's target was the Soviet armored spearheads, then still careening southwestward between Kharkov and Stalino.[133]

The third phase of the winter campaign saw the restabilization of the southern front. The centerpiece of this phase was a strong German counterstroke by five panzer divisions against the Soviet flank south of Kharkov. Manstein's 22 February attack came as a complete surprise to the Russians, and within days had shattered the Soviet *First Guards Army* as well as several independent armored groups. As trophies the Germans counted 615 destroyed enemy tanks and over 1,000 captured guns. The haul in prisoners, however, was disappointingly low: as always, the German panzer formations were unable to seal off the battlefield,

and so thousands of Soviet troops simply marched out of the German trap.[134]

Elsewhere on the southern front, the tattered German forces managed to patch together a continuous defense line. Army Detachment Hollidt, withdrawing by bounds from the Donetz, moved into Army Group South's old defensive works on the Mius River. Except for a series of salients north of Kharkov, the German southern armies once again held nearly the same positions that they had the previous spring.

This line could easily have been forced at almost any point prior to the spring thaw in late March 1943. The XXIV Panzer Corps (which had no panzer units whatsoever), for example held the extreme southern portion of the German line with one infantry and two patchwork security divisions. These forces, whose sector ran for nearly 125 kilometers (including a stretch of Azov coastline), together counted only fourteen understrength infantry battalions. The XXIV Panzer Corps' after-action report also noted that the two security divisions' organization, cohesion, and weaponry were so uneven that little could be expected from them. Fortunately, these units were able to occupy existing positions along most of their front, and were granted a lengthy respite by the tired Soviets in which to retrain and rehabilitate their forces.[135]

The Kharkov counteroffensive, described by Manstein as "the last German victory in the East," and the consequent restabilization of the southern front ended the winter campaign's third phase. As the crisis subsided, Manstein's independence from Hitler's close control also evaporated. Hitler's patience with Manstein had actually begun to run out in early February. Alarmed by the enormous swatches of territory being given up by Manstein's "castling" maneuvers, Hitler had reasserted his authority over Army Group Don on 12 February 1943 with an "Operations Order 4" that ordered the re-establishment of a solid,

"stand fast" front on the Mius-Donetz line. In fact, Manstein's promise to recover much lost ground with his operational counterstroke - together with the awkwardness of switching field commanders in the midst of such a confusing battle - narrowly saved Manstein from being relieved.[136]

Despite its success, Hitler took little comfort in the German counter-offensive. Even as Manstein readied maneuver forces for his counterblow, Hitler was pestering Army Group Don's commander to insert those new forces into the battle piecemeal to prevent further territorial losses. Hitler's own preference, first and last, was for a rigid "no retreat" defense. He had been uncomfortable enough with Manstein's parry-and-thrust tactics in January and early February. But, for all its tactical dash, that style of defense had still been operationally conservative, and had remained focused on denying Russian access to certain critical areas. What was most at odds with Hitler's designs, however, was the purposeful relinquishing of terrain on an operational scale. This very stratagem had finally provided the basis for Manstein's counteroffensive, as the Russian advance eventually overextended itself and lay vulnerable to the hoarded German reserves.

As he had admitted in the Führer Defense Order of September 1942, Hitler's defensive ideas were of a pre-1917 vintage. Consequently, the Führer would always prize the holding of ground over the annihilation of enemy forces, however spectacular. With the dissipation of Manstein's autonomy came a reassertion of all of Hitler's defensive nostrums, and the fragile German defenses taking shape along the southern front reflected this. Once again, the standard defensive guidance became "No retreat; hold to the last man!"

General Walther Nehring, supervising the improvement of his XXIV Panzer Corps' positions, displayed the uncomfortable blend of traditional defense and Hitlerian caveat that had become doctrinal practice. In an 18 March 1943 defensive order

to his units, Nehring directed the improvement of positions-in-depth, the careful coordination of artillery fire support, and the siting of clusters of anti-tank weapons behind the main positions in perfect accord with the Elastic Defense system in *Truppenführung*. However, Nehring's instructions also ordered compliance with Hitler's benumbing provisos:

> Penetrating enemy elements are instantly to be thrown back by immediate counterattack and the HKL regained. Evasive maneuver before the enemy or evacuation of a position without my [Nehring's] special order is forbidden.[137]

German defensive practice, it would seem, therefore had gained little from the lessons of the previous year. Despite the strained battles on the defensive front, the disaster at Stalingrad, the desperate fights between the Volga and the Mius Rivers, and finally Manstein's brilliant operational riposte at Kharkov, the German armies on the Eastern Front looked forward to future defensive fighting still handicapped by Hitler's rigid constraints. Even so, German Army units continued to review their own tactical methods and to suggest modifications to defensive doctrine within the limits established by the Führer's guidance.

German Doctrinal Assessments

In late 1942, various German units along the Russian Front prepared routine after-action reports summarizing their experiences. These reports dealt primarily with activities along the defensive fronts of Army Group Center and Army Group North. The confusion and turmoil in the south prevented a careful assessment of those battles until the spring of 1943.

The most detailed critique of German defensive methods was undertaken by Army Group North. On 20 September 1942, Army Group North tasked its subordinate units to prepare reports on the general subject "Experiences from Fighting on a Fixed Front," and listed sixteen major topic areas for discussion. These items included the general correctness of German Army doctrinal manuals, methods

for organizing defensive positions, the location and use of major weapons, intelligence indicators of impending enemy attacks, and general training suggestions.[138]

By and large, units endorsed the basic applicability of existing doctrinal publications. "Our manuals," wrote the 21st Infantry Division's operations officer, "have generally proven themselves with respect to the selection and construction of positions."[139] However, several units complained that their present field manuals did not address the peculiar problems inherent in defending excessively wide sectors with inadequate forces. These reports noted that doctrinal guidance was deficient in explaining how standard Elastic Defense methods should be adapted to these all-too-common circumstances. The Eighteenth Army, for example, took the most extreme line in its report to Army Group North: "The principles of our field manuals... have only limited validity in the East because in practice they are seldom possible."[140]

In the same vein, several units were cautiously critical of Hitler's obsessive insistence on holding even the forwardmost trenchlines. According to one divisional report, this practice robbed the German defenses of essential depth. With so many troops and heavy weapons committed within the forward *Hauptkampflinie*, only the slenderest of local reserves remained to occupy positions in depth. When enemy break-ins did occur, this immediately thrust much of the responsibility for resistance-in-depth upon the few troops manning German command posts, artillery positions, and rear services strongpoints. Consequently, the complaints ran, the entire German defensive concept now seemed to focus more upon the single-minded retention of the HKL than upon a legitimate defense-in-depth.[141]

Another criticism of German doctrinal manuals cited the lack of advice on how to defend under special conditions, such as in swamps and forests, or during periods of limited visibility. The 22nd Fusilier Regiment insisted that battles

fought under these circumstances required special techniques beyond those presently given in the German Army's training manuals. The 58th Infantry Division confirmed this, citing as an example the erroneous tendency of some leaders to deploy defensive forces along the edge of wooded areas. Once the Soviets discovered this habit, it was a simple matter for Red Army artillery to paste the occupied woodlines since they made such well-defined targets. Experienced German commanders either placed their troops in camouflaged positions forward of the woods, or else dug them in some irregular distance twenty-five to one hundred meters inside the treeline. (This latter method was especially preferred: enemy troops attacking the woods could not place accurate small arms or indirect fire on the entrenched defenders until they had advanced through the German artillery barrage and entered into the defenders' close-in killing zones, and yet the thin wooded apron forward of the defensive positions was too shallow to shelter any large body of enemy troops.)[142]

Such techniques demonstrated not only the extent to which German tactics were tailored to minimize casualties, but also the continuing desire of German commanders to avoid tactical schemes that placed unnecessary psychological strain on their soldiers. The Russian climate, periodic supply shortages, "close combat" antitank methods, and lack of rest - not to mention the enemy's apparent numerical superiority and reputed savagery - all imposed heavy demands on German morale and discipline. After-action reports were therefore full of suggestions for avoiding the wasteful depletion of German moral energies. For example, since the defense of an entire sector might well depend on the skill and aggressiveness of local reserves, many units emphasized the desirability of selecting the best leaders and most reliable men for reserve roles. Ideally, these local shock troops were kept razor-sharp by constant training and alarm drills, and

were spared excessive fatigue details such as trench construction. General Heinrici, the Fourth Army's commander, suggested the deliberate firing of friendly artillery at presumed Red Army attack concentrations just prior to enemy assaults. Such fire, whatever its real effect on the Russians, was of inestimable value in "giving at a minimum a moral boost to our infantry in the moment of danger."[143] Other units emphasized the extreme importance of regular training on such particularly fearsome subjects as hand-to-hand fighting and being overrun by enemy tanks. Most important to defensive morale, reported the 1st Infantry Division, was that "each soldier in the defense must be convinced of the superiority of his own training and his own weapons."[144]

Excepting Hitler's command interference and crippling "no retreat" strategy, the most contentious doctrinal issue to emerge during 1942 and early 1943 concerned the proper defensive role of German armor. Prewar German manuals had consigned the panzers to a counterattack role commensurate with their "inherently offensive nature." While none would deny that panzers made ideal mobile reserves and counterattack forces, there arose a considerable doctrinal din about the apportionment and control of those forces.

On one side stood the panzer officers themselves. Since the 1930's, Guderian and the other high priests of armored warfare had taught their flock a simple, unremitting catechism: panzers should be employed only in mass, and should never be split up or parcelled out in support roles. The rectitude of this view had been demonstrated most clearly in the 1940 campaign in France. There, the numerically superior French and British armor had been deployed in "penny packets" and so had justly gone down to fiery perdition. By late 1942, the massing of armor had become an absolute article of faith among the *Panzertruppen*.

As a corollary to this, German armor commanders were reluctant to see their panzers placed under even the temporary command of non-armor officers for fear

that these might commit some sacrilege by splitting up the tanks into support roles. Discussing the task organization of reserves for counterattacks, for example, General Heinrich Eberbach of the 4th Panzer Division made his own feelings clear in a 30 September memorandum:

> Do not subordinate a tank battalion to an infantry regiment; rather attach to it [tank battalion] an infantry battalion, an engineer company, an artillery detachment, and a self-propelled antitank company, and give to this battle group a clear mission.[145]

General Hoth, whose Fourth Panzer Army had yet to be ripped apart by the Soviet November counteroffensive, also argued against assigning small panzer detachments to infantry forces. In a 21 September 1942 memorandum to the Army High Command, Hoth declaimed that "the Panzer Arm achieves its success by massing emphasis in original ." While conceding that small groups of tanks had played a major role in salvaging the German position during the winter of 1941-1942, Hoth stated that "this should not therefore lead to single tanks as a universal solution..." On the contrary, argued Hoth, defensive examples in the late summer of 1942 showed that success came from "the determined will-to-attack of infantry and panzer divisions." Against "the fallacious call of the infantry divisions for 'solitary panzers,'" Hoth spluttered that such dispersion of tanks would not only compromise the *Panzertruppen* as a decisive battlefield force but would also fatally corrupt the infantry's "will to attack" by making them unduly dependent on armored support.[146]

In opposition to this chorus stood those officers - primarily but not exclusively infantrymen - whose troops were actually holding the forward defensive lines. These had no argument with the massing of tanks in theory, but cited several cogent reasons why German defensive interests could be better served in practice by a greater dispersion of armor. In numberless battles against Russian attacks, these officers had developed a doctrinal creed of

their own, namely that under the prevailing conditions of weakness and constraint the best way to defeat a Soviet penetration was by *immediate* counterattack. While not new, this conviction was growing stronger as defensive experience accumulated. On 14 October 1942, General Heinrici had written that immediate counterattack, led by energetic leaders and striking the enemy's troops while they were still disorganized, could achieve "full success in every case."[147] This sentiment was echoed by many units, who regarded speed far more important than numerical strength or firepower in the dislodging of Russian forces.[148] In order to press home their counterattacks as quickly as possible, these front-line commanders were therefore willing to sacrifice even mass in order to hit penetrating Soviets before they could consolidate.

What the infantry commanders preferred was the doling out of tanks in company or platoon strength to support their own tactical reserves. This low-level task organizing would necessarily require the panzers to be placed under the command of local infantry commanders. Furthermore, in exceptional cases (such as that of the hard-pressed 336th Infantry Division on the Chir River in December 1942) German infantrymen wanted some tanks placed at their disposal to act as mobile antitank guns in support of their static positions. All of these ideas were anathema to German panzer officers.

What made this dispute so heated was the fact that there was little possibility for compromise. Given the width of the Russian Front and the scarcity of German panzer forces, it was impossible to provide concentrated armor reserves to all sectors - the only solution that might have satisfied everybody.

If, as the panzer commanders desired, the German armor was kept concentrated in rearward assembly areas, then the tank forces could not arrive at the scene of local crises until hours - or even days - after the Soviet penetrations had occurred. Such belated assistance was considered by the infantry to be of

little value. They reckoned that such delays would allow the Russians time either to expand their penetrations, causing the possible collapse or annihilation of the defensive line altogether, or else to have so fortified their newly-won ground as to make its recovery extremely costly.

On the other hand, if the German tanks were parcelled out by platoons to support every infantry battalion or regiment whose sector was threatened by attack, it would be impossible to reassemble the panzers in time to deal with any massive Soviet breakthrough requiring a massed German response. The 17th Panzer Division's General von Senger, whose experiences on the southern front in the winter of 1942-1943 made him as much an authority as anyone, wrote pointedly of his own adherence to the defensive

> principle that the armor is kept together in defense but is used offensively at the right moment. Commanders less familiar with armored tactics, and those who were conscious only of the endless front, thinly occupied and under threat from the enemy's armor, would under these conditions have been tempted to fritter away their own armor.

Defending the primacy of the armored forces, Senger added: "Thus the armored divisions, originally organized as purely offensive formations, had become [by early 1943] the most effective in defensive operations."[149]

In further rebuttal, the panzer officers cited their own recent experiences which indicated that dividing armor in the furtherance of limited-objective counterattacks resulted in disproportionately high tank losses. General Eberbach suggested therefore that the infantry should be made to eradicate "small break-ins" with available forces, saving the massed panzers for those penetrations that exceeded five kilometers in depth. When actually committed, opined Eberbach, the panzer commander should take control of all available assets, and should return control of the embattled sector to the infantry commander only when the tanks withdrew. Justifying the judicious use of panzers, Eberbach added: "The

life of a tank crewman is not more valuable than the life of an infantryman." Rather, he explained, the careful commitment of armor was in the ultimate interest of both the *Panzertruppen* and the infantry since otherwise the finite German armored forces would soon be completely extinguished, and no longer of any use to anybody.[150]

Both sides in this dispute were completely correct. Every German commander, regardless of branch, wanted to see his own forces used in accordance with their peculiar strengths. No panzer leader wanted to see his precious tanks sacrificed a few at a time in what were, after all, only local emergencies. Nor did any infantry officer wish to see his own men massacred in living up to Hitler's "hold-at-all-costs, recover-all-lost-ground" policies when the assistance of a few tanks could cut his casualties dramatically.

Despite a flurry of bureaucratic activity and memo-writing, no compromise was reached on this issue. A draft "Instructional Pamphlet on Use of Panzers in the Defense," circulated in both the Ninth Army and the Fourth Army, attempted to resolve some of the outstanding sources of armor-infantry friction. Except for a suggestion that tanks never be employed in less than company strength, however, this pamphlet skirted the tougher issues.[151]

Certainly no compromise was apparent at the Panzer Training School in Wünsdorf, where a February 1943 "Instructional Pamphlet on Cooperation between Panzers and Infantry in the Defense" sounded a particularly militant note. This tract, for example, included the following principles for employing tanks in the defense:

- tanks should only be employed in counterattacks, and never as part of the stationary defense;

- tanks should be held sufficiently far behind the front that they can respond to enemy penetrations across a wide sector of responsibility;

- tanks should always be employed *en masse:* the commitment of individual tanks alone is forbidden;

- the smallest unit for immediate counterattacks with infantry support is the tank battalion (minimum of forty panzers).[152]

A similar pamphlet for higher-ranking leaders added that panzers should remain under the control of either division or independent task force commanders, suggesting archly that tank "attachment to subordinate [infantry] leaders can only be allowed for limited periods and for limited missions."[153]

By late spring of 1943, German defensive doctrine on the Russian front had become a patchwork of makeshift compromises. The basic doctrinal framework remained the Elastic Defense established in prewar manuals. However, this system was being increasingly distorted by several factors. The Germans lacked adequate forces to man their extended fronts with a deeply-echeloned defensive network, and so German divisions had been forced to a variety of tactical compromises. Adolf Hitler had fuddled German doctrine by issuing confusing directives. Though at times the Führer had benignly endorsed the general theory of elastic defense-in-depth, in practice he had thundered angrily against weak-willed commanders who allowed the enemy to penetrate beyond the foremost trench-line.

The upshot of these problems had been to focus German defensive efforts on the holding of a rigid linear defense. In short, the "elastic" defense-in-depth as practiced by the Germans in early 1943 had - due to Hitler's orders - lost most of its elasticity, and - due to the lack of German manpower - abandoned most of its depth as well. Still, German units did their best to adapt themselves to these straitened circumstances. They could not do so, however, without occasional strain and squabble as the arguments over the defensive use of German armor illustrated.

CHAPTER V: THE GERMANS AT MID-WAR

German defensive doctrine did not undergo any radical changes during the campaign year of 1943. With minor exceptions, the German defensive battles in 1943 and early 1944 resembled those of 1942 in most respects. German doctrine remained essentially that of Elastic Defense, modified somewhat to accommodate the weakness of German combat units and the eccentricities of Hitler's leadership.

Within this general framework, German doctrine did undergo continuous incremental change. These changes were caused by a variety of factors. The most important stimulus was, of course, combat experience. German units periodically altered their defensive methods to counter changes in Soviet technique, or to adapt to changes in seasonal or terrain circumstances. Doctrinal change was not merely governed by the dialectic of battle, however. Major strategic decisions imposed constraints on German operations, straitening as well German doctrinal options. The German Army's replacement and training system also affected doctrinal development, as did the introduction of new weapons systems. Finally, the evolution of German defensive methods was profoundly affected by the German Army's doctrinal bureaucracy itself: the organizational methods by which the Germans managed doctrinal change influenced the nature of those changes in some cases.

Fundamental Decisions

With the collapse of Operation BLAU and the destruction of the German Sixth Army at Stalingrad, Adolf Hitler's grand strategy lay in ruins. No early end to the war against Russia was now in sight. Though Manstein's March counteroffensive finally stabilized the Eastern Front, it did not affect the overall Soviet preponderance of strength. Consequently, even Hitler had to concede that there now existed no possibility whatsoever of vanquishing Russia by force of arms in the immediate future.

Equally disturbing was the emergence of the Western Allies as a factor to be reckoned with. As their recent successes in North Africa portended, the British and the Americans could be expected to land forces on the European continent before the year 1943 was out. As a result, German military leaders could no longer treat the Russian Front as the sole active theater. Instead, German strategic calculations would henceforth have to include the Anglo-American variable as well.

In the short term, Germany's policy had to be one of strategic defense. In the east, the German armies would have to preserve both their own strength and their advanced territorial positions (Hitler was especially concerned for the Donetz basin industrial area) throughout 1943, hoping that a resurgence of German power might somehow provide a way to victory in the future. In the Mediterranean, where Hitler's long southern flank lay exposed to the Western Allies, the Germans aimed to stave off any Allied invasion and to prevent the defection of Italy from the Axis camp.

Such hopes for eventual victory as could be sustained under these dismal circumstances depended upon the careful use of Germany's limited military resources. The German Wehrmacht lacked the power to match the combined strength of its enemies. Consequently, the German Army would have to try to concentrate against each adversary in turn, creating conditions of temporary advantage in which it could strike paralyzing blows against each. This could not be done by remaining passive. Given complete freedom of action, the Western Allies and the Soviets would surely (or so the Germans feared) coordinate their operations in such a way that the Germans would be unable to deal with them separately. Since the Anglo-American armies were beyond the German reach, the Germans could only hope to exert some control over events by neutralizing the Russians.

German counsels were divided over how best to wage a strategic defensive

on the Eastern Front. In Manstein's words,

> What [Hitler] ultimately had to decide was whether the overall situation allowed us to wait for the Russians to start an offensive and then to hit them hard 'on the backhand' at the first good opportunity, or whether we should attack as early as possible ourselves and - still within the framework of a strategic defensive - strike a limited blow 'on the forehand.'[1]

Hitler himself favored the latter solution, hoping to unleash a series of limited-objective offensives against tempting bulges in the Russian lines. These attacks would exploit the abiding German tactical superiority over the Soviets, tearing painful chunks out of the Red Army without risking a strategic decision. By striking as soon as the ground firmed up in late May, these "forehand blows" would set back Russian offensive preparations and also straighten the meandering front, thus freeing additional German forces. Moreover, these springtime actions could presumable be concluded before the Western Allies could assault the Reich's "soft underbelly," thereby leaving open the possibility of a later transfer of Wehrmacht units to crush any Anglo-American landing. Hitler also preferred the "forehand blow" because a display of aggressiveness would patch up the Reich's military prestige, which had been severely wounded by the Stalingrad debacle.

Senior German military officers, including Field Marshals von Kluge and von Manstein, recommended a different course of action. Manstein, whose personal star was then shining brightly as a result of his skillful Kharkov counteroffensive, was the main spokesman for a "defensive-offensive" solution.[2] What Manstein proposed to Hitler was a re-enactment of the February-March counteroffensive on the southern front, though on an even grander scale and without the same disastrous preamble. Manstein suggested a planned retirement westward under expected Soviet offensive pressure, allowing the Russians to charge forward until logistical strain and fatigue made them ripe for counterattack. Then,

with the Soviets fully committed in one direction, a concentrated German mobile reserve would slice into the Soviet assault forces, cutting them to ribbons. Conceptually, Manstein represented the "backhand blow" (*Schlag aus der Nachhand*) as a form of elastic defense-in-depth on an operational scale: depth would wear down the enemy until German offensive action eventually carried the day. According to Manstein, this scheme would eliminate precisely those Red Army elements - the newly-minted tank and mechanized corps - that most posed an offensive threat to German strategic plans.

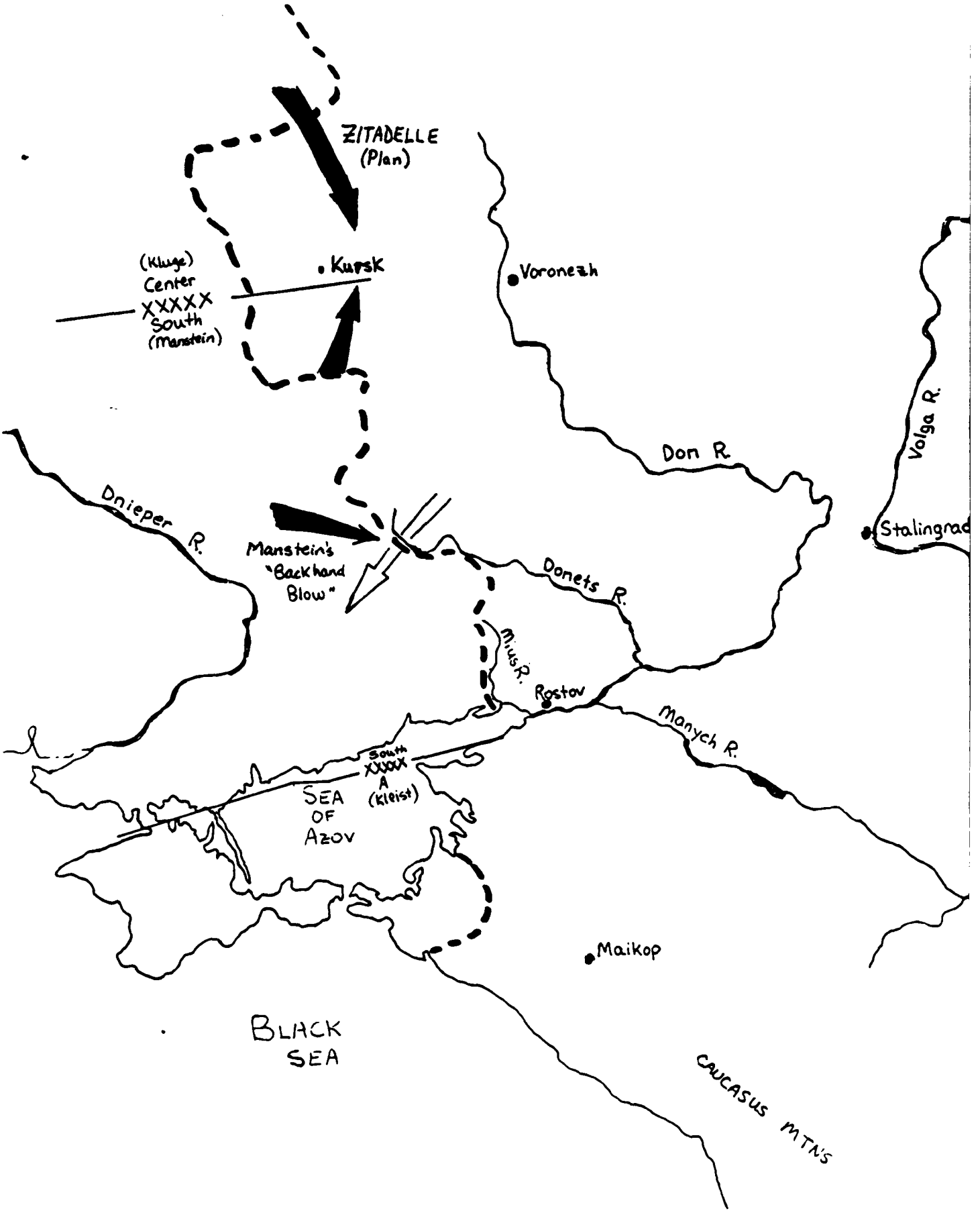
While tempting, the "backhand blow" scheme had three major drawbacks.

First, Manstein's plan was predicated upon anticipating the location and direction of Soviet offensive efforts. Noting the advanced position held by his Army Group South* shielding the Donetz basin, Manstein predicted that the Russians would certainly renew their general course of the previous winter by attacking the German southern wing. On the basis of this forecast, Manstein confidently proposed assembling German reserves west of Kharkov whence they could envelop the onrushing Soviets from the northwest, pressing them against the Sea of Azov.[3] However, a Soviet attack on another front, or even on a different axis (such as a drive southwestward from the Kursk bulge to recapture Kharkov) would evade Manstein's trap. Though German reserves could presumably be redeployed to meet a different Soviet thrust, there was no guarantee that a counterstroke elsewhere could achieve the same salutary results. Also, a series of limited-objective Soviet attacks would equally nullify Manstein's operational scheme by forcing the Germans into piecemeal tactical counterattacks.

Secondly, the "defensive-offensive" concept forfeited Germany's advantage

* On 14 February 1943, Manstein's Army Group Don was redesignated Army Group South. Army Group B's headquarters was transferred to France, its units divided between Manstein (South) and Kluge (Center). Army Group A retained control over German forces in the Crimea and in the "Kuban Bridgehead." See Sketch 19 .

SKETCH 19: ZITADELLE versus "Backhand Blow"



of strategic interior lines. By conceding the initiative to the Russians, there was a high probability that the Russians would coordinate their attacks with the Western Allies. Confronted with simultaneous attacks in both East and West, there would be virtually no chance whatsoever for the Germans to concentrate their forces against separate enemies in turn.

Finally - and, in Hitler's mind, decisively - Manstein's plan called for German armies to retire westward through the Donetz basin like a giant matador's cape, luring the bullish Russians forward until Manstein could plunge his sword into the enemy's shoulder. The voluntary evacuation of any territory was abhorrent to the Führer on principle, and he put little faith in generals' promises to win back abandoned terrain by a counteroffensive. As Hitler repeatedly remarked to his cronies, "The generals want to operate; which in fact means to retreat."[4] In March 1943, however, the Army's proposal to retire from the Donetz region was particularly repugnant to Hitler. Following Stalingrad and the recent winter battles, Hitler was eager to reassure his restive allies and to reconfirm his mastery over the German Army's generals. Neither of these goals would be served by the adoption of an "Army plan" that ran counter to Hitler's instincts. Furthermore, Hitler cherished the Donetz basin's mineral and industrial wealth above all other Russian economic prizes, and could not bear the thought of giving these up.

After some perfunctory deliberation, Hitler made his decision in favor of the "limited offensive" plan. On 13 March 1943, while Manstein's counteroffensive to stabilize the winter front was winding down, the Führer issued "Operations Order 5" announcing limited-objective attacks during the coming summer "similar to that [Manstein's] underway in the southern sector" to sap Russian strength. In other passages, Hitler ordered the German eastern armies to redouble their defensive efforts, putting maximum energy into the improve-

ment of positions, the laying of mines, and the strengthening of local reserves. Overshadowed somewhat by the strategic decision for minor pre-emptive attacks, these defensive reminders were nevertheless extremely important. With this order, Hitler notified frontline commanders that the loosely-controlled, helter-skelter winter battles were over and that henceforth German defensive operations would again conform to the Führer's rigid linear principles.[5]

German generals might have grumbled that Hitler's planned pre-emptive attacks in reality bore no similarity whatsoever to Manstein's elegant counter-stroke. Likewise, the implied defensive message of Operations Order 5 dashed hopes for any future flexibility in resisting Soviet attacks. The Führer's admonition to improve defensive positions was even mildly insulting, since German commanders were frantically fortifying their lines anyway and did not need an order from Hitler to spur their efforts. However, Hitler tried to subdue this latent disaffection with a full broadside of his personal charm and charisma, and following his 13 March decision he was again strutting about "with the air of a victorious warlord."[6] Manstein in particular was courted privately by the Führer, and was awarded the Oak Leaves to the Knight's Cross on 16 March 1943 in recognition of his recent defensive successes.[7] With this false display of unity and mutual confidence, Hitler and his officers set about planning the summer attacks.[8]

As had happened on other occasions, what began as an essentially sound strategic concept was eventually revised, refined, and delayed into utter futility. A pincers attack against the Kursk bulge (Operation ZITADELLE) was to be the primary German effort and was originally scheduled for mid-April. However, while he pored over maps in his headquarters, other operations came to life in Hitler's mind: two attacks (HABICHT and PANTHER) against the Donetz River line, as well as a new drive to capture Leningrad. Hitler juggled these plans and others - the

Army High Command half-heartedly resurfaced the "backhand blow" idea in June, while the OKW staff suggested cancelling ZITADELLE and reinforcing the Mediterranean front - until late June, when he ordered ZITADELLE to begin at last on 5 July. In the meantime, the Soviets had refitted their own armies, assembling in particular strong armor reserves, and had also turned the Kursk salient into a fortified camp girded by no less than three separate defense belts.[9] The "limited offensive" plan had depended upon timeliness to exploit Soviet disorganization and to allow a later transfer of German forces to the west. Postponed until July, ZITADELLE came off as a frontal attack against a well-prepared enemy that, regardless of its outcome, would in all likelihood provide no relief from Germany's strategic problems.

Launched over last-minute objections by Manstein and other frontline commanders, the German attacks against the Kursk salient degenerated into an artless slugging match almost immediately. Seventeen refitted panzer divisions (the greatest concentration of German armor on such a narrow front during the entire war) hurled themselves at the Soviet lines. Due to a lack of infantry divisions, the panzers had to forge their own way through the Soviet fortifications at heavy cost.[10] Losses mounted as Russian tanks charged in counterattack. From a strategic standpoint, such a battle of attrition was the last thing that the Germans wanted. On 10 July, with ZITADELLE in its fifth day, British and American forces began landing in Sicily, thereby bringing to pass the strategic nightmare that the Germans had originally hoped to avoid by taking the offensive in the first place. For once, Hitler acted promptly: on 13 July, the two army group commanders (Kluge and Manstein) executing ZITADELLE were ordered by the Führer to break off their attacks, and also to release several of their best panzer divisions for immediate transfer to Italy. With this loss of strength, the Germans were unable to hold even their limited territorial

gains, and so withdrew to their starting lines.[11] (By leaving the Russians in control of the battlefield, the Germans significantly increased their overall tank losses, since many salvable panzers had to be abandoned before they could be recovered.)

Originally conceived as a way to ease Germany's strategic dilemma, the Battle of Kursk ended without unbalancing Soviet offensive capabilities. Its cost had been the near-destruction of Germany's rebuilt panzer forces. As General Guderian (recently recalled to duty as Inspector General of the German Armored Forces) later wrote:

> By the failure of ZITADELLE we had suffered a decisive defeat. The armored formations, reformed and re-equipped with so much effort, had lost heavily both in men and equipment and would now be unemployable for a long time to come.[12]

In retrospect, Operation ZITADELLE irretrievably compromised the conduct of German defensive operations on the Russian Front for the remainder of the war. In deciding upon a "limited offensive," Hitler had chosen against a defensive war of operational maneuver such as had been advocated by Field Marshal von Manstein and others. The heavy tank losses suffered at Kursk made this decision irreversible. Despite rising production rates through the latter part of 1944, Germany would never again be able to rebuild her shattered armored forces to pre-ZITADELLE levels. Hitler's objections aside, a strong operational reserve of the sort coveted by Manstein for a "backhand blow" could thenceforward never be assembled for want of uncommitted resources. Though no one could have known it for sure at the time, Adolf Hitler had burned his operational bridges in the Battle of Kursk.

For the next two years, the German eastern armies were to suffer the full embarrassment that comes of having no means whatsoever to seize the initiative from the enemy. Soviet armies deployed, massed, attacked, pursued, consolidated, and redeployed in complete disregard for German designs. Such German reserves

as could be mustered were consumed piecemeal in purely tactical missions, skittering about Russian battlefields in vain attempts to patch up the filigreed frontlines. As ever, the German panzers (and, indeed, all of the German forces) showed themselves to be skillful and resolute in this fighting. But theirs was a doomed cause, as Hitler remained intent on rigidly holding on to every bit of ground possible. Having squandered its reserves and limited its tactical freedom, the Fuhrer in effect sentenced the German Army to an attritional contest that it could not win. From the conclusion of ZITADELLE to the end of the war, Germany's defensive battles on the Eastern Front were like a chess end game in which the Germans were down a rook and several pawns. And, as everyone knows, the Russians are excellent chess players.

The Soviet Initiative

During the first two years of the Russo-German War, the two belligerents had alternated seasonal offensives. The Germans had held the initiative in the summers of 1941 and 1942, and had driven corridors of conquest deep into the Russian interior. The Russians had been ascendent during the winters. This pattern shifted in the summer of 1943. The Germans themselves lacked the strength for a general offensive, but had counted on ZITADELLE to paralyze the Russians as well. That this objective was not achieved quickly became apparent as the Soviets launched their own first summer offensives of the war.

The Soviet summer offensive surprised the Germans both with its scope and its endurance. Before ZITADELLE, Manstein had predicted a Russian offensive against his Army Group South. The Soviets not only struck Army Group South from two different directions, they also caved in Army Group Center's front north of Orel as well. (Considering the unexpected diversity of these Soviet attacks, it is uncertain whether Manstein's concentrated "backhand blow" would have been as effective as its author contended.) After cracking open the German front, the

Soviets pressed their offensives remorselessly, causing the Germans to backpedal clear to the Dnieper River. Nor did the Soviets relent in the autumn and winter months: fresh Soviet attacks pierced the Dnieper line, driving the Germans across the lower Ukraine clear to the Carpathian foothills, while other attacks drove the Germans back over one hundred miles from Leningrad.

Against this flood the Germans could do little. Field Marshal von Manstein described this grim campaign as follows:

> Henceforth Southern Army Group found itself waging a defensive struggle which could not be anything more than a system of improvisations and stop-gaps... What had to be avoided at all costs was that any elements of the Army Group should become cut off through deep enemy breakthroughs and suffer the same fate as Sixth Army at Stalingrad. To 'maintain ourselves in the field,' and in doing so to wear down the enemy's offensive capacity to the utmost, became the whole essence of the struggle.[13]

The experiences of the new German Sixth Army were typical of the battles fought by the forces of Manstein's Army Group South. German divisions had spent the three months from March to July preparing sturdy positions along the Mius River. These German defenses conformed to current doctrinal guidelines, posting most of the available infantry strength forward in the HKL while organizing a limited defense-in-depth around heavy weapons:

> The forward line consisted of a continuous trench with splinter-proof shelters. It was protected by barbed wire entanglements and by minefields in the outpost area. The advantage of the Mius position was that it dominated broad fields of fire; its disadvantage, that it was a forward slope position. In the rear of the main defensive area, strongpoints for heavy weapons and artillery had been prepared for all-round defense. The foremost artillery positions were organized into groups to form a loosely connected artillery defense line. The antitank defense line was also not continuous, but consisted of a system of strongpoints and minefields extending up to three miles behind the HKL.[14]

General Hollidt, commanding the reconstituted Sixth Army, considered the main weaknesses of the defense to lie not in the positions themselves or even in the shortage of combat personnel. (The average strength of Hollidt's infantry battalions was around 400 men, a rare luxury by Eastern Front standards.)[15] Hollidt feared instead the relatively low level of training readiness in his

command, and the dearth of mobile reserves to duel with Soviet breakthroughs.

Of Hollidt's ten infantry divisions, seven were sorely deficient in training. Three of these had recently arrived from occupation duty in France, and so lacked combat experience. Three other divisions had suffered heavy losses during the recent winter battles and, though partially filled with replacements, lacked internal cohesion and unit training. One other division was a new Luftwaffe Field Division, which from past experience with such units promised to be almost totally untrained.

Despite these glaring deficiencies, the necessity to improve Sixth Army's fortifications left little time for training. Consequently, "lack of experience would necessitate the use of relatively rudimentary combat methods, which in view of the Russians' numerical superiority was likely to result in reversals."[16] In the summer battles against successive Russian attacks, General Hollidt in fact adopted special measures to compensate for this lack of skill:

> Not only did he include in his orders detailed instructions about matters which would have been self-evident to seasoned troops, but during the initial stages of the fighting he deliberately acted on the assumption that such inadequacies could be more easily overcome in offensive than in defensive operations. This assumption was born out by the fact that when the Russians attacked, the prepared defenses collapsed relatively quickly, whereas when the troops counterattacked they fought well in spite of heavy losses.[17]

Hollidt's second concern was lack of mobile reserves. Manstein later wrote that the widely extended front and overall German weakness made it suicidal to wage a "purely passive defense against an enemy so many times stronger," and so recalled his own efforts as army group commander to use his few panzer units as aggressively as possible.[18] From Manstein's perspective this might have been so; however, within Hollidt's Sixth Army an entirely different picture emerged. When the Soviet attacks first struck Sixth Army in July 1943, Hollidt had no panzer or panzergrenadier formations whatsoever. As Soviet penetrations perforated the

German lines, panzer units were shunted to Hollidt by Field Marshal von Manstein for emergency use. However, these panzers

> were sent in piecemeal, first one division, then a second, and finally an entire corps... Since strategic reserves were urgently needed at other points along the army group front, they were sent in at the last moment and for only a limited time. Consequently, at decisive moments General Hollidt's freedom of action was seriously hampered by the pressure of time, and decisions were made which might have been different had the reserves been unconditionally at the army's disposal.[19]

The fault for this dispersion of effort was neither Manstein's nor Hollidt's. Instead, the lack of sufficient mobile reserves was traceable to ZITADELLE, where the German panzers had been squandered in droves. In the subsequent defensive battles, such as those fought by Hollidt's Sixth Army, the Germans were therefore forced to use their few panzers penuriously and, as shown, almost purely for local effect. Although the German mobile formations managed to drive back the Russians at several points, by late August the position of Sixth Army - and indeed of the entire German southern front - again teetered on the brink of collapse.

Army Group Center fared little better in its battles, though in one remarkable departure from form Hitler did allow Kluge to construct a rearward fortified line across the base of the Orel salient in the second half of July. Construction on this line, code-named the HAGEN position, began on 16 July 1943. At first, Hitler urged General Walter Model (controlling his own Ninth Army and also the Second Panzer Army in the Orel bulge) to contain the enemy's attacks and to recover the original lines forward of the HAGEN position. When this proved to be impossible, Hitler allowed Model to fight "elastically" - meaning, in this case, that Model could conduct tactical withdrawals as he desired - until 26 July, when the Führer suddenly ordered an immediate withdrawal into the HAGEN lines. To Army Group Center's Field Marshal von Kluge, Hitler explained that the demands of other fronts (especially Italy) required the transfer of perhaps

as many as two dozen divisions from Army Group Center, and these could only be made available by an immediate shortening of the front.[20] In a reversal of their normal roles, Kluge argued that his forces could not disengage so abruptly, and that anyway the *Hagenstellung* would not be ready for occupation for three to four weeks. Kluge's remonstrances fell on deaf ears: the 25 July collapse of Mussolini's government in Italy had so unnerved Hitler that he cared nothing for tactical expedience in Russia, and so Kluge dutifully arranged for a withdrawal.[21]

The Russians followed this retirement with all the energy they could muster, and even tried to kick in the HAGEN line itself in early August. The German lines there managed to hold firm, partly because the shortening of the front temporarily narrowed divisional sectors and thus reduced the chronic overextension that plagued German defenders. The fighting for the HAGEN position was brutal, however: the 78th *Sturm* Division fought off twenty-five separate attacks against its front on 26 August alone, stamping out several penetrations by counterattacking with its own reserves and some backup *Eingreif* forces. Veterans of the heavy fighting at Yelnya in August 1941 and around Rzhev in 1942, old sweats of the 78th Division nevertheless recalled the fighting for the HAGEN position as among the bitterest of their entire experience.[22]

Despite the evident usefulness of the HAGEN position - Soviet attacks in that sector eventually had to be suspended due to heavy losses - Hitler remained adamant in his refusal to allow German forces to conduct planned withdrawals or to construct contingency fortifications to their rear. This was contrary to the wishes of frontline commanders who, powerless to arrest the Soviet juggernaut with their own battered and outnumbered forces, periodically begged the Führer to authorize such measures. General Zeitzler, the Chief of the Army General

Staff, had resurrected the idea of an East Wall to Hitler in the early spring of 1943, but had heard the Fuhrer dismiss his suggestion with the old argument that rearward defenses would weaken the defensive will of forward units.[23]

By August 1943, with Soviet armies pushing forward through the wreckage of German forces south of the HAGEN line, German commanders were explaining to Hitler in the bluntest terms that the entire southern portion of the front would soon be annihilated unless immediately withdrawn or, alternatively, heavily reinforced with fresh units.[24] As Hitler understood it, this was a choice between the intolerable and the impossible. To avoid facing up to this choice Hitler created a third option: an East Wall. On 12 August the Fuhrer ordered the construction of a grand chain of fortifications stretching from the Sea of Azov to the Gulf of Finland. Brushing aside logistical and technical objections - Hitler had once told Kluge acidly that the Russians seemed able to dig in well enough in only two days - the Fuhrer craftily used the East Wall as a new argument for rigid defense. For the time being, he announced, great sacrifices were necessary in order to buy time for the building of the rearward position.[25] Even with this injunction, however, the Soviet advance continued to spill forward, and Manstein stubbornly ordered his own armies to begin a "mobile defense." As Hitler correctly discerned, "mobile defense" was Manstein's euphemism for a fighting retreat, and Army Group South's forces moved behind the East Wall in the latter part of September.[26] This meant that the East Wall was occupied in some cases after barely a full month of actual construction, hardly enough time to have created a seamless bulwark against the Red hordes.

Even though hastily constructed, the East Wall was Germany's greatest fortification effort on the Russian Front in the war. For administrative purposes - and also for fear that the southern half of the line might be overrun before it could even be built - the East Wall was divided into two separate parts.[27]

In the south, where Manstein's foundering armies were struggling to avoid destruction, the East Wall was called the WOTAN position. The WOTAN line ran from the Sea of Azov south of Melitopol to the Dnieper bend near Dnepropetrovsk, and from there north along the Dnieper River. North of Kiev, where it ran behind the forces of Army Groups Center and North, the East Wall was codenamed the PANTHER position. The PANTHER line followed the Dnieper as far as its confluence with the Sozh River. There, German engineers judged the upper Dnieper to be too swampy and too meandering to be defended effectively, and so the PANTHER line snaked overland away from the Dnieper to Narva on the Gulf of Finland.[28]

The original construction schedule for the East Wall called for it to be completed by the beginning of November 1943. Work on the East Wall was performed by military engineers, German civilian labor teams from the Todt Organization, and by Russian civilians. Hitler had decreed in early September 1943 that the German armies were to conduct a "scorched earth" campaign as they moved rearward, and this policy was applied with particular relish on the land just forward of the East Wall. Russian civilians displaced by the German destruction efforts were evacuated westward in great treks, and many were eventually added to the fortification work parties.[29]

Due to the distance of the PANTHER line behind the current fighting front, the actual defensive positions had to be laid out by reserve personnel instead of by combat officers from the fighting divisions. The defensive works were laid out according to standard defensive formulas. Work priorities specified the initial construction of an uninterrupted trench with firing positions (HKL), followed by rearward bunkers and shelters, artillery observation posts, wire obstacles, rearward antitank positions, communications trenches, and finally artillery positions. Original plans called for the East Wall to bristle with concrete bunkers and command posts; however, lack of time eventually prevented

the pouring of any concrete emplacements.[30]

By mid-September, Field Marshal von Kluge felt that he could no longer sustain a coherent front in place forward of the PANTHER line, and obtained Hitler's permission for a slow, deliberate withdrawal behind the East Wall. The measured pace of the retreat was not dictated solely by tactical expediency: with them, Kluge's troops planned to evacuate more than two million Russian civilians, six hundred thousand head of cattle, and all of the army group's permanent logistical installations. However, in late September the Soviets broke through on both flanks of Army Group Center, and so the withdrawal into the PANTHER position changed abruptly from a walk to a trot. Army Group Center's divisions closed into the PANTHER position in early October.[31]

The East Wall provided the Germans little refuge, however, due primarily to Hitler's earlier decision to fight a protracted defense further to the east. By forbidding his armies to break contact and conduct a timely withdrawal ahead of the Soviets, Hitler caused the German forces to arrive at the East Wall tired, disorganized, and with the Red Army's outriders hot on their heels. Though the delaying battles forward of the line had gained some time to improve the WOTAN and PANTHER positions, the step-by-step German retreat had also allowed the Russians to bring along their own logistical support. As a result, the Soviets were ready to attack the German fortified zone almost from the march, pushing forward strong assault columns while the Germans were still jostling into place. By December the Soviets were across the Dnieper and through the East Wall on a wide front in both the Army Group South and Army Group Center sectors. In subsequent winter attacks the Russians exploited their earlier successes, straining the ligatures between Army Groups South and Center by driving Manstein back below the Pripyat Marshes.[32]

Despite the ample empirical evidence establishing the disastrous consequences of "standing fast," Hitler became if anything even more rabid in his insistence on holding terrain during the winter of 1943-1944. In January 1944, Soviet forces encircled two German corps in the vicinity of Korsun because the Fuhrer refused requests to draw back a vulnerable German salient. (Ironically, this German salient reached eastwards to cling to a pathetic twenty-mile stretch of the Dnieper just north of Cherkassy - all of the East Wall that then remained in German hands in the zone of Army Group South.)[33] At almost the same time, elements of the German Sixth Army were nearly trapped further south while holding another exposed salient on Hitler's orders, this one the so-called "Nikopol Bridgehead" across the lower Dnieper.[34] Shortly thereafter, General Hans Hube's entire First Panzer Army was temporarily cut off around Kamenets-Podolskiy when "Hitler's explicit orders prohibited any further withdrawal and eliminated the possibility of a more flexible defense which might have established contact with other German forces."[35]

That all of these forces were spared the fate of Paulus' Sixth Army at Stalingrad was due to Hitler's allowing them to fight their way back to German lines before they were totally destroyed. In every case, however, the German units suffered heavy losses in the encirclement and breakout, and as a consequence most of the salvaged units were not combat-ready for several weeks after their escape. For example, in evacuating the Nikopol Bridgehead the Germans had to abandon all heavy equipemnt except that which could be dragged out using the few available horses. Later, First Panzer Army's "Corps Group Chevallerie," which contained five panzer divisions, one panzergrenadier division, and three infantry divisions, counted only twenty-four operational tanks immediately after its own escape.[36]

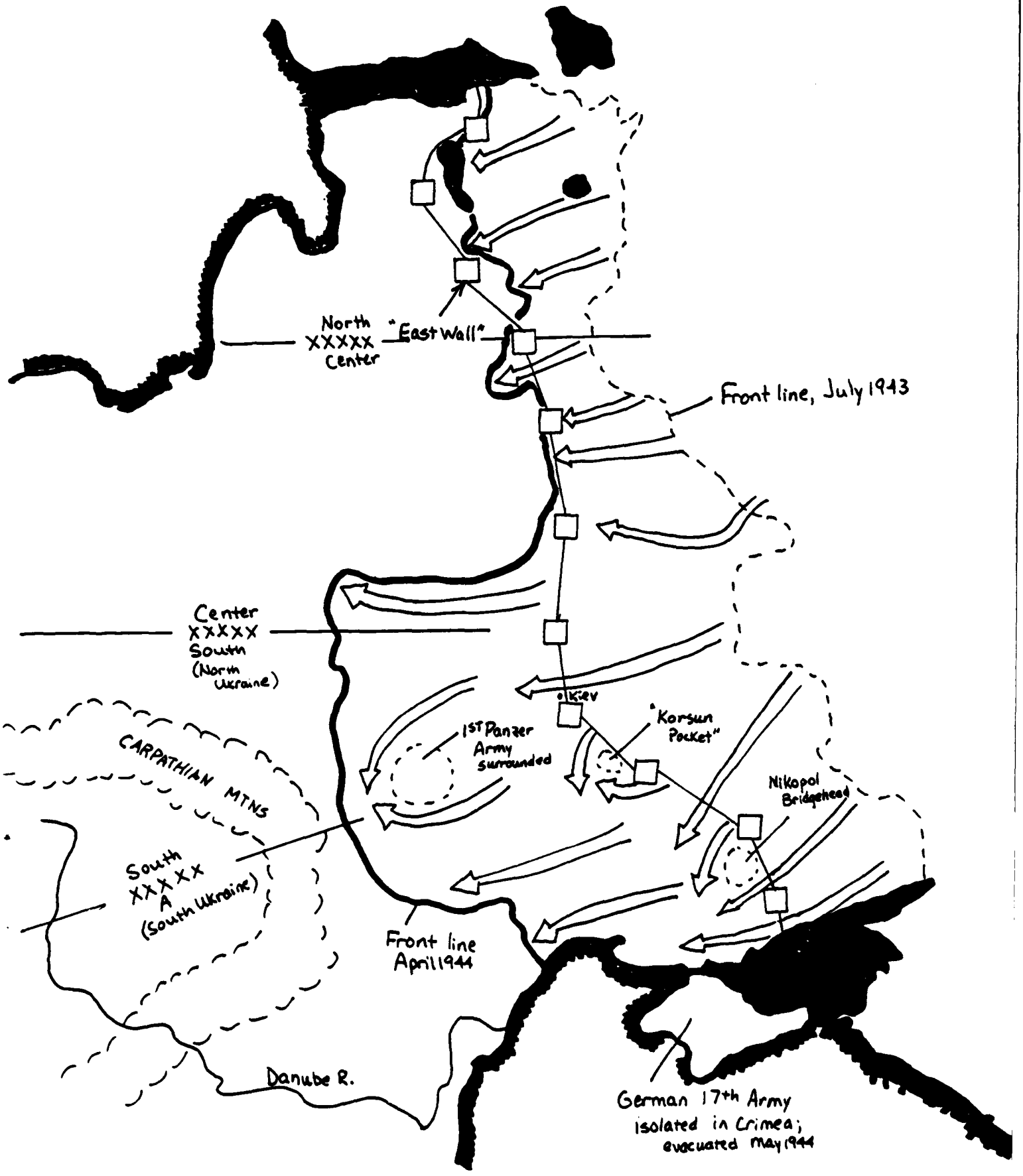
Once the Soviets had vaulted the PANTHER and WOTAN positions, their continued winter attacks showed the German armies to be dangerously near to total collapse. Red Army offensives punctured the German defensive lines at will, forming great pockets of German troops. The near-disasters at Korsun, Nikopol, and Kamenets-Podolskiy were ominous harbingers of future misfortune in another respect as well: they illustrated the growing operational competence of the Red Army both in conducting sustained offensives and in managing the difficult coordination problems that large-scale *Kessel* battles required. Little wonder, then, that the shade of Paulus' lost legions stalked German soldiers for the remainder of the war. As one German general later wrote:

> The psychological effect of the Stalingrad debacle on command and troops could not be compensated for to the very last day of the war... After Stalingrad every last man of a unit cut off in a pocket was haunted by the specter of Stalingrad. This had serious consequences [for German morale].[37]

Adding to this concern was Hitler's continuing interference and misjudgment. At a critical period of the war, when Germany's fortunes depended upon the most careful use of her dwindling resources, the Fuhrer's insistence on rigid defense resulted time and again in the needless sacrifice of German men and machines. The East Wall, which many Germans hoped would be the mighty barrier behind which the German armies could at last hold the Red Army at bay, scarcely slowed the Soviet advance at all. Remarkable for having been the single greatest German attempt to conduct a Flanders-type positional defense on the Russian Front, the East Wall proved to be a near-total failure in practice. Its futility stemmed not from the inherent vincibility of fixed fortifications to modern mechanized armies - though other campaigns in World War II would seem to have suggested this - but from the fact that Adolf Hitler had so weakened his armies in preliminary battles that they could not fairly organize the East Wall for defense.

The mishandling of German forces during the 1943 campaigns was especially

SKETCH 20: Soviet Offensives, Summer - Winter 1943



apparent to the Soviets. Marshal Zhukov*, who had directed many of the most lethal Soviet operations, later wrote that:

> With respect to the strategic competence of their high command and the commands of army groups, after the catastrophe in the Stalingrad region - and especially after the Kursk battle - it had drastically fallen. In contrast to the first period of the war, the German command had become sluggish and lacking in ingenuity, particularly in critical situations. In their decisions they displayed an inability to assess correctly the capabilities of their own forces and of their enemies. The German command would frequently be too late in withdrawing its forces out of positions endangered with envelopment or encirclement, which placed their forces in hopeless predicaments.[38]

Sustainment: The German Replacement and Training System

The decline in German operational efficiency noted by Zhukov owed much to the Fuhrer's unsound defensive policies. However, German combat effectiveness was also eroding at the lowest levels, and for reasons which had little to do with Adolf Hitler. The heavy attrition inflicted on German armies by Eastern Front battles had, by 1943, overwhelmed the German ability to field fresh, well-trained combat troops. From 1943 onward, German units saw their combat effectiveness permanently debased by the chronic lack of men and by a general insufficiency of training. These deficiencies eventually affected German defensive doctrine for, as General Hollidt had acknowledged on the Mius River, unseasoned troops required the adoption of "relatively rudimentary combat methods."

In 1943, the demands on German military manpower had increased tremendously. Heavy losses at Stalingrad and in Tunisia had erased whole armies from the German order of battle. The growing threat to Germany's southern flank from the Western Allies imposed a more serious garrison requirement in France, Italy, and the Balkans. Nor could these garrisons be made up largely of burned-out divisions rotated out of the Russian meatgrinder for refit as had previously been the practice. The military forces of Germany's allies had become all but invisible:

* Zhukov had been promoted to Marshal of the Soviet Union on 18 January 1943 for his accomplishments as Russia's foremost field commander.

both Rumania and Hungary had withdrawn most of their divisions from Russia after the disastrous Stalingrad episode, while Italy had quit the Axis altogether in mid-summer as soon as Anglo-American armeis had invaded Italian soil.[39]

In order to meet these burgeoning obligations, the German Army had to accomplish two ongoing tasks. First, it was necessary to funnel a steady flow of trained replacements into existing units in order to keep them battleworthy. Secondly, it was necessary to build entirely new units to replace those lost in combat and to meet Germany's growing strategic requirements.[40]

Quantitatively, Germany flatly could not provide the numbers of replacements necessary to bring existing units back up to full strength. For example, in the first six months of 1943, while Hitler was massing his slender resources for ZITADELLE, German replacements to the eastern armies numbered only 720,100 against 823,400 casualties in the same period. In the defensive battles following ZITADELLE, German divisions in Russia suffered a further net loss (after replacements) of nearly 700,000 men by the end of February 1944.[41] As previously explained in Chapter IV, the German Reich was notoriously inefficient in its use of available manpower for military service. Periodic "drives" by various Nazi potentates to release additional men for the colors rarely had more than a brief propaganda effect. Latent sources of manpower, such as anti-Soviet Russians, Ukrainians, and other eastern nationalities, were either ignored or processed largely as slave labor for German industry.[42]

As a result of this dearth of replacements, German units already committed on the Russian Front underwent permanent changes of organization. In 1943, for example, most infantry divisions that had not previously done so eliminated one battalion from each of their regiments, thereby leaving nearly all German infantry divisions with three regiments of only two battalions each.[43] (In 1944, this organization would be reshuffled again into two regiments each of three

battalions due to a shortage of qualified regimental-level officers.) This meant that all German infantry divisions were, as a rule, far less able to hold ground or to engage in sustained combat than they had been at the war's outset.

Those units so ravaged by losses as to be not worth rebuilding were left as is, and simply given new titles to reflect their diminished combat value. In some cases, shattered divisions were redesignated "*Divisionsgruppen*," and remained on the rolls as task forces in whatever strength they still possessed. Occasionally, a *Divisionsgruppe* might even be attached to another division, fighting thereafter as a mere ugly-duckling regiment under its new parent headquarters. On other occasions, several *Divisionsgruppen* might be amalgamated together to create an entirely new "*Korpsabteilung*" of roughly division strength.[44] Whatever their particular constitution, these *Divisionsgruppen* and *Korpsabteilungen* reflected the growing inability of the German replacement apparatus to cover combat losses. Furthermore, the nonstandard makeup of these units placed additional strain on German planners as well. The urgent demands for replacements, coupled with the general shortage of replacement personnel, corroded the German training system. These factors were, in effect, related in a sort of downward spiral. Heavy casualties demanded immediate replacements. The German replacement system could not repay these losses at a continuous rate, and so instead the replacement rate was accelerated by abbreviating the training given to German recruits. By skimping on training, the German Army cut the time it took to pass a new German soldier from the depot Kaserne to a Russian foxhole. In so doing, however, it inevitably increased the rate at which these half-trained soldiers were slaughtered in battle, thereby increasing the need for replacements. Since the only apparent slack in this cycle lay with the soldier's preparatory training and drill, those were the areas that were consistently pared down as the war progressed.

Faced with the problem of turning German citizens into soldiers, the German Army began with certain advantages not shared by most modern societies. First, German society had a traditional respect for military service that transcended mere wartime enthusiasm, and so Germans were conditioned from birth to regard soldiering - for private and general alike - to be an honorable social duty. This was not due to any innate aggressive militarism on the part of Germans, though there had periodically been chauvinistic excesses in Germany (as in other European states) since the days of Frederick the Great. Rather, the German Army had traditionally been a unifying institution, drawing together the factional sentiments of the old German states and principalities into a national whole. After Napoleon's defeat of Prussian forces at Jena-Auerstadt in 1806, the Jacobin sentiments unleashed by the revolution in France found German focus in the formation of various citizens' militia in Prussia and elsewhere in order eventually to overthrow the French conquerors. During the German Wars of Unification, the armies of Prussia and the various Confederation states marched together against common foreign enemies, and formed the social cornerstone upon which the Wilhelmine Reich was founded. A common military heritage was also a major theme of various Germanic historians such as Heinrich von Treitschke, who regarded past military glory as the wellspring of German nationalism. One of the most onerous aspects of the Versailles Treaty - as Hitler rightly perceived - was the emasculation of Germany's military power, an act that besmirched one of the major symbols of German nationhood. As one German slogan in the interwar years put it: *"Heerlos, Wehrlos - Ehrlos!"* (No army, no defense - no honor!) Hitler's rebuilding of the German armed forces was therefore an extremely popular measure, and the social esteem affiliated in the German mind with military service remained in full flower through the bitterest days of World War II. However melodramatic it might have seemed to

outsiders, the Teutonic pageantry stagemanaged by the Nazis in their public displays of military might captured the almost tribal essence of Germany's military *Geist*.

Secondly, German culture held in high esteem certain personal virtues (duty, discipline, comradeship, honor) that were also prime military qualities. If Germans came willingly to military service because of the social esteem attached to it, they made as well particularly wonderful soldiers because they so often already possessed the very attributes most prized in modern armies.

Before the war, German draftees were called up in annual autumn levies. These recruits did not undergo a standard basic training, as instead each new soldier was immediately assigned to a particular branch and sent to a unit of that branch for his individual training. Within that unit - where the soldier would remain until some exceptional circumstance took him away - his training was planned and administered entirely by company officers and NCO's. According to a German Army pamphlet entitled "Guiding Principles Covering Education and Training in the Army," the "person chiefly responsible for education and training in the army is the company/squadron/battery commander... It is the duty of his superiors to support him in this difficult task without restricting his initiative."[45]

This highly decentralized system had several advantages. First, the tasks of individual training and unit team-building were carried out concurrently. Secondly, individual recruits learned quickly with the assistance of their experienced squad mates, and "very soon they were capable of being employed by their units as combatants owing to their associating with older soldiers." Thirdly, the cohesion and stability generated in German company-sized units were considered to be of enormous morale value in wartime (witness General Zeitzler's directive in the autumn of 1942 forbidding the breaking up of

original companies when disbanding battleworn units). Finally, the decentralization of training supported yet another German Army principle, that being the professional development of junior officers. As one general officer explained after the war:

> The general principle of the German Army [was] to give full responsibility within the scope of their own authority to individual officers down to the lowest ranks, [and this] was also applied in the field of training.[46]

This peacetime system fielded a peerless fighting force in the campaigns in Poland and France. Despite moderate casualties in those two outings, the German Army was able to rebuild (and even to increase) its forces during the breathing spells following each without any loss of training proficiency.[47] However, the unrelenting campaign on the Eastern Front from 1941 onwards created a voracious appetite for trained replacements that this careful system could not satisfy. Traditional methods produced German soldiers only by a painstaking piece work process; however, the Russian inferno demanded assembly line productivity in the creation of replacements. Though modifying its training machinery under the pressures of war, the German Army tried to retain as much of its prewar training philosophy as could be salvaged.

With the bulk of German forces committed to combat missions outside of Germany, new recruits could not be sent directly to companies without some kind of preliminary training. Until 1942, replacements were raised and trained by the so-called Replacement Army, which was an administrative headquarters controlling all training and replacement depots and units within the Reich. However, after the disastrous winter of 1941-1942 the Replacement Army could not meet the twin requirements of providing individual replacements and raising new units. Consequently, it was decided to transfer the training of individual replacements to field training sites within the combat theaters themselves.

This was done by assigning training formations ("Reserve" and "Field Training" divisions) to the eastern armies. These training formations were affiliated with particular combat divisions, so that a soldier's identification with his unit was still cultivated from the beginning of his service. Additionally, each combat division formed a "Replacement Battalion" to give final training to each new soldier before he entered the lines. Some specialist schools and training courses were also relocated into the combat theaters as well. For example, combat divisions normally set up courses for the training of their own junior noncommissioned officers.[48]

Officers and NCO's with recent combat experience (including convalescents) comprised the instructional cadre at all levels. These instructional personnel were drawn from the field units serviced by the replacement formations, and were frequently exchanged back to their combat units. As one officer recalled, frontline commanders

> naturally desired to retain tried and tested officers and NCO's for combat missions and only very reluctantly released them [to training billets] for fear of losing them permanently... [Therefore] it was important to return such instructors after a while to their respective field units in exchange for other instructors. In this way the front atmosphere and the most up-to-date experience in actual combat were transmitted... and confidence of the troops in these exchange details strengthened.[49]

From 1942 onward, the training of soldiers assigned to the Russian Front therefore generally conformed to the following pattern. A fresh recruit would first report to a reception company in Germany, where he was inprocessed and given rudimentary training. From his reception company a recruit was sent to a branch replacement unit assigned to one of the reserve or field training divisions. There the recruit would receive his basic branch training. Gunners, for example, would be trained intensively - and almost exclusively - in the technical skills relating to artillery. Then the new soldier (no longer a recruit) was assigned to a combat division. In his division, the new replace-

ment would normally receive two to five weeks of training within the division's replacement battalion before joining his company. While in the replacement battalion, new soldiers were broken down into groups according to whichever regiments, battalions, and companies they were to join. Their "finishing" training was then conducted by officers and NCO's from those same units, who naturally took an intense interest in "the training of their future subordinates and comrades."[50]

Training did not cease with a soldier's arrival at the front lines. All German units were required to develop programs for "training in position." During defensive fighting, this training was ideally conducted by unit NCO's in sheltered areas within the depths of the Main Battle Position; however, instruction was also carried on in the forwardmost trenches when circumstances required. These training programs included such subjects as practice alarms (moving from bunkers to fighting positions), antitank techniques, grenade throwing, and close combat skills. Additionally, as one account explained somewhat euphemistically:

> Probably the most important feature in this type of training was sharpshooting practice from combat positions in the foremost trenches on enemy targets under the supervision and correction of old experienced frontsoldiers.[51]

Training was also a major activity for units taken temporarily out of the lines. Reserve units were drilled incessantly in order to make them as deadly as possible in their counterattack roles. Units rotated to the rear for rare periods of rest were also plunged into rigorous training regimes.[52]

Though altered by wartime circumstances, the German replacement and training methods thus retained many of the general principles that had animated the prewar system. A strong bond of identification was forged between each new recruit and his eventual combat unit almost from the day of his induction.

Training was conducted at all levels by junior leaders who were themselves drawn from that same unit. German training tended toward combat pragmatism: instructors were seasoned veterans, and training programs focused almost exclusively on the narrow range of skills necessary for combat survival. Even at the front, German units strove to sustain their skills by constant training during lulls in combat.

These admirable qualities notwithstanding, the German Army's replacement and training system was fundamentally flawed on several counts.

First, the German system lacked an adequate training base. By continuing to rely almost wholly on *training units* (reserve divisions, field training divisions, and replacement battalions) to process individual replacements, the German Army confined itself in a straitjacket. These units - given the unique complexion of their cadre - had only a finite capacity for expansion, and so could not easily meet surge requirements during periods of particularly heavy fighting. In contrast, the system used by the Americans during World War II, in which individual replacements were trained in enormous, undifferentiated training complexes, was far better geared to replace massive losses than was the German one.[53]

Consequently, during periods of enormous attrition on the Eastern Front (such as during the winters of 1941-1942 and 1942-1943), German combat divisions shrivelled away to almost nothing in a dangerously short period of time. Coupled with the reduction in battalions (from nine to six) within German infantry divisions, this meant that *overall the majority of German units on the Eastern Front were institutionally unsuited for sustained combat* in high-attrition situations. That German units, due to their superior training and cohesion, retained a margin of tactical superiority over Soviet forces was beside the point. All that the Soviets needed to do was to put continuous, unrelenting

pressure on the Germans (as during the Soviet drives from July 1943 to March 1944), and eventually the German Army would be broken. In this light, Hitler's "stand fast, no retreat" defensive policies aided the Soviets substantially by holding German units flush against the Russian grindstone.

Secondly, inorder to make even a modest response to surge demands for replacements, the Germans periodically had to slash the training time given to replacements. On occasion, soldiers would be processed through the reserve (training) divisions after only the flimsiest sort of branch familiarization. In particularly dire circumstances, German soldiers (especially infantrymen) were even sent straight from their reception companies in Germany to the combat divisions' replacement battalions without any other training at all. There, "the possibility of such training was left to division commanders" depending upon the situation. Not surprisingly, these poorly trained troops - their motivation and aptitude notwithstanding - suffered an inordinate rate of loss during their first days in combat. This expedient process eventually caused an overall erosion in the training standards within German units, as the percentage of troops with only limited training backgrounds inevitably increased as the war dragged on.[54]

Thirdly, the policy of transferring training-base units into the combat theater had the disastrous - though not wholly unforeseen - effect of exposing those units themselves to enemy action. In general, the presence of various German training formations behind the lines contributed to overall rear security. However, as partisan activities grew in intensity in the later periods of the war, this policy became more and more hazardous. Even more dangerously, during desperate defensive battles whole training formations were occasionally used as emergency maneuver units to prop up sagging sectors or to block Soviet breakthroughs. Where these actions became necessary, they had an immediate

and catastrophic effect on the entire replacement system. Not only were the half-trained replacements usually slaughtered in droves (for, employed as whole units, the replacements had no veteran squad mates to guide them), but the few experienced training cadre were in all likelihood lost as well.[55]

A fourth flaw in the German system was the lack of a standardized basic training regimen for all soldiers. From the time of his induction, a German soldier's wartime training focused on the specific requirements of his own branch, and even the scope of that branch training was periodically curtailed. Except for training in the use of their own individual weapons, German soldiers in other branches therefore generally lacked a broad common background in infantry skills.[56] Consequently, their use as emergency infantry fillers (as happened to artillerymen, signallers, and others during the winter of 1941-1942) or as *Alarmeinheiten* combat units was completely contrary to their training background. Hitler's complaint in the Führer Defense Order that artillerymen were abandoning their pieces when threatened by ground assault was, in fact, an indirect criticism of German wartime training: gunners were trained solely as gunners, and had almost no training whatsoever in infantry battle skills.

As evolving German doctrinal practices placed an ever-heavier burden on rear echelon forces to provide supplementary combat assistance, both by defending their rearward *Stützpunkte* against partisans or enemy breakthroughs, and by falling out *Alarmeinheiten* for emergency commitment as infantry, so too did it become necessary to give them remedial training in infantry skills. (General Zeitzler, it will be recalled, ordered an ambitious training program of precisely this sort in the late autumn of 1942.) These remedial programs would have been unnecessary had the German training system given a standard training in infantry skills to all soldiers.

Fifth, while providing some pragmatic benefits, the German system of using unit officers and NCO's to train their own replacements resulted in a great deal of adverse parochialism. As combat units developed certain habits or local practices, those were passed on to successive waves of replacements. This was further perpetuated by allowing divisions to train their own NCO's, and by the gradual decline in the professional training given junior officers.[57] Eventually, almost every German division - and many regiments and even battalions as well - had its own particular way of fighting based upon its own experiences. In static circumstances, this condition was generally not a major problem. However in fluid situations, in which divisions might have to operate in close concert with other formations under unfamiliar circumstances, these eccentricities often led to coordination problems. For example, one German officer recalled that several units thrown into defensive fighting along the Don River in 1942 had become confused over homespun differences in terminology and in the laying out of defensive positions.[58] To counteract this trend, the Army Training Branch began circulating "Training Directives" in late 1942 designed to update standard doctrinal methods. However, these "directives" were actually only advisory in nature, and so failed to alleviate the problem completely. (See following section.)

A similar problem, and one with even more far-reaching consequences, was the growing "specialization" of German combat divisions. German units engaged in prolonged defensive operations in particular tended to become stale and unsuited for fluid combat. No amount of "training in position" could keep units sharp for battles of movement. The only remedy for this was periodically to pull divisions out of the line and subject them to a comprehensive refresher training program in the rear. Unfortunately, the scarcity of German units and the press of events generally prevented this. Field Marshal von Kluge,

for example, even felt compelled to order the armies of Army Group Center on 17 June 1943 to rotate units to the rear for only the minimum amount of time absolutely necessary to refresh their men and equipment. As soon as units had been refitted, they were to be returned to the defensive lines or engaged in antipartisan operations "without delay."[59]

As a result, German divisions that had performed well enough in defensive roles often failed miserably when suddenly thrust into fluid situations. Field Marshal von Manstein had noted the lackluster performance of First Panzer Army divisions pulled out of the Caucasus and fed into the maelstrom on the southern front in early 1943. Similarly, the veteran 95th Infantry Division, which had fought its way eastward in a series of fluid battles during BARBAROSSA in 1941, found that its own skills had atrophied after more than a year of defensive combat. During that time the division "had repeatedly suffered heavy losses, which had been replaced by inferior personnel." Consequently, when forced to abandon its fortifications in March 1943, the 95th Division discovered that "the long duration of stationary warfare... had blunted the skill of the unit's officers." Moreover, "there was no way of pulling the infantry out of line to train them in delaying action, with which they were unfamiliar."[60] Since the units employed in static defenses were almost always infantry divisions, the decaying of their ability to conduct maneuver warfare further increased the awkward disparity between German infantry divisions and the mobile panzer and panzergrenadier formations.

In addition to its individual replacement and training system described above, throughout the war the German Army also funnelled a large share of its conscripts into dozens of newly-formed units. Though increasing on paper the number of combat formations in the German Army, this policy drained manpower away from the individual replacement pipeline, and aggravated the chronic shortage

of troops in veteran divisions. As seen, the Germans' constipated individual replacement system could not make good the losses to units already in existence; nonetheless, Hitler persisted in ordering still more divisions into being. By the beginning of ZITADELLE in July 1943, for example, the German Army had twenty-four more divisions in Russia than it had had at the outset of BARBAROSSA two years before; however, total army strength on the Eastern Front was actually nearly 100,000 men less.[61]

This policy - which had the inevitable effect of driving down the battle-worthiness of nearly all German combat divisions - was primarily traceable to yet another of Hitler's perverse command traits. The Führer, it seemed, had a fascination with numbers, and so preferred to deploy ever-greater numbers of divisions regardless of their actual strength. On 6 February 1943, for instance, Hitler had ordered the immediate creation of twenty new divisions to replace those lost at Stalingrad despite the fact that the surviving divisions on the Russian Front desperately needed infusions of fresh men to remain fit for battle.[62]

By and large, German officers were critical of this policy. They considered a smaller number of full-strength divisions to be a more effective use of German manpower than the fielding of prodigious numbers of understrength units. As Field Marshal von Manstein complained:

> Hitler was constantly ordering new divisions to be set up. Though an increase in the number of our formations was most desirable, they had to be filled at the cost of replacements for the divisions already in existence, which in course of time were drained of their last drop of blood. At the same time newly established formations initially had to pay an excessively high toll of killed because of their lack of battle experience.[63]

The primary virtue of fleshing out veteran units was that it capitalized on the existing infrastructure of experienced leaders, staffs, and small units, thereby incorporating replacements into an organization that at least required

no "shaking down" in combat. New units, on the other hand, almost invariably performed poorly when first committed to combat, even though enormous efforts were made to staff them with some experienced personnel. (Just prior to the capitulation of German forces in Tunisia and Stalingrad, for example, the Germans had evacuated large numbers of cadre precisely for the purpose of building new units around them.) Very often, these green formations were rushed into combat before they had had an opportunity to finish their individual and unit training programs. According to German after-action reports, the stern requirements of the Russian Front were such that unseasoned units nearly always took unnecessary losses regardless of the duration or intensity of their previous training. Even supposedly excellent units, trained for two years or more in occupied France, were often mauled in their inaugural battles against the Red Army.[64]

One German general with extensive Eastern Front experience faulted the German Army's training system for these lapses. The chief failure, he wrote, was that the decentralized German system had

> no office or responsible person charged with testing each newly-formed unit before it departed for the front. It was not ascertained whether a unit was really ready for immediate commitment from the point of view of its equipment, armament, and last but not least its fighting skill. Grave mistakes were made in this respect. But this was due not only to an overestimation of the value of technical skill for the combat soldiers which existed at Supreme Headquarters but also to the development of the situation at the fighting fronts. It happened frequently in critical days that a newly-formed division that was not as yet fully trained was nevertheless committed in a center of main effort where, without being of any effective help, it was destroyed within a week.[65]

Despite its manifest drawbacks, Hitler's insistence on creating new formations had a certain logic in three areas. First, brand new divisions could be efficiently organized for specific missions or to accommodate peculiar limitations. For example, in 1943 several new light infantry divisions (*Jäger-divisionen*) were put together in the Balkans for the purpose of combatting par-

tisans in the mountainous terrain there. Similarly, from 1943 onward the German Army began assembling low-quality, immobile (*bodenständige*) divisions strictly for static defense.[66] (These units generally lacked both the transport and the training to engage in mobile operations, and were often composed of personnel considered only marginally fit for military service.) By tailoring new units from their inception for special roles or special limitations, the Germans thereby avoided a certain amount of waste and inefficiency during the war's latter years.

Secondly, the creation of new units had certain logistical advantages. Fighting a "poor man's war" industrially, the German Army could not afford to replace all of its obsolescent equipment in a timely fashion, and so its divisions gradually came to possess a bewildering mixture of new and old items. One way to simplify spare parts accounting, replacement of major end items, and so forth was to keep individual divisions internally homogeneous. This in fact was done to the maximum extent possible. As new items of equipment became available or, as sometimes happened, captured materiel was pressed into service, it was usually easier to outfit new units uniformly than to conduct a piecemeal retrofitting of old divisions. Therefore, two German infantry divisions defending side-by-side might each have their own peculiar artillery pieces, antitank guns, assault guns, trucks, and so on. Aside from the proliferation of new units and of differing tables of equipment, this policy had the additional disadvantage of fragmenting the German Army's demands for spare parts and replacement items. At the end of the war, for example, the German Army had more than a dozen different models or variants of tanks in service, and a like number of assault guns and mobile antitank guns - all of which needed their own peculiar parts, ammunition, and maintenance personnel.[67]

Lastly, the organization of new units was the swiftest and most efficient

way for the German Army to bring new technological innovations to bear. Confronted by an enemy coalition whose combined munitions output exceeded Germany's by a ratio of 9:2, it was incumbent upon the German Army to strive for qualitative superiority.[68] Most German officers would have pursued this qualitative edge in the training and tactical employment of their units; Hitler, however, was a "gadget man" who tended to place inordinate faith in new weapons technology. As a result, considerations of training, doctrine, and tactics generally were trampled in Hitler's rush to introduce new weapons into combat. New units could easily be trained bo use new weapons from the beginning, Hitler reasoned, while re-equipping veteran formations would require a more time-consuming process including withdrawal from combat, refitting, and retraining before they could be sent back into action. Therefore, the Führer concluded, it was more efficient to issue the newest weapons to newly-raised units, and to allow veteran units to continue along using the equipment with which they were already familiar. In obedience to Hitler's wishes, ninety per cent of new armaments was distributed to new, inexperienced formations, and only ten per cent was generally allocated to refit veteran units during the war.[69]

Except for certain elite SS units and a few favored panzer and panzergrenadier formations, then, in general the best-equipped units in the German Army also tended to be the least experienced. The most spectacular example of this policy was the ill-famed debut of the Panzer V (Panther) and the Porsche Tiger (Ferdinand) tanks during the Battle of Kursk. Hitler had in fact delayed the opening of that battle because he considered those new weapons to be capable of "decisively" altering the qualitative balance on the Eastern Front. Hurried into battle before various mechanical bugs could be corrected, the Panthers and Ferdinands were concentrated in a few newly-organized battalions. In these new formations, according to General Guderian, "neither the crews

nor the commanders were... sufficiently experienced in their handling [of the new tanks], while some of them even lacked adequate battle experience." Both the Ferdinands and the Panthers suffered heavy losses at Kursk, and nowhere was their contribution even remotely "decisive."[70] Meanwhile, veteran panzer formations rattled into combat in the same model Panzer IV's that they had received one or even two years before.

At the end of 1943, the German Army still had nearly two hundred divisions, thousands of tanks and guns, and millions of men in the field against the Soviets. Excellent individual soldiers, and buoyed by their remarkable unit cohesion, German troops remained tough, determined fighters in spite of disheartening reversals. Likewise, German mid- and senior-level officers remained unsurpassed in their cool professionalism and technical skill. Undermining these assets, however, was the fact that the German Army was wracked by a sort of degenerative disease, causing its overall quality and combat effectiveness to decline almost with every battle.

At the heart of this decline lay the inability of its replacement and training system to meet the German Army's demands. Seasoned divisions were being slowly consumed for want of adequate replacements. Those replacements that did arrive often were barely trained. Even if they lived to become battle-wise veterans, these newer men would always be less well trained than the victorious troops who had first marched east in June 1941. German squads, platoons, and companies were increasingly led by men who had risen from the ranks. Though capable enough within the scope of their experiences, these rough-and-ready leaders lacked the broad knowledge and background of the older professionals. Newly-formed units, raised from scratch to fulfill Hitler's demands for more divisions, swelled the German order-of-battle but suffered disproportionately high losses as the price of their inexperience.

General Halder had first remarked at this erosion in early 1942, noting that the previous winter's casualties had transformed the once-supple German armies beyond all recognition.[71] Despite halting attempts to rebuild, further disastrous losses over the next two years continued this downward slide. Through ZITADELLE, the German Army had been able to mask its growing infirmities with offensive action. Once the initiative had passed finally to the Russians, though, these weaknesses could no longer be concealed.

Managing Doctrinal Change

Prior to the beginning of the Second World War, the German Army had no formal bureaucracy for developing doctrine. Instead, changes to German doctrine emerged slowly as the result of an informal consensus between field commanders, the various branches, and the General Staff. As in other matters, this system was orchestrated in the prewar years by the Army Commander-in-Chief and the Chief of the Army General Staff, who as senior officers of proven ability were conceded a great deal of deference by virtue of their rank, position, and reputation. Day-to-day administration of doctrine-related problems fell upon the Assistant Chief of Staff (Training), whose duties included the publication of doctrinal manuals and general training directives; General Staff recruitment and training; studies in military history and science; and the supervision of training facilities, training programs, and annual maneuvers.[72] (See Sketch 21).

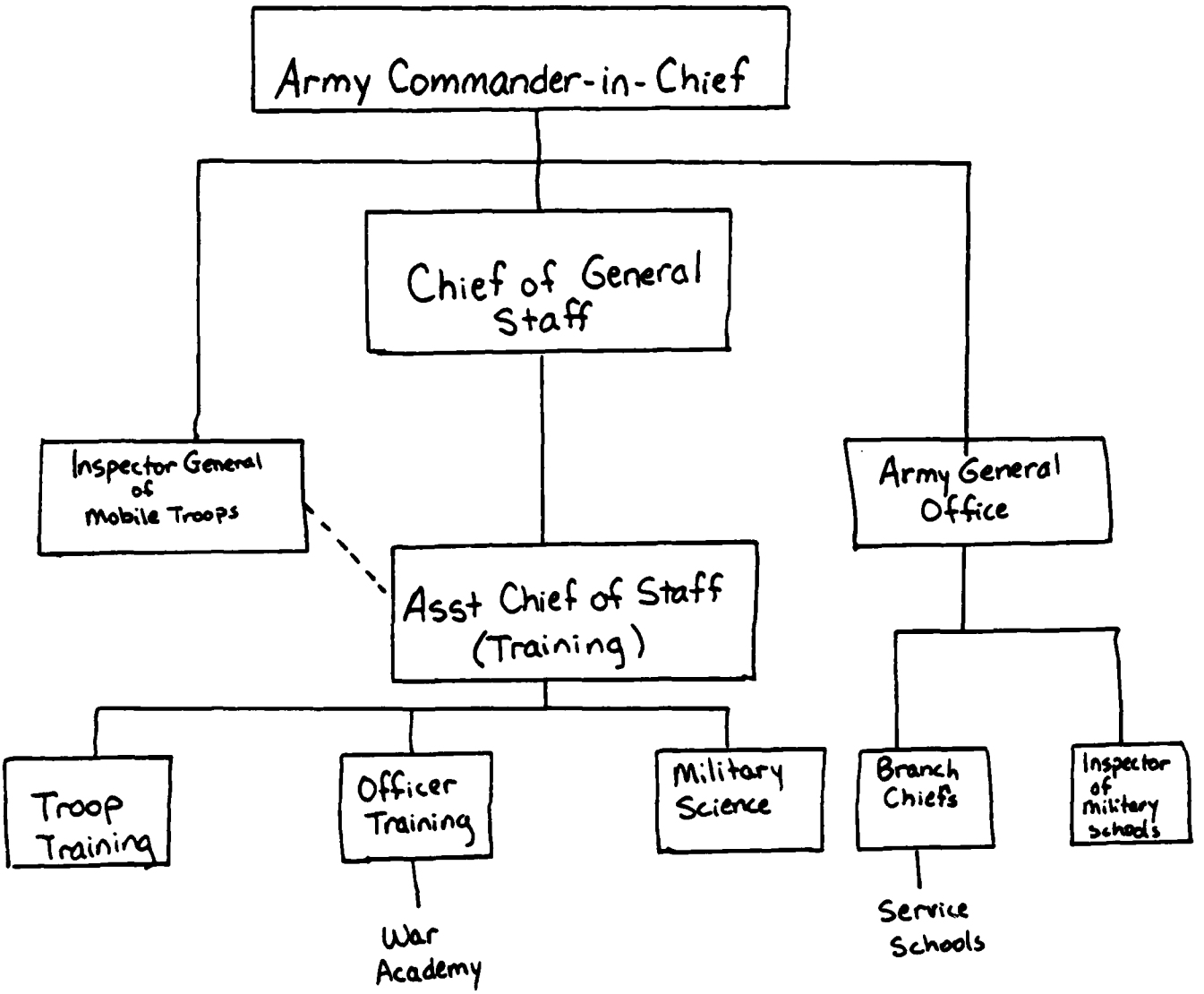
This "brain trust" of senior officers and staffs marshalled excellent analytical skills based on their rigorous General Staff training, and so the German Army was perhaps somewhat more receptive to new ideas than other, more hidebound armies elsewhere. Even so, the German system was not one designed to make abrupt changes or to accept radical ideas. The relatively swift development of German armored forces in the late 1930's, for example, owed more to

Guderian's iconoclastic energies and to Hitler's fortuitous sponsorship than to any institutional openmindedness in the Army's upper echelons. (Guderian complained in his memoirs that his suggestions for prewar improvements to the panzer forces were occasionally returned without action by the General Staff's training section because they had been submitted in the improper format.)[73] Furthermore, if the German Army seemed to seethe with developmental activity in the last years before the war, it was because such robust activity was the natural concomitant of Hitler's repudiation of the Versailles armament restrictions in March 1935 and the rapid growth of German forces.

With the coming of war in September 1939, the German Army put itself on a war footing. As part of this battening down, the office of Assistant Chief of Staff (Training) was abolished, along with some of its peacetime functions. (In anticipation of a short war, the War Academy - which trained new General Staff officers - was closed, a decision that the Germans later regretted.) Other functions were transferred to wartime agencies. The training of replacements and new units, for example, was initially passed to the Commander of the Replacement Army along with the supervision of training facilities. Out of the rump of the old training office, a new Army Training Branch was created. As one of its chief duties, the Training Branch was given responsibility for evaluating combat experiences and seeing to it that these were applied to German doctrinal methods in a timely fashion.[74] (See Sketch 22).

Eager to take on its new doctrinal responsibilities, the Training Branch found little of substance in the Polish campaign. As one officer later wrote, "The short campaign in Poland had not brought any new experiences which would have justified a basic revision of the manuals regarding the conduct of operations."[75] Though a few training deficiencies were noted, most of these were addressed through command channels rather than by means of Training Branch

SKETCH 21: German Prewar Training Organization

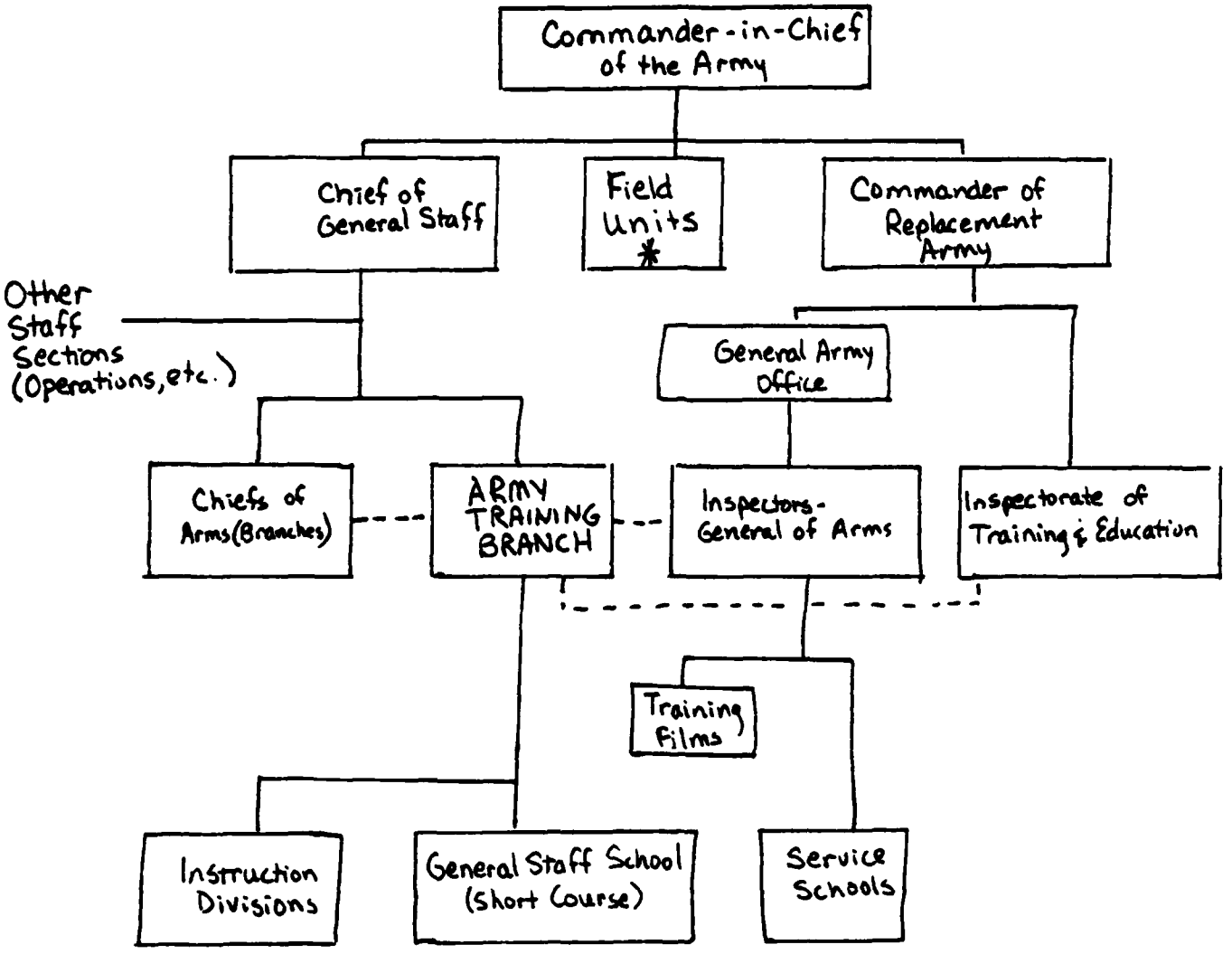


——— Chain of Command

— — — — Staff Coordination

(Other staff branches, such as war plans, also came under Chief of Staff — Not shown).

SKETCH 22: German Replacement and Training Agencies, 1939 - 1942



* Beginning in 1942, field units took on additional responsibilities for training own replacements

--- Coordination

memoranda. Such directives as were formulated by the Training Branch often were simply ignored since, according to the German decentralized training system, the training readiness of units was completely the responsibility of the units' own commanders. Furthermore, German training during the winter of 1939-1940 was impeded by a number of obstacles: the winter weather was extraordinarily severe, there was a shortage of fuel for training purposes, and Hitler insisted on keeping the field armies deployed in instant readiness for an attack on France. This last requirement kept German units massed west of the Rhine through the winter, and so there was little opportunity for them to use training areas in Germany or to conduct extensive exercises.[76]

During and after the 1940 campaign in France, the German Army made an even greater effort to canvass its forces for information about their combat experiences. These activities fess into six general categories:

1. Before the campiagn began, units were requested to report remarkable actions by either enemy or friendly units to the Army Training Branch for immediate evaluation.

2. Liaison officers from the Training Branch were sent to the front to collect firsthand information.

3. At the conclusion of the campaign, units were required to submit experience reports. (Since "training" staff officers did not exist in the field units, these reports were generally written and forwarded by unit operations officers through "operations channels." As a result of this, the separation of responsibility between the Training Branch and the General Staff's Operations Branch - both of which handled after-action reports in some capacity - was not always clear. On occasion, the Operations Branch apparently generated its own requirements for experience reports independent of the Training Branch.)

4. Commanders fresh from the fighting wh were convalescing or who were passing through Berlin en route to new duties were interviewed to gain their impressions. (This was a practice not only of the Training Branch, but of the entire Army General Staff, including the Chief of Staff).

5. General Staff officers assigned to the Training Branch were periodically posted to combat units, while officers with frontline experience were rotated to the Training Branch.

6. The Training Branch solicited the impressions of the various Chiefs of Arms and Services (branch chiefs), who were busy collecting their own information within their respective branches.

The information gleaned from these various sources was then sorted and compiled by the Training Branch. Its findings were submitted to selected senior officers, "who combined experience with judgment," and new techniques were even tested where possible by means of maneuvers or staff exercises. The fruits of these analyses were then released as instruction pamphlets to the various field commands or, where appropriate, written into new doctrinal manuals. (The new manual on panzer operations published in December 1940, for example, benefited from the review of combat experiences in the French campaign done by the Training Branch.)[77]

The same methods for compiling combat experiences were employed from the beginning of the campaign against Russia. Liaison visits by Training Branch officers, as well as reports from frontline units, formed the major sources of information on new combat methods. In early spring 1942, for example, the Training Branch collected experience reports - *Erfahrungsberichte* - from a number of frontline divisions to garner their impressions of Russian and German combat methods. The detailed critiques of strongpoint defensive methods ordered by the Army Chief of Staff in the summer of 1942 grew out of

these reports, as the Training Branch (and the OKH in general) sought to investigate the apparent discrepancy between winter combat practice (use of strongpoints) and the repeated protestations of combat commanders against strongpoint tactics. (See Chapter III.)

From the outset of BARBAROSSA, however, the Training Branch acted far more as an information clearinghouse than as a fount of doctrinal guidance. In general, during the first two years of the war in Russia, the Army Training Branch did little more than circulate the various *Erfahrungsberichte* to interested commands. Its most substantial publication was a winter warfare manual (*Vorschrift der Winterkrieg*) issued in 1942 which, though giving extensive advice on individual and small unit survival in extreme Russian weather, provided no guidance on the conduct of operations in general.[78]

The reasons for this lack of doctrinal activity were fourfold. First, the German tradition of decentralized training made the General Staff's Training Branch somewhat circumspect about imposing doctrinal judgments onto frontline commanders. Officers assigned to the Training Branch sensibly recognized that field commanders were normally the best judges of their units' strengths and weaknesses, and so refrained from dictating mandatory training requirements or doctrinal changes to them.

Secondly, the vast scope of the Russian theater, with its kaleidoscopic differences in weather, terrain, and even enemy resistance, made it extremely difficult to make doctrinal generalizations that would apply to all German units. Firsthand experience reports, occasionally including brief "lessons learned" commentaries written by Training Branch officers, could however be taken at face value by the combat units reading them, and used or not as those commanders deemed necessary.

Thirdly, as General Halder commented after the war, "provisional direc-

tives and short pamphlets proved preferable to lengthy manuals which, by the time of their appearance, were often obsolete in many respects."[79] In other words, through its first two years the war in Russia did not stand still long enough for doctrinal generalizations to be made, and so the Army Training Branch followed a patient wait-and-see policy until major trends could be identified.

Finally, it is important to recall that the defeat of Russia was initially expected in a "single lightning campaign" in the summer of 1941. Even when the war dragged on into 1942, the German Army pinned its hopes for a final end to the war on Operation BLAU. Major analyses of the Polish and French campaigns had been conducted in the lull after those operations, and so the Training Branch apparently exercised some forebearance in expectation of a more detailed post mortem when the war was over. Significantly, the Army Training Branch became much more energetic in late 1942 and early 1943, that is, after it became apparent that BLAU had foundered and that the war against Russia would be along drawn out affair.

In November 1942, the Army Training Branch issued the first in a series of "Training Directives" (*Ausbildungshinweise*) to units on the Eastern Front and in the Replacement Army. These Training Directives, which were issued at irregular intervals, had a dual purpose. First, they institutionalized the circulation of "lessons learned" experiences to unit commanders. Secondly, they provided informal guidance for standardized training both within the Replacement Army and in the various field units. From mid-1942 onward, monthly condition reports from frontline units had frequently complained about the poor training standards of replacement personnel. Consequently, while these Training Directives violated the German Army's traditional "hands off" policy toward training in units, such measures were judged necessary to redress

some of the more flagrant deficiencies in replacement training.[80]

Consistent with their training orientation, the *Ausbildungshinweise* focused on individual and small unit skills, and so avoided any extensive remodeling of German defensive doctrine. The Training Directives were broken down into convenient topic headings (attack, defense, patrolling, and so forth) encapsulating recent experiences and fieldcraft tips. The first Training Directives in late 1942 and early 1943, for example, provided advice on such subjects as camouflage, patrolling, Russian combat methods, and antitank close combat techniques. One directive urged German troops to make greater use of nighttime raids and reconnaissance patrols, since poorly-trained Soviet levies tended to be passive during hours of darkness. (This same directive asserted the continuing tactical ascendancy of German troops based upon superior training and morale - an interesting assertion considering that the *Ausbildungshinweise* were concerned in large measure with the decline of German training proficiency.) In another passage, German troops were advised against constructing antitank ditches forward of their own trenchlines, since Russian infantry liked to sneak forward and shelter in the tank ditches prior to launching an attack.[81] Suggestions such as this last one did occasionally produce minor changes in German tactical methods. However, such tactical adjustments did not add up to any fundamental change in defensive doctrine, however.

The Army Training Branch's *Ausbildungshinweise* were not the only conduit for transmitting combat experiences or modifying tactical practices. As always, units continued to forward post-battle experience reports through staff channels to their higher headquarters, and these reports were routinely circulated for information purposes to other units. Various branches also periodically prepared both experience reports and instructional pamphlets for their own particular troops (infantry, armor, artillery). In general, these were coord-

inated with the Training Branch to insure against contradiction. In September 1943, the Army Training Branch inaugurated a new series of instructional pamphlets in addition to the Training Directives. Entitled "Experience Reports - Defense," these pamphlets summarized the lessons learned during recent major engagements on the Eastern Front, and were aimed primarily at battalion-level commanders and above. (Indeed, the publication of a regular series of pamphlets devoted entirely to defensive matters was an indirect bureaucratic admission that the war in Russia had entered a new phase after the offensive campaigns of 1941-1943.)[82]

The one publication with more than incidental significance for German defensive doctrine to appear in this period was issued on 1 October 1943. Entitled "Suggestions for the Construction of Positions on the Eastern Front," this handbook was a cooperative effort by the German Army's Chief of Engineer Troops and the Army Training Branch to standardize the layout of German defenses.[83]

Strictly speaking, "Construction of Positions" did not introduce any new changes into German defensive doctrine. Instead, it was mainly an attempt to codify German defensive doctrine as modified by wartime experiences and Hitler's edicts. An apparent secondary intent was to give young, nonregular officers and NCO's a brief grounding in the traditional principles of German defensive operations. Beginning with a summary of Soviet atta

Beginning with a summary of Soviet attack procedures, "Construction of Positions" proceeded to a discussion of the principles underlying German defensive doctrine with these words:

> The principles of our manuals concerning the conduct of defensive fighting have not changed. They need however to be extended with regard to the peculiarities of the Russian theater. These are characterized by the width of the Eastern Front, the small combat strength [of German units], the strength in the forward areas of tracked armored vehicles, and the appearance of new combat methods and the necessity of combat operations under unfavorable terrain and weather conditions, including as well under conditions of supply difficulty.

There followed a familiar explanation of German defensive principles and their current application (see Sketch 23). Combat units, the pamphlet explained, must organize their positions in depth "even when deployed on a wide front." The forward portion of the defensive area (the HKL) must be continuous, with separate fighting positions linked together by connecting trenches. Ideally, the HKL should be located on a reverse-slope where it is safe from enemy direct fire and from observed indirect fire. All available fires should be marshalled to break up enemy attacks before they can reach the HKL (evidence here of the traditional emphasis upon firepower as well as Hitler's influence); however, this did not mean that all forces should be deployed forward at the expense of defense in depth. Heavy weapons were to be arrayed in depth, not only to provide continuous resistance against enemy break-ins, but also to support immediate counterattacks by local reserves. Within the depth of the Main Battle Position (*Hauptkampffeld*), all separate points of resistance were to be organized for all around defense, as were artillery positions further to the rear. Communications trenches, running generally perpendicular to the forward HKL, were dug throughout the *Hauptkampffeld*. As necessary, these trenches could be used as ready-made supplementary positions to contain local enemy penetrations. Logistical installations and support troops in the rear were responsible for their own local security, and were to establish themselves in strongpoints to add depth to the defensive zone. As a whole, the German defensive system as a minimum needed to be organized in enough depth that enemy artillery could not range the rearmost positions without displacing forward.

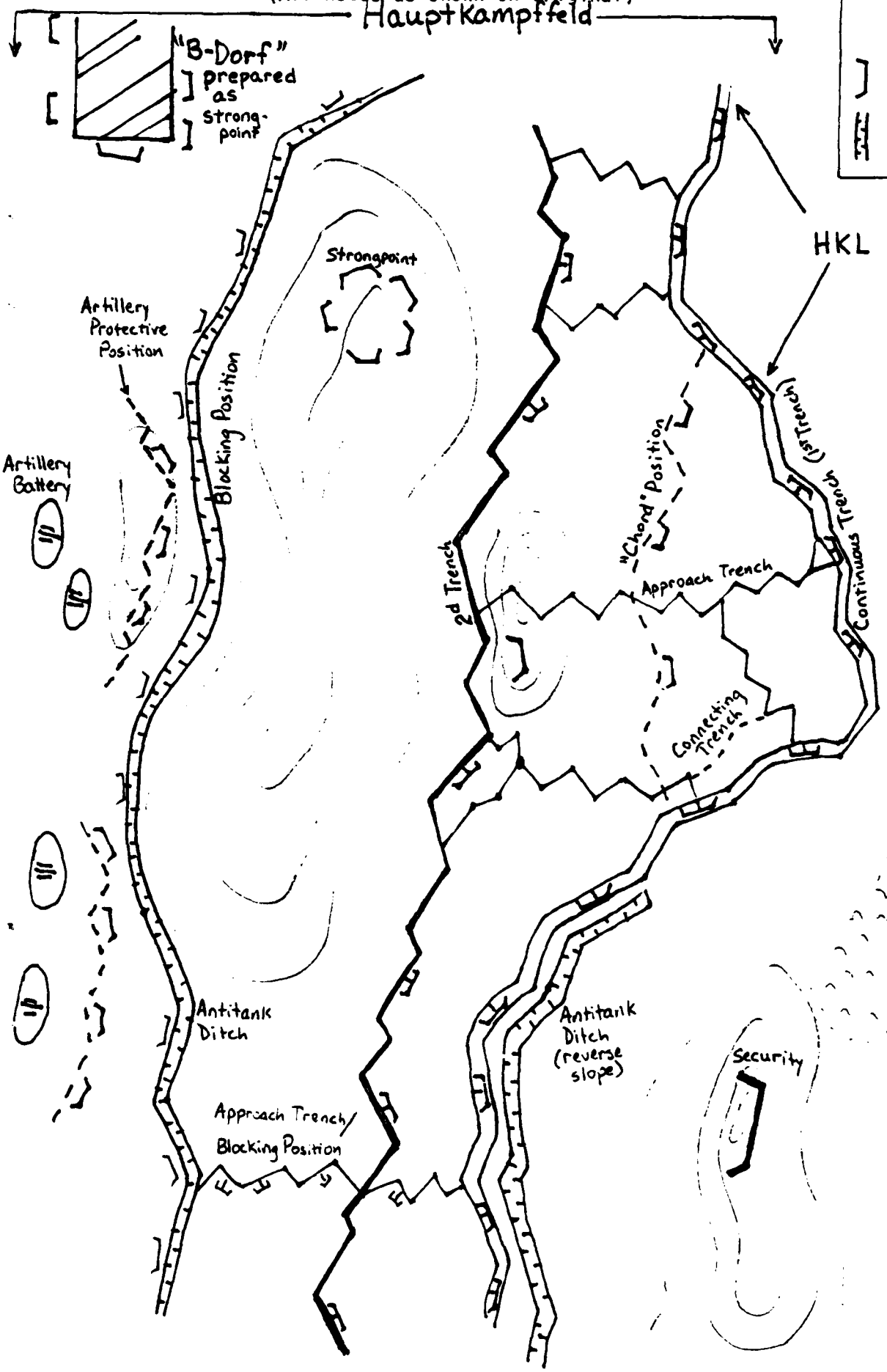
"Constructions of Positions" thus provided a capsule summary of German tactical defensive methods. It reaffirmed the traditional principles of depth, firepower, and counterattack as keys to the defeat of enemy attacks. Signifi-

cantly, this new document made no mention of small unit maneuver within the defensive area, thereby confirming the deletion of that portion of the old Elastic Defense under the pressure of events and Hitler's insistence on holding ground.

For all its value as a handbook summarizing small unit defensive measures, "Construction of Positions" was not a document of great doctrinal significance. As its title suggested, it was in fact mainly a squad and platoon leaders' primer, concerned more with the structure of defensive positions than with the conduct of defensive operations. (A large, fold-out sketch of a notional defensive position was probably the most-used portion of the entire booklet.) "Construction of Positions" spent a great deal of space, for example, discussing the layout of trenches, fighting positions, and anti-tank obstacles within the German defensive area, and none at all on the proper positioning and use of reserves. "Construction of Positions" also made no reference to the use of friendly mobile forces for counterattack, except to say that rearward access roads needed to be kept trafficable for their commitment.

The actions of the Army Training Branch promoted a minimum level of doctrinal standardization. Unfortunately, these efforts were a mere drop in the bucket compared to powerful centrifugal forces at work within the German doctrinal machinery. Whatever its doctrinal responsibilities for evaluating experiences, drafting publications, and coordinating training, the Training Branch lacked exclusive authority either to impose its own doctrinal changes or to veto those emanating from other sources. And, as the campaign in Russia progressed, so many other agencies took a hand in developing German defensive doctrine that the meek standardization efforts of the Army Training Branch were swept away on a tide of local change and provincial usage.

SKETCH 23: Diagram from "Suggestions for the Construction of Positions on the Eastern Front," October 1943 (All notes as shown on original)



The first problem was with the field commands. As one German commentator observed, the influence of the Army Training Branch decreased steadily as the war in Russia dragged on because "troop training was more and more taken over by the army group and army headquarters, which slowly developed tactical methods of their own."[84] As previously discussed, such parochialism was fostered by the German decentralized training system in general, and by the "tactical in-breeding" that came of having units train their own replacements and junior leaders. In the same way, whole armies and army groups also developed their own doctrinal precepts. The major instruments for propagating these changes were various command directives. Orders from senior commanders - who were directly answerable for their units' actions to Hitler - carried far more weight than the advisory publications of the Army Training Branch. Consequently, commanders at all levels were free to generate such variants to standard doctrinal practices, or even major changes to doctrinal methods, as they considered appropriate to their own circumstances.[85] The only real constraints upon this activity were Hitler's "stand fast" instructions and the commanders' own professional grounding in the traditional principles of Elastic Defense.

In practice, this meant that German units fell into doctrinal patterns consistent with their own experiences and with the dictates of their higher commanders. This occasionally led to unhappy consequences. Units belonging to Army Group North, for example, where static defense in forest and marsh was the standard fare from late 1941 through nearly all of 1943, seemed doctrinally ignorant when reassigned to other sectors where local usages (and experiences) were different.

On an even higher level, the divisions assigned to the Eastern Front were subjected to an entirely different stream of directives, pamphlets, and experience reports from those deployed on other fronts. As a result, the German

High Command's ability to shift units from theater to theater was greatly restricted since units on the Eastern Front had a training background and set of local doctrinal procedures different from those, say, in France and Italy. As General Leo Freiherr Geyr von Schweppenburg explained under interrogation after the war, divisions shifted from the Eastern Front to the Western Front required "entirely new training, most of all in leadership."[86] (Geyr was himself an excellent example of the inability to transfer combat routines from one theater to another. After years of brilliant service in Russia, Geyr had brought with him his staff from the Eastern Front when setting up "Panzer Group West" to counterattack the Allied Normandy landings. Geyr's headquarters personnel carelessly set up their tents and vans in an open field, and were promptly blasted out of existence on 10 June 1944 by Allied fighter-bombers. Geyr was one of the few survivors. On the Eastern Front, Red airpower had never posed such a threat.) Conversely, German commanders on the Russian Front periodically complained about the "softness" of divisions assigned to them from less rigorous billets in France or Italy.

The distinction between the Eastern Front and other theaters was made even sharper by a similar division in command authority within the German High Command. From 1942 onwards, the Army High Command (OKH) had its operational authority confined to the Eastern Front. Control of all other theaters was vested in the Armed Forces High Command (OKW).[87] This separation posed delicate doctrinal problems for the Army Training Branch. In administrative areas (including training and, by implication, doctrine) the OKH retained responsibility for <u>all</u> Army units wherever they were located. Since divisions assigned to an OKW theater were, however, not under the operational command of the OKH, the Training Branch had even less authority than usual to propose doctrinal changes in those theaters. Moreover, the OKH and the OKW came to

compete with each other for combat resources, and so each was unhappy to see units transferred from its own control to a theater governed by the other. This jealousy grew especially bitter in late 1943 and early 1944 as the OKW braced for an Allied landing in Northern France. (Previously, the OKH had rotated decimated divisions to France for rehabilitation, and had milked that theater of fresh units for Russia.) Consequently, both the OKH and the OKW were reluctant to let units under their control be trained for employment in other theaters for fear that such training might lead to the loss of those units.

The doctrinal turf was further divided by the autonomous actions of separate branches. Until 1943, all Chiefs of Arms (infantry, panzer, and so on) were directly subordinate to the Chief of the Army General Staff. The Army Training Branch could thus call upon the Chief of Staff's authority to insure cooperation and standardization between branches in the development of doctrine. In February 1943, however, this arrangement was ruined.

On 28 February 1943, Hitler recalled General Guderian to active duty as Inspector General of Armored Troops. In accepting this assignment, Guderian wangled from the Fuhrer a written patent giving him unprecedented autonomy in the development of Germany's mobile formations. In addition to control over panzer forces (including their organic infantry detachments), Guderian also received authority over all motorized infantry (panzergrenadiers), armored reconnaissance forces, and heavy assault gun units. (In his memoirs Guderian grumped that he did not receive control over all mobile artillery units as well.) Most importantly, the Fuhrer also specified that Guderian was to be subordinated *directly to Hitler himself,* and thus be independent of the OKH altogether. Lest there be any quibbling on this point, Hitler added that

> the Inspector General of Armored Troops is empowered to give instructions on matters with which he is concerned to all branches of the staffs of

> the Army. All branches are ordered to supply the Inspector General of Armored Troops with any assistance that he may require.[88]

Wrapped in this mantle of authority, Guderian energetically threw himself into revitalizing Germany's mobile forces. Guderian admittedly achieved miracles in this area, the refurbishing of the German panzer divisions for ZITADELLE being one of his first accomplishments. However beneficial Guderian's unique authority might have been for the German mobile troops, it made a shambles of the German Army's doctrinal machinery.

Among his many duties, Guderian was given "control [of] the preparation of all documents, regulations, etc., intended for the armored troops," and was told to "evaluate reports of combat experience" for that purpose. Guderian was also placed "in command of the training troops of his arm," with responsibility "to ensure that a constant stream of fully employable reserves both in men and armored vehicles," including "drafts of replacements and newly formed units," was made available to the field forces.[89] At one stroke, Guderian was therefore given full authority to develop and implement doctrinal changes for all of the many forces under his charge without regard for the Training Branch, the Replacement Army, or even for the Chief of the Army General Staff. Though Hitler ordered that Guderian should coordinate his doctrinal efforts with those of the Chief of Staff when they dealt "with the command of units and of collaboration with other arms of the Service," Guderian was inclined to take little notice of this. After all, Guderian regarded the General Staff's Training Branch to be bureaucratic enemy from the prewar days, and so he felt little need to submit to its designs once Hitler had given him complete license to do as he wished. Defending his own point of view after the war, Guderian wrote:

> I was not surprised that the General Staff, particularly its Chief [Zeitzler], and the OKH [Army High Command, though here Guderian presumably means particularly the Training Branch] were so markedly unenthusiastic

> about this assignment of duties, which they regarded as an encroachment upon their own hallowed rights. One result of this was that I became involved in difficulties and was held up by lack of co-operation from certain quarters again and again.[90]

Hallowed or not, the Training Branch's control of doctrinal standardization all but evaporated after Guderian's appointment. To the fragmentation caused by the doctrinal autonomy of field commands was added Guderian's authority to dictate his own changes to those forces under his suzereinty. For example, the dispute concerning the control and use of mobile reserves which had been simmering between panzer and infantry officers (Chapter IV) was abruptly decided - to the satisfaction of the tank troops at least, if not to that of the Army Training Branch or of infantry commanders - by Guderian's endorsement of the "panzer" solution. Similarly, Guderian passed on instructions for the construction of positions, antitank defense measures, and other general defensive tactics to those forces within his domain that duplicated the Army Training Branch's parallel activities.[91]

Assessing Guderian's contributions as Inspector General of Armored Troops, another German general recalled that such

> an independent office... may have had special advantages for the development of the Panzer arm, and it would have been possible to operate with this arrangement for a short time. As a permanent institution, however, it created confusion. Work was not coordinated and the differences in the tactical points of view produced unhappy results...[92]

One of the major adverse results of Guderian's doctrinal autonomy was further to promote the estrangement between the German Army's mobile forces and its pedestrian infantry. Already great due to differences in mobility, equipment, and - since panzer units were now almost exclusively used as "fire brigades" in the defense - mission, this rift was to grow ever wider as the war wore on due to differing doctrinal concepts.

The movement toward doctrinal fragmentation in the eastern armies received

another boost in the summer of 1943, when the German Army created a new staff position to deal exclusively with antitank warfare. From the beginning of the war in Russia, German defensive operations had been troubled by Soviet tank attacks. In 1941, the Germans had been horrified by the ineffectiveness of their antitank guns against the well-armored Soviet T-34's and KV's. With the advent of heavier Paks and (especially) mobile assault gun detachments within German infantry divisions in 1942 and 1943, the Germans gained better weaponry for blunting Soviet tank breakthroughs. Even so, antitank defense remained a sensitive issue. German defensive doctrine fixed upon separating enemy tanks from their supporting infantry, a process that normally involved allowing the tanks to pass over German infantry fighting positions while German fire swept Russian footsoldiers to cover. The Russian tanks were then dealt with from rearward fixed antitank nests, or else hunted down by the mobile assault guns. (Early directives of the Army Training Branch, as well as the pamphlet "Construction of Positions," had recommended locating major antitank obstacles some distance to the rear of the German forward trenches precisely to support this separate battle.) Though effective these measures were costly, and were as well increasingly difficult to execute as the quality of German training fell and the quantity of Soviet tanks increased.[93]

Faced with these difficulties, the Germans counterattacked on the bureaucratic front. In August 1943, the Army General ordered the establishment of a "Staff Officer for Panzer Defense" (*Stabsoffizier für Panzerbekampfung*, or Stopak) within each field army headquarters. Noting that "the defense against armor has become one of the decisive questions of this war," the General Staff proposed that the various Stopaks could see to the coordination of all activities related to antitank warfare. Significantly, however, the Stopaks were also charged with collecting antitank experiences within their commands and trans-

mitting these as quickly as possible through channels to the "Panzer Officer of the Army General Staff." (Since Guderian had rustled off almost everything related to armored warfare into his own independent inspector-generalship, the Army General Staff's own chief Panzer Officer now had little to do. In a masterful display of bureaucratic agility, *Der Panzeroffizier* of the Army General Staff now advanced a sovereign claim to the realm of antitank warfare.) Upon receipt of this information from the Stopaks, the General Staff's chief Panzer Officer prepared periodic "Reports to the Staff Officers for Panzer Defense" summarizing recent experiences and tips. The first of these reports, dated 26 August 1943, announced that the intent of these memos was to spread valuable tactical information "without waiting for the appearance of Field Manuals." In other words, the field Stopaks (who, in the way of most bureaucracies, later proliferated onto corps and even division staffs) became yet another autonomous source of defensive doctrine. All of this activity, it should be noted, was carried on separately from the Training Branch's (and lately also Guderian's) own efforts in the same area.[94]

The "Staff Officers for Panzer Defense" were not the only new players in the doctrine game. On 22 December 1943, Hitler ordered the establishment of National Socialist Leadership Officers (*National Sozialistischer Führungs-Offiziere,* or NSFO's) within Germany's armed forces. These NSFO's, whose duties loosely included the indoctrination of Nazi ideals and the exhorting of German troops to "fanatical resistance" as the situation demanded, were also supervised by a separate staff agency at both the OKW and the OKH headquarters. Like the Stopaks, the NSFO's eventually cropped up at division level and (on an additional-duty basis) even in some combat regiments and battalions as well. While the NSFO's had no responsibility for molding new doctrine, they did indirectly affect the conduct of German defensive operations by guaranteeing the trans-

mittal of Hitler's "no retreat" messages to the lowest levels. In some cases, the NSFO's also acted like Red commissars, reminding commanders of their "political responsibilities" to carry out the letter of the Fuhrer's instructions. Moreover, like the Stopaks, the NSFO's were drawn largely from combat-experienced junior officers - an increasingly endangered species whose skills could probably have been put to better use in the field rather than on some staff.[95]

As these examples show, the development of German doctrine became increasingly fragmented as the war progressed. The informal, consensus-building system of prewar days could not be used in a wartime environment. Similarly, the deliberate analytical methods used after the campaigns in Poland and France was overwhelmed by the intensity and diversity of the war against Russia. The Army Training Branch, whose responsibilities for the collection of experience reports and the publication of training documents made it the strongest contender for the role of doctrinal spokesman, remained somewhat diffident in its activities for fear of transgressing against the command prerogatives of combat leaders. Field units, on the other hand, proceeded energetically with the business of developing their own doctrinal forms in accordance with their own experiences and the preferences of their commanders. This parochialism had the advantage of being immediately responsive to local situations; the price of this responsiveness, however, was a lack of overall standardization and, eventually, even of doctrinal interoperability between different units. Adding to this anarchy was the fragmentation of the German High Command between OKW and OKH (Eastern Front) theaters of war. Other staff agencies, of which Guderian as the Great Panzer Panjandrum was the most troublesome, claimed for themselves exclusive doctrinal responsibilities as well.

Chaotic though its doctrinal situation might have been, by the end of 1943 the German Army's situation on the Russian Front was already far beyond redemption

by doctrinal means. Hitler had squandered his operating capital in the ill-starred Operation ZITADELLE, following which the German eastern armies had been tumbled helplessly backwards by the Soviets. The one adjustment to German defensive methods that might have made a difference would have been for Hitler to rescind his standing orders concerning rigid defense. This, of course, was out of the question. Reflecting on the German Army's 1943 defensive battles, General Friedrich Sixt traced the Germans' terminal state to the Fuhrer Defense Order of 1942, which had codified the Führer's unyielding defensive concepts. He wrote:

> In 1943 the inflexible defense remained the order of the day. Hitler's order of 8 September 1942 [the Führer Defense Order] was still in effect... A defense on fluid lines, which in the vast expanse of the East offered a materially-inferior defender prospects of success through superior German leadership and use of economy of force, was discarded. The enduring principle of military leadership, that of each leader's accepting full responsibility for the execution of orders from his commander and for the selection of his own means, was also tossed aside.[96]

Under such circumstances, the German Army held no hope whatsoever for eventual success against the Soviets.

CHAPTER VI: THE LAST CAMPAIGNS

During the final year of the war against Russia, German defensive doctrine was shaped by three separate factors. The first of these was Hitler's continuing paralytic influence on German operations. Even with German armies collapsing in ruin all along the front, Hitler continued to believe in the utility of rigid defensive methods, and continued as well to enforce these by his direct interference in the conduct of operations. Secondly, German doctrine was influenced by the advancing decay within the German Army. Over the war's last twelve months, German defensive techniques actually declined in sophistication in many respects due to the diminishing quantity and quality of German forces. Finally, by the war's final year the Soviets had nearly five hundred fighting divisions in the field. While many of these were of low quality, the Soviets still possessed a sufficient preponderance of strength that - thanks to their complete possession of the strategic and operational initiative - the Russians could mass overwhelming combat power along their chosen attack frontages. This gave a new flavor to German defensive operations and, by extension, to German defensive doctrine. In 1944 and 1945, German commanders had to fight in the certain knowledge that the Soviets had enough brute force to overwhelm, at least on selected sectors, almost any defensive system that the Germans could devise. Therefore, though Hitler still called for fanatical resistance in defense of every position, German commanders more realistically labored to prevent the inevitable Soviet penetrations from leading to catastrophic defeats.

Girding for Battle

In late March 1944 the Soviet winter offensive came to an end, and the Germans were granted a brief respite in which to reassess their situation. To commanders in the frontlines, the lesson of the recent months was clear: the tactics of "hold at all costs" led only to Soviet breakthroughs and the encirclement of German forces. In order to avoid these developments (and the heavy

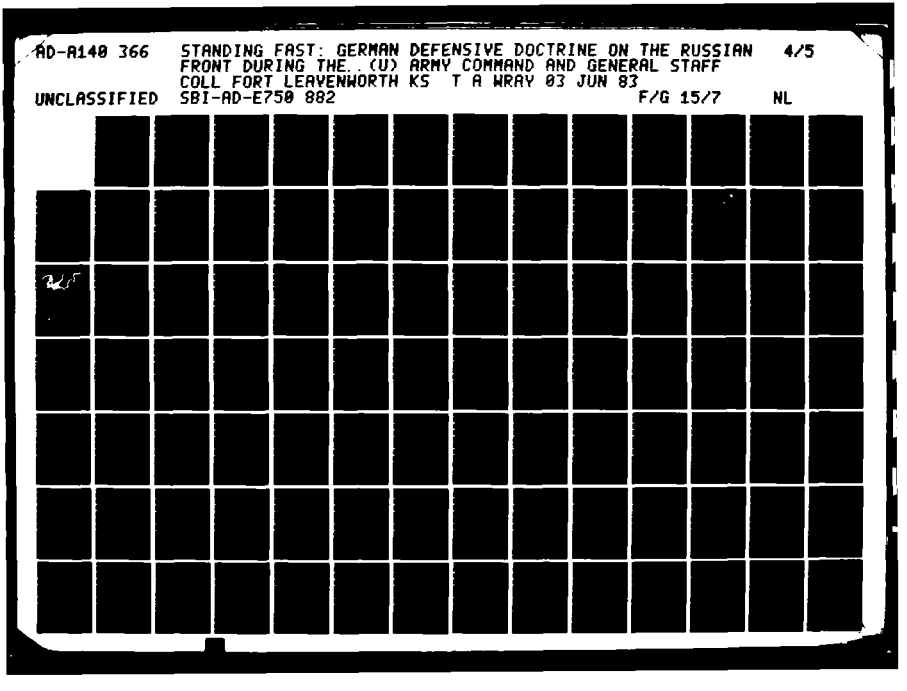
casualties which resulted from them), German officers judged that a radical change in operating methods was necessary. Manstein, of course, had been arguing this to Hitler for months. Kluge, normally reluctant to confront the Führer on matters of grand strategy, had written a long letter to Hitler on 14 October 1943 in which he pointed to Germany's heavy losses, poorly-trained and inadequate replacements, and insufficient materiel as leading inevitably to defeat unless some new course could be plotted.[1] A Sixth Army memorandum prepared in February 1944 stated the case even more succinctly:

> The greater the losses in personnel and materiel, and the greater the decline in combat strength, the more must the superiority of German troops in the attack be exploited by means of mobile operations in the defense. For that purpose, the higher leadership (army group and army) must have much more freedom. Only they can judge the necessities clearly and correctly.[2]

These sentiments were widely shared. In April 1944, General Hans Hube gauchely used the occasion of an awards ceremony (Hube was being decorated for leading First Panzer Army's recent breakout from encirclement) to present the startled Führer with a written critique of German defensive policies. Hube, a favorite of Hitler's whose leadership skills were so valued that he had been singled out for evacuation from the Stalingrad pocket by air before its surrender, had his suggestions received in icy silence. Echoing the comments in the Sixth Army memo, Hube explained that, in the battles just concluded, Hitler's rigid policies had led to

> withdrawals which were effected under pressure and in most cases too late, and, not having been planned, resulted in considerable loss of equipment, filled the troops with a feeling of bitterness, and all the more so, since each time they broke out of an encirclement it was referred to as a victory. The lowered combat efficiency became apparent in the subsequent battles, and the execution of defensive operations became more and more difficult in view of the weakened units... In view of our policy of rigid defense, [the enemy] dictated the time and place of commitment of our available strategic reserves, with the result that we could not gain the initiative.[3]

Proposing an alternative, Hube tried to strike an upbeat note.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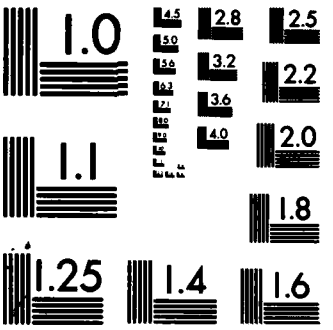

MICROCOPY RESOLUTION TEST CHART
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cannot be annihilated by purely defensive methods... Although this will wear him down... the defender's strength is spent in equal measure." To annihilate major enemy formations, suggested Hube, Hitler needed to refrain from his close direction of battles, and instead allow his field commanders to use "delaying tactics" to disengage their forces as necessary to avoid destruction by powerful Soviet attacks. If delaying tactics were authorized, Hube reasoned, fewer forces would be needed to man the forward trenches and so strong reserves could be assembled to pulverize Russian spearheads by counterattack.[4]

Hube's representations had no more effect than had the arguments of Manstein and others in earlier years. (Tragically, Hube was killed when his plane crashed en route back to the front from his Berchtesgaden audience with the Führer.) General Halder, writing after the war, found Hube's brazen approach to Hitler to be interesting mainly because it showed

> that by spring 1944 the folly of Hitler's strategy was so clearly evident... that one army commander in the field found it necessary to act on his own and present this problem to Hitler, after OKH and the army groups had not succeeded... It is also interesting to note that [Hube] was naive enough to believe that he might be able to impress Hitler with theoretical arguments.[5]

If the issue was ever in doubt, Hitler had made up his mind to stick with his rigid methods long before Hube ever opened his briefcase. The clearest sign of this had come on 30 March, when Hitler had called Field Marshals von Manstein and von Kleist to his headquarters and relieved them both of their positions. In his diary, Manstein recorded Hitler's remarks explaining the field marshal's relief:

> He [Hitler] announced that... the time for grand-style operations in the east, for which I had been particularly qualified, was now past. All that counted now, he said, was to cling stubbornly to what we held.[6]

Hitler's determination to continue his rigid defensive ideas was also apparent in the choice of successors for Manstein and Kleist. These were,

respectively, Field Marshal Walter Model and General (later Field Marshal) Ferdinand Schörner. Like Field Marshal Ernst Busch, who had replaced Kluge at Army Group Center in October 1943, these men represented a new class of senior commander. Neither came from the aristocratic class of Prussian officers that Hitler despised; both were outspokenly loyal to Hitler, and did not complain or appeal for reforms in Hitler's command policies; and both had proven themselves tough, determined tacticians during difficult defensive fighting. As he had intimated to Manstein, these last qualities especially commended themselves to Hitler: the Führer wanted competent tacticians who would do as they were told and fight tenaciously to hold the line in Russia. Determination had replaced imagination and strategic vision as command prerequisites.

Ironically, Hitler was willing to allow these trusted subordinates more flexibility in the conduct of operations than he was men of greater operational skill such as Manstein. Model, for example, received Hitler's endorsement of what Model called *Schild und Schwert* (shield and sword) tactics. These, in fact, were often a smaller version of Manstein's backhand blow: tactical withdrawals followed by counterattacks to regain lost ground. Except that Hitler was, in Model's case, willing to give *a priori* authorization for local retreats, nothing about *Schild und Schwert* was different from what any other commander did defensively. In fact, Model's one unique quality was badgering Hitler for reinforcements so that smallscale attacks could be made. Like a tolerant parent, Hitler frequently indulged Model in these requests, with the result that Model's armies generally contained disproportionate numbers of high-quality panzer and panzergrenadier units. (The presence of these units also helped Model to fare somewhat better defensively than other commanders, thereby preserving Model's reputation as a masterful defensive tactician.) Pugnacious though Model was,

it seems that much of Model's defensive success came from his unique authority to direct timely local retreats - a luxury that was denied less-well-thought-of commanders.[7]

If Hitler was unbending in his adherence to rigid defense, he did entertain some new ideas on the strategic level. There, the fundamental German problem for 1944 was how to balance the requirements of the Western and Eastern Fronts. In the west, the Germans expected an Allied landing in France. In Russia, the Germans anticipated that the Russians would renew their offensive drives as soon as their forces could be refitted. In late 1943, Hitler issued "Directive 51" giving his strategic guidance: the "greater danger" in 1944 was that of an Allied invasion in France, and Hitler ordered the strengthening of the German forces there for the "decisive battle." In Russia, Hitler seemed willing to countenance some loss of territory, explaining that on the Eastern Front "the territory involved is so large that in the worst case the loss of a substantial area can be tolerated without seriously endangering Germany."[8] In contrast to the strengthening of the Reich's western defenses, Hitler implied that the German eastern armies would be expected to perform an economy of force role until the Anglo-American landings had been thrown back into the sea.

This statement of priorities was clear and, given Germany's impossible situation, completely sensible. As with other strategic decisions since BARBAROSSA, however, Hitler corrupted this scheme by subsequent actions at variance with his own guidelines. Instead of allowing his eastern armies actually to trade space for time, or even to fight according to more fluid principles, Hitler had beaten down every suggestion of that sort and had installed as commanders of his eastern army groups men who were unlikely to quibble about the need for rigid defense there if he ordered it. The "large Russian territory"

referred to in Directive 51 was of no strategic value so long as Hitler forbade frontline commanders to make any use of it other than to defend its furthest edge at all costs. A propaganda slogan which made the rounds in Germany in the spring of 1944 unwittingly captured the duality of German strategy: *"Im Ost' und West, wir stehen fest!"* (In East and West, we're standing fast.) Sound strategy required Germany to commit her resources to one main effort, and to economize in the other theater; Hitler, however, proposed to stand fast in both places, conceding nothing to either the Anglo-Americans or to the Russians.

Compounding even this mistake was yet another. On 8 March 1944, Hitler issued "Führer Order 11" establishing "Fortified Places" (*Feste Plätze*) on both the Western and Eastern Fronts. In the West, these were primarily ports which Hitler wished to deny to any seaborne invasion. In the East, however, the *Feste Plätze* were major cities which Hitler ordered fortified and garrisoned in order to anchor the faltering German defene lines.[9]

Hitler had two purposes in declaring the fortified places in Russia. First, by locking strong garrisons into those cities, the Führer effectively blocked any unauthorized withdrawal by fainthearted frontline commanders. Out of a sense of obligation to their comrades in the *Feste Plätze*, frontline units could not retreat without abandoning those garrisons to their fate. Secondly, Hitler, who countless times earlier in the war had argued that vulnerable salients should be retained because the enemy needed more troops to contain them than were needed to defend them, now figured that the Soviets would have to expend exorbitant amounts of manpower to besiege and storm each fortress. Therefore, Hitler concocted the idea that these fortress strongpoints would act as a "wave break" (*Wellebruch*) against Soviet onslaughts, tying down Russian forces by "fanatical resistance" and disrupting the entire Red Army advance to such

an extent that German reserves could assemble to counterattack and throw back the enemy.[10] (In this line of reasoning, Hitler seems to have come round to a very romantic remembrance of Paulus' unfortunate Sixth Army. Forgetting the tragic fate of the Stalingrad defenders and its longterm impact on Germany's fortunes, Hitler instead exaggerated the benefits that had been achieved by tying down so many investing Russian troops in December 1942 and January 1943.) As fortresses were declared, Hitler named a "Fortress Commandant" to each *Feste Platz*, and each of these commandants was made to understand in no uncertain terms that his job was to lead his men in a fight to the death for their stronghold. Contrary to popular myth, there was no official policy making the families of fortress commanders hostages to ensure rigorous execution of the defensive battle. However, since Hitler had on occasion punished the families of disobedient officers - a practice carried out with particular savagery against the families of officers implicated in the 20 July 1944 plot to assassinate Hitler - it was widely believed throughout the German Army that the too-swift surrender of a fortress could well land the commandant's family in a concentration camp. In at least one recorded case in 1945, General Otto Lasch, the commandant of Konigsberg in East Prussia, was criticized for surrendering his garrison before "the final bullet," and reprisals were actually taken against that officer's family.[11]

The Fortified Places scheme was shortsighted, and failed to achieve either of Hitler's two purposes. If Hitler imagined that German soldiers could fight more desperately than they already were doing, he almost certainly was mistaken. Even if German commanders might be willing to run even graver risks to prevent the abandonment of the fortress garrisons, they could do so only by endangering still greater forces. Based on the experiences of late 1943, those

risks were very great indeed. Moreover, the whole "wave break" theory made military sense only if the German eastern armies deployed powerful mobile reserves to exploit the resulting fissures in the enemy's front. These reserves, since ZITADELLE in the summer of 1943, the *Ostheer* did not have. Nor, due to Directive 51 giving resource priority to the Western Front, were any such reserves likely to become available before the Russian summer offensive would begin.

The one positive contribution to Germany's military situation made by the Führer prior to the 1944 campaign was a massive drive to wring still more replacement manpower out of Germany's limited population. On 27 November 1943, Hitler ordered the immediate raising of one million new troops, primarily by the induction of men previously deferred due to special industrial skills. Additionally, the Fuhrer ordered across-the-board cuts in support personnel located in army rear areas by a "minimum of 25 percent."[12]

The arrival of all such replacements was desperately needed on the Eastern Front. Unfortunately the OKW, which had responsibility for putting defenses along the Atlantic Wall in order, used its higher priority to snatch up the lion's share of the fresh troops. As a result, at the beginning of the 1944 summer battles the German eastern armies actually had nearly one-third fewer men available for duty (2,160,000 versus 3,138,000) than they had had a year earlier at the beginning of ZITADELLE.[13]

After the harsh battles of 1943 and early 1944, the German eastern armies were little more than mincemeat. Nearly every division was seriously understrength, and the German order-of-battle included an alarming number of remnant *Divisionsgruppen* and amalgamated *Korpsabteilungen*. In some commands, German officers had begun considering which of their units were still *Krisenfest* (reliable in a crisis). Alarmingly, the recent winter battles had made the *Krisenfestigkeit* of many German units suspect, and commanders prayed for a rainy spring that

would delay the renewal of Soviet attacks.[14] During the ragged winter retreats, some units had reported excessive numbers of stragglers and missing, and even of the apprehension of would-be deserters - all signs of disintegrating morale.[15] In the Sixth Army, detailed reports were prepared giving exhaustive assessments of each subordinate division. These assessments included not only personnel and equipment returns, but also judgments by division, corps, and army commanders of their divisions' training, morale, and overall reliability.[16] This intense interest in the fighting quality of every division stemmed from the German alarm at the general disintegration of their forces.

German armies had, of course, dealt with shortages and crises in the past. However, many of the old standby remedies were losing their potency. With German armies pushed back from the treeless steppes into the more forested areas of the western Ukraine and Belorussia, Soviet partisan operations posed a greater threat to rear installations than ever before. Consequently, rear echelon forces could not be dragooned into infantry companies as fillers without dangerously denuding vital facilities in the rear of the means of self-protection. In fact, if anything greater numbers of regular combat troops were needed to patrol the rearward areas to keep partisan bands at a respectful distance. Too, due to the improved quality of Soviet forces, the emergency formations of *Alarmeinheiten* had pared poorly in recent battles. On 22 February 1944, for example, one German army had reported that "The combat value of 'ad hoc' *Alarmeinheiten* at the main point of a battle is zero. One practices self-deception when one believes anymore that he can count on their powers of resistance." Alarm units, the report concluded, could therefore be used only in quiet sectors and only with adequate corsetting by regular combat formations - two conditions that almost by definition obviated the need for any "alarm" units at all.[17]

Yet another expedient method of raising combat power was reorganization. In 1942, most German infantry divisions had disbanded one battalion from each of their regiments due to lack of replacements. This stopgap was extended to all infantry divisions in 1943. In 1944, in an attempt to squeeze a few more ounces of combat power out of their declining manpower, German divisions were again reorganized. The new 1944 tables of organization, which were applied not only to newly-activated units but also to veteran divisions in the field, reformed the divisions' six battalions into two infantry regiments. While leaving total infantry strength roughly the same, this consolidation eliminated one regimental headquarters, thereby economizing the numbers of staff personnel within the division. (A major consideration in this move was also the lack of qualified officers to serve as regimental-level commanders and staff officers.)[18]

The new organization also sharply curtailed the support personnel assigned to each division. Particularly hard-hit were divisional supply and transportation units. This curtailment was justified on the grounds that, since German divisions were now primarily deployed in defensive missions, the distribution of supplies from railheads to static divisional dumps could be managed by corps or army assets.[19] While making a few more men available for combat, the effects that this policy had on German divisions' ability to engage in fluid operations is obvious. Even had Hitler relented on his rigid defensive orders, the German armies in Russia would have been hard-pressed to wage a more mobile defense. As it was, German divisions often found themselves outpaced by Russian units during future retreats, with the result that German units were encircled and destroyed in unprecedented numbers from 1944 onward.

With manpower remaining in short supply, German commanders in Russia turned to other means to raise the fighting power of their units. As in past crisis situations, German training was curtailed to push troops through the theater

replacement pipeline and into the trenches as quickly as possible. In the 320th Infantry Division's own replacement battalion, for example, the training of new men in the spring of 1944 was cut to only fourteen days. Under the pressure of circumstances, this training did away with all frills: in those fourteen days, nearly the entire training time was devoted to weapons training and individual/squad defensive techniques. Almost no time was spent on attack skills, as the pressures on German training for the time being did not even allow soldiers to learn offensive tactics.[20] (German training activities during the recent winter battles had been greatly disrupted by combat - many replacement battalions had gone into action as emergency reserve units - and by the frequency of retreats. Between January and April 1944, for example, the 17th Infantry Division's replacement battalion had had only twenty-three actual training days, with twenty-seven days spent on the march and forty-two days spent on alert as division reserve.)[21] While understandable given the manpower distress of the German eastern armies, this abbreviated training program promised to diminish German tactical skill to the lowest level yet, with particularly grave implications for the conduct of deliberate counterattacks.

Other attempts to stimulate German morale and combat will were more outlandish. With fighting on the southern portion of the front spilling over into Bessarabia and Rumania, Rumanian officials began a propaganda campaign of their own to encourage Axis forces. Rumanian troops, whose contirbution to the Axis cause had been virtually nil since Stalingrad and who liked to take themselves out of line at the slightest excuse for rehabilitation, were exhorted to emulate their German comrades whose units "stayed at the front even when at only 1/5 of their normal strength."[22] The effect this message had on Rumanian troops

is unknown; the German soldiers who read it probably took little comfort either in the reliability of their Rumanian allies or in their own manpower predicament. In another scheme in May 1944, Ruman authorities established a bounty for the destruction of Soviet tanks. A German soldier who alone destroyed an enemy tank in close combat could collect up to 10,000 *Lei* from a grateful Rumanian government, while gun crews could claim lesser amounts. Multiple kills brought additional bonuses.[23](It is doubtful whether any German soldiers managed to collect on this offer - Rumania sued for peace with the Soviet Union in August.) Another, grimmer method of making units resolute in combat was the deployment of field gendarmerie squads into divisional rear areas to hunt down shirkers, stragglers, and malingerers. Swift justice often awaited those swept up by these flying squads, with death sentences being relatively common.[24]

Pitiful though these activities may have seemed, they demonstrated the desperation with which German commanders tried to rouse their forces for the expected Soviet summer attacks. The strain was also visible in the changing defensive measures of German units.

Doctrinal Trends

The German units bracing for the next series of Russian attacks did so in general according to the doctrines developed over the past several years. Consistent with its Elastic Defense traditions, the German Army struggled to array its forces in a deep defensive zone.

As the enemy approached this zone, he first encountered squad-strength security outposts, located usually on key terrain and offering brisk resistance before withdrawing. Beyond these an attacker encountered the Main Battle Position (*Hauptkampffeld*). This was a defensive belt ranging in depth from one to five kilometers. The forward edge of the Main Battle Position

was normally a continuous trenchline, the *Hauptkampflinie* (HKL), within which the bulk of the German infantry received the attack. Behind the HKL, and extending throughout the Main Battle Position, were additional trenches, dugouts, revetments, and small strongpoints. From these, the defending forces offered continuous resistance against any attacker who managed to pierce the HKL. Heavy weapons (mortars, heavy machineguns, and occasionally small-caliber Flak guns) were also dotted throughout the *Hauptkampffeld*, both to reinforce resistance-in-depth and to prevent the early loss of these weapons to Soviet artillery preparations or early penetrations by ground troops.[25] Sheltered within the depth of the defense as well were the tactical reserves, which were launched in counterattack at the first opportunity. Toward the rear of the *Hauptkampffeld* were the antitank positions, deployed to intercept enemy armor with fire and some sort of antitank obstacle network.[26] Behind this were the artillery positions. Beyond these fighting units, German rear echelon personnel were clustered in logistical strongpoints located in towns and villages. Additionally, unoccupied fallback positions might also be prepared for future occupation. The existence of these works depended upon time, the availability of labor, and the vicissitudes of Hitler's mood. (Even at this late date, Hitler resisted the construction of rearward defenses. He argued that these defenses acted as a "magnet" to forward troops, lessening their resistance in forward locations. Citing his own World War I experiences, the Führer also proclaimed that the heaviest casualties in defensive fighting commonly came while changing positions, and that therefore German troops were better off staying where they were - even if overrun or isolated - rather than drawing back to new defensive lines.)[27]

In 1944, the accumulating weakness of German made these defensive works less formidible than they appeared, and imposed constraints on the conduct of defensive operations. Division commanders consistently voiced the familiar

refrain that their troops were overextended, overworked, and overtired. One division commander related how he purposely avoided villages and wooded areas in laying out his forward defenses - despite the cover and obstacle value inherent in such positions - because such closed terrain required too many men to garrison it properly.[28] Likewise, the use of reverse slope positions, which had been standard doctrinal practice since the First World War, often had to be forfeited because weakened units did not have enough "manpower for the occupation of security outposts on the crest of the elevation."[29] To get the most out of their limited numbers, commanders had to concentrate their men in threatened sectors, and to leave only skeleton forces on less likely avenues of approach. Near Velizh on the upper Dvina, for example, one division could spare only fifteen to twenty men per kilometer of front through marshy terrain.[30]

Some German units tried to multiply their defensive strength by deception. In Army Group South Ukraine*, for example, German troops constructed a second major defensive barrier some distance to the rear of their original positions. When Russian attacks impended, the bulk of the German forces were taken back to the second position, and only security troops - roughly one-third of the actual unit strengths - were left in the original trenches. These stay-behind forces were to disguise the German movement from Soviet reconnaissance patrols, withdrawing through connecting trenches to the rear when the major Soviet infantry attack began. Safe from pre-attack bombardment within the second position, German troops would fight the main defensive battle to halt the disorganized enemy, eventually even counterattacking to recover the original forward positions.

Conceptually, this scheme was no different from the old-style Elastic

*Previously Army Group A. In April 1944, Hitler had ordered Army Groups South and A retitled Army Group North Ukraine and Army Group South Ukraine. He wanted the new commanders replacing Manstein and Kleist to start afresh with newly-named formations that had no history of defeat.

Defense with its forward zone of combat outposts before the main battle position. What made it remarkable was Hitler's willingness to countenance such "elastic" tactics - like Model's *Schild und Schwert* charade, in all likelihood General Schörner's standing with the Führer accounted for this amazing flexibility. Even so, Schörner trod carefully: he gave explicit orders that troops were not to be told prematurely of the purpose of the rearward line to prevent their being "magnetically" drawn rearward as Hitler feared. Schörner also showed some consideration for the Führer's rigid sensibilities in his choice of terminology. The old forward position was still called the HKL (*Hauptkampflinie*), and was reported as the units' forward trace in their daily situation reports to the Führer. The rearward position was dubbed the "General Battle Main Line of Resistance" (*Grosskampf-HKL*), suggesting that its use was only envisioned for the temporary containment of general Russian attacks.[31]

Schörner's use of pre-emptive withdrawal to disrupt Soviet attacks and to spare German defensive strength was fully in accord with traditional doctrinal principles, and even marked a resurgence of defensive maneuver. However, this gimmick was not authorized for general use on the Eastern Front in the summer of 1944. As ever, each German army and army group pursued its own doctrinal course. Consequently, other forces struggled to make do with less exotic defensive methods.

In some understrength divisions, commanders found the defensive trenchworks themselves to be a major headache. Extensive trench systems required constant maintenance, and this digging effort robbed units of training time and left troops in a constant state of fatigue. Some officers actually had to ban trench-building except that needed to support planned defensive schemes, since otherwise units tended to burden themselves with unnecessary work and to clutter up the defensive area with a maze of redundant trenches. Such

excessive trenchworks could actually pose a threat to defensive success. Too many trenches fragmented the seak German defensive forces, making coordinated defense difficult. Moreover, attacking enemy troops could use captured trenches as shelter, thereby frustrating German efforts at counterattack.[32] To prevent this, unnecessary or abandoned trenches occasionally had to be "filled in, or else made unusable with the aid of barbed wire."[33]

Another problem with trenches was that trench systems could not be concealed. As a result Soviet tanks, even when "buttoned up" to protect their cres from small arms fire, could identify trench positions and thereby avoid unnecessary exposure to German short range antitank weapons. Alternatively, Soviet tanks and assault guns acting in close support of Red Army infantrymen could locate and drive along German trenchlines, crushing the bunkers and revetments sheltering German troops and weapons. Furthermore, the withdrawal of Luftwaffe fighter assets from Russia for the defense of the Reich against Anglo-American strategic bombing, combined with the rise of Soviet airpower, left German defenders increasingly vulnerable to air attack. Continuous trenchlines were easily spotted from the air, and German troops therefore had to add strafing, bombing, and air-adjusted artillery bombardment to their list of problems. (This was especially difficult for German artillery and antitank positions in the rear of the *Hauptkampffeld*. Even when camouflaged from ground observation, these weapons could be picked out from the air since German gunners favored open areas allowing longrange direct fire engagement of Soviet tanks.)[34]

These problems led some commanders to doubt the utility of continuous trench systems altogether. During late 1943, troops of the XXIX Corps had organized their defenses in the Nikopol Bridgehead using separated squad and gun-team fighting positions instead of a continuous forward trenchline. Though

this had been compelled in part by the terrain and by the lack of time to prepare positions during successive retreats, the results had been fairly successful. In its after-action report, the XXIX Corps noted that the discrete fighting positions, arrayed in depth, proved more resilient than a single trenchline in preventing enemy breakthroughs.[35] Elsewhere, other units also dispensed with trench networks behind their forward positions, preferring instead the protection and surprise of concealed foxholes in the depth of the defensive area.[36]

This movement away from continuous entrenchments was not general, however. Rather, most German units continued to endorse the sentiments of General Heinrici, who wrote in February 1944 that recent defensive battles had "taken on the character of an attritional contest (*Materialschlacht*), such as we have only experienced in the First World War." Therefore, explained the Fourth Army commander, "there can never be enough trenches" for defending forces.[37] As with other doctrinal questions, the decision to employ continuous trenches or separate discrete foxholes was largely governed by circumstances and local preference. This divergence was however yet another example of the way in which individual units developed their own defensive methods, which might differ radically from the procedures used in neighboring units.

One other difficulty to emerge for German units in 1944 was the control of reserves. Since infantry divisions now only contained two regiments, both regiments had to be deployed side-by-side in the line to hold extravagant divisional frontages. At the very most, divisions might be able to hold troops equal in strength to a battalion of infantry in reserve, perhaps reinforced with some assault guns or other special units. However, due to the extended divisional sectors, these reserves had to be split up over a wide area. (Unless parcelled out in this way, the reserves would arrive at the scene of a crisis

too late to be of any use.) Consequently, most divisions did not keep a battalion headquarters in reserve to command their reserve contingents, since that headquarters could not possibly control its scattered elements. Instead, each forward battalion and regiment kept its own local reserve (generally in platoon or company strength) posted close behind its own forward positions. These reserves could thus intervene quickly to contain or eject enemy penetrations, counterattacking to stun enemy forces into immobility or retreat before the breakthrough could be widened. The price of this responsiveness, though, was that it was generally impossible for an infantry division manning an extended front to concentrate its various piecemeal reserves for a coordinated counterattack since no headquarters - save for the division headquarters itself - governed all of those units. Divisions therefore were left dependent upon outside help to defeat any break-in that exceeded local dimensions. Where available such *Eingreif* (intervention) units might consist of a single infantry regiment held as corps reserve or, on rare occasions, a panzer or panzergrenadier division.

The net effect of this fragmenting of reserves therefore was further to reduce the flexibility of German defenses. If ruptured in strength, German defenses lacked the adequate local reserves necessary to restore forward positions, while the arrival of distant *Eingreif* units might not occur until the situation was already beyond salvation.[38]

Without adequate manpower to hold their positions or even to post normal reserves, German commanders turned also to firepower as an expedient remedy. One thing that the 1944 tables of organization did not cut was divisional artillery. Moreover, in defensive situations the German guns could generally be lavishly supplied with ammunition, and their fire carefully coordinated and controlled by the forward combat units. Thus, as one of the Army Training

Branch's defensive circulars noted in May 1944,

> The more the infantry fighting strength declines due to heavy losses, the more the artillery emerges as the backbone of the defense. Its organization and its preparations must be fully planned and carried out with the greatest care. Splitting artillery fire remains... ineffective; only tightly concentrated fire yields success.[39]

What German commanders did not yet know (although isolated combat examples were slowly yielding a composite intelligence picture) was that Soviet offensive doctrine was also evolving, and was doing so in particular ways that would nullify many of the painstaking precaustions being taken by German units.

One Soviet tactic that had become generally well known - it was repeatedly pointed out in Training Branch pamphlets - was the Russian use of aggressive reconnaissance and infiltration prior to an attack. Soviet attack preparations were occasionally tipped of by extensive reconnaissance patrolling in threatened sectors. While this intelligence indicator may have helped the Germans gird for attack in some cases, it also made it more difficult for the Germans either to disguise the location and extent of their defensive works (for example, the preparation of concealed fighting positions instead of continuous trenchworks), or to conduct pre-emptive withdrawals to a rearward "General Battle Main Line of Resistance" without Soviet knowledge. Widespread use of infiltration by the Russians prior to a major offensive disrupted the movement of local German reserves, and was also occasionally used to secure the flanks of intended breakthrough sectors.[40]

The growing strength of Soviet artillery and airpower, and the Pussian penchant for using artillery in particularly massive doses, made any German attempt at rigid defense in forward positions a high-loss proposition. Surreptitious movement of major German forces out of threatened sectors nullified this somewhat, though Hitler's insistence on holding ground more often left German troops to be pulverized by Soviet preparatory fires. Likewise, the

use of reverse-slope positions concealed German trenches from Soviet ground adjustment; however, in response the Soviet artillery gradually developed a system for methodically dousing entire areas with enormous quantities of shells and rockets, a practice that was wasteful but effective. Additionally, by 1944 the Russians had begun doling artillery units out to maneuver commanders in the form of regimental, division, corps, and even army artillery groups. The artillery group commander at each level was subordinate to the maneuver commander, and so insured that the artillery "not only prepare[d] the offensive, but also... advance[d] alongside of the infantry and tanks, to keep firing until the enemy's defense had been broken in its entire depth."[41]

Soviet combined arms coordination was also much improved. The German antitank scheme of separating enemy tanks and infantry proved unavailing where, instead of pushing for quick, deep penetrations, Russian tanks and infantry worked methodically at annihilating the German defenders crouching in forward trenches and bunkers.[42] Alternatively, the Soviets tried mounting riflemen onto their tanks to act as escorts for the armor as it clattered into the German rear. Frequently seen in Soviet newsreels, this technique had a practical application: it conveyed Red Army infantry through the forward German defenses along with the Russian armor, thereby posing a combined arms threat to the German antitank weapons and obstacles lurking further to the rear.

Most importantly, however, the Red Army had developed a system of echeloned attack designed specifically to deal with the German defense-in-depth. Developed during the Soviet offensives of 1943, this system was codified in the Soviet Field Service Regulations of 1944. The composition and employment of these echelons varied according to local circumstances. The general idea though was that a first echelon would attack to breach the initial German defenses. Successive echelons (regiments, divisions, and even armies) could be committed

in turn to press the Soviet offensive through subsequent defenses. This not only allowed the Soviets to chew their way relentlessly through German defenses-in-depth without pause, it also retained uncommitted echelons in the rear of engaged forces to respond to German counterattacks if necessary.[43] In selected sectors, the Soviets also assembled compact "mobile groups" of tanks and motorized infantry to dash quickly into the German rear, seizing operational objectives before German reserves could block their entry.[44] The attack-by-echelon, then, along with the affiliated use of deep-strike mobile groups, was a Soviet doctrinal response to the German style of defense-in-depth as practiced on the Eastern Front. The effectiveness of this Soviet system, and the decay of the German Army's powers of resistance, would become glaringly apparent in the summer campaigns of 1944.

The Destruction of Army Group Center

In May of 1944, the German front in Russia formed a large inverted "S." Soviet attacks in late 1943 had bent Army Group North's left flank backward along the Baltic coast. In the south, the furious Russian drives against the German southern armies in 1943 and early 1944 had gouged their way to the Dniester River and the northern Carpathians, threatening at once the adjacent borders of Rumania, Hungary, and German-occupied Poland and Czechoslovakia. In the middle, the German lines jutted eastward in a huge salient. Defended by Army Group Center, this bulge encompassed a vast stretch of forest and marsh centered on the Belorussian capital of Minsk.

Surveying this situation, the German High Command was convinced that Soviet offensive operations in the summer of 1944 would fall upon the southern portion of the German lines. Various studies by the OKH Operations Branch and the Eastern Intelligence Branch arrived at the same conclusion. A Soviet advance

in the south would throttle Germany's allies, threaten the Reich's last major sources of natural petroleum near Ploesti (Rumania) and Lake Balaton (Hungary), and would achieve at last the long-cherished Russian goal of Balkan hegemony. So convinced was the Army High Command (where for once the views of the General Staff and the Führer agreed almost precisely as to enemy intentions), that most of the available reserve formations on the Russian Front were stripped from other sectors and concentrated behind the German southern wing.

Field Marshal Ernst Busch, commanding Army Group Center, was a Hitler loyalist of the most supine type. In April 1944, his army commanders had argued to Busch the need for a withdrawal that would shorten the overextended German lines. By making this withdrawal just before any Soviet offensive, they reasoned, the Russians would be thrown off stride and released combat units could also be used to quell the growing partisan menace in the army group rear. In May, Busch timidly laid this idea before Hitler, only to have it rejected with the remark that the Führer "had not previously supposed that Busch was one of those generals who were always glancing back over their shoulders." Stung by this rebuke, Busch returned to his own headquarters where, on 24 May 1944, he delivered a numbing endorsement of Hitler's strategic leadership to his subordinate commanders. It was, explained Busch, Hitler's "unshakable will" to hold the existing lines on the Eastern Front at all costs. Moreover, added Busch, Hitler had forbidden the construction of rearward defenses, and therefore the army commanders should desist from whatever quiet efforts they were making to erect such fallback positions. In blind obedience to Hitler's wishes, Busch further ordered "the concentration of engineering and construction units in the main battle zone" in order to halt any enemy attack in the forwardmost trenches.[45]

In June 1944, Busch had only thirty-eight understrength divisions in the

line along a bulging front of roughly 500 miles. Consistent with the OKH assessment that the main Russian threat lay in the south, Army Group Center had given up the powerful LVI Panzer Corps and some separate artillery units to Army Group South Ukraine. This loss had deprived Army Group Center of 88 percent of its tanks, 50 percent of its mobile tank destroyers, and 33 percent of its heavy artillery.[46] As a result, Army Group Center's total reserves amounted to only two understrength panzer divisions, two infantry divisions (almost totally dependent on bootleather for their mobility), and an assortment of low-value police and security detachments. Even the spineless Busch was compelled to point out that this lack of reserves prevented him from reinforcing threatened sectors in the manner first prescribed in the Fuhrer Defense Order, since no forces existed to do.[47]

Army Group Center's position was further compromised by the designation of several cities within its area as *"Feste Plätze."* Specifically, the towns of Bobruisk, Orsha, Mogilev, and Vitebsk had each been declared "Fortified Places" by the Fuhrer, and had been allotted an infantry division each as a permanent garrison. (Vitebsk had three divisions quartered within it.) All of these garrisons came from the combat divisions assigned to Army Group Center. Other fortresses at Kovel, Brest, Luniniec, and Pinsk all held lesser contingents as well. These strongholds were organized for all-round defense, with an "Outer Position" and an inner "City Rim Position" as their main defensive belts. Each fortress was provisioned for a siege, and the defenders were expected to fight "to the last man" from their innermost redoubts.[48] Though details of fortification and defensive tactics varied somewhat in each fortress, all of these *Feste Plätze* had at least two things in common: each absorbed manpower (both construction troops and combat units) like a sponge; and each rivetted a small part of Army Group Center's line into place, extinguishing

what little chance there may have been for Busch's army commanders to fight any kind of flexible defensive battle.

What made the abject status of Army Group Center so critical was the fact that Hitler and the OKH were fatally mistaken about Soviet intentions. Instead of the expected attack in the south, on 22 June 1944 (the third anniversary of BARBAROSSA) the Russians blasted through Army Group Center's flimsy front at several points with no less than nineteen separate armies under five different *Fronts*. In the resulting battle, known to the Soviets as Operation BAGRATION but called by the Germans simply "the destruction of Army Group Center," the Red Army showed the folly of the Germans' defensive measures (see Sketch 23).

In a preliminary action, Soviet partisans savaged the transportation network in the German rear. Due to the woods and marshes that clogged the Army Group Center area, these acts effectively interdicted the movement of the few German mobile reserves, and later greatly handicapped German attempts to disengage.[49] Soviet airpower played upon the German artillery and antitank gun positions which, marked by revetments and adjacent antitank obstacles, made excellent targets.[50] Along the front assaults by Red Army infantry, preceded by massive artillery bombardments, crushed the forward German defenses. Counterattacks by puny local reserves were fruitless given the strength and number of the penetrations. Where German defenses did offer resistance in depth, the Soviets arrayed their own forces into multiple echelons and bored their way through by relentless attacks. When the few German reserve divisions attempted to intervene, they found their way blocked by partisan sabotage. Upon finally engaging the Soviets, the German panzers and panzergrenadiers disappeared into the Russian maw without so much as even slowing down the enemy advance.

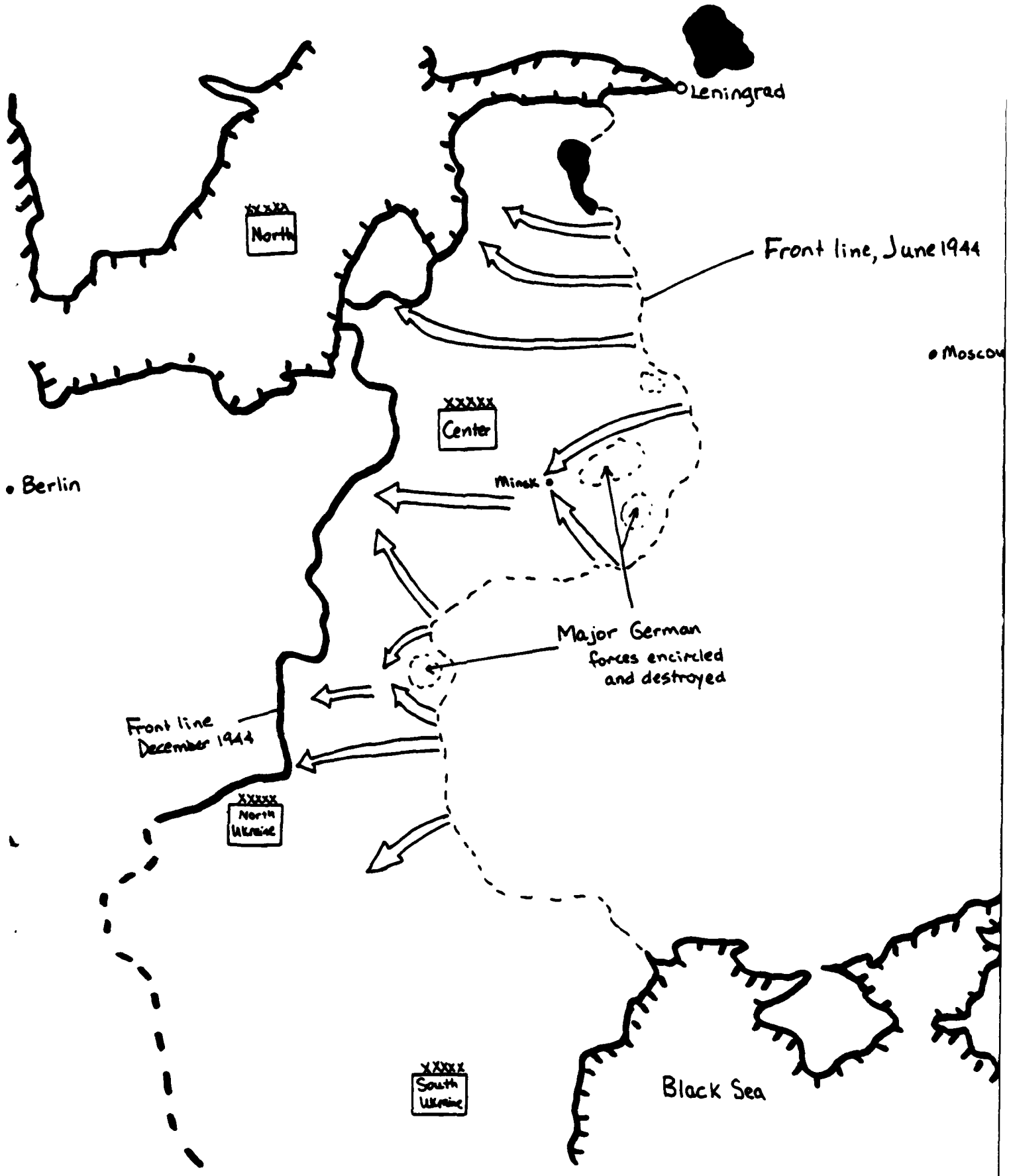
German battlefield commanders, desperate to disengage their dazed units

and to fall back to reorganize, received no comfort from Field Marshal Busch. To one and all he denied permission to withdraw, and reiterated the Fuhrer's standing orders to hold every position to the end. On 25 June, the commander of Busch's Ninth Army wrote in his war diary that "the inadequate directive from the army group is not a product of purposeful leadership but merely an attempt to carry out orders long overtaken by events."[51] Within days, the Russians had encircled the "Fortified Places" at Mogilev, Vitebsk, Bobruisk, and Orsha, trapping as well many field divisions not even part of the fortress garrisons in large pockets. With the German front in ruins, the Soviets unleashed their own armored forces - some of it configured in the special mobile groups designed for deep exploitation - into the German rear. These easily outran those German infantry formations (most of which had been stripped of their organic transport in the 1944 reorganizations) trying to get free of the Russian trap. In two weeks, still more of Army Group Center's disintegrating forces were ridden down around Minsk or else trapped against the Beresina River to the German rear. (Soviet airstrikes dropped the only major bridge over the Beresina in the rear of Fourth Army, stranding several German divisions at the mercy of General Matvei Zakharov's *Second Belorussian Front.*)[52]

By the beginning of July - that is, roughly two weeks after the Soviet offensive began - Army Group Center had almost ceased to exist as an organized fighting force. Twenty-five divisions had either been destroyed outright or else were so decimated as to be unsuited for further operations. The German Ninth Army, most of whose divisions had been lost in *Kessels* near their original positions, found that it no longer had enough staff personnel and signal equipment to control the tattered forces still under its command.[53]

In desperation, Hitler tried to cure Army Group Center's massive wounds by incantation, naming Model as the army group's new commander in place of

SKETCH 23: Soviet Offensives, Summer - Autumn 1944



the ineffectual Busch. (For a time, Model actually commanded both Army Group Center and Army Group North Ukraine simultaneously.) To no one's surprise, this palliative had little immediate effect. By late July, however, the Soviet drive did begin to slacken, due as much to Red Army logistical problems as to the arrival of a few German reinforcements from other sectors.

The story of Army Group Center was repeated, though with somewhat less catastrophic results, on the German northern flank. Attacks through the late summer forced Army Group North back through Estonia and Latvia, and finally severed the connection between Army Groups North and Center in October, trapping the northern forces in the Courland Peninsula. In another of his bizarre strategic decisions, Hitler decided to allow Army Group North to be bottled up in Courland where, he reasoned, its presence would guard Baltic training areas for German submarines and also threaten the flank of any Soviet offensive to its south. For this last purpose, however, Army Group North (renamed Army Group Courland in January 1945) was completely unsuited: it lacked both supplies and offensive punch, and so sat in self-imposed incarceration until the end of the war.[54]

In the south, the Germans met with disaster nearly as great as that earlier in the area of Army Group Center. Red Army offensives in August tore open the front of Army Group South Ukraine and eventually unhinged the entire German right flank by breaking the German hold on the Black Sea coast. On 23 August Rumania withdrew from the Axis, and two days later even switched sides by declaring war on Germany. The divisions of Sixth Army, splintered by the Soviet thrusts and enveloped from the south, vanished from the German order-of-battle for the second time in the war. Badgered by Rumanians as well as by Soviet outguards, the remnants of Army Group South Ukraine scurried westwards toward Hungary, where they finally established a tenuous line linking the German

Southeastern Theater (Balkans) with Army Group North Ukraine.[55] Additional bitter fighting in Hungary flayed these forces until the German surrender in May 1945, though without any decisive impact on German fortunes. (Once again misjudging Soviet intentions, in the war's final months Hitler reinforced the German units in Hungary with his last battleworthy panzer divisions in a futile attempt to hold Budapest. The departure of these divisions facilitated the Soviet capture of Berlin.)

By means of frenzied effort and remarkable extemporization, the Germans managed not only to stabilize the Eastern Front in late 1944, but even to raise still more forces for the defense of the Reich. Due to the gravity of the situation, these forces were thrown together in ragtag fashion. The defensive methods which they and the rest of the disintegrating German Army used in their last battles are an interesting study in doctrinal improvisation.

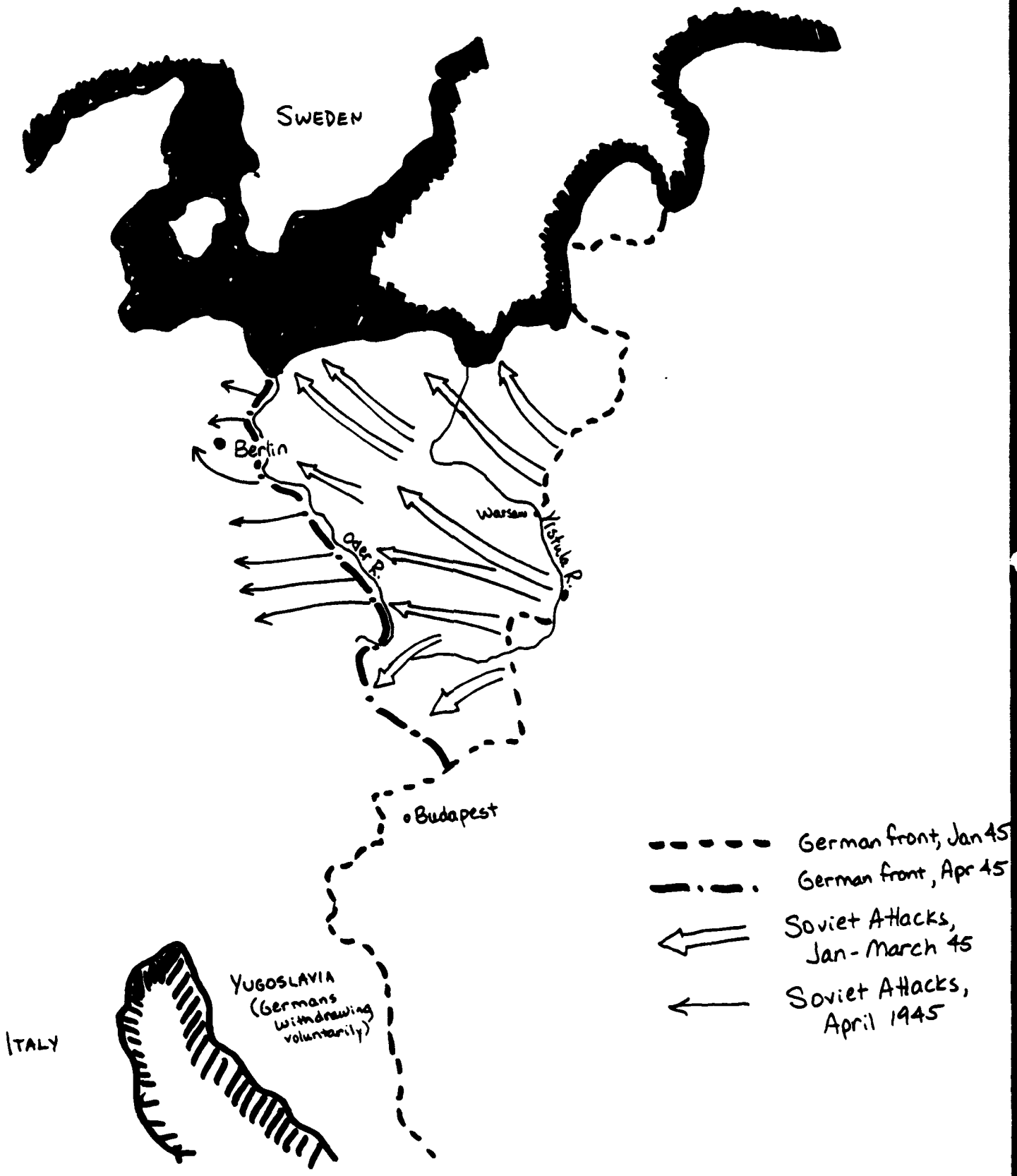
In Extremis

The final defeat of the German eastern armies was accomplished in two successive offensive drives by the Soviets (see Sketch 24). The first of these began in January 1945, and carried the Red Army from central Poland to the Oder River in the Reich's eastern provinces. In April 1945, the Russians began their last campaign against the Germans, driving forward to capture Berlin within a few weeks.

During the months from late summer 1944 until the end of the war, the German forces in the East continued to decline in quality, even though some eleventh hour drafts brought about a brief resurgence in manpower strength. Similarly, German defensive doctrine declined in sophistication, accommodating not only the diminished quality of German forces but also other external operational constraints.

While the Soviet 1944 summer offensive was still in full stride, an event

SKETCH 24: Last Battles, January - April 1945



occurred at Hitler's *Wolfsschanze* (Wolf's Lair) military headquarters in East Prussia that had an important impact on Germany's further conduct of the war. On 20 July 1944, Army conspirators attempted to assassinate Hitler by detonating a bomb during his afternoon conference there. Simultaneously, other officers in Berlin attempted to seize control of the German government. Though the bomb caused death and injury among other attemdees at the conference, Hitler escaped with minor injuries. The coup attempt in Berlin also misfired when Hitler managed to get through (on phone lines that the conspirators had neglected to cut) to loyal troops in the capital.

The Gestapo moved quickly to root out the plotters, and the conspiracy network yielded the names of several prominent officers who had been associated in some way with German defensive doctrine. General Beck, the author of *Truppenführung* who had resurrected Elastic Defense in the early 1930's after years of disuse, was one of the ringleaders. Also implicated were General Fromm, the commander of the Replacement Army, and General Olbricht, Fromm's subordinate as head of the Army General Office, both of whom had recommended construction of an East Wall defense line in Russia in 1942. General Hoepner, relieved of command of Fourth Panzer Army during the winter of 1941-1942 for failing to observe Hitler's "stand fast" orders, had played a major part in the coup attempt in Berlin. For good measure, the Gestapo gathered up former Army Chief of Staff Halder who, though he had taken no active role in the conspiracy was nevertheless regarded (rightly) as a sympathizer, and locked him up until the end of the war. Suspicion fell too on Field Marshal von Kluge. When Kluge had commanded Army Group Center in Russia, his headquarters had been a hotbed of anti-Nazi conspiracy. Kluge himself had maintained an ambiguous aloofness, and had received a new command in France after the Normandy landings. In the witch-hunt atmosphere that pervaded Hitler's headquarters after the bomb plot, Kluge was wrongly

accused of collaborating with the Western Allies and driven to suicide.

The assassination attempt and its aftermath affected the future course of German operations in two ways.

The first of these was the final disgracing of the German professional officer corps in the Fuhrer's eyes. Since so many of its senior officers had been implicated, Hitler's confidence in the German Army's leadership fell to a new low. In practical terms, this meant that Hitler thereafter peremptorily dismissed competent officers at the slightest provocation, citing any battlefield failure as proof of disloyalty or lack of determination. When Warsaw finally fell to the Russians in January 1945, for example, Hitler immediately ordered a fullscale investigation in order to find out which officers had issued orders for abandoning the Polish capital. When the Army Chief of Staff tried to take blanket responsitility, Hitler raged that

> it's not you I'm after but the General Staff. It is intolerable to me that a group of intellectuals should presume to press their views on their superiors. But such is the General Staff system and that system I intend to smash.[56]

Hitler's lack of confidence in the German Army also caused the Army's authority to be curtailed in many areas, its functions transferred to other, more "loyal" agencies. As an example, control over the Replacement Army was given to the leader of the SS, Heinrich Himmler. Himmler had no military background, and showed little interest in this new command other than as an instrument for expanding his own personal power. As a result, the flow of German recruits and new units to the field armies faltered during the war's final months. Similarly, as the war crossed onto German soil, Hitler gave wide-ranging military authority to various Party functionaries, with the result that frontline commanders occasionally found their operational decisions compromised by the confusing instructions given by Gauleiters and other Nazi officials.

The second effect of the assassination attempt was to increase Hitler's mystical belief in the power of individual will and determination. When the bomb explosion miraculously failed to kill him, Hitler promptly announced that this stroke of fortune was proof that Destiny had singled him out for further labors on behalf of Germany. This strengthened Hitler's confidence in his own genius and in his own "inspired" methods. With battlefield reports painting an ever-gloomier picture, and with his estrangement from the Army's professional officers now nearly complete, Hitler sought refuge in romantic irrationality.

At his military situation conferences, Hitler frequently held forth at length on how iron will and determination had earned him success during the Nazi Party's head-bashing days of the 1920's, and how such faculties could now see German armies through their current trials. Defensive orders transmitted to the fighting fronts repeatedly emphasized the need for "fanatical resistance," "holding to the last man and the last bullet," and so forth.[57] One particularly lurid Order-of-the-Day to "Soldiers of the Eastern Front," issued by Hitler just before the battle for Berlin in April 1945, included these passages:

> Whoever does not do his duty at this moment is a traitor to our people. Any regiment or division which leaves its position acts so disgracefully that it must be ashamed by the women and children who are withstanding the bomb terror in our cities... Anyone ordering you to retreat, unless you know him well, is to be taken prisoner at once and if necessary killed on the spot, no matter what his rank may be... The whole German people look to you, my warriors in the East, and only hope that thanks to your constancy, your fanaticism, your weapons, and your leadership the Bolshevist onrush will be smothered in its own blood.[58]

From July 1944 onward, the operations of the German Army were thus marked by a degree of irrationality emanating from the upper command echelons. With Soviet and Anglo-American armies hammering at the gates, Hitler put his faith in willpower and determination, trusting these qualities to triumph over enemy tanks and guns. On the battlefield, this translated into uncompromising orders to hold this or that town, river, or terrain feature. Commanders who demurred,

or who failed to accomplish their hopeless missions despite the enormous odds, were cashiered or even arrested. Jobs critical to Germany's survival were taken from military professionals and turned over to courtiers whose only credentials were their Nazi Party connections and professed belief in the Führer's leadership.

Mistrustful of his battle leaders, Hitler imposed even harsher constraints upon their flexibility than he had ever done in the past. A 21 January 1945 order from the Führer directed that frontline commanders were "answerable to me" for reporting:

> a. Every decision to carry out an operational movement.
> b. Every attack planned in division strength and larger which does not conform with the general directives laid down by the High Command.
> c. Every offensive action in quiet sectors of the front...
> d. Every plan for disengaging or withdrawing forces.
> e. Every plan for surrendering a position, a local strongpoint, or a fortress.[59]

Reports concerning any of these intended activities were to be sent to the Fuhrer early enough so that "I [Hitler] have time to intervene in this decision if I think fit, and [so] that my counterorders can reach the frontline troops in time." This order tied the hands of commanders at all levels, limiting both their scope of initiative and the timeliness of German tactical operations. Suspecting that some commanders would try to circumvent his stifling directions by rendering false or ambiguous reports, Hitler added the following warning:

> Commanders... and each individual officer of the General Staff... are responsible to me that every report... should contain nothing but the absolute truth. In future, I shall impose draconian punishment on any attempt at concealment, whether deliberate or arising from carelessness or oversight.[60]

A few favored military officers continued to stand out. Field Marshals Model and Schörner, for example, retained the Führer's full confidence, and so were granted greater discretionary powers than their peers. These two officers were shuttled from command to command on the Eastern Front, knitting

together new defensive fronts as the situation demanded. During the year 1944 Model - "the Führer's Fireman" - commanded three different army groups against the Russians, while Schorner - "Hitler's Bloodhound" - shifted between two army groups. General Lothar Rendulic, another favorite, was sent to three army groups in turn between January and April 1945.[61] Still another figure to stand out in the post-conspiracy days was General Heinz Guderian, whom Hitler named to be acting Chief of the Army General Staff on the day after the failed coup.[62]

Though he had received General Staff training earlier in his career, Guderian was a maverick general who felt little solidarity with the General Staff clique at OKH. Ambitious and loyal to Hitler, Guderian also had no desire to coddle the fussy "group of intellectuals" in the Army's staff hierarchy. As Inspector General of Armored Troops, Guderian had acted independently in his own area of authority, and had shown little remorse over the fact that his actions occasionally produced doctrinal confusion for the rest of the German Army.

As Chief of Staff, Guderian openly criticized his new General Staff subordinates for having harbored the anti-Nazi conspirators, and ordered that each General Staff officer must in future deport himself as a de facto National Socialist Leadership Officer (NSFO). Not surprisingly, many General Staff officers held Guderian in disdain, considering him a troublemaker and opportunist without any ethical scruples.[63]

Flushed with enthusiasm for his new post, and wishing to dispell the gloom, defeatism, and ignominy that hung over the OKH, Guderian issued bold instructions for new offensive thrusts against the Russians. What Guderian hoped to accomplish was to reverse the trend that had taken hold since ZITADELLE of piecemealing German mobile reserves into combat. Guderian proposed to assemble

a sizable panzer force which could seize the operational initiative from the Soviets by carefully-chosen attacks in various sectors. "The thrust," wrote Guderian in a directive to the eastern armies, "is the best parry." Spurred by Guderian's energy, some tepid attacks were actually carried out in August and September 1944, closing gaps in the German front and bringing a brief period of stability in the autumn and early winter.[64]

Despite Guderian's intentions, plans to build up a substantial reserve of panzer and panzergrenadier divisions failed to take shape. The reason for this was the collapse of the German front in France in August 1944. Due to this catastrophe, the OKW laid claim to every unit that could be spared throughout the German Army for the building of a new defense line forward of the Rhine River against the Western Allies. Over Guderian's protests, Hitler sided with the OKW, and so the eastern armies were left to carry on their losing fight without any substantial build-up of reserve forces. (The flow of forces to the Western Front was sufficient to allow even a German counteroffensive through the Ardennes in December 1944.) Guderian, along with the Eastern Front commanders, despaired at this diversion of resources. In January 1945, with the Russians massing for their next offensive blow, Guderian was forced to report to the Führer that "The Eastern Front is like a house of cards. If the front is broken through at one point all the rest will collapse, for... [we have] too small a reserve for so extended a front."[65]

Following the costly summer battles, the German eastern armies were hard-pressed to reconstitute their shattered units, much less to build up any reserves. Manpower strength in the East had actually been dealt a serious bureaucratic blow by Hitler and the OKW in June 1944 before the Soviet offensives even began. In response to the Normandy invasion, Hitler had ordered the immediate

creation of several new divisions out of combat personnel on leave in the Reich and those recovering from wounds. These men - the majority of whom were assigned to divisions on the Eastern Front - were herded into "Furlough Battalions," which were in turn formed into new divisions. These divisions were then marched off to meet the Anglo-Americans in France. Lacking unit training and the carefully cultivated cohesion normal in German units, most of these "furlough divisions" were easily smashed in combat. The whole idea, wrote one German general, "was a gross mistake both in conception and execution, and imposed a heavy morale burden on the field army."[66] Most of this burden was borne by divisions on the Eastern Front: not only were many of their "own" soldiers pirated away for service in other units and theaters, but commanders' confidence in the efficacy of granting home leave was severely shaken.

Though most replacements and reinforcements were shunted to France, some fresh forces did trickle into the eastern armies. Most of these, however, gave little relief. The generally poor quality of these units - assembled from the absolute dregs of German manpower - continued the overall qualitative decline in the German Army which had been one of the main collateral effects of the war against Russia for the past three years.

Heinrich Himmler, since the 20 July 1944 assassination attempt the new chief of the Replacement Army, undertook the organization of an entirely new class of army divisions. These so-called "Volksgrenadierdivisions" - which consumed nearly all of the July and August replacements earmarked for the Eastern Front - were designed to be new National Socialist legions equal in loyalty to Himmler's own Waffen SS.[67] As such, the new Volksgrenadiers were envisioned as eventual successors to the disgraced German Army which had hatched the assassination plot. The Volksgrenadierdivisions (eventually there were *Volksartillerie* units as well) were generally poorly trained, their total time

from establishment to commitment in combat sometimes being as brief as two months. Equally devastating was the selection of officers: to command the new political soldiers, political leaders were needed, and so the Volksgrenadiers were officered by men whose principal training consisted of Nazi indoctrination. Those Volksgrenadierdivisions that were allotted to the Eastern Front were, generally speaking, easy meat for the Red Army.[68]

In the late summer of 1944, the Germans also began setting up small (two battalions) independent panzer brigades.[69] Usually built around a few veteran cadre, these brigades represented an economy measure: they were smaller than panzer divisions, required less support, and (since they had no organic infantry or artillery contingents) required less unit training before being ready for combat.

Though adding some punch to German forces, the effect of these panzer brigades on German defensive operations was not entirely salutary. By their small size, the brigades encouraged piecemeal commitment of German armor. While this practice lent tactical support to embattled infantry units, it did not facilitate the massing of German tanks which the panzer officers agreed was the best use of such forces. Moreover, regular German infantry units were not normally trained or equipped to work in close cooperation with fast-moving armor units. (Infantry platoons and companies, for example, usually did not possess the proper radios to communicate with panzer detachments.) Consequently, the combat effectiveness of these stopgap panzer brigades in sum may well have been less than an equivalent force structured and trained as panzer divisions with their own organic contingents of artillery, infantry, engineers, and so forth.

In October 1944, the first paramilitary units began to join the German order-of-battle on the Eastern Front. The Volkssturm, a sort of home guard,

was called out in Germany's eastern provinces for the protection of the Reich. Composed of men aged 16-60 who were otherwise deferred from military service, the Volkssturm was envisioned by Guderian as an auxiliary force capable of garrisoning key rear installations and - in extreme emergencies - of acting as *Alarmeinheiten* to block Russian breakthroughs. Hitler, however, foiled Guderian's plans by placing the Volkssturm under the control of Nazi Party Gauleiters (district Party leaders). These Gauleiters were free to raise, train, and deploy their Volkssturm forces as they saw fit, subordinating the Volkssturm to military command only in actual military operations. As a result, in Guderian's words,

> the Volkssturm was expanded to an undesirable extent, since there were neither sufficient trained commanders nor an adequate supply of weapons available for so large a force - quite apart from the fact that the Party was less interested in the military qualifications than in the political fanaticism of the men appointed to fill responsible posts... As a result, the brave men of the Volkssturm, prepared to make any sacrifice, were in many cases drilled busily in the proper way of giving the Hitler salute instead of being trained in the proper use of weapons.[70]

The establishment of the Volkssturm, and the concomitant designation of the Gauleiters as "Reich Defense Commissars," eventually worked against German defensive efforts in the East in several respects. On 28 January 1945, for example, Hitler noted in an order to frontline commanders that experience on the Eastern Front revealed (surprise) that Volkssturm units fought poorly when left on their own. Therefore, commanded the Führer, in the future commanders should form mixed battle groups by assigning regular units as "stiffeners" to Volkssturm forces.[71] To the extent that it was obeyed, this policy had the effect of breaking up battleworthy veteran units and parcelling them out to sustain Volkssturm formations. While this reised the combat value of the militia somewhat, it further watered down what little skill and experience were left in the regular forces.

The Gauleiters themselves, who sometimes insisted upon the dedication of regular forces to their Volkssturm in accordance with the Führer's instructions, also confounded defensive efforts by their control over the armies' rear areas. Any construction of rearward positions within German territory, and often the use of the civilian labor forces necessary for such construction, was subject to the arbitrary approval of local Gauleiters. Furthermore, the Gauleiters claimed authority over the evacuation of civilian personnel from the battle areas, a task which they frequently failed to coordinate with combat commanders thereby congesting vital roads at critical moments. Some units also found Gauleiters commandeering military vehicles on their authority as Reich Defense Commissars to move evacuees or to carry out other essential Party business.[72]

To the various regular contingents and Gauleiter-controlled Volkssturm were added other formations of police, airmen, sailors, and Hitler Youth. Army Group Vistula (organized in January 1945 to defend the eastern approaches to Berlin) included such disparate elements as nine Waffen SS divisions (some of which were composed primarily of non-Germans), a Luftwaffe parachute division, a naval infantry division, a handful of Volksgrenadierdivisions, several fortress units, a police division, two brand new (though sketchily trained) infantry divisions, and a host of ad hoc battle groups composed of *Alarmeinheiten*, Volkssturm, and the like. Veteran infantry units were at a premium: in all this rabble (nearly sixty formations of nominal division size) there were only a dozen understrength veteran infantry divisions.[73] Also in the line were the training cadre from the Replacement Army's training centers, as well as students from the German Army's NCO and officer candidate schools - a measure that signalled the final demise of any organized replacement and training system.

Just as German forces in the last campaigns were a potpourri of combat

veterans, new units, and ill-trained militia, so too did German combat technique comprise a confusing blend of skill and awkwardness. In some cases, seasoned units were still able to fight as they had done in defensive battles past, employing depth, firepower, and counterattack to halt Soviet offensives.[74] In other cases, however, frontline units introduced entirely new methods into German defensive doctrine. These improvisations were impelled by the realization that untrained and poorly-equipped units (a description that fit nearly all German units to a greater or lesser degree by this time) could not live up to the standards of a doctrinal defense-in-depth.

Disregarding the artificial constraints imposed by Hitler himself, one of the most difficult problems for battlefield commanders was the fragility of German morale. Surveys of Eastern Front units by the OKH in October and November 1944 revealed that troop morale had been substantially affected both by the entry of enemy forces onto Reich territory and by the Anglo-American strategic bombing campaign. Such faith in Germany's fortunes as still existed stemmed "exclusively" from propaganda announcements about secret new weapons.[75]

The psychological foibles of German troops needed to be taken into account in defensive operations. German commanders laid out their defenses, distributed their weapons, and fought their defensive battles in full awareness that their uneasy forces could not be relied upon to show the same steadfastness as had German battalions in years past. Consequently, modifications to German defensive methods were purposely tailored to provide maximum psychological support to skittish troops.

The Volkssturm is an excellent case in point. As civilian militia, the Volkssturm were under the control of local Party officials, and so presumably were available for operations near to their own towns and cities. Most Volkssturm soldiers lacked personal field equipment (many took the field in civilian

clothes, identified as combatants only by distinguishing armbands), and so were unsuited for prolonged campaigning in the open. Furthermore, due to the lack of small arms and ammunition, many Volkssturm soldiers were armed only with short-range *Panzerfaust* antitank rockets. This restricted the tactical utility of Volkssturm units. At best, some Volkssturm units were effective only against tanks, and were at a grave disadvantage when opposed by skirmishing infantry. Even their effectiveness against tanks was doubtful, however: the close range attack of Soviet tanks was a daunting prospect even for battlehardened troops - a fact recognized earlier in the war and for years the subject of intensive German Army training. Untrained Volkssturm troops could scarcely be expected to await the near approach of massed Soviet armor with equanimity. Early experience revealed that Volkssturm troops tended to discharge their single-shot *Panzerfäuste* prematurely and then, having in effect become unarmed bystanders, to flee the battlefield at the first opportunity. None of these limitations enhanced the Volkssturm's value in defensive fighting.

When finally released by their Gauleiters to Army commanders for tactical employment, the Volkssturm was best used in non-combat roles. Consequently, many Volkssturm troops acted as traffic control parties, bridge and installation guards, and construction teams.

In actual combat, Volkssturm troops were best when employed in static missions of limited scope. Some Volkssturm detachments, for example, gave a good account of themselves in city fighting. Within built-up areas, Volkssturm soldiers (and other poorly trained forces as well) could confront Soviet attackers on terms suitable to their peculiar limitations. Within towns, the militiamen were spared some of the rigors of field campaigning. City streets canalized enemy tanks, easing the shock effect of massed Soviet onslaughts by dividing attacking forces into smaller assault detachments. Rubbled buildings provided

excellent cover from which to engage Russian tanks, while constricted fields of fire helped to prevent premature firing of the inaccurate antitank rockets. Buildings also covered the withdrawal of Volkssturm fighters to caches of additional *Panzerfäuste*, while prominent buildings or landmarks made recognizable rallying points. When stiffened with regular troops (who actually bore the brunt of the house-to-house infantry fighting), the Volkssturm could therefore fire volleys of antitank rockets at enemy armor, fleeing as necessary to rearm and recharge their courage.[76]

While city fighting suited some Volkssturm forces, others found it particularly repugnant, preferring to fight from ambush roadblocks. As one German officer later wrote:

> Important psychological considerations spoke against restricting Volkssturm units to purely local commitment. Surely the primary interest of the men resided in inflicting a minimum of war damage to their home towns where their families lived. Thus, it was safe to assume that the Volkssturm men would prefer to avoid any last-ditch stand in the immediate vicinity of their home towns. The tactical commanders therefore took the precaution to suggest that road blocks and fortifications should be erected at a sufficient distance from any community in order to spare it the effects of combat action.

This same officer discounted the Volkssturm's usefulness even in these limited roles due to its uncertain morale, saying that "since it was incapable of withstanding critical situations, the Volkssturm could only become a liability and threat to the troops it was to join in battle."[77] Little wonder, then, that frontline officers regarded Hitler's order to provide regular forces to bolster Volkssturm units as a waste of precious combat power.

The Volkssturm contingents were not the only formations in need of careful handling. Even regular German Army units were increasingly fragile, and commanders occasionally violated established defensive practices to accommodate this.

The distribution and use of German armor fell into this category. Though

German doctrine had considered counterattack to be the defensive role of armor since prewar days, units increasingly were found to be digging in tanks and assault guns along the infantry firing lines. There were several practical reasons for this. The proliferation of new panzer units - new "named" divisions such as Panzer Division *"Holstein"* and Panzergrenadier Division *"Kurmark,"* panzer brigades, and even independent tank battalions - split available mobile forces into more and more detachments of ever-smaller size. In small groups, the panzer forces were far less effective in their mobile role than they might have been *en masse*, and so some tank commanders balked at being given mobile taskings that were no longer within their units' capabilities. In practice many of these small tank bands were "captured" by larger infantry formations, and consigned to support roles by commanders desperate to raise their frontline combat strength by any means.[78] Too, there was a shortage of vehicle fuel, which limited not only the mobility of panzer forces in combat but also their ability to conduct unit training. Since superior training and unit maneuver had been the basis for previous German superiority in fluid combat, this handicap was a severe blow to German panzer forces. Lack of adequate training made the control of large mobile formations impossible in many newly-formed units, and so the positioning of tanks as static "iron pillboxes" made a certain amount of sense. On top of all of these considerations, however, was another one: the overwrought and ill-trained infantrymen simply needed the reassurance that the presence of friendly armor provided when standing against a phalanx of Soviet tanks.

The application of artillery firepower was another problem area. With the decline in quantity and quality of German infantry, the artillery emerged as the mainstay of German defenses. Unfortunately, the proliferation of new artillery units (many of them half-trained and lacking in communications gear)

made unified coordination of all artillery assets difficult. Furthermore, a chronic shortage of ammunition left German gunners unable to make use of their full potential, while Soviet counterbattery shelling forced the Germans to shift their guns frequently thereby reducing their ability to mass fires on demand. Even so, as one artillery general reported following a tour of Army Group Vistula's front in April 1945 just before the mighty Soviet push on Berlin, "the artillery must bear the main burden of the defense." Moreover, he added, any "success in the defensive battle is decisively dependent upon ammunition supply." Concluding his report, this officer noted delicately that "one hopes that with the beginning of the main battle sufficient supplies of ammunition, weapons, and other materiel can [yet] be put in place... The greatest problem is and remains the sufficiency of ammunition at all positions."[79]

Like the panzers, much of the German artillery was dispersed along the front in order to give moral support to the overmatched infantry. (German gun positions even had to sacrifice some depth in order to be able to range the German front lines to the maximum extent possible.)[80] General Heinrici, who took over Army Group Vistula from the incompetent *Reichsführer* Himmler in March 1945, acknowledged that his ability to mount counterattacks was virtually nonexistent because he had "dispersed what little armor and artillery there was to give each unit a fighting chance."[81]

Such tactical nostrums served to buttress the resolution and resistance of the forward infantry units. While these expedients were contrary to good doctrinal practice, they did help to wring the last drops of combat power out of Germany's mean resources. Tactical improvisations alone could not reverse the tide of battles, however. For that a novel approach to defensive operations was necessary, one that would offset the huge Soviet advantages in men, tanks, and guns, and that would replace Hitler's uninspired methods

with a more cunning use of German forces. In late 1944, some German commanders sought such a remedy in the widespread use of pre-emptive withdrawal before Russian attacks.[82]

Practiced to a limited extent earlier in 1944 by Army Group South Ukraine and by other units on a tactical scale, short withdrawals just before the beginning of a Russian attack bought time for the further consolidation of the German defense, dislocated Soviet attack preparations, and revealed enemy intentions. As General Heinrici explained after the war, when pre-emptive withdrawals were made "the result was that the Russian blow hit the air, and its further attack did not have the same impetus."[83] The trick was to take a sudden step back just as the Russians unleashed their attack, thereby causing the Soviet artillery bombardment to fall on empty positions. Then, as the Soviet infantry and armor moved forward their passage would be obstructed by German-made obstacles and by the destruction wrought by the Russians' own artillery. At the best, this might cause the Soviet armor to become separated from the following infantry and towed artillery as it moved over difficult ground, offering the Germans a chance to counterattack. At worst, the pre-emptive withdrawal gave up a few kilometers without a fight, though the Russians would at least be compelled to pause while replenishing their forward ammunition stocks and bringing up their forces to make contact with the new German line. As previously explained, this withdrawal technique accomplished many of the same goals as the World War I Elastic Defense, and German commentators readily acknowledged as much. Wrote one officer, "the adoption of elastic defense tactics in a deeply echeloned system of machine gun strongpoints" constituted "another method of evading fire concentrations and a subsequent breakthrough" similar to pre-emptive withdrawal.[84]

In the latter stages of the war, however, pre-emptive withdrawal was more

feasible than a doctrinal Elastic Defense since reduced German strength no longer permitted a continuous defense-in-depth. General Heinrici, who earlier as the commander of Fourth Army from 1942 to early 1944 had practiced a defense-in-depth insofar as the Führer Defense Order permitted, found that the major drawback even to pre-emptive withdrawal "was our scanty strength after so much had been wasted needlessly by the rigid defense of positions impossible to hold."[85] Added another officer, "permanent gain [by pre-emptive withdrawal] was possible only if the new positions could be held without fail" against the disrupted Soviet attack - an uncertain prospect in most cases given the pronounced German weakness.[86]

Not all commanders were eager to try these techniques of pre-emptive withdrawal. By one officer's account,

> most German commanders in the field doubted their practicality and utility... Besides, the overall situation was so critical that there was a general reluctance to introduce experiments. By the second half of 1944 the Germans rarely had sufficient time for the construction of numerous positions or for the thorough indoctrination and training of troops.[87]

As this remark suggested, one concern of many frontline commanders was that, considering the uncertain morale and discipline of most German units, any precipitate retrograde movement might cause German formations to disintegrate. In many places, the memories of the summer's routs were still strong, and so many battlefield leaders declined to risk voluntarily disorganizing their own forces in the face of imminent Soviet attack.

In practice, the use of pre-emptive withdrawal on a large scale was therefore limited to a few special cases. In December 1944, Army Group A (previously Army Group North Ukraine) submitted a plan for Hitler's consideration in which it proposed to withdraw approximately five miles to a new prepared position during the two nights prior to an expected Russian attack. Hitler rejected this proposal, as he did another from Army Group Center.[88] Third Panzer Army,

defending East Prussia in early January 1945, successfully used the withdrawal technique to contain Russian forces in its sector. After several days of heavy fighting, during which it was able to retain its rearward defensive positions, Third Panzer Army was forced to give up the fight and retreat to avoid encirclement by Red Army forces advancing on its flank.[89]

Agitation by frontline commanders, coupled with Third Panzer Army's January success, stirred the Army Training Branch to renewed activity. Apart from issuing Training Directives and experience pamphlets, the Training Branch had remained somewhat dormant through late 1944 as the rapid pace of events and the deterioration of German forces outstripped doctrinal assessments. The concept of pre-emptive withdrawal, however, with its intricate problems of training, control, coordination, and execution was an ideal subject for high-level study.

In late 1944, the Army Training Branch produced a draft memorandum entitled "Regulations Concerning Main Battle Organization." Based upon limited tactical experiences during the summer and autumn of 1944, this document outlined the techniques used to conduct pre-emptive withdrawals and discussed some of the affiliated coordination problems. Circulated at army group and army level only, this draft was designed to elicit comments from frontline units to ascertain the general feasibility and desirability of such methods.[90]

Field responses to this document indicated a preference for limited withdrawals to a depth of roughly two kilometers. Similar to the methods used by Third Panzer Army in January, this "short withdrawal" solution avoided the worst effects of the Soviet artillery preparation without unnecessarily risking the disorganization of German forces by movement over greater distances.

General Guderian, now the Chief of the Army General Staff, scoffed at this "nonsensical" solution, and preferred instead an even bolder withdrawal policy of

moving back some ten to twenty kilometers. In a December meeting with Guderian, Hitler had already authorized short withdrawals of the sort conducted by Third Panzer Army, but had rejected the Chief of Staff's requests for more extensive movements. Sulking that his bigger designs had been scorned by the Führer, Guderian nevertheless ordered the Army Training Branch to develop doctrinal guidance that would accommodate both the "short-withdrawal" and the "major-withdrawal" scenarios.[91]

By 16 March 1945 the Training Branch had prepared a first draft of "Regulations Concerning the Rearward Displacement of the Defense Before Major Enemy Attacks." As an internal Training Branch memorandum explained, "Rearward Displacement of the Defense" addressed both "the troops' demand for a short distance from the old HKL (two to six kilometers) and the demand of the Chief of the Army General Staff [Guderian] for ten kilometers and more. One does not exclude the other."[92]

What "Rearward Displacement of the Defense" proposed was to create two separate categories of withdrawal-before-enemy-attack. A short, tactical withdrawal of up to six kilometers to a rearward General Battle Main Line of Resistance (*Grosskampf-HKL*) could be authorized by army headquarters or, in pressing circumstances, by corps headquarters. A longer withdrawal (Guderian's scheme) to a new General Battle Position (*Grosskampf-Stellung*) could only be executed "in every case only on the approval of the highest authority [Hitler]."[93] The new doctrinal document then proceeded to discuss these two alternative techniques in some detail, its particular passages restating large portions of the earlier "Regulations Concerning Main Battle Organization."[94]

In the timeless manner of all bureaucracies, "Rearward Displacement of the Defense" was attacked from all sides by interested General Staff agencies. Within four days a second revised draft was making the rounds which included

the changes demanded by the chiefs of infantry, artillery, engineers, and smoke troops.[95]

On 1 April 1945, the Chief of Artillery within the General Staff's Training Branch had even put together a supporting memorandum entitled "Main Battle Organization of the Artillery" which outlined changes to artillery practice necessitated by the tactic of pre-emptive withdrawal. Though ordering the location of artillery in still greater depth in order to cover the ground between the initial and subsequent defense lines without displacement, this document otherwise noted that the new methods "do not change the basic principles of combat leadership and fire control of the artillery." Essentially, this artillery memorandum envisioned the division of the battlefield into two artillery zones, a "Forward Artillery Area" and a "Main Battle Artillery Area." The Forward Artillery Area, located between the original HKL and the fallback *Grosskampf-HKL*, would contain multiple firing positions for the artillery's "Wandering Batteries" (batteries moved frequently to avoid counterbattery suppression). As the time of the expected Soviet attack grew nearer, batteries would gradually be withdrawn to prepared positions in the Main Battle Artillery Area, located in depth behind the *Grosskampf-HKL*. At the beginning of the Soviet attack, the German guns would first fire stockpiled ammunition at enemy assembly areas to disrupt enemy attack momentum, and would then take up the attack of enemy forces moving through the vacated positions toward the new defense line.[96]

While all this doctrinal activity was being conducted within the Army Training Branch, field units were putting their own methods into effect. Benefiting from the local experiences of its Third Panzer Army, Army Group Vistula prepared to fight its final defensive battles using pre-emptive withdrawal across the entire army group front. On 24 February 1945 General Heinrici, the commander of Army Group Vistula, issued detailed instructions to his subordinate

commands for the execution of such a defense. Emphasizing that this step-back technique was not for everyday Soviet attacks, Heinrici explained that the major goal was to avoid the casualties and disruption caused by the customary Russian artillery preparations preceding major offensives. Since gauging the exact time of the enemy's attack might not be possible, Heinrici warned his subordinates to expect some false alarms, and to brief their troops accordingly. In the event a withdrawal was executed and a major Soviet offensive failed to materialize, Heinrici directed that the evacuated positions be recovered before noon of the following day.[97]

Even with such direction, not all aspects of the planned withdrawal proceeded without incident. A week prior to the opening of the Soviet attack on Heinrici's front, a visiting General Staff officer noted that any rearward movement of German artillery imposed "a psychological burden on the infantry," and so the artillery movement had to be phased so that the German riflemen would not notice that their support was quietly being thinned out.[98] For fear of deserters betraying the German intention to the Soviets, dissemination of the withdrawal plan was restricted to officers until just prior to the event. While maintaining operational security, this made it impossible to conduct extensive rehearsals or morale briefings. Some of Heinrici's officers remained uncomfortable with the idea of shifting positions under the enemy's guns, and complained about it to the commander of Army Group Vistula. To these Heinrici pointed out that the alternative was even more unpleasant: annihilation by the savage Russian artillery preparation. Heinrici's judgment proved well-founded. On the night of 15 April, Heinrici correctly anticipated that the enemy would strike the next morning, and so pulled back nearly all of Army Group Vistula to their rearward defense lines. At 0400 hours on 16 April, the Soviets began pounding Heinrici's empty positions with some 20,000 guns of all calibers.[99]

Though saving his troops from the artillery's hammer blows, Heinrici's withdrawal could not save Army Group Vistula. Vastly overmatched by the Red Army forces pushing against them, even the new German positions caved in within days. Elsewhere on the Eastern Front, where German commanders had not executed pre-emptive withdrawals, companion Russian offensives swept over the fragile German defenses even more easily. Within a week Soviet troops and tanks were closing on Berlin, and in less than a fortnight Red Army soldiers were storming the government quarter in the German capital.

In retrospect, the Germans' idea to pull back their forces in the face of Soviet attack - a scheme about which there was a good deal of doctrinal bemusement within the German Army's doctrinal bureaucracy - had no great battlefield effect. By 1945, the disintegration of the German Army was so advanced that its predicament could not be relieved by any doctrinal means alone. As with other doctrinal modifications made during the Second World War, the technique of pre-emptive withdrawal turned out to be a desperate expedient, forced on battlefield leaders by dire frontline circumstances.

CHAPTER VII: OBSERVATIONS AND CONCLUSIONS

The German eastern armies began the BARBAROSSA campaign in June 1941 with a common textbook doctrine for defensive operations. That doctrine began to mutate with the very first defensive battles in Russia, however. Over the course of the next four years, German divisions fought thousands of defensive engagements against the Red Army, of which no two were exactly alike. In a literal sense, it is therefore impossible to pin down German defensive doctrine at any single point in time. Nevertheless, it is possible to identify major doctrinal trends, and from these to make certain generalizations about German defensive methods, the reasons for the evolution of those methods, and the means by which those changes were implemented.

The remarks which follow are not meant to be exhaustive, or even to recapitulate all of the major points developed previously. Rather, they are some general reflections about the evolution of German defensive doctrine, with commentary on how and why that evolution proceeded during the war.

In practice, German defensive operations never corresponded exactly to prewar doctrine. In researching this paper, the author looked for a single stretch of time, a single campaign, and finally for even a single engagement in which German battlefield performance lived up to the visions of *Truppenführung* and the other prewar manuals. This search proved to be in vain. There was no "textbook battle" from the standpoint of German defensive doctrine. General Gunther Blumentritt, describing German defensive doctrine to Allied questioners after the war, wrote accurately when he noted that "during the entire war from 1939 to 1945 there was practically nothing of the system described [in *Truppenführung*] ... Whenever we had to defend, the fronts were so long and the troops so weak that one cannot even speak of this kind of defense."[1]

This is not to say either that German prewar doctrine was unsuitable or

that German combat performance was inadequate. Rather, it is merely to point out that no prewar preparation can ever anticipate exactly the circumstances of actual combat. In war, the tactical methods learned during peacetime maneuvers simply do not survive intact the first serious passage of arms. True enough, one side or the other may be better prepared for war in terms of its training, its equipment, or even its doctrinal methods, and these may be significant advantages. However, the stimulus of combat is a powerful motivator, and individual soldiers will quickly learn those adaptations necessary for their own survival on the battlefield. Consequently, to note that wartime performance never matched peacetime prediction is not to make a judgment, but only to acknowledge an often overlooked fact.

At the outset of the Russian campaign, German defensive doctrine was based primarily on the Elastic Defense system adopted by the Imperial German Army in the latter part of the First World War. Updated and amended somewhat by new technology and new ideas in the interwar years, this concept remained the general framework for German defensive operations at the beginning of the war against Russia.

Within months, German divisions discovered that some of the conditions upon which their doctrinal theories were based could not be recreated in the vastness of the Russian theater. Widespread doctrinal improvisation followed. Despite modifications to German defensive practices, at the end of the war the 1933 manual *Truppenführung* remained in effect as the standard doctrinal reference. Undoubtedly, much of *Truppenführung's* doctrinal guidance had been superseded in detail by real-world modifications and expedients. Any other prewar scheme would have suffered the same fate. Throughout the war, however, the German Army remained comfortable with the Elastic Defense's basic principles, and relied upon local commanders to make the adaptations necessary to suit their own

circumstances.

The wartime development of German defensive doctrine was highly decentralized, a practice that yielded both important benefits and inescapable penalties. As a matter of policy, the German Army had a longstanding tradition of reserving maximum authority in training and operational matters to low-level commanders. In wartime, this policy promoted the development of local tactical practices as each subordinate commander was trusted by his superiors to keep his own unit in fighting trim.

This was acknowledged by the General Staff's Training Branch, which concluded that doctrinal adjustments developed at the front would in every case be more responsive to the requisites of battle than those dictated from the rear. Such publications (experience reports, training directives, and so forth) as were produced at higher levels tended to be only advisory in nature, and mainly described methods or experiences previously generated in frontline units. Early General Staff attempts to conduct a systematic polling of frontline commanders on doctrinal trends had little practical effect, since the rush of events normally outstripped bureaucratic efforts to convert such information into meaningful doctrinal revisions. Some wartime attempts by higher authorities to adjudicate doctrinal disputes (such as the one concerning the control and use of panzer forces in early 1943) foundered on the independence of various commands and agencies (especially Guderian's Inspectorate of Armored Troops). While regrettable, such frictions were hardly scandalous and, as B.H. Liddell Hart once wrote, should not have been "unexpected to those who know the nature of armies and their halting course throughout history."[2]

As foreseen, German units proved to be extremely adaptable to the demands of combat. (Indeed, even in the war's final weeks resourceful leaders were trying desperately to tailor defensive methods to their units' pathetic capa-

bilities.) Part of this adaptability stemmed from the ruthlessly pragmatic focus of German training - especially that within the combat divisions' own replacement battalions - as frontline units played a major role in the tutelage of their own replacements.

The major penalty of this system was an enormous amount of doctrinal parochialism. The individuality conceded to frontline units gradually led to de facto specialization, reducing the ability of German divisions to operate in unfamiliar circumstances. A division committed to a solid year of static defense became very expert at that type of combat. However, it slowly lost its ability to perform other missions as casualties consumed its professional cadre and as its replacements were groomed in training to accomplish only narrowly-defined combat missions. Doctrinal interoperability between units also suffered, as did the German High Command's flexibility in transferring divisions between theaters to fulfill strategic priorities. Reflecting upon these anarchical trends in German doctrine, a former German corps commander wrote:

> From the fall of 1942 on, after the campaign against Russia had eventually turned into a defensive, there was a growing need for a detailed interpretation of those principles which had been covered in one short paragraph entitled "Defense" in the German Field Service Regulations. Each army group developed its own tactics and concepts... Even the instructions issued by the OKH contained contradictions dependent upon whether the memo had been compiled by a tactician or a technician.[3]

What probably was needed, concluded this officer, was an updated "general manual 'Conduct of Defensive Operations' and to leave it to the army groups to concern themselves with local conditions." Halting attempts in this area never materialized, and so German forces operated with both the advantages and the disadvantages of their decentralized system.

Because of the diversity of local practices and circumstances, it is impossible to characterize German defensive doctrine as having conformed to any

single style. F.M. von Senger und Etterlin, the son of the wartime commander of the 17th Panzer Division on the Russian Front and today a high-ranking NATO officer, criticized American defensive doctrine of the 1950's and 1960's for its artificial division of defensive operations into "Mobile Defense" and "Position Defense," noting that "every defense has a mobile component."[4] Likewise, even a defense based upon maneuver and shock action employs forces at some point according to "positional" methods, if only to create an anvil against which the advancing enemy forces can be pounded. Ths same was true of German operations on the Russian Front in World War II: the German Army's defensive methods combined both mobile and static defensive components into a seamless whole.

Before the war began, German defensive doctrine envisioned clearly-defined roles for the infantry, armor, and artillery forces. The pedestrian infantry forces would be responsible for securing terrain. The panzer forces, which were considered inherently offensive in character, would act purely as a counter-attack force. The artillery would provide the firepower to support both of those arms. During the war, such distinctions tended to erode.

In practice, the German Army lacked adequate infantry forces to build up a continuous "positional" defense-in-depth across more than a thousand miles of meandering front. Similarly, the panzer and panzergrenadier forces - which, even counting Waffen SS units, never amounted to more than roughly fifteen to twenty percent of the total number of German divisions - could never have performed a "mobile" defense based on their maneuver skills alone on more than a tactical scale. Generally, infantry and armor acted in concert, and improvised German defensive tactics contained both static and dynamic aspects. Such coordination remained of a tactical nature only, due mainly to Hitler's reluctance to allow defensive maneuver on an operational scale. Manstein's defensive

battles in south Russia in the winter of 1942-1943 are therefore something of an anomaly: a combination of stubborn positional defense and fluid maneuver ranging over hundreds of miles.

As the war continued, deficiencies in other aspects of combat power placed an ever-heavier burden on the German artillery until, by 1945, artillery firepower had become the glue which held together flimsy German defenses. (Even this role was less than pure, for German artillerymen routinely engaged in duels with Russian tanks and even occasionally fought as infantry in defense of their firing positions.) Some theorists have hypothesized that increasing reliance upon firepower follows a decline in the training proficiency of mass armies. In the German case - though such a decline was certainly evident - the initial stimulus for increased dependency on artillery firepower was the shortage of German manpower during the first hard defensive battles in 1941-1942. Though qualitative decline followed, it was lack of quantity in German infantry strength that shifted much of the defensive burden onto the artillery.

Though German defensive methods were a kaleidoscope of improvisation, certain basic themes remained constant throughout the war and formed the true heart of German doctrine.

German defensive doctrine was not defined in terms of mobile or positional modes, or even by distinctive roles for various combat arms. An even better understanding of the German Army's methods is to be found in the basic principles upon which the Elastic Defense was founded: depth, maneuver, firepower, and counterattack. Through all the variations in defensive method, these themes continued to guide German commanders in the conduct of their operations.

German units sought to create depth by every means possible, including the distribution of heavy weapons in depth, the construction of rearward defenses, the commitment to combat of service troops when necessary, and finally even the

creation of artificial depth by pre-emptive withdrawal before Russian attacks. Hitler constrained maneuver with the Führer Defense Order, pinning German forces in place regardless of the tactical situation. This eclipse outraged German commanders, who considered maneuver from the individual soldier on up as one of the essential ingredients of successful defense. When Hitler finally allowed short withdrawals prior to enemy attacks in late 1944, many officers found that their units' ability to execute even such undemanding defensive maneuvers had atrophied. Firepower, in the form of concentrated blows against critical targets, was a theme repeated right up to the end of the war. Germans particularly relished sudden fire attack, whether by artillery or close range small arms fire from concealed positions, for its ability to shock superior attacking forces into sudden retreat. Finally, the Germans regarded counterattack as perhaps the most potent of all the defenders' weapons. Scarcely any order, training directive, or experience report published in the entire war failed to mention the "decisive" role of counterattack in restoring German defenses. German officers routinely set aside their best leaders, troops, and weapons as local reserves, and sent these crashing into the flank of any break-in at the earliest opportunity. Speed was emphasized more than mass, and for this purpose every unit in contact with the enemy from squad level up was trained to initiate its own *Gegenstoss* as soon as possible without awaiting either orders from superiors or the arrival of reserve forces. Soviet penetrations thus ideally were stung by a swarm of local counterattacks until the Russian attack stalled in place or was thrown back.

These basic principles - depth, maneuver, firepower, and counterattack - provided the common theoretical foundation upon which local commanders built their own doctrinal adaptations. Even in the absence of strong central direction, and even without an updated field manual to replace the 1933 *Truppenführung*,

these simple principles served the Germans well as a general guide to tactical improvisation.

Many of the most important stimuli for doctrinal change had little or nothing to do with Soviet conduct. There is a frequent tendency to see warfare as a vast dialectical process, in which each adversary tries to gain the upper hand in combat by adjusting his tactics to those of the enemy. (This is also true in the study of individual battles, where many historians focus on the geometry of the battlefield and so reduce the clash of enormously complex armies to a few moves and countermoves by the respective commanders.)

One of the purposes of this paper has been to show that German defensive doctrine was influenced as much by "nonbattle" factors as by Soviet tactical methods. For example, German strongpoint tactics during the winter of 1941-1942 did not follow from an assessment of Soviet vulnerabilities as some have suggested. Rather, German units were drawn to village-based strongpoints because they lacked winter equipment, because they lacked the manpower for a continuous linear defense, and because Hitler insisted upon a rigid defense in place by his beleaguered forces. That the strongpoint defense had the effect of denying the Russians access to the road network was a lucky coincidence. That the Soviets neglected to annihilate more of the German strongpoints was also coincidental, stemming as it did from certain erroneous Soviet strategic decisions and awkward operational techniques.

A major factor affecting German doctrine was Adolf Hitler. In almost every significant defensive battle fought by the German Army on the Eastern Front, German doctrinal conduct was hampered to some extent by the Führer's warped sense of priorities. From December 1941 onward, Hitler corrupted the traditional German concept of *Auftragstaktik* with his overbearing interference in operational minutiae. Another abiding millstone was the Führer Defense Order of September

1942, which codified rigid defense without retreat and forbade local maneuver. In a grand sense, these limitations on Germany's military operations can be called self-inflicted to the extent that Hitler's destiny was intertwined with that of the Reich.

Another source of change was the size, composition, and battleworthiness of the German Army. As seen, defensive tactics during the winter of 1941-1942 were dictated in part by the lack of adequate German infantry strength to man a continuous front. Changes in the weaponry and organization of German units also affected defensive capabilities. The reduction in strength of infantry divisions from nine to six battalions in 1942-1943, and then the consolidation of these into only two regiments in 1944, reduced the staying power and the tactical flexibility of German units. As the training proficiency of German troops declined in the war's latter stages, it became necessary to adjust defensive tactics accordingly.

The dialectic of combat did, of course, have some impact on doctrinal development on both sides. German experience reports regularly updated commanders on the latest tactics, and outlined possible countermeasures. The evolution of German antitank tactics, for example, was affected not only by the early ineffectiveness of German Paks but also by the increasing Soviet reliance on massed armor to overrun German defenses. Later, the practice of pre-emptive withdrawal by some German units was a calculated attempt to neutralize potent Red Army methods.

Soviet tactics were also reciprocally influenced by German defensive doctrine, a process with contemporary significance. The use of echeloned attack (still an important ingredient of Soviet and Warsaw Pact offensive doctrine) was first introduced as a means of boring through German defenses-in-depth

while warding off flank counterattacks.

Important though these dynamics were, the fact remains that German doctrinal development was bent as much by unilateral organizational changes and strategic choices as by sensitivity to Soviet progress. It would be well to remember that doctrine must not only accommodate the likely tactics of the "threat," but must also be in harmony with an army's own organizational posture, weapons, traditions, and command philosophy.

The German Army's training system proved to be both a source of strength and of weakness. At the beginning of the BARBAROSSA campaign in 1941, the German Army was the best-trained in all of Europe. This excellence extended from individual training standards clear to the maneuver and control of large combined arms forces. The German Army suffered a steady erosion of its combat skills as the war progress. Unlike the Soviet, American, and arguably even the British armies, which were qualitatively better at the end of the war than they had been at the beginning, the Germans' battleworthiness ebbed away as the war wore on. The reason for this was the inability of the German replacement and training system to produce adequate numbers of well-trained soldiers to cover combat losses.

German replacement training was decentralized, with units carrying most of the responsibility for the tutelage of their own new personnel. This produced excellent unit cohesion (at every turn the Germans did all in their power to strengthen the moral bonds within small units) and also ensured that training was directly related to local combat tasks. However, this system was inelastic, and could not be expanded to provide wholesale drafts of replacements to replace heavy losses. As a result, German units were chronically understrength throughout the war. Moreover, German policies of constantly raising new units and of occasionally committing training units to combat as emergency maneuver forces

further savaged the replacement system, unnecessarily elevating casualties while doing little to alleviate Germany's overall manpower problems.

Given the difficult conditions of climate, privation, and numerical inferiority under which the Germans fought in Russia, the cohesiveness of their small units probably sustained German combat effectiveness more than any other single factor.[5] Unit cohesion alone was an inadequate substitute for more full-strength, well-trained divisions, however. The fine piece-work system of the German Army simply broke down under the sustained attritional combat obtaining in World War II.

In some respects, overall German doctrinal development during the war paralleled the problems of the German Army's replacement and training system. The circumstances of the war in Russia, in terms of its size, its intensity, and its duration, took the Germans by surprise. Prewar doctrinal assumptions proved inaccurate, just as established peacetime training methods failed to meet the requirements of remorseless combat. Attempts to modify German tactical doctrine, like the efforts made to speed up the flow of individual replacements, occasionally provided momentary relief without coming to grips with the fundamental problem of inadequate resources. The Germans attempted to compensate for this inadequacy by doctrinal improvisation, their units using extemporized defensive techniques within certain basic guidelines. In the end, however, even the most imaginative expedients were to no avail.

NOTES

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DOCUMENTS

Numerous original German documents were consulted for this paper, and are listed in detail in the notes. These documents are from the National Archives Microcopy Series T-78 (Records of Headquarters, German Army High Command), and Series T-312 (Records of German Field Commands, Armies).

Notes

Introduction

[1]"Maneuver warfare" strategy is championed in Edward N. Luttwak, "The American Style of Warfare and the Military Balance," Survival, 21, No. 2 (March/April 1979), 57-60; Edward N. Luttwak, "The Operational Level of War," International Security, 5, No. 3 (Winter 1980/81), 61-79; Steven L. Canby, "NATO: Reassessing the Conventional Wisdoms," Survival, 19, No. 4 (July/August 1977), 164-168; Steven L. Canby, "The Army," in Reforming the Military, ed. Jeffrey G. Barlow (Washington, DC: The Heritage Foundation, 1981), pp. 29-33; and William S. Lind, "Some Doctrinal Questions for the United States Army," Military Review, 57, No. 3 (March 1977), 55-65. The US Army's former doctrine of "active defense," criticized by the maneuver advocates for being too "attritional," is defended by William E. DePuy in "Technology and Tactics in Defense of Europe," Army, 29, No. 4 (April 1979), 14-23. The efficacy of maneuver warfare in a NATO context is challenged by John J. Mearsheimer, "Maneuver, Mobile Defense, and the NATO Central Front," International Security, 6, No. 3 (Winter 1981/82), 104-122; and a historical critique of maneuver defense is given in J.R. Alford, Mobile Defence: The Pervasive Myth (A Historical Investigation) (London: Department of War Studies, King's College, 1977). (Alford discusses combat examples from the Russian Front in pp. 104-140.) Many issues in the "maneuver versus attrition" debate are summarized in articles by Phillip A. Karber, John G. Wilcox, Edward H. Cabaniss, and Steven L. Canby in "Symposium on Military Strategy in Western Europe," Armed Forces and Society, 7, No. 1 (Fall 1980), 70-87. A somewhat iconoclastic critique of both sides is T.N. Dupuy, "The Nondebate Over How Army Should Fight," Army, 32, No. 6 (June 1982), 34-45.

Notes

Chapter I

[1]The German publication that set forth the new doctrine, *Grundsätze für die Abwehrschlacht im Stellungskriege* (Principles for Defensive Combat in Positional Warfare), did not give a specific title to the new defensive technique. A British authority on German defensive doctrine during the First World War, Captain Graeme C. Wynne, suggests that the term "elastic defense" was used informally within the Imperial German Army. G.C. Wynne, If Germany Attacks: The Battle in Depth in the West (London, 1940; reprint Westport, Connecticut: Greenwood Press, 1976), pp. 156, 158-159. The German official history of the First World War used the expression "elastic battle procedure" (*das elastische Kampfverfahren*) in its discussion of the new doctrine. Oberkommando des Heeres, *Der Weltkrieg 1914-1918* (Berlin: E.S. Mittler, 1939), Band / volume / 12, p. 45. This paper will use the term Elastic Defense as a title for the German technique of defense-in-depth.

[2]Wilhelm Balck, Development of Tactics - World War, trans. Harry Bell (Fort Leavenworth, 1922), pp. 79-80.

[3]The discussion of the Elastic Defense that follows is taken from the following sources: Wynne, If Germany Attacks, pp. 148-164; Timothy T. Lupfer, The Dynamics of Doctrine: The Changes in German Tactical Doctrine During the First World War, Leavenworth Papers No. 4 (Fort Leavenworth: Combat Studies Institute, 1981), pp. 11-21; *Allgemeines über Stellungsbau* (Principles of Position Construction), 10 August 1918 edition; and *Grundsätze für die Abwehrschlacht im Stellungskrieg* (Principles for Defensive Combat in Positional Warfare), 20 September 1918 edition. The latter two sources are contained in *Urkunden der Obersten Heeresleitung*, 3rd ed., ed. Erich Ludendorff (Berlin: E.S. Mittler, 1922). Page numbers cited in subsequent notes are those in *Urkunden*.

[4]*Grundsätze*, p. 607.

[5]*Grundsätze*, p. 617.

[6]*Grundsätze*, pp. 606-615; Wynne, If Germany Attacks, pp. 209-210.

[7]Crown Prince Wilhelm of Germany, My War Experiences (London: Hurst and Blackett, 1923), p. 267.

[8]See, for example, "General Von Maur's Memorandum on the English Tank Attack of April 11, 1917," trans. David G. Rempel and Gertrude Rendtorff, in Fall of the German Empire, ed. Ralph Haswell Lutz (Stanford, California: Stanford University Press, 1932), I, 625-627.

[9]Erich Ludendorff, Ludendorff's Own Story (New York: Harper, 1919), II, 202-203.

[10]See Grundsätze.

[11]A good critique of the German 1918 strategy is given in Gordon Craig, "Delbruck: The Military Historian," in Makers of Modern Strategy, ed. Edward Mead Earle (1941; reprint New York: Atheneum, 1969), pp. 275-282. Following the First World War, an official German investigating commission examined the 1918 collapse, and later presented its findings to the Reichstag. Extracts from the commission's reports are in The Causes of the German Collapse in 1918, trans. W.L. Campbell, ed. Ralph Haswell Lutz (Stanford, California: Stanford University Press, 1934). A critical assessment of the 1918 German offensive strategy is in pp. 72-90.

[12]Balck, p. 287.

[13]"Report of the Commission of the German Constituent Assembly and of the German Reichstag, 1919-1928," in Lutz, ed., German Collapse, p. 81. See also Lupfer, pp. 48-49.

[14]Crown Prince Wilhelm, who commanded a German Army Group in the 1918 battles, wrote after the war that, "In view of the ever-increasing weight of the attack. . .it [the Elastic Defense] was without doubt right in principle, but it was dependent upon strictly-disciplined, well-trained and skillfully-led troops. As the war progressed, these conditions became increasingly difficult to fulfill." Crown Prince Wilhelm, pp. 282-283.

[15]Ludendorff, II, 341-342.

[16]Commission Report in Lutz, ed., German Collapse, pp. 71-72; Hermann Joseph von Kuhl, *Entstehung, Durchführung und Zusammenbruch der Offensive von 1918* (Berlin: Deutsche Verlagsgesellschaft für Politik und Geschichte, 1927), pp. 79-86.

[17]Balck, pp. 289-290.

[18]"Headquarters, Fifth [German] Reserve Corps: Experiences from the Fighting on the West Bank of the Meuse, 29 September 1918," in Lutz, ed., Fall of the German Empire, p. 662.

[19]Hans Ritter, *Kritik des Weltkrieges* (Leipzig: K.F. Koehler, 1920), p. 64. Published anonymously as by "A General Staff Officer."

[20]Crown Prince Wilhelm, p. 267.

[21]Balck, p. 288.

[22]A particularly impassioned version of the "stab-in-the-back" is given by Balck, quoted above, who asserted that the "criminal responsible for our fall... should be sought in the ranks of the leaders of our political parties" who ". . . placed pursuit of their own ends above the weal and woe of Germany." These cowards, according to Balck, struck down the German Army "like Hagen of old did to the unconquerable hero, Siegfried." Balck, p. 294.

[23]Captain G.C. Wynne, "The Legacy," The Army Quarterly, 39 (October 1939 and January 1940), p. 26.

[24]The early rebuilding of the German Army is described in Harold J. Gordon, Jr., The Reichswehr and the German Republic, 1919-1926 (Princeton: Princeton University Press, 1957), pp. 169-216; Herbert Rosinski, The German Army (London, 1939; revised edition Washington, D.C.: Infantry Journal, 1944), pp. 123-129; and in Albert Seaton, The German Army 1933-1945 (New York: St. Martin's Press, 1982), pp. 4-14.

[25]The most prominent spokesman of the "trench school" was General Walter Reinhardt, who served briefly as *Chef der Heeresleitung* prior to Seeckt. Reinhardt was dismissed from this position as a result of the "Kapp Putsch" in 1920. Rosinski, p. 103.

[26]Reichswehrministerium, *Führung und Gefecht der verbundenen Waffen*, D.v.Pl Nr. 487 dated 1 September 1921 (Berlin: Offene Worte, 1921), p. 223. Hereinafter cited as FuG.

[27]FuG, p. 223.

[28]FuG, pp. 221-222.

[29]FuG, p. 206.

[30]FuG, pp. 215-216.

[31]FuG, p. 192.

[32]FuG, p. 196.

[33]FuG, pp. 197-201.

[34]On Seeckt's personal dogmatism see Francis L. Carsten, The Reichswehr and Politics, 1918 to 1933 (Oxford: Oxford University Press, 1966), pp. 106-107. On his suppression of contradictory theories, see Friedrich von Rabenau, *Seeckt: Aus seinem Leben 1918-1936* (Leipzig: von Hasse und Koehler, 1940), p. 505.

[35]See *"Grundlegende Gedanken für den Wiederaufbau unserer Wehrmacht,"* in Rabenau, pp. 474-475. This same 1921 memorandum also first set forth Seeckt's idea of the Reichswehr as a *"Führerheer"* (Leader Army), a high quality cadre for a future expansion of the German Army.

[36]Rabenau, p. 511.

[37]Rabenau, p. 512.

[38]Rabenau, p. 509. For the strategic dimensions of Seeckt's theories, see Hans von Seeckt, *Die Reichswehr* (Leipzig: R. Kittler, 1933), pp. 34-64; Hans von Seeckt, Thoughts of a Soldier, trans. Gilbert Waterhouse (London: E. Benn, 1930), pp. 59-64; and Larry Addington, The Blitzkrieg Era and the German General Staff, 1865-1941 (New Brunswick, New Jersey: Rutgers University Press, 1971), pp. 28-30.

[39]Ritter, p. 47; Rosinski, pp. 81-91. Rosinski flatly states that the German decision in November 1914 "against a return to the mobile strategy of the first weeks of the war. . . *must be considered to be the real turning point of the war.*" (Italics in original text.) Hans Delbruck, the prominent German military historian and critic, argued even during the war that Germany's only hope for escape from *Stellungskrieg* lay in the direction of a political settlement, since a German military victory was no longer within reach. Craig, pp. 278-280.

[40]The military constraints upon Germany are detailed in Part V (Military, Naval and Air Clauses) of the Versailles Treaty. Article 160 limited the size and composition of the German Army; Article 171 prohibited poison gas and tanks; Article 180 prohibited fortifications along Germany's western frontiers. Table II (Armament Establishment) listed allowed types and quantities of weapons. Both antitank and antiaircraft guns were purposely excluded. The Treaty of Peace with Germany, June 28, 1919 (Washington, D.C., 1920).

[41]Paramilitary units such as the *Freikorps* and the *Stahlhelm* remained essential to the defense of the eastern frontiers until German rearmament in the mid-1930's. Carsten, pp. 149-150, 231-232, 265-268, 355-356.

[42]Gordon, pp. 254-261.

[43]Seaton, German Army, pp. 51-71. One of the earliest rearmament measures ordered by Hitler was the construction of fortifications along Germany's border with France - a repudiation not only of the Versailles Treaty but also of Seeckt's doctrines of offensive maneuver. Burkhart Mueller-Hillebrand, *Das Heer 1933-1945* (Darmstadt: E.S. Mittler und Sohn, 1954), I, 38-43.

[44]Philip C. F. Bankwitz, Maxime Weygand and Civil-Military Relations in Modern France (Cambridge: Harvard University Press, 1967), pp. 40-45. Ironically, the building of the Maginot Line was inspired in part by French fears of Seeckt's theories of preemptive offensive warfare.

[45]A summary of Beck's role in the development of all facets of German doctrine during this period is in Addington, pp. 35-38. Beck's role in restoring the Elastic Defense is spitefully discredited by Heinz Guderian in Panzer Leader, trans. Constantine Fitzgibbon (New York: E.P. Dutton, 1952), pp. 31-33. Guderian, who saw Beck as an obstacle to his own pet schemes of armored warfare, characterized Beck in his memoirs as "a paralyzing element wherever he appeared." As evidence of this, Guderian cited "his [Beck's] much-boosted method of fighting which he called 'delaying defense.' . . .In the 100,000-man army this delaying defense became the cardinal principle." Guderian credits the "fine, chivalrous, clever, careful" General Freiherr von Fritsch - who coincidentally tended to support Guderian's ideas - with jettisoning the "confusing" and "unsatisfactory" delaying defense in the early 1930's. In all of this Guderian is mistaken. The *Hinhaltendes Gefecht* was not Beck's brainchild at all, but rather part of Seeckt's schemes for defense by offensive maneuver. It was conversely through Beck's efforts in *Truppenführung* that the "delaying defense" was supplanted by the more workable Elastic Defense system. Guderian's story is repeated uncritically by Robert J. O'Neill, "Doctrine and Training in the German Army 1919-1939," in The Theory and Practice of War, ed. Michael Howard (New York: Frederick A. Praeger, 1966), p. 153.

[46]Reichswehriministerium, *Truppenführung, I Teil*, H.Dv. 300/1 dated October 1933 (1933; reprint Berlin: 1936), p. 179. Hereinafter cited as TF.I.

[47]TF.I, pp. 179-208. *Truppenführung* also made minor changes in nomenclature. The Battle Zone *(Grosskampfzone)*, for example, was retitled the Main Battle Position *(Hauptkampffeld)*.

[48]Oberkommando des Heeres, Generalstab des Heeres/Ausbildungsabteilung (II), *Der Stellungskrieg*, H.Dv. 91 dated 15 June 1938 (1938; reprint Berlin: 1940), pp. 59-90; OKH, Gen.St.d.H/Ausb.Abt.(II), *Die Ständige Front, Teil I: Die Abwehr in Ständiger Front*, H.Dv. 89/1 (Berlin: 1940), pp. 5-24. Techniques to be used in positional warfare were also written into various branch and training manuals as well. For example, see OKH, Gen.St.d.H/Ausb. Abt (II), *Ausbildungsvorschrift für die Infanterie, Heft 11: Feldbefestigung der Infanterie*, H.Dv. 130/11 (Berlin: 1940), and OKH, Gen.St.d.H./Ausb.Abt (II), *Pionierdienst aller Waffen*, H.Dv. 316 (Berlin: 1935).

[49]See, for example, *"Truppenführung. Stellungskrieg, Stosstrupp - Unternehmen und Angriff mit begrenzten Ziele,"* *Militär-Wochenblatt*, No. 23 (2 December 1938), pp. 1508-1512; and *"Truppen-Kriegsgeschichte: Gegenangriff des R.I.R. 93 am 15.8.1917,"* *Militär-Wochenblatt*, No. 38 (18 March 1938), pp. 2435-2437, and No. 39 (25 March 1938), pp. 2499-2500.

[50]Leeb's articles were compiled into book form as *Die Abwehr* (Berlin: 1938). The cited portion is from the English translation, Defense, trans. and ed. Stefan T. Possony and Daniel Vilfroy (Harrisburg, Pennsylvania: Military Service Publishing Company, 1943), p. 121.

[51]Leeb, pp. 115-119.

[52]Generalmajor Klingbeil, *"Das Problem 'Stellungskrieg,'"* *Militär-Wochenblatt*, No. 36 (19 March 1937), p. 2149.

[53]One major exception to the general trend in German strategic thought was Colonel Hermann Foertsch's The Art of Modern Warfare, trans. Theodore W. Knauth (Camden, New Jersey: Veritas Press, 1940). Foertsch theorized that modern weapons and mobility merely increased the lethality and extended the size of the battlefield. He concluded that, therefore, "the defensive has greatly gained strength as compared with the attack. . .The war of the future will see more defense than has been the case for the last hundred years." (Page 217). Foertsch was convinced that future wars would necessarily be decided by the exhaustion of one of the belligerents, and urged a defense-in-depth to conserve military resources. Foertsch later served as an army group Chief-of-Staff and commander of an infantry division.

[54]Guderian, pp. 32-33; Addington, pp. 35-38.

[55]OKH, Gen.St.d.H/Ausb.Abt (II), *Truppenführung, II Teil*, H.Dv. 300/2 (1934; reprint Berlin: 1941), pp. 8-10 *("Abwehr gepanzerter Kampffahrzeuge")*; and OKH, Gen.St.d.H/Ausb.Abt. (II), *Die Ständige Front, II Teil: Der Kampf der Infanterie* (Berlin: 1940), pp. 25-27.

[56]*Der Stellungskrieg*, pp. 77-78. See also sketch in *"Truppenführung. Stellungskrieg, Stosstrupp-Unternehmen und Angriff,"* pp. 1509-1510.

[57]Oberkommando des Heeres, *Die Infanterie*, Waffenhefte des Heeres (Munich: Deutscher Volksverlag, 1938?), p. 7; Mueller-Hillebrand, I, 158-159. The German antitank rifles were the 7.92mm *Panzerbüchse 38* and *Panzerbüchse 39*. Neither proved particularly effective in combat. The German crew-served antitank gun was the 37mm Pak, whose armor-piercing ammunition could penetrate 1.93 inches of homogeneous armor (30 degree slope) at 400 yards. War Department, Handbook on German Military Forces, TM-E 30-451 dated 15 March 1945 (Washington, DC: USGPO, 1945), pp. VII-9 - VII-10, VII-31 - VII-32.

[58]One outspoken critic of the German antitank concept was General Ludwig Ritter von Eimannsberger. Eimannsberger proposed a complete overhaul of German defensive doctrine in order to place primary importance upon antitank defense. Eimannsberger's ideas on this and other topics related to mechanized warfare are in his *Der Kampfwagen Krieg* (Munich: J.F. Lehmanns Verlag, 1934). A typescript English translation of Eimannsberger's book is at the Military History Institute, Carlisle Barracks. Antitank defense is discussed in pages 117-149 of this typescript.

[59]Ludwig Ritter von Eimannsberger, *"Panzertaktik,"* *Militär-Wochenblatt*, No. 26 (8 January 1937), pp. 1448-1453.

[60]Untitled commentary by "Major Sieberg" on fighting in Spain, *Militär-Wochenblatt*, No. 33 (11 February 1938),p. 2097. Foertsch asserted that the combination of new antitank weaponry and skillful use of elastic defense-in-depth meant that "such advantages as tanks enjoyed in 1917 and 1918 will hardly survive." Foertsch, pp. 136-137.

[61]See, for example, *"Panzerabwehr in der Praxis,"* *Militär-Wochenblatt*, No. 18 (29 October 1937), pp. 1101-1103.

[62]Guderian, p. 37; Eimannsberger, *"Panzertaktik,"* p. 1452.

[63]Eimannsberger, *Kampfwagen Krieg* (MHI typescript), p. 143.

[64]At the outbreak of the Second World War, German tank armaments were: Panzer I - two machineguns only; Panzer II - 20mm cannon; Panzer III - 37mm cannon (same ammunition and performance characteristics as 37mm Pak); Panzer IV - shortbarrelled, low velocity 75mm cannon. The last three models also had machineguns of various types.

[65]Compare Reichswehrministerium, *Führung und Gefecht der verbundenen Waffen, Teil II*, dated 20 June 1923 (Berlin: Offene Worte, 1923), p. 46; TF.I, p. 195; and Foertsch, p. 155.

[66]TF.I, p. 195; *Der Stellungskrieg*, p. 77.

[67]Edgar Röhricht, *Probleme der Kesselschlacht* (Karlsruhe: Condor-Verlag, 1958), p. xv; Hermann Metz, *"Die deutsche Infanterie,"* in *Die Deutsche Wehrmacht*, ed. G. Wetzel (Berlin: 1939).

[68]The impact of the Polish Campaign on the German Army is described in Williamson Murray, "The German Response to Victory in Poland: A Case Study in Professionalism," Armed Forces and Society, 7, No. 2 (Winter 1981).

[69]Murray, p. 289.

[70]Der Oberbefehlshaber des Heeres, Gen.St.d.H/Ausb.(Ia), Nr. 400/39g, dated 13 October 1939, *"Ausbildung des Feldheeres,"* National Archives Microfilm (NAM) Series T-312, Roll 234, Frame 7787781.

[71]OKH, Gen.St.d.H/Ausb.Abt. (II), *Richtlinien für Führung und Einsatz der Panzer-Division*, D-66 dated 3 December 1940 (Berlin: 1940). The two defense paragraphs are on page 54.

[72]Guderian, 143-144. Although the Panzer III's main gun was enlarged to 50mm, the German Army Ordnance Office selected a shorter, lower-velocity gun tube than the 50mm L60 ordered by Hitler.

[73]Some units also received Czechoslovakian 37mm antitank guns. The expansion of the German Army prior to BARBAROSSA caused many new German divisions to have fewer antitank guns of any type than authorized. Mueller-Hillebrand, II, 108. Despite the proliferation of new weapons, German antitank training remained based on dated manuals and training guides. See OKH, Gen.St.d.H/Ausb.Abt. (II), *Die Infanterie-Panzerabwehrkompanie*, H.Dv. 130/5 (Berlin: 1938); and Ritter Edler von Peter and Kurt von Tippelskirch, *Das Panzerabwehrbuch* (Berlin: Offene Worte, 1937).

[74]Josef Prinner, "Organization, Advance and Combat of the 81st Artillery Regiment in 1941," MS D-251 (Office of the Chief of Military History, n.d.), p. 2.

[75]Wynne, "Legacy," p. 29. See also Armand Mermet, Siegfried Taktik 37 (Paris: Charles-Lavauzelle, 1939).

Notes - Chapter II

[1]"Directive Number 21, 'Operation BARBAROSSA,' 18 December 1941," in George E. Blau, The German Campaign in Russia: Planning and Operations, 1940-1942, DA PAM 20-261a (Washington, DC: USGPO, 1955), p. 22.

[2]The particular merits of *"Keil und Kessel"* tactics in the BARBAROSSA campaign are discussed in Hans von Greiffenberg and others, "Battle of Moscow, 1941-1942," MS T-28 (OCMH, n.d.), pp. 91-92. For comments on the coordination of early encirclement battles see Franz Halder, The Private War Journal of Generaloberst Franz Halder, trans. Phillip Willner and others, ed. Arnold Lissance (Washington, DC: OCMH, 1950), VI, 167, 170 (entries for 24 and 25 June 1941), and VII, 1 (entry for 1 August 1941); Hermann Hoth, *Panzer-Operationen* (Heidelberg: Kurt Vowinckel, 1956), pp. 62-66; and Guderian, p. 161.

[3]The principle of the "strategic offensive, tactical defensive" was first established in German military art by Helmuth von Moltke, Chief of the Prussian (and later German) General Staff from 1857 to 1888. See Addington, pp. 3-4.

[4]At the beginning of BARBAROSSA, German panzer divisions consisted of one panzer regiment and two rifle regiments plus supporting elements. Each of the infantry regiments had only two infantry battalions, however, giving a panzer division a total organic infantry strength of only four battalions. (This total excludes divisional reconnaissance, antitank, and other combat support units that might perform missions as infantry on occasion. Some panzer divisions also contained an additional motorcycle infantry battalion under the division headquarters.) In comparison, regular German infantry divisions consisted of three infantry regiments, each of three battalions. Panzer divisions therefore had roughly half the infantry strength of infantry divisions, and were proportionately less able to hold terrain. Mueller-Hillebrand, II, 161-183.

[5]Erich von Manstein, Lost Victories, trans. and ed. Anthony G. Powell (Chicago: Henry Regnery Company, 1958), p. 185.

[6]Wolfgang Werthen, *Geschichte der 16. Panzer-Division 1939-1945* (Bad Nauheim: Hans-Henning Podzun, 1958), p. 46; Military Improvisations During the Russian Campaign, DA PAM 20-201 (Washington, DC: USGPO, 1951), p. 22.

[7]Halder, VII, 1 (entry for 1 August 1941).

[8]On 22 June 1941, all ten of the German Army's motorized infantry divisions and four Waffen SS motorized divisions *(Leibstandarte Adolf Hitler, Das Reich, Totenkopf,* and *Wiking)* were deployed on the Russian Front. Of these, all were assigned to one of the four German panzer groups except for 60th Motorized Division, which was initially held in OKH reserve. Mueller-Hillebrand, II, 190-191. Four of the Army's motorized divisions (14th, 18th, 25th, and 36th) were equipped wholly or in part with captured French materiel. Halder, VI, 48 (entry for 3 April 1941). In mid-May 1941, General Halder noted that the training of the 18th Motorized Division was "sketchy" with "no unit training" due to its late conversion from a regular infantry division. Halder, VI, 122 (entry for 17 May 1941). Motorized infantry divisions contained only two infantry regiments, and were therefore not equal to a regular infantry division in terms of their ability to occupy and defend terrain. Mueller-Hillebrand, II, 179.

[9]For a discussion of the problems inherent to subduing a "Wandering Pocket," see *"Das Phänomen der wandernden Kessel"* in Rudolf Steiger, *Panzertaktik im Spiegel deutscher Kriegstagebücher 1939-1941* (Freiburg: Rombach, 1973), pp. 52-56; and Greiffenberg, MS T-28, pp. 91-92.

[10]An account of the tactical difficulties experienced by one panzer division in defensive combat is Werthen, pp. 53-67. See also Guderian, pp. 158-167.

[11]Röhricht, p. 30; Halder, VI, 209 (entry for 7 July). On 29 June, Halder had already expressed surprise at the small number of prisoners taken in relation to the vast quantities of equipment seized, a sign that many enemy soldiers were escaping through the German lines. VI, 181 (entry for 28 June). This problem became more pronounced as the campaign progressed. On 25 August, for example, Halder wrote that "it appears that considerable enemy elements did manage to escape encirclement. . .The trouble is that our panzer divisions now have such a low combat strength that they just do not have the men to seal off any sizeable areas." VII, 64 (entry for 25 August).

[12]The inferiority of German tanks compared to the Soviet T-34 is discussed in Steiger, pp. 103-113; and in Erich Schneider, "Antitank Defense in the East," MS D-253 (OCMH, n.d.), pp. 22-25. An overview of German and Soviet tank development, including performance characteristics of specific models, is Richard M. Ogorkiewicz, Armor: A History of Mechanized Forces (New York: Frederick A. Praeger, 1960), pp. 206-236.

[13]Hermann Plocher, The German Air Force Versus Russia, 1941, ed. Harry R. Fletcher, USAF Historical Studies No. 153 (New York: Arno Press, 1968), pp. 74-75. In one of the functional redundancies typical of Nazi Germany, the Luftwaffe and the Army had overlapping air defense responsibilities in the field. Thus, those Luftwaffe flak units assigned to German combat divisions were in addition to the Army flak detachments organic to every German division.

[14]Halder, VI, 173 (entry for 26 June).

[15]Friedrich Hossbach, *Infanterie im Ostfeldzug, 1941-1942* (Osterode-Harz: Giebel und Oehlschlagel, 1951), p. 50.

[16]See TF.I, pp. 182-183.

[17]An impression of the nearly constant fighting - both offensive and defensive - performed at the small unit level during the German advance can be gained from Wilhelm Koehler, "Engagements Fought by the 499th Infantry Regiment at the Stryanitsa and Desna Rivers, 6-29 September 1941," MS D-134 (OCMH, n.d.); and Maximilian Fretter-Pico, *Missbrauchte Infanterie* (Frankfurt am Main: Verlag für Wehrwesen, 1957), p. 26.

[18]"Directive 3," issued by Marshal Semyon K. Timoshenko on the evening of 22 June 1941, ordered an all-out counteroffensive by Red Army forces. Although "virtually impossible to carry out from a purely military point of view, [Directive 3] in a way formulated the character of the war. The idea was to make unceasing and powerful counterblows." Amnon Sella, "'Barbarossa': Surprise Attack and Communication," Journal of Contemporary History, 13, No. 3 (July 1978), p. 574. See also John Erickson, "The Soviet Response to Surprise Attack: Three Directives, 22 June 1941," Soviet Studies, 23, No. 4 (April 1972), pp. 549-553. Senior

Soviet military officers recognized the futility of such an order, but for the most part endorsed its aggressive spirit. See G.K. Zhukov, *Vospominaniya i Razmyshleniya* (Moscow: Novosti Press Publishing Agency, 1971), p. 240.

[19]Prinner, MS D-251, p. 6. The stationing of artillery batteries among the infantry columns naturally had offensive benefits as well.

[20]Werner Prellberg, "Employment of Flak in an Army Defense Zone," MS D-050 (OCMH, n.d.), p. 14.

[21]German accounts are unanimous in confirming the ineffectiveness of the 37mm antitank gun. The German 50mm Pak was somewhat more effective at short ranges against the heavier Soviet tanks, but was still inadequate. See Schneider, MS D-253, pp. 5, 17; and I.G. Andronikow and W.D. Mostowenko, *Die Roten Panzer: Geschichte der sowjetischen Panzertruppen* (Munich: J.F. Lehmanns Verlag, 1963), pp. 252-254.

[22]The problems of using field artillery for antitank defense are described in Schneider, MS D-253, pp. 9-12, 27. For a somewhat heroic account of the exploits of German artillery against Russian tanks, see Eugen Beinhauer, ed., *Artillerie im Osten* (Berlin: Wilhelm Limpert Verlag, 1944), pp. 44-49, 55-58, 230-239.

[23]See Friedrich August von Metzsch, *Die Geschichte der 22. Infanterie-Division* (Kiel: Hans-Henning Podzun, 1952), pp. 19-20; Paul Carrell, Hitler Moves East 1941-1943, trans. Ewald Osers (Boston: Little, Brown and Company, 1964), pp. 76-78; Charles W. Sydnor, Soldiers of Destruction: The SS Death's Head Division, 1933-1945 (Princeton: Princeton University Press, 1977), p. 192 including footnote 68; and Fretter-Pico, p. 49.

[24]Halder, VI, 221 (entry for 10 July).

[25]Fretter-Pico, p. 25; Hans Breithaupt, *Die Geschichte der 30. Infanterie-Division 1940-1945* (Bad Nauheim: Hans-Henning Podzun, 1955), p. 119.

[26]Fretter-Pico, pp. 21-26. This same engagement is described from the standpoint of the German artillery in Prinner, MS D-251, pp. 6-7. German "Light Infantry Divisions" contained only two infantry regiments rather than three as in regular infantry divisions. Mueller-Hillebrand, II, 174-175.

[27]Ernst Ott, *Jäger am Feind: Geschichte und Opfergang der 97. Jäger-Division 1940-1945* (Munich: Kameradschaft der Spielhahnjager, 1966), p. 37.

[28]Hossbach, pp. 54-59.

[29]See Malcolm Mackintosh, Juggernaut: A History of the Soviet Armed Forces (New York: The Macmillan Company, 1967), pp. 132-136; and John Erickson, The Road to Stalingrad (New York: Harper and Row, 1975), pp. 60-73. For the tactical readiness of Soviet forces, see Amnon Sella, "Red Army Doctrine and Training on the Eve of the Second World War," Soviet Studies, 27, No. 2 (April 1975).

[30]Halder, VI, 195 (entry for 3 July).

[31]Halder, VI, 205 (entry for 6 July). This report was delivered by General

Eugen Ott. Although commanding a corps at the time this observation was given, General Ott had recently served as Inspector General of Infantry within the German Army. Ott's observations on Soviet and Russian tactics seem to have been particularly valued by Halder. General Ott's service record is in Wolf Keilig, *Das Deutsche Heer, 1939-1945: Gliederung, Einsatz, Stellenbesetzung* (Bad Nauheim: Hans-Henning Podzun, 1956), III, 243.

[32]Halder, VII, 36 (entry for 11 August).

[33]The operational problems caused by the separation of German units are discussed at length in Heinz Guderian, "Flank Defense in Far-Reaching Operations," MS T-11 (OCMH, n.d.)

[34]Halder, VI, 203 (entry for 5 July).

[35]Halder, VI, 255 (entry for 19 July).

[36]Halder, VI, 197, 272-273 (entries for 3 July and 26 July); Walter Warlimont, Inside Hitler's Headquarters 1939-1945, trans. R.H. Barry (New York: Frederick A. Praeger, 1964), p. 183.

[37]Warlimont, p. 184.

[38]Blau, p. 56.

[39]The German strategic indecision is traced in Blau, pp. 61-70, and in Warlimont, pp. 180-192.

[40]Great Patriotic War of the Soviet Union, 1941-1945: A General Outline, trans. David Skvirsky and Vic Schneierson, ed. P.N. Pospelov and others (Moscow: Progress Publishers, 1974), p. 66 (hereinafter cited as GPWSU); Werner Haupt, *Heeresgruppe Nord 1941-1942* (Bad Nauheim: Hans-Henning Podzun, 1967), pp. 78-81; *Kriegstagebuch des Oberkommandos der Wehrmacht 1940-1945*, ed. Percy Ernst Schramm, 4 vols. (Frankfurt am Main: Bernard und Graefe Verlag für Wehrwesen, 1965), vol I : *1 August 1940-31 December 1941*, pp. 465-470 (entries for 13-18 August 1941). Hereinafter cited as KTB/OKW.

[41]Breithaupt, pp. 98-110.

[42]Halder, VII, 52 (entry for 18 August).

[43]Oberkommando der Wehrmacht, WFSt/L (I Op.) Nr. 441386/41, *"Anlage 36,"* dated 15 August 1941, in KTB/OKW, I, 1045; Halder, VII, 44 (entry for 15 August).

[44]Sydnor, pp. 175-178; Manstein, pp. 199-201. Manstein's account misidentifies the Soviet units participating in the engagement.

[45]*"Operative Gedanken des Führers und Weisungen am 21. August 1941,"* KTB/OKW, I, 1061-1062; and letter from Hitler to Brauchitsch dated 21 August 1941, KTB/OKW, I, 1062-1063.

[46]Hitler's interest in strategic objectives other than Moscow predated the beginning of the BARBAROSSA campaign. Brauchitsch, Halder, and other officers

ignored this interest insofar as possible, hoping that events would favor their pet drive on Moscow. The Soviet attack near Staraya Russa in mid-August roused Hitler to action. This Russian thrust seemed to confirm Hitler's prescience about the vulneratility of the German flanks, and to discredit the judgment of Halder, who as late as 15 August did not regard the situation as serious. Halder, VII, 44 (entry for 15 August). His judgment fortified by this incident, Hitler proceeded peremptorily to order the diverging offensives to the north and south, thereby totally rejecting the strategic reasoning of his senior military advisors. Hitler added insult to injury by bluntly criticizing the Army leadership in a study dated 22 August. This criticism, together with Hitler's apparent lack of confidence in the professional skills of the Army High Command, nearly led Halder and Brauchitsch to resign. Hitler's criticism is in his signed *"Studie,"* dated 22 August 1941, KTB/OKW, I, 1063-1068. Halder regarded Hitler's decision to postpone the attack on Moscow to be "the final turning point of the Eastern campaign," and admitted that the Staraya Russa attack had helped to influence Hitler's decisions at this critical time. See Franz Halder, Hitler As War Lord, trans. Paul Findlay (London: Putnam, 1950), pp. 44-47. See also Barry Leach, German Strategy Against Russia 1939-1941 (London: Oxford University Press, 1973), pp. 209-217; Albert Seaton, The Russo-German War 1941-1945 (New York: Praeger, 1970), pp. 142-152; and Warlimont, pp. 190-192.

[47]Halder, War Journal, VII, 63 (entry for 24 August). Halder's assessment is confirmed by the strength reports of forward units. On 21 August, for example, the German Sixteenth Army (Army Group North) reported that each of its divisions had suffered at least forty per cent total casualties since the beginning of the campaign. A.O.K. 16, Ia, *"Gefechtskraft der Div., An Heeresgruppe Nord,"* dated 21 August 1941, NAM T-312/548/8156867-8156869.

[48]For an analysis of German supply problems throughout BARBAROSSA, see "Russian Roulette," in Martin van Creveld, Supplying War (London: Cambridge University Press, 1977), pp. 142-180. See also German Tank Maintenance in World War II, DA PAM 20-202 (Washington, DC: USGPO, 1954), pp. 2-3, 21-23, 26.

[49]On 16 August, Halder projected that German personnel replacements would be virtually exhausted by 1 October. War Journal, VII, 49. By 1 September, Halder was weighing the possibility of disbanding twelve divisions to cover anticipated winter losses. War Journal, VII, 79. See also Blau, pp. 71-72; and Seaton, Russo-German War, pp. 171-175.

[50]Alan S. Milward, The German Economy at War (New York: Oxford University Press, 1965), pp. 39-45; Leach, pp. 133-135, 140-145.

[51]The battles around Smolensk are described in Hans Baumann, *"Die Kesselschlacht von Smolensk und die Abwehrkämpfe westlich des Wop,"* in *Die 35. Infanterie-Division im 2. Welckrieg, 1939-1945,* ed. Hans Baumann (Karlsruhe: G. Braun GmbH, 1969), pp. 93-100; Hoth, pp. 98-102; Guderian, Panzer Leader, pp. 176-182; KTB/OKW, I, 439-458 (entries for 22 July - 8 August). According to the Soviet official history, the Russians first used their new Katyusha multiple rocket launchers in this fighting. *Istoriya Velikoi Otechestvennoi Voiny Sovetskogo Soyuza 1941-1945,* ed. P.N. Pospelov and others, 6 vols. (Moscow: Voenizdat, 1961), vol. 2, p. 66.

[52]*Istoriya,* II, 69.

[53]Guderian, Panzer Leader, pp. 181, 186. The figure of 450 miles given by Guderian on p. 186 is presumably the distance to the nearest serviceable, rebuilt railroad - probably not far from the 22 June border.

[54]Guderian, Panzer Leader, pp. 181, 182, 186; Halder, War Journal, VII, 2 (entry for 1 August).

[55]Guderian, Panzer Leader, p. 179.

[56]Plocher, pp. 107-108, 110-111.

[57]Guderian, Panzer Leader, p. 185.

[58]Guderian, Panzer Leader, p. 189.

[59]Halder, War Journal, VII, 11-12 (entry for 3 August).

[60]Plocher, p. 116.

[61]Blau, p. 65; *"Tagesmeldungen der Operations-Abteilung des GenStdH,"* KTB/OKW, I, 558, 561 (reports for 7 and 8 August).

[62]Halder, War Journal, VII, 17 (entry for 4 August).

[63]Halder, War Journal, VII, 22 (entry for 6 August).

[64]Blau, p. 65; *"Tagesmeldungen,"* KTB/OKW, I, 567 (report for 12 August).

[65]*Istoriya,* II, 73-74.

[66]Halder, War Journal, VII, 47 (entry for 15 August).

[67]Soviet air superiority is mentioned in *"Tagesmeldungen,"* KTB/OKW, I, 565 (report for 11 August).

[68]Werner Haupt, *Heeresgruppe Mitte 1941-1945* (Dorheim: Verlag Hans-Henning Podzun, 1968), p. 73.

[69]*"Tagesmeldungen,"* KTB/OKW, I, 575-589 (reports for 17-24 August); Halder, War Journal, VII, 55,70-71 (entries for 19 and 28 August). The 161st Division was replaced by the 14th Motorized Infantry Division. This unit became available for employment only through Bock's pleas to delay that unit's departure for the attack on Leningrad. *"Tagesmeldungen,"* KTB/OKW, I, 589 (report for 24 August).

[70]*"Tagesmeldungen,"* KTB/OKW, I, 591 (report for 25 August).

[71]Halder, War Journal, VII, 70 (entry for 28 August). The fighting in the V Corps sector is described in Baumann, pp. 100-102.

[72]*"Tagesmeldungen,"* KTB/OKW, I, 595 (report for 27 August).

[73]Halder, War Journal, VII, 69 (entry for 27 August).

[74]Halder, War Journal, VII, 49 (entry for 16 August).

[75]Günther Blumentritt, "Moscow," in The Fatal Decisions, ed. Seymour Freidin and William Richardson (New York: William Sloane Associates, 1956), p. 61.

[76]*Das Buch der 78. Sturm Division* (Tübingen: Buchdruckerei H. Lauppir, n.d.), pp. 59-60. The general shortage of barbed wire and mines is mentioned in Halder, War Journal, VII, 50 (entry for 16 August).

[77]*78. Sturm Division*, pp. 60-61. Other comments on the state of Yelnya defenses are in Benignus Dippold, "Commitment of the 183d Infantry Division," MS D-223 (OCMH, n.d.), p. 25. General Dippold's 183rd Division relieved the 78th Division at Yelnya between 18 and 20 September.

[78]Halder, War Journal, VII, 43, 49 (entries for 14 and 16 August); and Wilhelm Meyer-Detring, *Die 137. Infanteriedivision im Mittelabschnitt der Ostfront* (Petzenkirchen, Austria: Kameradschaft der Bergmann-Division, 1962), pp. 62-77, 274-275.

[79]*"Tagesmeldungen,"* KTB/OKW, I, 584 (report for 22 August); *Istoriya*, II, p. 75; Zhukov, p. 289. The Soviet *Reserve Front* facing Yelnya was Zhukov's first field command of the Second World War. Zhukov had previously served as Chief of the Soviet General Staff, being reassigned from that post on 29 July. Zhukov observed German tanks and assault guns dug in near Yelnya at the time of his arrival there. These presumably were elements of the German XLVI Panzer Corps. If Zhukov is correct, it means that the Germans were so pressed to occupy their thin lines at Yelnya that they violated the cardinal principle of panzer operations by posting stationary armored vehicles along their perimeter instead of holding them exclusively in reserve for counterattack.

[80]Zhukov, p. 290.

[81]Halder, War Journal, VII, 69 (entry for 27 August); Guderian, Panzer Leader, pp. 203, 208. Guderian was a difficult subordinate, and managed at one time or another to alienate all three Field Marshals under whom he served during BARBAROSSA (Brauchitsch, Bock, and Günther von Kluge) as well as General Halder, the Chief of the General Staff. On Guderian's relations with his superiors during this period, see Guderian, Panzer Leader, pp. 208-209, 210; Halder, War Journal, VII, 62, 68-69, 77 (entries for 24, 27, and 31 August); and Kenneth Macksey, Guderian: Creator of the Blitzkrieg (New York: Stein and Day, 1975), pp. 131-133, 137-138, 139-140, 148-151.

[82]*"Tagesmeldungen,"* KTB/OKW, I, 601, 603 (reports for 30 and 31 August).

[83]Small unit actions in the Yelnya area are described in Carell, pp. 90-96; and *78. Sturm Division*, pp. 62-69.

[84]*"Tagesmeldungen,"* KTB/OKW, I, 568-604 (reports for 13-31 August); Halder, War Journal, VII, 77 (entry for 31 August).

[85]Halder, War Journal, VII, 80 (entry for 2 September); *"Tagesmeldungen,"* KTB/OKW, I, 614 (report for 5 September). The Soviet official history claims that Yelnya was finally stormed by Red Army forces overrunning German defenses. However, Zhukov supports the German version by noting that the Germans voluntarily withdrew. Compare *Istoriya*, II, 75, and Zhukov, p. 292.

[86]*Istoriya*, II, 75-76.

[87]*78. Sturm Division*, p. 67; Haupt, *Heeresgruppe Mitte*, p. 78.

[88]Halder, War Journal, VII, 124 (entry for 26 September). Halder also recorded that the German armies on the Eastern Front had a net deficit of 200,000 men.

[89]Klaus Reinhardt, *Die Wende vor Moskau* (Stuttgart: Deutsche Verlags-Anstalt, 1972), p. 315; Blumentritt, "Moscow," p. 61.

[90]Quoted in Albert Seaton, The Battle for Moscow 1941-1942 (London: Rupert Hart-Davis, 1971), p. 300.

[91]Halder noted on 11 September that Army Group Center had managed to accumulate only one ammunition issue in its stockpiles. War Journal, VII, 91. Even this paltry ammunition buildup had apparently been accomplished at the expense of fuel and ration deliveries. See van Creveld, pp. 168-169, 170-171.

[92]Sydnor, pp. 170-186; Haupt, *Heeresgruppe Nord*, pp. 67-86.

[93]Leon Goure, The Siege of Leningrad (Stanford, California: Stanford University Press, 1962), pp. 83-85; Blau, pp. 73-75.

[94]*"Tagesmeldungen,"* KTB/OKW, I, 661 (report for 26 September).

[95]Halder, War Journal, VII, 106. See also Guderian, Panzer Leader, pp. 202-225; and Werthen, pp. 63-67.

[96]*"Weisung Nr. 35,"* in Walter Hubatsch, ed., *Hitlers Weisungen für die Kriegführungen 1939-1945* (Frankfurt am Main: Bernard und Graefe Verlag fur Wehrwesen, 1962), pp. 150-153; Blau, pp. 75-76.

[97]Halder, War Journal, VII, 84 (entry for 5 September).

[98]Alan F. Wilt, "Hitler's Late Summer Pause in 1941," Military Affairs, 45, No. 4 (December 1981), p. 189.

[99]Seaton, Russo-German War, pp. 177-178; Hoth, pp. 130-131.

[100]The *Totenkopf* Division was holding an extremely wide sector - approximately fifteen miles - at the time of these Russian attacks. Even so, the Waffen SS officers and soldiers seem to have been somewhat lax in preparing their defensive positions. See Sydnor, pp. 185-186, 188-197. Although Waffen SS tactical doctrine was nearly identical to that of the German Army in most respects, Waffen SS units apparently despised the elastic defense-in-depth as being unworthy of their courage and steadfastness. The SS increasingly accepted the principles of Elastic Defense as the war progressed. See Klaus Moelhoff, "Experiences with Russian Methods of Warfare and their Utilization in Training at the Waffen SS Panzer Grenadier School," MS D-154 (OCMH, n.d.), pp. 11-13. Early in the war, SS units occasionally suffered heavy casualties by putting National Socialist ardor ahead of tactical good sense. See George H. Stein, The Waffen SS: Hitler's Elite Guard at War, 1939-1945 (Ithaca: Cornell University Press, 1966), pp. 91-92.

[101]Breithaupt, pp. 123-133.

[102]Halder, War Journal, VII, 138 (entry for 4 October).

[103]Hoth, p. 136; *"Tagesmeldungen,"* KTB/OKW, I, 702 (report for 15 October). Soviet accounts of the Vyazma-Bryansk battles are vague on the subject of Russian losses. The Vyazma pocket contained the *19th, 20th, 24th,* and *32nd Armies,* while the Bryansk *Kessel* snared major elements of the *3rd* and *13th Armies.* GPWSU, pp. 86-90 (including map facing p. 88).

[104]See, for example, Walter Kranz, *"Meine Feuertaufe bei Wjasma,"* in Baumann; and the account of 6th Panzer Division in "Hedgehog Defense" at Vyazma in DA PAM 20-201, pp. 22-23. An analysis of the German tactics at Vyazma is in Greiffenberg, MS T-28, pp. 89-92.

[105]*Istoriya*, II, 240-244; Zhukov, pp. 326-329; Erickson, Road to Stalingrad, pp. 216-219.

[106]Halder, War Journal, VII, 147 (entry for 8 October); Otto Dietrich quoted in Alan Bullock, Hitler: A Study in Tyranny, revised edition (New York: Harper and Row, 1962), p. 654.

[107]Seaton, Russo-German War, p. 197.

[108]See Eberhard von Mackensen, *Vom Bug zum Kaukasus: Das III. Panzerkorps im Feldzug gegen Sowjetrussland 1941/42* (Neckargemuend: Scharnhorst Buchkameradschaft, 1967), pp. 41-42; and also the comments of Ewald von Kleist in B.H. Liddell Hart, The Other Side of the Hill, 2d ed. (London: Cassell, 1973), pp. 281-282.

[109]Halder, War Journal, VII, 187, 188, 189 (entries for 28 and 29 November). See also Rundstedt's remarks in Liddell Hart, p. 282.

[110]Halder, War Journal, VII, 193, 195 (entries for 30 November and 1 December); Seaton, Russo-German War, p. 197; Warlimont, p. 194.

[111]Halder, War Journal, VII, 196 (entry for 1 December); *"Tagesmeldungen,"* KTB/OKW, I, 786-787 (report for 1 December).

[112]Plocher, p. 222.

[113]Seaton, Russo-German War, p. 194.

[114]Mackensen, p. 44.

[115]Halder, War Journal, VII, 173 (entry for 21 November).

[116]Werthen, p. 76.

[117]Halder, War Journal, VII, 195 (entry for 1 December).

[118]A secret General Staff memorandum dated 6 November 1941 calculated the effective strength of the 136 German divisions deployed in Russia to be that of only 83 full-strength divisions. Infantry divisions averaged 65% of full combat strength, while motorized infantry divisions and panzer divisions were rated at 60% and 35% respectively. *"Beurteilung der Kampfkraft des Ostheeres,"* KTB/OKW, I, 1074-1075.

[119]For accounts of TAIFUN's final phase, see Reinhardt, pp. 162-171; Seaton, Battle for Moscow, pp. 152-169; Alfred Turney, Disaster at Moscow: Von Bock's Campaigns 1941-1942 (London: Cassell and Company, 1971), pp. 136-151; and Greiffenberg, MS T-28, pp. 61-73.

[120]Halder, War Journal, VII, 170, 178, 190 (entries for 19, 23, and 29 November).

[121]*"Weisung Nr. 39,"* in Hubatsch, ed., pp. 171-174. The Army's implementing directive, *"Weisung für die Aufgaben des Ostheeres im Winter 1941/42,"* is in KTB/OKW, I, 1076-1082.

Notes - Chapter III

[1] *"Anlage 1 zu OKH, GenStdH, Op.Abt.(Ia) Nr. 1693141,"* in KTB/OKW, I, 1075-1076. See also Blau, p. 91; Reinhardt, pp. 202-204; and Greiffenberg, MS T-28, pp. 134-136.

[2] Guderian, Panzer Leader, p. 260.

[3] Army Group Center War Diary, quoted in Reinhardt, p. 214; Halder, War Journal, VII, 209 (entry for 8 December).

[4] Halder, War Journal, VII, 206 (entry for 7 December).

[5] *Istoriya,* II, 280-281; Halder, War Journal, VII, 206, 211 (entries for 7 and 10 December); and Guderian, Panzer Leader, pp. 261-261. The fighting withdrawal of the 10th Motorized Division from its positions east of Tula is described in August Schmidt, *Geschichte der 10. Division, 1933-1945* (Bad Nauheim: Podzun-Verlag, 1963), pp. 117-119. Retreats by the 10th Motorized Division and by the 296th Infantry Division both opened critical gaps in the German front that could not immediately be closed. See Hossbach, pp. 170-171; and Halder, War Journal, VII, 215 (entry for 12 December).

[6] *Istoriya*, II, 281; Halder, War Journal, VII, 212, 215 (entries for 10 and 12 December); Guderian, Panzer Leader, p. 262; and Greiffenberg, MS T-28, p. 33.

[7] Halder, War Journal, VII, 225 (entry for 15 December).

[8] Guderian argues that some of the intermediate positions occupied by the Germans in October during the advance on Moscow had been partially fortified, and so constituted rearward positions of a sort. This is probably an exaggeration. At best these positions would have consisted of hastily-prepared bunkers and trenches without minefields or other obstacles. All would probably have been buried by the intervening snowfall. Field Marshal von Bock, Guderian's superior, discounted the value of any such positions. Compare Guderian, Panzer Leader, pp. 259, 262; and Seaton, Battle for Moscow, p. 181.

[9] See comments by General Günther Blumentritt and General Kurt von Tippelskirch described in Liddell Hart, pp. 284, 289; and Greiffenberg, MS T-28, pp. 58-59. One particularly eerie reminder of the 1812 campaign was the Kutusov Monument at Borodino, commemorating the Russian Field Marshal's victorious efforts to repel Napoleon's invasion. Several German divisions passed by that site during their own winter retreats, an omen that did not go unremarked. See Meyer-Detring, p. 100; and Gareis, picture facing p. 176, and p. 177.

[10] Guderian, Panzer Leader, p. 259; Halder, War Journal, VII, 221-222 (entry for 14 December).

[11] Halder, War Journal, VII, 224 (entry for 15 December); Reinhardt, p. 214; and Greiffenberg, MS T-28, p. 119.

[12] Seaton, Battle for Moscow, p. 181; Seaton, Russo-German War, p. 227;

(entry for 16 December); *"Abschrift, OpAbt (IM) Nr. 1725/41"* dated 16 December 1941 in KTB/OKW, I, 1083.

[13]Halder, War Journal, VII, 227 (entry for 16 December). Schmundt was completely dedicated to Hitler, and had made a recent visit to Army Group Center's headquarters. While Schmundt was there, Bock had incautiously confessed his own misgivings about a winter retreat. Schmundt reported these to Hitler, who used them as ammunition to refute the recommendations of Brauchitsch, Halder, and even Bock. See Seaton, Battle for Moscow, pp. 180-181.

[14]Seaton, Battle for Moscow, pp. 178-179; Halder, War Journal, VII, 227 (entry for 16 December).

[15]*"Fernschreiben, GenStdH, OpAbt (III) Nr. 1736/41"* dated 18 December 1941 in KTB/OKW, I, 1084.

[16]See Bullock, pp. 665-669; Walter Görlitz, History of the German General Staff, 1657-1945, trans. Brian Battershaw (New York: Praeger, 1953), pp. 404-406; and Gordon Craig, The Politics of the Prussian Army 1640-1945 (London: Oxford University Press, 1955), pp. 468-503. Hitler's "standfast order" was almost universally opposed by higher level commanders, and most made no secret of their dislike of Hitler's instructions. See Reinhardt, p. 222.

[17]Halder, War Journal, VII, 193, 206 (entries for 30 November and 7 December).

[18]The Goebbels Diaries, 1942-1943, ed. and trans. Louis P. Lochner (Garden City, New York: Doubleday, 1948), pp. 135-136.

[19]Halder, Hitler as Warlord, p. 49.

[20]Guderian, Panzer Leader, pp. 263-270.

[21]Halder, War Journal, VII, 250 (entry for 8 January 1942). Not all of the sanctions against Hoepner were enforced. See Seaton, Russo-German War, p. 236. Hoepner wore his uniform on at least one later occasion - as an accomplice in the 20 July 1944 attempt to assassinate Hitler and seize control of the German government. See Gerald Reitlinger, The SS: Alibi of a Nation, 1922-1945 (Englewood Cliffs, N.J.: Prentice-Hall, 1981), pp. 321-322.

[22]Seaton, Russo-German War, p. 245; Haupt, *Heeresgruppe Nord*, p. 111.

[23]A brief summary of major command changes, including relief dates, is in Andreas Hillgruber, *"Einführung,"* KTB/OKW, II, 39-40. Görlitz counts General Karl von Stülpnagel, who was relieved from command of the Seventeenth Army in early October, as a victim of Hitler's vengeance as well. However, Stülpnagel's relief seems to have been primarily the result of criticism by Rundstedt and Brauchitsch of Stülpnagel's timid leadership. Compare Görlitz, p. 403; and Halder, War Journal, VII, 138 (entry for 4 October). See also Guderian, Panzer Leader, pp. 273-274.

[24]See testimony of General August Winter in Trial of the Major War Criminals before the International Military Tribunal, Nuremberg, 14 November 1945 - 10 October 1946 (Nuremberg: Secretariat of the Tribunal, 1948), XV, 604-605. Most changes of senior commanders were publicly represented as being due to the incumbent's ill health. Poor health was a contributing factor in the replacement

of some officers, several of whom were more than 60 years of age. (Rundstedt, born in 1875, had actually been called out of retirement to take command of an army group in 1939.) Brauchitsch, Bock, and Strauss, to name three, were all suffering from physical ailments at the time of their reliefs. However, Hitler's primary intent was to remove uncooperative senior officers, not just unhealthy ones.

[25]Seaton, Battle for Moscow, pp. 222-226.

[26]T.N. Dupuy, A Genius for War: The German Army and General Staff, 1807-1945 (Englewood Cliffs, N.J.: Prentice-Hall, 1977), p. 116. See also Hofmann, p. 178.

[27]Halder, War Journal, VII, 197 (entry for 3 July). Hitler had an intellectual grasp of *Auftragstaktik*, even if he found it difficult to tolerate in practice. In one of the rambling monologues that he periodically inflicted on his dinner guests, Hitler had remarked on 1 August 1941 that: "The Wehrmacht gives its highest distinction to the man who, acting against orders, saves the situation by his discernment and decisiveness." Hitler's Table Talk 1941-1944: His Private Conversations, 2d ed., trans Norman Cameron and R.H. Stevens (London: Weidenfeld and Nicholson, 1953; reprint ed., 1973), p. 19.

[28]Frido von Senger und Etterlin, Neither Fear Nor Hope, trans George Malcolm (New York: E.P. Dutton, 1964), pp. 219-222.

[29]*"197. Inf. Division Abt.Ia Nr. 264/42. Betr.: Fragebogen"* dated 10 May 1942, NAM T-78/202/6145735.

[30]Hossbach, p. 170.

[31]Hossbach, p. 171. See also the experiences of the 52nd Infantry Division described in Lothar Rendulic, "Combat in Deep Snow," MS D-106 (OCMH, 1947), pp. 12-14.

[32]Rudolf von Roman, "The 35th Infantry Division Between Moscow and Gzhatsk," MS D-285 (OCMH, 1947), p. 8.

[33]Gareis, pp. 178-179.

[34]Roman, MS D-285, pp. 3-6, 22-30.

[35]Greiffenberg, MS T-28, p. 123.

[36]A discussion of the problems afflicting German weapons in deep snow and severe cold is in *"Anlage zu Gen.Kdo. XX.A.K. Ia Nr. 2644/42 (Erfahrungen im Winterfeldzug)"* dated 16 May 1942, NAM T-78/202/6145569, 6145578-6145581 (hereinafter cited as *"XX. A.K. - Erfahrungen"*); and in *"5 Panzer-Division Abt Ia Nr. 427/42. Erfahrungsbericht der 5. Panzer-Division über den Winterkrieg 1941/42 in Russland"* dated 20 May 1942, NAM T-78/202/6145541-6145542. Though the German Army had previously developed a shaped-charge antitank shell, bureaucratic resistance had limited distribution of this ammunition. According to Greiffenberg, an appeal directly to Hitler by Field Marshal von Kluge helped to speed up deliveries of this ammunition, which stiffened German antitank defense somewhat. See Greiffenberg, MS T-28, p. 140.

[37]Greiffenberg, MS T-28, p. 123; Hofmann, p. 163.

[38]Hossbach, pp. 173-174.

[39]Hofmann, p. 162; Greiffenberg, MS T-28, p. 139. Through 5 January 1942, total German officer losses on the Eastern Front amounted to 26,775 killed, wounded, and missing. In view of the shortage of combat officers, General Halder agreed on 3 January that the "promotion of First Lieutenants and Captains must be accelerated, as nearly all are commanding battalions now." Halder, War Journal, VII, 248 (entries for 3 and 5 January).

[40]Hossbach, p. 173. See also *"263. Infanterie Division. Der 1. Generalstabsoffizier (Anlage 5 zu A.O.K. 4 Ia Nr. 677/42)"* dated 21 August 1942, NAM T-312/184/7730365; and *"XXXXIII A.K. Der Chef der Generalstabes Ia Nr. 1391/42. Betr.: 'Stützpunkt,' 'Widerstandlinie'"* dated 22 August 1942, NAM T-312/184/7730355.

[41]Meyer-Detring, p. 114. The gradual adoption of strongpoint tactics in the 34th Infantry Division is traced by the commander of the 107th Infantry Regiment in *"Infanterie-Regiment 107 Kommandeur. Betr., 'Stützpunkt' oder Widerstandlinie. Bericht eines Truppenkommandeurs"* dated 17 August 1942, NAM T-312/184/7730359-7730360.

[42]Greiffenberg, MS T-28, p. 283d.

[43]Baumann, p. 137.

[44]Panzer Group 3 War Diary, 19 December 1941, quoted in Reinhardt, p. 207.

[45]Roman, MS D-285, p. 9; Gerhard Dieckhoff, *Die 3. Infanterie-Division* (Göttingen: Erich Borries, 1960), p. 149; Horst Grossmann, *Geschichte der rheinisch-westfalischen 6. Infanterie-Division 1939-1945* (Bad Nauheim: Hans-Henning Podzun, 1958), p. 103. Some divisions disbanded entire infantry battalions, using those personnel as fillers in other units. The 78th Division, for example, disbanded one battalion in each of its regiments. In the case of the 78th Division, those disbanded battalions were never reconstituted. See *78. Sturm Division*, p. 151.

[46]Panzer Group 3 War Diary, 19 December 1941; Panzer Group 4 War Diary, 18 December 1941; both quoted in Reinhardt, p. 207.

[47]Allen F. Chew, Fighting the Russians in Winter: Three Case Studies, Leavenworth Papers No. 5 (Fort Leavenworth: Combat Studies Institute, 1981), p. 33; Greiffenberg, MS T-28, p. 272; Effects of Climate on Combat in European Russia, DA PAM 20-291 (USGPO, 1952), pp. 3-4.

[48]On taking command of the German Army on 19 December, Hitler cited the inadequate cold weather provisions as proof of the "mechanical," uninspired spirit of the Army's officer leadership. Halder, War Journal, VII, 233 (entry for 19 December). Concerning the winter clothing drive, see Goebbels Diaries, pp. 130-131, 136. The *Sicherheitsdienst* (Security Service, or SD), whose unsavory activities included monitoring German civilian morale, noted in a secret report on 22 January 1942:

> As regards the reasons for and the implications of the wool collection [Nazi Party clothing drive], the event...has affected the population in

AD-A140 366 STANDING FAST: GERMAN DEFENSIVE DOCTRINE ON THE RUSSIAN 5/5
FRONT DURING THE.. (U) ARMY COMMAND AND GENERAL STAFF
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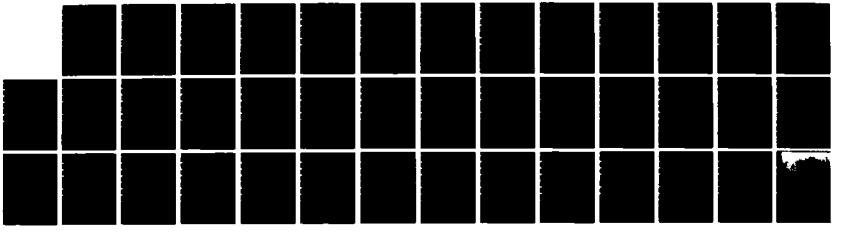

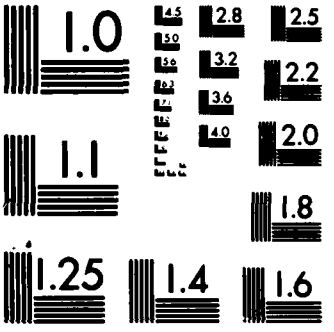

MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

the civilian sector more than any other since the beginning of the war... People had seen in the dismissal of Brauchitsch an indirect reply to the many questions as to who was responsible for the failures to provide winter clothing.

See Documents on Nazism, 1919-1945, ed. Jeremy Noakes and Geoffrey Pridham (New York: Viking Press 1975), pp. 661-662. See also The Secret Conferences of Dr. Goebbels: The Nazi Propaganda War 1939-1943, ed. Willi A. Boelcke, trans. Ewald Osers (New York: E.P. Dutton, 1970), pp. 196-197, 199-200, 223-224.

[49]Guderian, for example, consistently blames the OKH (the Army's leadership) for his supply problems, and claims that the problem of winter clothing "would have been the easiest to avoid of all our difficulties" had senior General Staff planners only exercised sufficient forethought. Guderian absolves Hitler from responsibility by asserting that the Army's Quartermaster General lied to Hitler about winter clothing deliveries, so that Hitler was unaware of any deficiency until informed of it by Guderian on 20 December. (Guderian also credits himself with having inspired the Nazi Party's clothing collection with his complaints. Based on entries in Goebbels' diary predating Guderian's 20 December meeting with Hitler, Guderian's claim is greatly exaggerated.) Guderian, Panzer Leader, pp. 233-234, 235, 237, 266-267. See also Greiffenberg, MS T-28, p. 141, where one of the German officer authors blames the winter clothing shortage on the "lack of foresight on the part of competent headquarters."

[50]Halder, War Journal, VI, 216 (entry for 9 July), and VII, 7, 159 (entries for 2 August and 10 November). See also Goebbels - Secret Conferences, pp. 191-192.

[51]Mueller-Hillebrand, III, 30; and van Creveld, pp. 173-174.

[52]Greiffenberg, MS T-28, pp. 275-276; Effects of Climate, p. 19; and Guderian, Panzer Leader, pp. 265-266.

[53]Van Creveld, p. 174. See also Seaton, Russo-German War, pp. 218-219; and Greiffenberg, MS T-28, p. 210.

[54]German "summer" clothing included a long wool overcoat which, with some padding from straw or newspapers, made a passable winter outer garment. Many German troops supplemented this by removing suitable winter clothing items from Soviet corpses and, in some cases at least, probably from Russian prisoners as well. Such expedients were risky, however. A regimental order to soldiers of the 488th Infantry Regiment dated 17 December 1941 directed that German soldiers in the forward lines wear only German uniform items, since German prisoners taken wearing Russian garments were being regarded by the enemy as looters and "handled accordingly" (i.e. shot). German combat troops were ordered to "exchange" any such Russian items with troops assigned to rearward units, a directive that was in all likelihood widely ignored. See *"Regimentsbefehl," Anlage 16* in Meyer-Detring, p. 277.

[55]Hossbach, p. 168. See also Gareis, p. 201, and Guderian, Panzer Leader, pp. 266-267. German frostbite casualties alone during the winter of 1941-1942 exceeded 250,000, while total German losses (killed, wounded, missing, sick) from December 1941 - March 1942 amounted to 723,200. See Berthold Mikat, *"Die Erfrierungen bei den Soldaten der deutschen Wehrmacht in letzten Weltkrieg,"*

MS P-062 (OCMH, 1951), Appendix 8, pp. 2,3; and Mueller-Hillebrand, III, 171, 206. Seaton estimates total German casualties (including frostbite) at 900,000 for the winter period. However, as not all frostbite casualties were unfit for duty, this figure probably overestimates the actual loss of German effectives. Seaton, Russo-German War, p. 228.

[56]Quoted in Steiger, p. 136.

[57]A medical briefing to General Halder on 9 March 1942 reported 10,204 cases of typhus, of which 1,349 had proved fatal. Halder, War Journal, VII, 281 (entry for 9 March).

[58]Baumann, p. 135; Chew, p. 38. Detailed reports on problems with German equipment (radios, vehicles, etc.) during winter conditions are in *"78. Inf. Division Ia/Org. Nr. 243/42. Erfahrungsbericht"* dated 9 May 1942, NAM T-78/202/6145688-6145692; *"XX. A.K. - Erfahrungen,"* NAM T-78/202/6145581-6145585; and *"197. Inf. Division. Fragebogen,"* NAM T-78/202/6145742-6145744.

[59]A brief contemporary discussion of the reasons for adopting the strongpoint defense may be found in *"Hptm. Haderecker, Kdr, I./Inf. Rgt. 20 (mot). Betr.: Erfahrungsbericht. Stützpunktsystem oder H.K.L."* dated 17 August 1942, NAM T-312/184/7730344-7730345; *"10. Inf. Div. (mot) Ia (Anlage zu A.O.K. 4 Ia Nr. 4885/42). Stützpunktartige Verteidigung oder durchlaufende Verteidigungssystem"* dated 20 August 1942, NAM T-312/184/7730340-7730341; and in *"Generalkommando LVI. Pz.Korps. Der Chef des Generalstabes. Stellungnahme zur Frage Stützpunkte oder Widerstandslinie. (Anlage zu A.O.K. 4 Ia Nr. 4885/42)"* dated 1 September 1942, NAM T-312/184/7730332-7730333. The first of these documents gives the views of a battalion commander, the second those of a division staff officer, and the third the views of a panzer corps chief-of-staff. Though each sees the problem from a slightly different perspective, their conclusions are similar to those given in the text.

[60]*"Oberkommando der Wehrmacht Nr. 442277/41 WFSt/op(H)"* dated 26 December 1941, in KTB/OKW, I, 1086-1087.

[61]Greiffenberg, MS T-28, p. 189.

[62]*"A.O.K. 4 Ia Nr. 166/42. Abschrift"* dated 23 January 1942, NAM T-78/202/6146773-6146775. That this document received wide circulation is evident from the fact that the copy in the National Archives microfilm collection shows a supplementary document reference number assigned by Army Group Center (*"H.Gr. Mitte, Ia Nr. 826/42"*), and also from the fact that this document was found at the end of the war in a file folder of the Training Branch of the German General Staff. The combat actions upon which this document was based - defense of the Roslavl-Yukhnov-Moscow "Rollbahn" supply artery - are briefly described in Schmidt, pp. 123-127. In an enlightening aside, Schmidt notes that this "Rollbahn" was the first asphalt-paved road that the 10th Motorized Division had yet encountered in the entire Russian campaign.

[63]After-action report of 35th Infantry Division, attached as annex to *"Generalkommando IX. Armeekorps Ia Nr. 916/42. Betr.: Erfahrungsbericht aus dem Winterkrieg 1941/42"* dated 3 July 1942, NAM T-78/202/6145647. This annex is untitled and undated, having only the handwritten notation *"35. Inf. Division"* written across the top of the first page. It is identified as *"Erfahrungsbericht*

der 35. I.D." on the coversheet of the IX Corps report cited above, NAM T-78/202/6145611. Cited hereinafter as *"Erfahrungsbericht - 35. I.D."* See also *"78. Inf. Division Ia/Org. Nr. 243/42. Erfahrungsbericht"* dated 9 May 1942, NAM T-78/202/6145680.

[64] *"A.O.K. 4 Ia Nr. 166/42. Abschrift,"* NAM T-78/202/6146773-6146774.

[65] Greiffenberg, MS T-28, pp. 192-193.

[66] *"A.O.K. 4 Ia Nr. 166/42. Abschrift,"* NAM T-78/202/6146775.

[67] *"87. Inf.-Div., Ia Nr. 273/42"* dated 9 May 1942, NAM T-78/202/6145707. See also *"331. Infanterie Division. Der 1. Generalstabs-Offz. Betr.: Erfahrungsbericht - Widerstandlinie-Stützpunkte"* dated 25 August 1942, NAM T-312/184/7730353.

[68] *"Erfahrungsbericht - 35. I.D.,"* NAM T-78/202/6145647.

[69] *"7. Division Ia/Nr. 0479/42: Betrifft: Beantwortung des Fragebogens des Panzer-A.O.K. 4 über Wintererfahrungen"* dated 11 May 1942, NAM T-78/202/6145631. Cited hereinafter as *"7. Division - Wintererfahrungen."*

[70] Greiffenberg, MS T-28, p. 187.

[71] Compare, for example, differing priorities of work developed by 7th Infantry Division, *"7. Division - Wintererfahrungen,"* NAM T-78/202/6145632; 35th Infantry Division, *"Erfahrungsbericht - 35. I.D.,"* NAM T-78/202/6145647; and 87th Infantry Division, *"87. Inf.-Div.,"* NAM T-78/202/6145706.

[72] *"Erfahrungsbericht - 35. I.D.,"* NAM T-78/202/6145649. See also Paul Schulz, "Position Warfare in Winter 1941-42 and Experiences," MS D-298 (OCMH, 1947), pp. 4-12.

[73] *"Erfahrungsbericht - 35. I.D.,"* NAM T-78/202/6145650.

[74] Willibald Utz, "Experiences of a Mountain Infantry Regiment During the Battle of the Volkhov River (Mar-May 1942)," MS D-291 (OCMH, 1947), pp. 20-23; *"A.O.K. 4 Ia Nr. 166/42. Abschrift,"* NAM T-78/202/6146775; and *"Oberst Heine, Kommandeur des Inf. Regt. 449. Betr.: Kampferfahrungen: Stützpunkt oder Widerstandlinie"* dated 17 August 1942, NAM T-312/184/7730364.

[75] *"Erfahrungsbericht - 35. I.D.,"* NAM T-78/202/6145649-6145650.

[76] *"87. Inf.-Div.,"* NAM T-78/202/6145708. See also *"Erfahrungsbericht - 35. I.D.,"* NAM T-78/202/6145650; and Fritz Wentzell, "Combat in the East," MS B-266 (Historical Division, EUCOM: 1952), p. 44.

[77] *"Erfahrungsbericht - 35. I.D.,"* NAM T-78/202/6145650-6145651; *"87. Inf.-Div.,"* NAM T-78/202/6145708. The 7th Division rigged even its antitank mines with tripwires. See *"7. Division - Wintererfahrungen,"* NAM T-78/202/6145633.

[78] Gustav Hoehne, "In Snow and Mud: 31 Days of Attack Under Seydlitz During Early Spring of 1942," MS C-034 (Historical Division, USAREUR: 1953), p. 5.

[79] *"7. Division - Wintererfahrungen,"* NAM T-78/202/6145632; *"Erfahrungsbericht - 35. I.D.,"* NAM T-78/202/6145650; Schulz, MS D-298, p. 9; Roman, MS D-285, pp. 32-33.

[80] Roman, p. 33. A sketch of this type obstacle is in *"197. Inf. Division. Fragebogen,"* NAM T-78/202/6145754.

[81] *"7. Division - Wintererfahrungen,"* NAM T-78/202/6145633.

[82] *"78. Inf. Division. Erfahrungsbericht,"* NAM T-78/202/6145683. Other divisions disputed the value of this tactic. The 6th Infantry Division, for example, reckoned that Soviet winter clothing allowed the Russians to spend nights wherever they pleased, and the telltale smoke of burning villages seemed only to invite Russian artillery fire. Grossmann, p. 93.

[83] Grossmann, p. 99.

[84] *"Lagebericht AOK 6 an OKH/Fremde Heere Ost, v. 27.12.41,"* quoted in Rudolf Hofmann, *"Das XXIX. A.K. in der Abwehr auf breiter Front am Nordfluegel der 6. Armee im Winter 1941/42,"* MS P-143b(V) (Historical Division, USAREUR: 1954), pp. 65-66.

[85] Otto Zeltmann, "Closing of the Large Gap in the Front Between Demidov and Velikiye Luki in 1942," MS D-231 (OCMH, 1947), pp. 9-12.

[86] *"Erfahrungsbericht der 5. Panzer-Division,"* NAM T-78/202/6145531.

[87] *"87. Inf. Div.,"* NAM T-78/202/6145707. See also *"7. Division - Wintererfahrungen,"* NAM T-78/202/6145631.

[88] Patrolling techniques varied greatly between units. The 7th Division preferred to dispatch its patrols only when absolutely necessary to clarify the enemy situation, and considered the half-light of dawn or early evening best-suited for reconnaissance work. In contrast, the 78th Division considered daytime patrols useless and sent forth its scouting parties mostly by night. Compare *"7. Division - Wintererfahrungen,"* NAM T-78/202/6145634, and *"78. Division. Erfahrungsbericht,"* NAM T-78/202/6145682. See also *"IX. Armeekorps. Erfahrungsbericht,"* NAM T-78/202/6145615.

[89] *"331. Infanterie Division. Erfahrungsbericht,"* NAM T-312/184/7730353.

[90] *"98. Inf. Division Ia. An den Herrn Chef des Generalstabes des Gen.Kdo XII. A.K."* dated 21 August 1942, NAM T-312/184/7730379. The 98th Division preferred a continuous, linear-style defensive front, and considered strongpoints useful mainly in the depth of the defensive zone.

[91] See Zeltmann, MS D-231, p. 2; Greiffenberg, MS T-28, p. 75; *"XXXXIII A.K.,"* NAM T-312/184/7730356; *"263. Infanterie Division,"* NAM T-312/184/7730365; and *"197. Inf. Division. Fragebogen,"* NAM T-78/202/6145735.

[92] See *"197. Inf. Division. Fragebogen,"* NAM T-78/202/6145736; *"Erfahrungsbericht - 35. I.D.,"* NAM T-78/202/6145651-6145652; *"7. Division - Wintererfahrungen,* NAM T-78/202/6145633; *"Infanterie-Regiment 487 Kommandeur. Betr.: Kampferfahrung Stützpunkt - Widerstandlinie"* dated 21 August 1942, NAM T-312/184/7730347; and

"Der Chef des Generalstabes der 2. Armee. 2403/42 Betr.: Stutzpunkt oder Widerstandlinie" dated 8 September 1942, NAM T-312/1660/000852; and Breithaupt, p. 157.

[93] *"87. Inf. Div.,"* NAM T-78/202/6145708.

[94] *"197. Inf. Division. Fragebogen,"* NAM T-78/202/6145736.

[95] *"Erfahrungsbericht - 35. I.D.,"* NAM T-78/202/6145651. See also Roman, MS D-285, pp. 10-11; *"87. Inf. Div.,"* NAM T-78/202/6145708; *"5 Panzer-Division - Erfahrungsbericht,"* NAM T-78/202/6145532; and *"Hptmn. Haderecker - Erfahrungsbericht,"* NAM T-312/184/7730346.

[96] *"78. Inf. Division. Erfahrungsbericht,"* NAM T-78/202/6145681.

[97] *"Erfahrungsbericht - 35. I.D.,"* NAM T-78/202/6145652. See also Roman, MS D-285, pp. 31-32.

[98] Roman, MS D-285, p. 31.

[99] The composition of local reserves, together with general techniques for immediate counterattack, are discussed in *"197. Inf. Division. Fragebogen,"* NAM T-78/202/6145736; *"XX. A.K. - Erfahrungen,"* NAM T-78/202/6145568-6145569; and *"7. Division - Wintererfahrungen,"* NAM T-78/202/6145633-6145634.

[100] Fretter-Pico, p. 66.

[101] Fretter-Pico, p. 67. The 97th Light Infantry Division's battles are described briefly in pp. 63-67. This unit's remarkable success earned it the following entry in Halder's diary on 15 December: "97th Division has put up a very good fight. Good work, Fretter-Pico!" Halder, War Journal, VII, 224.

[102] Erickson, Road to Stalingrad, pp. 269-270.

[103] A. Yekomovskiy, *"Taktika sovietskoi armii v velikoi otechestvennoi voinye,"* Voyenny Vestnik, No. 4 (April 1967), p. 14.

[104] Quoted in A. Ryazanskiy, *"Taktika tankovikh voisk v godi velikoi otechestvennoi voinie,"* Voyenny Vestnik, No. 5 (May 1967), p. 18.

[105] Yekimovskiy, p. 14.

[106] Yekimovskiy, p. 14.

[107] G.K. Zhukov, *"Kontrnastupleniye pod Moskvoi,"* Voyenno-Istorichesky Zhurnal, October 1966, p. 77.

[108] A case in point is that of the 78th Infantry Division of the IX Corps. After days of heavy fighting against Soviet attacks on the 78th Division's front, it was learned on 13 December that a heavy Soviet blow had broken the thin strongpoint line of the neighboring 267th Infantry Division. On 14 December the 78th Division lost all contact with other German forces, and discovered that strong Russian elements had taken up blocking positions across the division's rear. Under cover of darkness on the night of 14-15 December, the 78th Division initiated a breakout through the surrounding Soviet ring. Although harassed

by Russian tanks and cavalry, the 78th Division successfully picked its way past enemy units and rejoined German forces on the Ruza River on 18 December. The other divisions of the IX Corps had similar experiences. See *78. Sturm Division*, pp. 123-141.

[109]Zhukov, *"Kontrnastupleniye,"* pp. 71-72.

[110]Mueller-Hillebrand, III, 31.

[111]Blau, pp. 100-101.

[112]See Martin Jenner, *Die 216./272. Niedersachsische Infanterie-Division, 1939-1945* (Bad Nauheim: Podzun Verlag, 1964), pp. 47-53.

[113]Zeltmann, MS D-231, p. 4.

[114]Erickson, Road to Stalingrad, p. 298.

[115]Erickson, Road to Stalingrad, p. 302.

[116]Erickson, Road to Stalingrad, pp. 319-322, 331-332, 352-353.

[117]Zhukov, *Vospominaniya*, pp. 355-357; *Istoriya*, II, 325-332. These deep strikes were also supported by sizable airborne forces. General Halder was relieved that these Soviet thrusts lacked sufficient strength to achieve major success. On 2 February 1942, Halder wrote:

> The scenes in this battle behind the front are absolutely grotesque and testify to the degree to which this war has degenerated into a sort of slugging bout which has no resemblance whatever to any form of warfare we have known. An instance in point is the inept commitment of a group of several divisions...against the deep flank of Army Group Center. It is ineffectual as an operational measure and will merely serve to pin down some of our forces for a while, without producing any decisive results.

Halder, War Journal, VII, 263.

[118]Halder, War Journal, VII, 254. The deteriorating situation on the front of Army Group Center is discussed in detail in Reinhardt, pp. 245-255.

[119]*"Führerbefehl an die H.Gr. Mitte vom 15. Januar 1942 zum Rückzug auf die 'Winterstellung,' Gen.St.d.H./Op.Abt.(I) Nr. 420021/42,"* in KTB/OKW, II2, 1268-1269. The new defense line authorized by Hitler was essentially the same as that urged by Bock a month earlier.

[120]Seaton, Russo-German War, p. 233. See also Hossbach, p. 173; Grossmann, p. 94; and Greiffenberg, MS T-28, p. 187.

[121]Erickson, Road to Stalingrad, pp. 299-300.

[122]Zhukov, *Vospominaniya*, p. 357. On 1 February 1942 Zhukov was named commander of *Western Theater* in addition to *Western Front*. In this new capacity he also exercised operational control over the *Kalinin* and *Bryansk Fronts*.

[123]Yekimovskiy, p. 14.

[124]Zhukov, *Vospominaniya*, pp. 357-358.

[125]F. Samsonov, *"Artilleriya v hodie voinie,"* *Voyenny Vestnik*, No. 5 (May 1965), p. 74.

[126]Ryazanskiy, p. 18.

[127]Yekimovskiy, p. 14.

[128]*Istoriya*, II, 318; Samsonov, p. 74; Ryazanskiy, p. 18; Erickson, Road to Stalingrad, pp. 302-303.

[129]Goebbels Diaries, pp. 132, 135.

[130]Seaton, Battle for Moscow, pp. 276-280.

[131]See, for example, Halder, War Journal, VII, 260, 266 (entries for 27 January and 7 February).

[132]The author was unable to locate the original tasking document. However, several unit after-action reports cite *"Oberkommando der 4. Pz. Armee Ia Nr. 1712/42"* dated 17 April 1942, as the source of their efforts. See, for example, *"78. Division. Erfahrungsbericht,"* NAM T-78/202/6145679. The 78th Division's report also repeats the specific questions posed by Fourth Panzer Army that guided the unit responses. When completed, these reports were actually forwarded to Third Panzer Army since Fourth Panzer Army's headquarters had in the meantime been transferred to the southern portion of the front in preparation for Operation BLAU.

[133]*"XX. A.K. - Erfahrungen,"* NAM T-78/202/6145569.

[134]*"IX. Armeekorps - Erfahrungsbericht,"* NAM T-78/202/6145614.

[135]*"Erfahrungsbericht - 35. I.D.,"* NAM T-78/202/6145653.

[136]*"OKH/GenStdH. Ausb. Abtlg. (II) Nr. 1550/42. Zusammenstellung von Osterfahrungen über Bekampfung von Panzerkampfwagen und Angaben über Panzerabwehrwaffen und Munition"* dated 19 May 1942, NAM T-312/1283/000203. See also *"252. Inf. Division. Erfahrungsbericht über Winterfeldzug 1941/42"* (undated), NAM T-78/202/6145759.

[137]*"Erfahrungsbericht - 35. I.D.,"* NAM T-78/202/6145653. This report mentions a Soviet reluctance to advance single tanks very far into German defensive areas, presumably for fear of antitank gunfire or infantry close assault. On the use of heavy Flak guns in an antitank role, see *"12. Flakdivision (mot.) Fuhr. Gruppe (Ia) B.B. Nr. 2160/42. Betr.: Flakkampftrupps, Einsatz und Gliederung* dated 11 September 1942, NAM T-312/189/7736198-7736200.

[138]*"Erfahrungsbericht - 35. I.D.,"* NAM T-78/202/6145653. See also *"Zusammenstellung von Osterfahrungen,"* NAM T-312/1283/000204.

[139] *"Erfahrungsbericht - 35. I.D.,"* NAM T-78/202/6145653.

[140] *"7. Division - Wintererfahrungen,"* NAM T-78/202/6145634.

[141] See *"Ia der 34. Division. Betr.: 'Stützpunkt' oder 'Widerstandlinie'"* dated 17 August 1942, NAM T-312/184/7730358; and *"10. Inf.Div.(mot) - Stützpunktartige Verteidigung,"* NAM T-312/184/7730342.

[142] See Ogorkiewicz, pp. 215-217; and Guderian, Panzer Leader, pp. 276-283.

[143] *"Armee-Pionier-Führer, Armee-Oberkommando 2. Merkblatt für Panzervernichtungstruppe"* dated 10 February 1942, NAM T-312/1660/00941. This brief pamphlet included sketches of newer Soviet tanks, with their vulnerable points highlighted, along with instructions on tactics, equipment, and training for antitank teams.

[144] Halder, War Journal, VII, 261, 263 (entries for 29 January and 2 February 1942). The apparent product of these discussions was a Training Branch circular to German units, *"Oberkommando des Heeres. GenStdH./Ausb. Abt. (II) Nr. 1550/42. Betr.: Kampferfahrungen, Panzerabwehr"* dated 19 May 1942, NAM T-312/1283/000199. This circular included *"Zusammenstellung von Osterfahrungen"* (cited above) as an annex.

[145] The full title of this decoration was *"Sonderabzeichen fur das Niederkampfen von Panzerkampfwagen durch Einzelkämpfer"* (Special Badge for the Single-handed Destruction of a Tank). This badge was actually a cloth patch worn prominently on the upper right sleeve of the uniform coat. As most other German decorations were worn on the front of the coat, it may be that the particular prominence given this award was a conscious attempt to counteract the "suicidal" aura that surrounded the idea of infantry-versus-tank combat. On 26 May 1942, Hitler also authorized a special campaign medal for all German soldiers who had served in Russia during the winter campaign. This *"Medaille Winterschlacht im Osten, 1941/42"* (Medal for the Winter Battle in the East) was commonly referred to in the ranks as the "frozen flesh medal." John R. Angolia, For Führer and Fatherland: Military Awards of the Third Reich (San Jose, California: R. James Bender Publishing, 1976), pp. 69, 109.

[146] *"252. Inf. Division. Erfahrungsbericht,"* T-78/202/6145757-6145758.

[147] *"XX. A.K. - Erfahrungen,"* T-78/202/6145567.

[148] The tasking document is cited as *"Chef des Generalstabes des Heeres vom 6.8.42"* in *"2. Armee. Stützpunkt oder Widerstandlinie,"* NAM T-312/1660/000852.

[149] *"Infanterie-Regiment 488, Ia"* dated 18 August 1942, NAM T-312/184/7730391.

[150] *"Infanterie-Regiment 289, Kommandeur. Betr.: Kampferfahrung,"* dated 17 August 1942, NAM T-312/184/7730380.

[151] *"2. Armee. Stützpunkt oder Widerstandlinie,"* NAM T-312/1660/000853.

[152] *"331. Infanterie Division. Erfahrungsbericht,"* NAM T-312/184/7730352.

[153] *"Infanterie-Regiment 434, Kommandeur,"* dated 17 August 1942, NAM T-312/184/7730339.

[154] *"Erfahrungsbericht - 35. I.D.,"* NAM T-78/202/6145648. See also *"Erfahrungsbericht der 5. Panzer-Division,"* NAM T-78/202/6145531.

[155] *"Hptmn. Haderecker, Erfahrungsbericht,"* NAM T-312/184/7730345.

[156] *"XXXXIII. A.K. 'Stützpunkt',"* NAM T-312/184/7730355. See also *"Der Chef des Generalstabes des XII. A.K. An den Herrn Chef des Generalstabes der 4. Armee"* dated 21 August 1942, NAM T-312/184/7730378.

[157] See *"Der Chef des Generalstabes des XII. A.K.,"* NAM T-312/184/7730377.

Notes - Chapter IV

[1]The German plan of operations was set forth in Fuhrer Directive 41 dated 5 April 1942. Written large part by Hitler himself, this document lacks the clarity and conciseness of other such orders drafted by General Staff officers at Hitler's behest. Directive 41 is reproduced in Blitzkrieg to Defeat: Hitler's War Directives, 1939-1945, ed. H.R. Trevor-Roper (New York: Holt, Rinehart and Winston, 1964), pp. 116-121. On the evolution of German strategy for the 1942 campaign, see Blau, pp. 109-124; and Warlimont, pp. 226-233.

[2]Blau, p. 116.

[3]In 1941, the Soviet Union relied on the Caucasus oil centers of Maikop, Grozny, and Baku for roughly eighty-five per cent of its petroleum. However, oil production facilities in the Urals apparently were being frantically expanded even before BLAU began. See Seaton, Russo-German War, pp. 266-267.

[4]See Halder, War Journal, VII, 252 (entry for 12 January).

[5]"The Construction of a Strategic Defense Line in the East," MS D-156 (OCMH, 1947), pp. 3-4. The author of this monograph is unknown, but seems to have been a member of Olbricht's staff. Both General Olbricht and General Fromm were conspirators in the unsuccessful 20 July 1944 attempt on Hitler's life. Both were subsequently executed.

[6]"Construction of a Strategic Defense Line," pp. 5-9.

[7]"Construction of a Strategic Defense Line," p. 10.

[8]*"Oberkommando des Heeres, GenStdH/Op.Abt.(Ia) Nr. 420053/42. Weisung für die Kampfführung im Osten nach Abschluss des Winters"* dated 12 February 1942, in KTB/OKW, I, 1095

[9]Blau, p. 129. Detachments of "Fortification Engineers" worked on the "fortified areas" off and on for the remainder of the year. See, for example, the report on the operations of various detachments in *"General der Pioniere und Festungen. Abt. L (II O) Az. 11 Nr. 1665/42. Einsatz der Fest.Pi.-Dienststellen im Osten"* dated 8 December 1942, NAM T-78/343/6300839.

[10]Mueller-Hillebrand, III, 62; Blau, pp. 128-129, 130, 135-136. Army Group North, for example, lost 174,330 men (killed, wounded, missing) between the beginning of April and the end of August 1942, receiving in that time only 158,400 total replacements. See Burkhart Mueller-Hillebrand, *"Der Feldzug gegen die Sowjetunion im Nordabschnitt der Ostfront (Zweiter Teil: Dezember 1941-Dezember 1942),"* MS P-114a (Historical Division, USAREUR: 1954), p. 314.

[11]Blau, p. 130.

[12]Mueller-Hillebrand, *Das Heer*, III, 63. See also Halder, War Journal, VII, 377 (entry for 18 August) and footnote.

[13]Compare Mueller-Hillebrand, *Das Heer*, III, 63; and Blau, pp. 135-136.

[14]Halder, War Journal, VII, 258 (entry for 24 January); Blau, p. 137.

[15]Halder, War Journal, VII, 258 (entry for 24 January). See also Mueller-Hillebrand, *Das Heer*, III, 63; and Blau, p. 137.

[16]Utz, MS D-291, p. 22.

[17]Haupt, *Heeresgruppe Nord*, pp. 123-124, 125-131. See also Hellmuth Reinhardt, "Selected German Army Operations on the Eastern Front (Operational)," MS P-143a (Historical Division, EUCOM, n.d.), pp. 265-275.

[18]*"Generalkommando I.A.K Abt. Ia Nr. 1819/42. Korpsbefehl Nr. 194 für die Abwehrgliederung des I. A.K."* dated 8 July 1942, NAM T-312/838/9003278. This order cites as a reference the 1938 manual H.Dv. 91 *Der Stellungskrieg* discussed in Chapter I.

[19]*"Generalkommando I. A.K. Korpsbefehl Nr. 194,"* NAM T-312/838/9003278, 9003280.

[20]*"Generalkommando I. A.K. Korpsbefehl Nr. 194,"* NAM T-312/838/9003279; and *"Anlage 2 zu Korpsbefehl Nr. 194/I. A.K. - Ia. Einzelheiten für Artillerie,"* NAM T-312/838/9003284-9003286.

[21]*"Generalkommando I. A.K. Korpsbefehl Nr. 194,"* NAM T-312/838/9003281, 9003282-9003283.

[22]*"Bericht zur Frontreise des Hptm. Muschner in der Zeit vom 31.7 - 7.8.42 in den Bereich des AOK 2"* dated 9 August 1942, NAM T-78/343/6300935. Though Second Army was subordinate to Army Group B, it actually formed the southern portion of the German "defensive front," linking the northern army groups to Army Group B's northern defensive flank along the Don River.

[23]See *"21. Infanterie-Division Abt. Ia Nr. 835/42. Betr.: Erfahrungen über den Kampf an festen Fronten; hier Abwehr im Sommer"* dated 27 November 1942, NAM T-312/838/9003301-9003302; and *"Armee-Oberkommando 18 Abt. Ia Nr. 19140/42. Betr.: Erfahrungen über den Kampf an festen Fronten"* dated 16 December 1942, NAM T-312/838/9003267-9003268.

[24]*"Generalkommando I. A.K. Korpsbefehl Nr. 194,"* NAM T-312/838/9003278.

[25]*"1. Division Ia Nr. 543/42. Betr.: Erfahrungen über den Kampf an festen Fronten im Sommer"* dated 28 November 1942, NAM T-312/838/9003270.

[26]See *"21. Infanterie-Division. Erfahrungen,"* NAM T-312/838/9003295; *"Fusilier-Regiment 22 Abt. Ia Nr. 203/42. Betr.: Erfahrungen über den Kampf an festen Fronten"* dated 14 November 1942, NAM T-312/838/9003363; *"58. Inf.-Div. Ia. Erfahrungen über den Kampf an festen Fronten"* dated 22 November 1942, NAM T-312/838/9003386; and *"A.O.K. 4 Ia Nr. 0134/42 an Heeresgruppe Mitte"* dated 21 September 1942, NAM T-312/189/7736481.

[27]*"121. Inf.-Division Abt. Ia Nr. 600/42. Erfahrungen über den Kampf an festen Fronten (Abwehr im Sommer)"* dated 15 November 1942, NAM T-312/838/9003304.

[28]*"58. Inf.-Div. Ia. Erfahrungen,"* NAM T-312/838/9003387; *"Armee-Oberkommando 18. Erfahrungen,"* NAM T-312/838/9003259-9003260; and *"21. Infanterie-Division. Erfahrungen,"* NAM T-312/838/9003293.

[29]Antitank practices during this period remained essentially unchanged from the techniques suggested in the 1941-1942 winter after-action reports discussed in Chapter III. See *"12. Flakdivision (mot.) Flakkampftrupps, Einsatz und Gliederung,"* NAM T-312/189/7736198-7736200; *"58. Inf. Div. Erfahrungen,"* NAM T-312/838/9003387-9003388; *"Panzerjägerabteilung 1 Kommandeur Ia Nr. 426/42. Erfahrungen über den Kampf an festen Fronten"* dated 16 November 1942, NAM T-312/838/9003377; *"A.O.K. 2 Ia Nr. 2366/42. Betr.: Erfahrungsbericht über Panzerabwehrwaffen"* dated 4 September 1942; *"Armee-Oberkommando 2 Ia Nr. 569/42. Betr.: Panzerabwehr"* dated 5 June 1942, NAM T-312/1660/000928-000929: and *"Armee-Oberkommando 2 Ia Nr. 2603/42 an Oberkommando Heeresgruppe B"* dated 28 September 1942, NAM T-312/1283/000142-000167. The latter document is an especially lengthy discussion of Russian armor tactics and German antitank methods as practiced by the German VII Corps during defensive battles around Voronezh in July and August 1942. An analysis of antitank tactics in the winter of 1942-1943 during the fighting for Demyansk is in *"A.O.K. 16 Ia Nr. 550/43. Abschrift von Abschrift"* dated 7 February 1943, NAM T-312/862/9032562-9032565.

[30]*"Armee-Oberkommando 18. Erfahrungen,"* NAM T-312/838/9003259; *"Fusilier-Regiment 22. Erfahrungen,"* NAM T-312/838/9003362, 9003363; *"21. Infanterie-Division. Erfahrungen,"* NAM T-312/838.9003293, 9003295; and *"58. Inf.-Div. Erfahrungen,"* NAM T-312/838/9003386-9003387, 9003391.

[31]*"Oberkommando des Heeres. GenStd.H/Ausb.Abt.(II) Nr. 1550/42. Betr.: Erfahrungen mit der russischen Angriffsweise im Sommer 1942"* dated 3 September 1942, NAM T-312/189/7736183-7736184. See also Halder, War Journal, VII, 388 (entry for 3 September).

[32]Halder, War Journal, VII, 367-373 (entries for 4-11 August).

[33]Manstein, pp. 264-267; Mueller-Hillebrand, MS P-114a, pp. 324-327. The 72nd Division was detached from Manstein's command to plug yet another hole in Army Group Center's line. See Halder, War Journal, VII, 374, 382 (entries for 14 and 24 August).

[34]Halder, War Journal, VII, 392 (entry for 10 September) and footnote. The actual order was untitled, but was commonly referred to as the Fuhrer Defense Order.

[35]*"Der Führer. OKH-GenStdH-Op Abt (I) Nr. 11154/42"* dated 8 September 1942, NAM T-312/189/7736339, 7736341-7736246. Hereinafter called Führer Defense Order.

[36]Führer Defense Order, NAM T-312/189/7736339-7736340, 7736346-7736347.

[37]Führer Defense Order, NAM T-312/189/7736340-7736341.

[38]Führer Defense Order, NAM T-312/189/7736343.

[39]Führer Defense Order, NAM T-312/189/7736347-7736348.

[40]Führer Defense Order, NAM T-312/189/7736348-7736349.

[41]See *"Der Oberbefehlshaber der Heeresgruppe Mitte Ia Nr. 7420/42"* dated 19 September 1942, NAM T-312/189/7736420; and *"Oberkommando Heeresgruppe Mitte*

Ia/Gen.d.Pi.-Nr. 310/42. Betr.: Stützpunktausbau" dated 18 September 1942, NAM T-312/189/7736611. The Führer Defense Order was distributed down to division level, and so needed little editorial comment by intermediate commanders.

[42]See the minutes of 25 September 1942 meeting, *"Besprechung am 25.9.42, 10.30 Uhr,"* NAM T-312/189/7736673. This item, one of the miscellaneous supporting documents in Fourth Army's War Diary, includes a sketch of notional defensive positions to be built in accordance with the Führer Defense Order; NAM T-312/189/7736672. See also *"A.O.K. 4 Ia Nr. 5505/42"* dated 22 September 1942, NAM T-312/189/7736583-7736585.

[43]*"Generalkommando LVI.Pz.Korps Ia Nr. 1381/42. An A.O.K.4"* dated 21 September 1942, NAM T-312/189/7736597. See also *"General-Kommando XXXXIII.A.K. Abt. Ia Nr. 1622/42. Betr.: Stellungsbau"* dated 21 September 1942, NAM T-312/189/7736589-7736591.

[44]*"A.O.K. 4 Ia Nr. 5505/42,"* NAM T-312/189/7736584-7736585.

[45]Lupfer, p. 13.

[46]*"A.O.K. 4 Ia Nr. 0134/42. An Heeresgruppe Mitte"* dated 21 September 1942, NAM T-312/189/7736479-7736482.

[47]See Stein, pp. 10-11, 34-48, 93-102. In addition to volunteers from inside Germany proper, SS officials culled ethnic German communities within occupied territories for *Volksdeutsch* recruits. These non-Reich Germans, and later non-Germanic foreigners as well, were a bountiful source of Waffen SS manpower since they were outside the formal administration of the OKW-controlled draft apparatus. Postwar apologists of the Waffen SS have argued that its multinational flavor made it a "prototype NATO army" defending Western culture against asiatic Bolshevism. In fact, the multinational character of the Waffen SS derived more from SS attempts to tap new sources of manpower outside Army control than from any crusading zeal on the part of the various groups who fought under SS banners. See Stein, pp. 250-258, 287-288; and George H. Stein, "The Myth of a European Army," Wiener Library Bulletin, XIX, No. 2 (April 1965), 21-22.

[48]Stein, Waffen SS, p. 203.

[49]Manstein, p. 269; Halder, War Journal, VII, 366 (entry for 3 August).

[50]Manstein, p. 268. See also Warlimont, pp. 265-266; and Mueller-Hillebrand, *Das Heer*, III, 78-79.

[51]Halder, War Journal, VII, 361 (entry for 27 July) and footnote.

[52]*"Armee-Oberkommando 4 Abt. IIb Nr. 392/42. Betr.: Kapitulanten-Nachwuchs bei der Infanterie"* dated 18 September 1942, NAM T-312/189/7736410-7736413. The memo from the Chief of Infantry is cited as a reference in this document. On Germany's policies for recruiting and allocating manpower for infantry service, see Hellmuth Reinhardt and others, "Personnel and Administration Project #2b, Part I (Recruiting for the Armed Forces, Peacetime and Wartime Systems)," MS P-006 (Historical Division, EUCOM: 1949), pp. 28-29.

[53]See Halder, War Journal, VII, 368 (entry for 5 August) and footnote. *"A.O.K. 4 Ia Nr. 0134/42. An Heeresgruppe Mitte,"* NAM T-312/189/7736485, requests increased numbers of *Hiwis* to carry out the construction projects called for by Hitler's Führer Defense Order. See also *"Oberkommando des Heeres. Der Chef des Generalstabes des Heeres, Org.Abt. (I) Nr. 5825/42. Grundlegender Befehl Nr. 7 (Organisation)"* dated 20 November 1942, NAM T-312/1661/000708-000709.

[54]*"Oberkommando des Heeres. Der Chef des Generalstabes des Heeres, Op.Abt. (I) Nr. 11548/42. Grundlegender Befehl Nr. 5 (Frontkämpfer)"* dated 29 October 1942, NAM T-312/1660/000726. For a first-person account of a recruiting campaign carried out among German service troops, see Guy Sajer, The Forgotten Soldier, trans. Lily Emmet (New York: Harper and Row, 1971), pp. 117-118.

[55]Earl F. Ziemke, Stalingrad to Berlin: The German Defeat in the East (Washington, DC: Office of the Chief of Military History, US Army, 1968), p. 20. Unruh's activities are described in detail in Walter von Unruh, "Combout Staff Unruh," MS D-370 (OCMH, n.d.).

[56]*"Der Führer. Führer-Befehl Nr. 1"* dated 8 October 1942, NAM T-312/1660/000745-000746.

[57]*"Oberkommando des Heeres. Der Chef des Generalstabes des Heeres, Org.Abt. (II) Nr. 9900/42. Grundlegender Befehl Nr. 1 (Hebung der Gefechtsstärke)"* dated 8 October 1942, NAM T-312/1660/000747-000748.

[58]*"Grundlegender Befehl Nr. 1,"* NAM T-312/1660/000748-000749.

[59]*"Grundlegender Befehl Nr. 5,"* NAM T-312/1660/000724-000725. The rear support echelons of the German Army seem to have been everyone's favorite whipping-boy at this time, and combat officers seldom passed up an opportunity to demand greater sacrifices from the service troops. Zeitzler's actions to cause support units to share the burden of combat should be seen in this light, as should those instructions concerning the care of front fighters. General Heinrici, the commander of Fourth Army, took it upon himself to complain to Field Marshal von Kluge about the preferential treatment given rearward personnel in the distribution of food packages. Such high level jealousy at the eternal "soft life" of the rear echelons connotes both concern for frontline morale and frustration at repeated supply failures. See *"Armee-Oberkommando 4 Abt.IIb. Betr.: Urlauberbetreuung"* dated 27 September 1942, NAM T-312/189/7736350. Supply units were also mildly flogged in German military propaganda. See Sajer, p. 76.

[60]*"Grundlegender Befehl Nr. 5,"* NAM T-312/1660/000725-000726.

[61]*"Grundlegender Befehl Nr. 7,"* NAM T-312/1660/000705.

[62]Quoted in Walter Görlitz, "The Battle for Stalingrad 1942-1943" in Jacobsen and Rohwer, p. 231.

[63]*"58. Inf.-Div. Ia Nr. 1148/42. Divisionsbefehl Nr. 2"* dated 17 September 1942, NAM T-312/838/9003396.

[64]Führer Defense Order, NAM T-312/189/7736340.

[65] *"Der Führer. OKH/Gen.St.d.H./Op.Abt. (I) Nr. 420817/42. Operationsbefehl Nr. 1"* dated 14 October 1942 in KTB/OKW, II2, 1301-1304.

[66] KTB/OKW, II2, 888, 890 (entry for 2 November 1942 and additional comments by General Warlimont).

[67] In Operations Order 1, Hitler called for an "active defense" (*aktive Verteidigung*) throughout the winter. The "active" measures recommended by Hitler included aggressive patrolling and local spoiling attacks to keep the enemy off balance. Hitler's concept of an "active defense" in no way implied fluidity for the German defenses themselves.

[68] Effects of Climate, p. 11.

[69] Freiherr von Ulmenstein, "161st Reconnaissance Battalion (21 Jun 1941-30 Jun 1942) and 132d Bicycle Battalion (17 Oct 1942 - 17 May 1943): Extracts from War Diaries," MS P-093 (EUCOM, n.d.), pp. 10-11. (Page numbers refer to portion of manuscript dealing with *Radfahrabteilung 132.*) See also *"Armee-Oberkommando 2 Ia Nr. 2448/42. Betr.: Vorbereitungen für Gliederung und Umrustung zum Winterkrieg"* dated 19 October 1942, NAM T-312/1660/000736-000738; and *"Oberkommando des Heeres Gen.St.d.H./Ausb.Abt. (II) Nr. /42. Verwendung von Panzerkampfwagen und Sturmgeschützeinheiten im Winter"* dated October 1942, NAM T-78/202/6146549-6146551.

[70] *"Fahrt des Herrn Oberbefehlshabers am 7. November 1942 zum Gen.Kdo. L.A.K. u. 2.SS-Inf. Brig.,"* NAM T-312/838/9002988.

[71] *"Fahrt des Herrn Oberbefehlshabers am Mittwoch dem 2.12.42,"* NAM T-312/838/9002933.

[72] *"Fahrt des Herrn Oberbefehlshabers am 11. und 12. Dez. 1942 zur 121. Inf. Div., 28. Jäg. Div., 24. u. 254. Inf. Div.,"* NAM T-312/838/9002923, 9002926.

[73] The winter defensive fighting in the areas of Army Groups North and Center is covered in detail in Ziemke, pp. 98-117.

[74] The battles around Velikiye Luki are described in Ziemke, pp. 107-109; and Operations of Encircled Forces: German Experiences in Russia, DA PAM 20-234 (Washington, DC: USGPO, 1952), pp. 7-14. The disruption of German plans caused by the Soviet attack and the piecemeal German relief attempts are covered in Otto Tiemann, "Closing the 40-km Gap Between Army Group North and Army Group Center (Nov 1942 - Mar 1943)," MS D-241 (OCMH, 1947), pp. 7-12.

[75] Rendulic, MS D-106, p. 15. A general discussion of Army Group North's combat experiences during this period is *"Oberkommando Heeresgruppe Nord Ia Nr. 20/43. Betr.: Erfahrungen und Folgerungen"* dated 2 January 1943, NAM T-78/202/6146492-6146507.

[76] The Demyansk fighting is described in Ziemke, pp. 112-113; Haupt, Heeresgruppe Nord, pp. 149-154; and Friedrich Sixt, *"Der Feldzug gegen die Sowjetunion im Nordabschnitt der Ostfront 1941-1945 (Dritter Teil: Kriegsjahr 1943),"* MS P-114a (Historical Division, USAREUR: 1954), pp. 367-383. Defensive fighting during

Operation BUEFEL is described in Wilhelm Willemer and others, "Divisional Operations during the German Campaign in Russia (Delaying Action at Sychevka)," MS P-143c (Historical Division, USAREUR: 1954), pp. 154-163.

[77]Blau, pp. 135, 138; Mueller-Hillebrand, *Das Heer*, III, 59-60. For a description of the training problems experienced by German units preparing for Operation BLAU see Felix Steiner, "Tactics of Mobile Units. Operations of the 5th SS Panzergrenadier Division 'Wiking' at Rostov and the Maikop Oilfields (Summer 1942)," MS D-248 (OCMH, 1947), pp. 6-8; and Paul Schulz, "Combat in the Caucasus Woods and Mountains During Autumn 1942," MS D-254 (OCMH, 1947), p. 3.

[78]Blau, pp. 138-139; Mueller-Hillebrand, *Das Heer*, III, 60-62.

[79]Blau, pp. 131-132.

[80]*"Die Gliederung des deutschen Heeres, 12.8.1942,"* KTB/OKW, II2, 1378-1380; Mueller-Hillebrand, *Das Heer*, III, 67-68.

[81]*"Armee-Oberkommando 2 Ia Nr. 1884/42. Betr.: Erfahrungen bei Angriffs- und Abwehrkämpfen 28.6 bis 20.7.42."* dated 21 July 1942, NAM T-312/1660/000898-000900.

[82]Blau, p. 132.

[83]See Wilhelm Willemer, "Organization of the Ground for Defense on a Broad Front by Army or Larger Unit," MS P-194 (Historical Division, USAREUR, n.d.), pp. 8-19.

[84]*"Oberkommando der Heeresgruppe B Ia Nr. 2889/42. Betr.: 'Eingreifgruppen' an ständigen Fronten"* dated 6 September 1942, NAM T-312/189/7736226-7736227.

[85]Kurt Zeitzler, "Stalingrad," in Freidin and Richardson, pp. 137-140.

[86]Zeitzler in Freidin and Richardson, pp. 142-143.

[87]Seaton, Russo-German War, p. 312; Zeitzler in Freidin and Richardson, p. 147.

[88]Helmuth Greiner, "Greiner Diary Notes, 12 Aug 1942 - 17 Mar 1943," MS P-065a (OCMH, 1950), pp. 91, 92-93. Greiner kept the OKW War Diary during this period of the war. See also Blau, pp. 161-162.

[89]*"Armee-Oberkommando 2 Ia Nr. 1098/42. An Oberkommando Heeresgruppe B"* dated 1 [illegible] 42, NAM T-312/1660/000761-000765.

[90]*"V.O./OKH bei AOK 6"* dated 13 October 1942, NAM T-78/343/6300915-6300919.

[91]Seydlitz urged Paulus to disregard Hitler's orders and begin a breakout on his [Paulus'] own authority in order to save Sixth Army. Ironically, Hitler suspected that Paulus might try something of the sort, and so made Seydlitz - whom the dictator considered absolutely reliable - independently responsible for holding a portion of the pocket's defensive front. This was an affront

to Paulus, and also a curious reward for the one man who, unknown to Hitler, was most actively lobbying for an unauthorized breakout. Taken prisoner at Stalingrad, Seydlitz became a prominent Soviet collaborator, being one of the spokesmen of the so-called "Free Germany Committee" that urged Germans to turn against the Nazis. See Seaton, Russo-German War, p. 320; Ziemke, pp. 57-58; and Walter Görlitz, Paulus and Stalingrad, trans. R.H. Stevens (New York: The Citadel Press, 1963), pp. 211-212.

[92]In its attempts to supply Sixth Army by air, the Luftwaffe also lost over half of its operational Ju-52 transport aircraft fleet and a large number of valuable instructor pilots. The Stalingrad airlift is discussed in detail in Fritz Morzik, German Air Force Airlift Operations, USAF Historical Studies No. 167 (USAF Historical Division, Research Studies Institute, Air University, 1961), pp. 179-202. Sixth Army estimated its own daily supply requirements at 550 tons per day. This estimate, based on consumption rates for defensive operations only, included 75 tons of fuel for supply distribution and defensive operations by the panzers, and 100 tons of ammunition. These figures did not include any stockpiling for a possible breakout. See Army Group Don message reproduced in Görlitz, Paulus and Stalingrad, pp. 275-276.

[93]"*Vom Tschir zum Mius. Winterabwehrschlacht 1942/43. Die Kämpfe der 3. Rumänischen Armee - ab 27 Dez. Armee-Abteilung Hollidt in der Zeit vom 23. Nov. 1942 bis 28 Febr. 1943. Armee-Oberkommando 6, Juni 1943,*" NAM T-312/1463/000830-000831. See the detailed description of the improvised units joining in the Chir River defense by Otto von Knobelsdorff, the commander of the XLVIII Panzer Corps, in Friedrich Schulz and others, "Reverses on the Southern Wing (1942-1943); (Annex 5: The XLVIII Panzer Corps in Action between the Don and Mius River Sectors, 5 December 1942 to 12 February 1943)," MS T-15 (OCMH, 1947), pp. 252-253.

[94]F.W. von Mellinthin, Panzer Battles, trans. H. Betzler (Norman, Oklahoma: University of Oklahoma Press, 1956), p. 178; Heinz Schneider, "Breakthrough Attack by the V Russian Mechanized Corps on the Khir River from 10 to 16 December 1942," MS P-060f (Part II, Appendix 3) (OCMH, n.d.), p. 32. See also Schulz, MS T-15, pp. 256-257. (General von Knobelsdorff incorrectly identifies the 336th Division as the 338th Division in his account, an error apparently due in part to the similar numbering of certain infantry regiments in this battle.)

[95]Mellinthin, p. 175.

[96]"*Vom Tschir zum Mius,*" NAM T-312/1463/000832-000833. The 7th Luftwaffe Field Division disintegrated altogether during the Chir fighting. Its survivors were later incorporated into the 384th Infantry Division. See also Schulz, MS T-15, pp. 257-258.

[97] *"Vom Tschir zum Mius,"* NAM T-312/1463/000834. The 7th Luftwaffe Field Division was almost completely destroyed in this fighting. One measure of its lack of training was recounted by the commander of the XLVIII Panzer Corps as follows:

> The furthest advanced air force infantry battalions had been assigned their respective sectors by their division headquarters. However, the division had quite apparently neglected to inform the battalions sufficiently well on the serious nature of the situation. It had failed to give them detailed instructions and orders on how to effect an undetected night time relief. The battalions therefore drove right into the outpost lines. The rumbled along with their trains, without providing for security on the march, without reconnaissance... until they were right in the middle of the Russians where they were duly and promptly wiped out without firing a shot. This was a terrific shock to the division - so terrific, as a matter of fact, that it was for the moment in no shape to be sent into combat as an independent unit.

See Schulz, MS T-15, p. 261.

[98] Schneider, MS P-060f, p. 33.

[99] Schneider, MS P-060f, pp. 12-13.

[100] Schneider, MS P-060f, p. 33.

[101] Schneider, MS P-060f, pp. 21, 22. Mellinthin, citing Balck as his source, denies that single German tanks were ever left in direct support of infantry during these battles. Quoting Balck, Mellinthin concedes that "many a crisis would not have arisen had the 336th division possessed a larger number of antitank guns." See Mellinthin, pp. 183-184. On the general conduct of operations in this period, see *"Vom Tschir zum Mius,"* NAM T-312/1463/000834-000835. See also the account in Schulz, MS T-15, pp. 259-267.

[102] Mellinthin, quoting Balck, pp. 183-184.

[103] Schneider, MS P-060f, p. 19; Mellinthin, p. 178.

[104] Mellinthin, quoting Balck, p. 184.

[105] Mellinthin, quoting Balck, p. 184.

[106] Schneider, MS P-060f, pp. 34-35.

[107] Schneider, MS P-060f, p. 31.

[108] The inability of the German panzer divisions to hold terrain was evident not only on the Chir River, but also during the LVII Panzer Corps' attack to relieve Stalingrad. See the discussion at Hitler's headquarters on the need for infantry in the defense on 12 December 1942 in *Hitlers Lagebesprechungen: Die Protokollfragmente seiner militärischen Konferenzen, 1942-1945,* ed. Helmut Heiber (Stuttgart: Deutsche Verlags-Anstalt, 1962), p. 89.

[109]See Alan Clark, Barbarossa: The Russo-German Conflict, 1941-1945 (New York: William Morrow and Company, 1965), pp. 263-264; Mellinthin, pp. 185-186; and Schulz, MS T-15, p. 265. During some of 11th Panzer Division's highly successful battles on the Chir, German officers noted that the Soviets were remarkably lax in consolidating their gains, leaving them vulnerable to German counterthrusts. See Schneider, MS P-060f, p. 35.

[110]Seaton, Russo-German War, p. 328; Morzik, pp. 190-191. For a critique of the combat performance of the Italian and Hungarian armies in these battles see Jurgen Forster, *Stalingrad: Risse im Bundnis 1942/43* (Freiburg: Rombach, 1975), pp. 143-149; and Schulz, MS T-15, pp. 267-273. On the Rumanian forces, see Schulz, MS T-15, pp. 282-283.

[109]See Alan Clark, Barbarossa: The Russo-German Conflict, 1941-1945 (New York: William Morrow and Company, 1965), pp. 263-264; and Mellinthin, pp. 185-186. During some of 11th Panzer Division's highly successful battles on the Chir, German officers noted that the Soviets were remarkably lax in consolidating their gains, leaving them vulnerable to the German counterthrusts. See Schneider, MS P-060f, p. 35.

[110]Seaton, Russo-German War, p. 328; Morzik, pp. 190-191. For a critique of the combat performance of the Italian and Hungarian armies in these battles see Jürgen Förster, *Stalingrad: Risse im Bundnis 1942/43* (Freiburg: Rombach, 1975), pp. 143-149.

[111]See *"A.O.K. 2 Ia Nr. 1412/42"* dated 1 December 1942, NAM T-312/1660/000694-000695; and *"A.O.K. 2 an Ob.Kdo.Hgr.B, Chef des Generalstabes"* dated 3 December 1942, NAM T-312/1660/000696-000702. The reporting system established four categories of divisions: Category I - very good; Category II - good; Category III - marginal; and Category IV - poor. In its report to Army Group B, Second Army on 3 December listed two of its divisions as being Category I, seven Category II, three Category III (including its only panzer division), and two Category IV. Considering that Second Army had done litt'e fighting since late summer, this demonstrates the general erosion that had befallen all of the German armies in the East.

[112]Manstein, pp. 384-386.

[113]Manstein, pp. 378-379.

[114]Manstein, p. 381. See also Clark, pp. 280-281.

[115]Manstein, p. 386.

[116]Manstein, pp. 383-384.

[117]Manstein, pp. 373-374.

[118]See Willemer, "Armor in the Aggressive Defense," in MS P-143c, p. 144.

[119] *"Vom Tschir zum Mius,"* NAM T-312/1463/000842; Wilhelm Russwurm, "Employment of a Furlough Detachment for Rear Area Security (Don, Donets, Winter 1942/43)," MS D-282 (Historical Division, USAREUR: 1947), pp. 1-6.

[120] Army Detachment Hollidt is a case in point. According to German military terminology, an "Army Detachment" (*Armee Abteilung*) was an army-sized force that lacked the full complement of support and service units normal for a field army. This formation was initially built around General Karl Hollidt's XVII Corps, and gradually grew to take control of whatever forces could be rallied

[121] Manstein, p. 380. A few units transferred to the southern front from France, such as the 7th Panzer Division, also had to endure what the Germans called the "childhood diseases" of combat acclimatization. See Schulz, MS T-15, pp. 274-275.

[122] See Senger, pp. 87, 95, 101. The *Alarmeinheiten*, scraped together from disparate rear echelon personnel, naturally had no standard organization. These units as a rule seldom possessed any antitank guns or other heavy infantry weapons.

[123] Senger, p. 101.

[124] Manstein, p. 389. For another view of this fighting, see Fretter-Pico, pp. 100-103.

[125] Senger, p. 98.

[126] See *"294. Inf. Division Ia Abschrift: Erfahrungsbericht über den Einsatz von mot. Nachtruppen beim Rückzug zwischen Donez und Mius,"* XVII Corps coversheet dated 18 March 1943, NAM T-312/1462/000911-000915. Reprinting this report for circulation to other headquarters, Hollidt's new Sixth Army described this expedient motorization as a demonstration that such mobile units could play an important role even in positional warfare (*Stellungskrieg*). See *"Oberkommando der 6. Armee Ia Nr. 835/43. Betr.: Erfahrungsbericht"* dated 25 March 1943, NAM T-312/1462/000916.

[127] Willemer, MS P-143c, pp. 145-152.

[128] Willemer, MS P-143c, pp. 151-152.

[129] *"294. Inf. Division: Erfahrungsbericht,"* NAM T-312/1462/000912.

[130] See description in *"Vom Tschir zum Mius,"* NAM T-312/1463/000849.

[131] *"Vom Tschir zum Mius,"* NAM T-312/1463/000860, 000861.

[132] *"Vom Tschir zum Mius,"* NAM T-312/1463/000842.

[133] Manstein, pp. 423-428; Seaton, Russo-German War, pp. 347-348.

[134] Manstein, pp. 428-437; Mellinthin, pp. 207-208; and Seaton, Russo-German War, pp. 349-350.

[135] *"Generalkommando XXIV Pz. Korps Abt. Ia Nr. 937/43. Zusammenfassender Bericht über die Tatigkeit des Gen.Kdo.XXIV.Pz.Korps an der Tagenrog-Front in der Zeit vom 9.3.43 bis 15.4.43"* dated 3 May 1943, NAM T-312/1462/000933-000938.

[136] Manstein's comment is quoted in Liddell Hart, p. 318. Hitler visited Manstein's headquarters on 17-19 February 1942. His apparent intention upon his arrival had been to remove Manstein from command; he ended up reluctantly approving Manstein's counterattack plans. See Ziemke, pp. 91-92; and Manstein, pp. 423-428.

[137] *"Anlage 3 zum Korpsbefehl für die Neugliederung der Verteidigung vom 18.3.43. Abt. Ia Nr. 378/43. Anweisung für die Kampfführung,"* NAM T-312/1462/000940; and *"Zusammenfassender Bericht - XXIV Pz.Korps,"* NAM T-312/1462/000935-000936.

[138] *"H.Gr.Nord Ia Nr. 11721/42 von 20.9.1942"* cited as reference in *"Armee-Oberkommando 18. Erfahrungen,"* NAM T-312/838/9003255.

[139] *"21. Infanterie-Division. Erfahrungen,"* NAM T-312/838/9003292.

[140] *"Armee-Oberkommando 18. Erfahrungen,"* NAM T-312/838/9003255.

[141] *"21. Infanterie-Division. Erfahrungen,"* NAM T-312/838/9003292. See also *"121. Inf.-Division. Erfahrungen,"* NAM T-312/838/9003304; and *"1. Division. Erfahrungen,"* NAM T-312/838/9003270.

[142] *"Fusilier-Regiment 22. Erfahrungen,"* NAM T-312/838/9003362; and *"58. Inf.-Div. Erfahrungen,"* NAM T-312/838/9003383. See also the comments of General Ortner, the commander of the 69th Infantry Division, to General Lindemann during the latter's inspection tour on 2 December 1942, *"Fahrt des Herrn Oberbefehlshabern am Mittwoch, dem 2.12.42 zur 69. Inf. Division,"* NAM T-312/838/9002932.

[143] *"A.O.K. 4 Ia Nr. 5245/42. Betr.: Erfahrungen bei russischen Angriffen"* dated 14 September 1942, NAM T-312/189/7736217.

[144] *"1. Division. Erfahrungen,"* NAM T-312/838/9003275.

[145] *"4. Panzer-Division Kommandeur Nr. 1290/42. Betr.: Panzer-Einsatz in der Verteidigung"* dated 30 September 1942, NAM T-78/202/6146563.

[146] *"Der Oberbefehlshaber der 4. Panzerarmee Ia Nr. 3121/42. Betr.: Panzer-einsatz"* dated 21 September 1942, NAM T-78/202/6146566-6146568.

[147] *"A.O.K. 4. Erfahrungen bei russischen Angriffen,"* NAM T-312/189/7736218.

[148] See, for example, *"121. Inf.-Division. Erfahrungen,"* NAM T-312/838/9003306, 9003310; and *"58. Inf.-Div. Erfahrungen,"* NAM T-312/838/9003386-9003387, 9003391.

[149] Senger, pp. 95, 98. See also the comments of General von Knobelsdorff in Schulz, MS T-15, p. 288, endorsing the concentration of armor and the autonomy of panzer commanders.

[150] *"4. Panzer-Division Kommandeur. Panzer-Einsatz in der Verteidigung,"* NAM T-78/202/6146563, 6146565. German tank commanders did not wish to engage small break-ins partly because these did not allow sufficient maneuver space for the panzers to deploy. Consequently, German armor counterattacks against smaller penetrations took on the appearance of frontal attacks regardless of the direction of attack. German commanders were also concerned about the growing tank attrition-rates in counterattacks, an indirect tribute to imoroved Soviet training and combined arms cooperation. See, for example, *"Anlage zu A.O.K. 4 Ia Nr. ___/42 vom 18.9.42. Oberkommando der Heeresgruppe Mitte Ia Nr. 7216/42,"* a report on high tank losses during counterattacks around Rzhev in September 1942, NAM T-312/189/7736374-7736375.

[151] A draft copy of *"Merkblatt für den Einsatz von Panzern im Abwehrkampf,"* with marginal comments apparently by LVI Panzer Corps, is in NAM T-312/189/7736422-7736431. The interest in tank-infantry cooperation and the defensive use of tanks during this period was apparently stimulated by the announced intention of the Training Branch of the General Staff to publish a definitive manual on these subjects. See for example the comments in *"Abteilung Feldheer Ref. III Bb. Nr. 404/43. Betr.: Zusammenarbeit zwischen Panzer und Infanterie"* dated 30 April 1943, NAM T-78/202/6146475-6146476.

[152] *"Panzertruppenschule Wünsdorf, Merkblatt uber Zusammenwirken zwischen Panzern und Infanterie in der Verteidigung für die mit der Durchführung des Panzereinsatzes verantwortlichen Truppenführer"* dated February 1943, NAM T-78/202/6146516-6146521.

[153] *"Panzertruppenschule (Schule f.Sch.Tr., Wünsdorf). Merkblatt uber Zusammenarbeit zwischen Panzern und Infanterie in der Verteidigung (für höhere Kommandobehörden)"* dated February 1943, NAM T-78/202/6146522-6146523.

Notes - Chapter V

[1]Manstein, pp. 445-446. Germany's general strategic situation and alternatives are discussed in Manstein, pp. 438-446; Liddell Hart, pp. 316-321; Ziemke, pp. 118-126; and Theodor Busse and others, "The ZITADELLE Offensive, 1943," MS T-26 (OCMH, 1947), pp. 5-8.

[2]Guderian, who opposed the plan, recalled that both Kluge and Zeitzler became enthusiastic converts to ZITADELLE by early May. Guderian added that Manstein was not a particularly effective advocate when confronting Hitler face-to-face. Guderian, Panzer Leader, pp. 306-307.

[3]Manstein, pp. 445-446.

[4]Quoted by Warlimont in Liddell Hart, p. 321.

[5]See *"OKH/GenStdH/OpAbt (vorg.St.) Nr. 430163/43. Operationsbefehl Nr. 5 (Weisung für die Kampfführung der nächsten Monate"* dated 13 March 1943 in KTB/OKW, III2, 1420-1422. Operations Order 5 also demanded regular reports from the eastern army groups on their progress in constructing positions.

[6]Warlimont, p. 312.

[7]See Manstein, pp. 406-407; Goebbels Diaries, p. 300. Hitler showered awards on other senior officers in this same period. Field Marshal Erwin Rommel, architect of earlier German victories in Africa, and SS General Josef (Sepp) Dietrich both received higher decorations than Manstein. Dietrich, a froth-blowing "old Party comrade" of Hitler's since the early 1920's, had been a mere division commander during Manstein's recent Kharkov counteroffensive. That Manstein received a lesser award than this subordinate may have been Hitler's way of damning the independent Field Marshal with faint praise. Manstein omitted any mention of this award from his memoirs.

[8]Appearances aside, the relationship between Hitler and most senior officers was growing increasingly strained. On 9 March 1943, Dr. Goebbels recorded that:

> The Führer's judgment of the moral qualities of the generals - and that applies to all arms of the service - is devastating. He doesn't believe any general a priori. They all cheat him, fawn upon him, furnish him statistics that any child can contradict, and thereby insult the Fuhrer's intelligence... The Führer's experiences with the army generals have embittered him beyond measure.

See Goebbels Diaries, pp. 282, 288. On the other hand, the disaffection of many German officers for their Mephistophelean Führer had reached the point of extreme action. On 13 March 1943 - the very day that Hitler issued Operations Order 5 - members of the "conspiracy circle" planted a bomb in Hitler's personal aircraft timed to go off during his return flight from the Russian Front to Berlin. The bomb failed to detonate. See Görlitz, German General Staff, pp. 433-434; and Clark, pp. 306-311.

[9]Ziemke, pp. 124-135. On Soviet preparations, see Zhukov, *Vospominaniya*, pp. 433-458.

[10]Busse, MS T-26, p. 53.

[11]Manstein, pp. 448-449; Mellinthin, p. 229.

[12]Guderian, Panzer Leader, p. 312.

[13]Manstein, p. 450.

[14]Reinhardt, MS P-143a, p. 347.

[15]Reinhardt, MS P-143a, p. 344.

[16]Reinhardt, MS P-143a, pp. 344-345.

[17]Reinhardt, MS P-143a, pp. 397-398.

[18]Manstein, p. 450.

[19]Reinhardt, MS P-143a, pp. 391-392. For detailed accounts of defensive fighting on Army Group South's front, see also Manstein, pp. 450-501; Willemer, MS P-143c, pp. 164-183; German Defense Tactics Against Russian Breakthroughs, DA PAM 20-233 (Washington, DC: USGPO, 1951), Chapter 10 ("Delay on Successive Positions"), pp. 64-70; Sajer, pp. 215-277; and Military Improvisations, pp. 82-86.

[20]Ziemke, pp. 139-140.

[21]See conference between Hitler, Kluge, and Zeitzler on 26 July 1943 in *Hitlers Lagebesprechungen*, pp. 369-384.

[22]*78. Sturm Division*, pp. 227-232. See also Grossmann, pp. 170-182.

[23]Walter Warlimont, "OKW Activities (Apr-Jun 1943)," MS P-049 (Historical Division, USAREUR: 1954), p. 4.

[24]Manstein, pp. 458-459; and Ziemke, p. 164.

[25]Ziemke, pp. 153-154. Hitler's comment to Kluge is in *Hitlers Lagebesprechungen*, p. 377.

[26]Manstein, pp. 464-467. Manstein inaccurately asserts that the East Wall was built contrary to Hitler's orders. See Manstein, pp. 474-475.

[27]Ziemke, p. 154.

[28]Willemer, MS P-194, pp. 35-37.

[29]Willemer, MS P-194, pp. 42, 48-53.

[30]Willemer, MS P-194, pp. 39-42, 44-45.

[31]Ziemke, pp. 167-172. The quantities of people and goods actually evacuated by the Germans from the "scorched earth" area fell far below planning figures. Kluge reported at the end of September that no more than thirty per cent of the removable property had actually been evacuated. The failure

to displace all Russian civilians out of the zone forward of the East Wall had the immediate effect of making those males left behind available for conscription into the Red Army. Advancing Soviet formations dragooned the male population of every village into their ranks, and in this way kept their battleworn units somewhat up to strength. On the difficult fighting during Army Group Center's withdrawal to the PANTHER line, see Rudolf von Roman, "XX Corps in the Defense of the Area Southwest of Orel, Summer 1943," MS D-153 (OCMH, 1947), pp. 2-20; Meyer-Detring, pp. 179-185; and Grossmann, pp. 188-196.

[32]Ziemke, pp. 173-196, 218-247; Seaton, Russo-German War, pp. 384-390, 412-427; and Manstein, pp. 481-537. A description of fighting for possession of the PANTHER position at the tactical level is in *78. Sturm Division*, pp. 237-280; and Willemer, MS P-143c, pp. 184-207. Soviet pressure against Army Group North developed more slowly than against the more southern army groups. Hitler rejected requests from Army Group North to fall back on the PANTHER position until January 1944. See Sixt, MS P-114a (III), pp. 592-593 (*"Einzelangaben auf den Versuchen, den Entschluss Hitlers zur Zurucknahme der Front der H.Gr. Nord auf die Panther-Stellung zu erwirken"*). On the defensive fighting in the northern sector, see Sixt, MS P-114a (III), pp. 405-484; and Breithaupt, pp. 246-257.

[33]Operations of Encircled Forces, pp. 15-42.

[34]Ziemke, pp. 238-243. Defensive fighting for the Nikopol Bridgehead is discussed in *"Generalkommando XXIX.A.K. Abt. Ia Nr. 841/44. Erfahrungsbericht über die Abwehrkämpfe im Brückenkopf Nikopol"* dated 25 February 1944, NAM T-312/1495/000166-000169.

[35]Operations of Encircled Forces, pp. 43-51; and Reinhardt, MS P-143a, pp. 401-446.

[36]Reinhardt, MS P-143a, p. 433.

[37]Schulz, MS T-15, p. 88.

[38]Zhukov, *Vospominaniya*, p. 520.

[39]The organization and deployment of allied armies in this period are summarized in Mueller-Hillebrand, *Das Heer*, III, 112-112. See also Seaton, Russo-German War, pp. 392-396.

[40]On the general allocation of German military manpower, see Mueller-Hillebrand, *Das Heer*, III, 109-112.

[41]Mueller-Hillebrand, *Das Heer*, III, 99, 133.

[42]On 18 February 1943, Dr. Goebbels declared "total war," thereby launching a campaign to put Germany on a full war footing. This had the paradoxical effect of increasing the manpower demands of Germany's war industries, thus sharpening the competition between the armed forces and the economy for men. On the problems of allocating labor inside Germany, including the use of foreign slave labor, see Albert Speer, Inside the Third Reich, trans. Richard and Clara Winston (New York: The Macmillan Company, 1970), pp. 251-252, 260-264, 303-306, 314-315. The raising of foreign military units for combat with

German forces was treated with tremendous circumspection, largely because it ran counter to Nazi racial myths. By early 1943, 176 battalion-sized contingents of "*Osttruppen*," composed of a variety of eastern nationalities, had been formed. See Mueller-Hillebrand, *Das Heer*, III, 114. On the vacillations in German policy concerning the treatment of eastern peoples, see Gerald Reitlinger, The House Built on Sand: The Conflicts of German Policy in Russia, 1939-1945 (New York: Viking Press, 1960), especially pp. 287-351. See also Seaton, Russo-German War, pp. 396-399. In 1943 Germany cast her conscription nets even wider, drafting previously-exempted youngest and only sons, as well as men up to the age of fifty for limited service.

[43]Mueller-Hillebrand, *Das Heer*, III, 121.

[44]Mueller-Hillebrand, *Das Heer*, III, 132.

[45]Helmuth Reinhardt, "Personnel and Administration Part II: Training and Employment of NCO's and Privates in the German Army," MS P-012 (Historical Division, EUCOM: 1949), pp. 11-13, 16-19. "Guiding Principles" pamphlet is quoted on p. 13.

[46]Reinhardt, MS P-012, pp. 12-13.

[47]An overview of German training problems and programs from 1939-1941 is given in Edgar Röhricht, "Army High Command - Duties of Army Training Branch," MS P-041g (Historical Division, USAREUR: 1952), pp. 9-33.

[48]Burkhart Mueller-Hillebrand, "Personnel and Administration Part III: Training of Replacements for the Field Forces," MS P-005 (Historical Division, EUCOM: 1948), pp. 71, 73, 87-88; and Reinhardt, pp. 21-22.

[49]Mueller-Hillebrand, MS P-005, pp. 80-81.

[50]Mueller-Hillebrand, MS P-005, pp. 76-77, 82-84.

[51]Mueller-Hillebrand, MS P-005, pp. 84-85.

[52]Mueller-Hillebrand, MS P-005, pp. 85-86. See also "*OKH: GenStdH./Ausb. Abt. (Ia). Merkblatt: Anregungen für die Ausbildung in der Stellung*" dated 20 December 1943, NAM T-78/201/6144574-6144590.

[53]A general comparison of German and American methods is given in Martin van Creveld, "Fighting Power: German Military Performance 1914-1945," Defense Technical Information Center Report E750357 (Potomac, Maryland: C and L Associates, 1980), pp. 83-93. Van Creveld's study is written with a particular editorial purpose, namely "to determine the factors accounting for the German superiority" over Allied armies asserted in Dupuy's A Genius for War. After comparing the German and American systems for training replacements, van Creveld writes:

> The conclusions from these facts are inescapable. Beyond a shadow of doubt, the German Army, profitting from the lessons of World War I, possessed an excellent replacement system which only failed, as sometimes happened, when circumstances made it impossible to apply. The US Army by contrast put technical and administrative efficiency at the head of its list of priorities, disregarded other considerations, and produced a system that possessed a strong inherent tendency to turn men into nervous wrecks.

Van Creveld's scathing indictment of the American system may or may not be correct; however, he is surprisingly uncritical of the German system, conceding only that "the longer the war went on, the more frequently did difficult circumstances make it impossible [for the Germans] to fully carry out these elaborate [training] procedures. The results were strongly negative." In fact, whatever its virtues, the quaint German system was flatly overwhelmed by the requirements of the Eastern Front, where "difficult circumstances" were more often the rule than the exception from 1943 onward. One could therefore say, with hyperbole equal to van Creveld's, that the German system possessed a strong inherent tendency to turn combat divisions into burned-out hulks during any sort of sustained combat.

[54]Mueller-Hillebrand, MS P-005, pp. 83-84. The receipt by divisions of troops directly from Germany was common for units undergoing extended rehabilitation. Reinhardt, MS P-012, p. 24. Van Creveld cites the example of the 340th Infantry Division in February 1944, in which the pressures of combat prevented passing replacements through the divisional replacement battalion. These replacements subsequently broke and ran at the onset of a Russian attack. See van Creveld, "Fighting Power," p. 89.

[55]Mueller-Hillebrand, MS P-005, pp. 83-84, 87-88; and Reinhardt, MS P-012, p. 25.

[56]Röhricht, MS P-041g, pp. 42-43; Reinhardt, MS P-012, pp. 19, 23, 27; and Mueller-Hillebrand, MS P-005, pp. 76-77. Mueller-Hillebrand's assertion that all branches gave uniform training in infantry skills is incorrect: training varied widely by branch and period of the war. Röhricht cites the publication of a standard basic training manual as a "neglected opportunity" in the German Army. For a sample discussion of branch training requirements, see Oskar Muenzel, "Wartime Training of Panzer Troops," MS P-078 (Historical Division, EUCOM: 1951).

[57]On the decline in the quality of German junior leaders and its effects on unit performance, see for example *"Oberkommando der Heeresgruppe Mitte Ia Nr. 6576/43. An O.K.H./Gen.St.d.H./Ausb.Abt."* dated 21 June 1943, NAM T-312/1283/001230; and *"Fernschreiben von Gen.Kdo. VII.A.K. Ia an A.O.K.2 - Ia"* dated 22 May 1943, NAM T-312/1283/001246-001247.

[58]Günther Blumentritt, "The Main Line of Resistance," MS B-690 (Historical Division, USAREUR: 1947), p. 11.

[59]*"Der Oberbefehlshaber der Heeresgruppe Mitte Ia Nr. 6436/43. An die Oberbefehlshaber der Armeen, Komm. Generale, Divisionskommandeure"* dated 17 June 1943, NAM T-312/1283/001234.

[60]Willemer, MS P-143c, pp. 154, 157. General Röhricht, author of MS P-041g, commanded the 95th Division during these actions.

[61]Mueller-Hillebrand, *Das Heer*, III, 124, 110. Through July 1943, roughly 25% of the German Army's conscripts had gone into new divisions, while 75% had been fed into existing units as replacements.

[62]Mueller-Hillebrand, *Das Heer*, III, 111.

[63]Manstein, p. 280. See also Görlitz, German General Staff, p. 422.

[64]See, for example, *"Armee-Oberkommando 2 Ia Nr. 1901/43. Betr.: Bericht über personnelle und materielle Verluste auf Grund mangelhafter Ausbildung"* dated 19 May 1943, NAM T-312/1283/001248-001249, 001251-001260, 001265-001270; *"5. Panzer-Division Abt Ia Betr.: Erfahrungen mit neu aufgestellten Einheiten im Einsatz"* dated 2 January 1944, NAM T-312/1311/000662-000664; and Guderian's account of the luckless 25th Panzer Division in late 1943 in Panzer Leader, pp. 316-322.

[65]Röhricht, MS P-041g, pp. 36-37.

[66]Mueller-Hillebrand, *Das Heer*, III, 112, 115-120. The static divisions were initially raised for garrison duty in the West. Later in the war, similar "fortress" units were created on the Eastern Front.

[67]On the production of different types of tanks, see Guderian, Panzer Leader, pp. 276-283. Finally recognizing that so many different variants in similar weapons impeded mass production, in June 1944 Hitler issued a "Concentration Order" directing that the policy of continuously making minor modifications and improvements to major weapons should be discontinued. The disruption caused by these modifications was judged to be not worth the marginal improvement in combat effectiveness gained. See Milward, pp. 128-129.

[68]Milward, pp. 100-102. The entire subject of Germany's quest for qualitative superiority in technology, and its industrial ramifications, is covered in Milward, pp. 100-130.

[69]Milward, p. 104.

[70]Guderian, Panzer Leader, pp. 306-307, 310-311. See also Mellinthin, p. 229; and Manstein, p. 447.

[71]Halder, War Journal, VII, 340 (entry for 3 July 1942 on dispatching liaison officers on fact-finding tours) and footnote.

[72]Röhricht, MS P-041g, pp. 2-5, 6.

[73]Guderian's lamentations about the institutional resistance that he encountered in pressing for a modern armored force are in Panzer Leader, pp. 28-54, 62-63.

[74]Röhricht, MS P-041g, pp. 5, 7, 11-17. The Training Branch later began an abbreviated 10-week course for new General Staff officers, sending them out to higher headquarters in the field for additional practical training. Another function of the Training Branch was the preparing of battalion and regimental commanders. Their training was done in classes of 300, and consisted of four weeks' "hands on" training with a guinea pig "demonstration division" in Germany. The demonstration division was normally a regular infantry division pulled out of the field army, and used to train the future commanders in everything from control of their formations during combat to troop welfare, unit logistics, administration, and the wielding of disciplinary power. During field exercises, the command-designees filled all command positions from platoon to regimental level, while those student officers not actually participating rendered critiques. According to Röhricht, "the officers unanimously stated that the courses of instruction with the demonstration division were extremely effective."

[75]Röhricht, MS P-041g, p. 9.

[76]Röhricht, MS P-041g, pp. 10-11.

[77]Röhricht, MS P-041g, pp. 24-33. See Chapter I for a discussion of the defensive doctrines reflected in the new manual on panzer operations.

[78]Röhricht, MS P-041g, p. 41.

[79]Franz Halder and others, "The German Army High Command, OKH (Synopsis)," MS T-111 (Historical Division, EUCOM: 1949), p. 19. (MS T-111 is a summary of the various reports in the MS P-041 series, and so - except for its authorship - is a recapitulation of Röhricht on the subject of the Army Training Branch.) See also Kurt Zeitzler, "General Critique of MS P-041," MS P-041ii (Historical Division, USAREUR: 1953), p. 38.

[80]Mueller-Hillebrand, MS P-005, pp. 79-80, 82.

[81]See *"OKH: GenStdH/Ausb.Abt.(II). Zusammendruck der Ausbildungs-Hinweise Nr. 1-9,"* NAM T-78/201/6144329-6144342; *"Zusammendruck der Ausbildungshinweise Nr. 10-23,"* NAM T-78/201/6144343-6144355. In 1944, separate Training Directives were issued for the Eastern Front and the "Invasion (later Western) Front" in France. See, for example, *"Ausbildungshinweis Nr. 24 (Ost),"* NAM T-78/201/6144356.

[82]See, for example, *"Oberkommando des Heeres. GenStdH/Ausb.Abt.(II) Nr. 3500/43(1). Betr.: Erfahrungsbericht Abweht (1)"* dated 3 September 1943, NAM T-78/201/6144381-6144383. Consecutive numbered reports (through Number 13 dated 20 June 1944) are at 6144384-6144424.

[83]The following discussion is based upon *"Oberkommando des Heeres. GenStdH./Ausb.Abt./Gen d Pi u Fest. b. ChefGenStdH. Nr. 7900/43. Anregungen fur den Ausbau von Stellungen an der Ostfront"* dated 1 October 1943, NAM T-78/201/6144890-6144899 and sketch, 6144889-6144890.

[84]Röhricht, MS P-041g, p. 34.

[85]See, for example, the interpretation of defensive doctrine published by Army Group South Ukraine in *"Oberkommando der Heeresgruppe Südukraine Ia Nr. 2654/44. Erläuterung zum Begriff Grosskampf-HKL"* dated 12 July 1944, NAM T-78/202/6146376. The copy of this document in the files of the Army Training Branch has the handwritten word *"Nein!"* next to one passage, along with other critical marginalia.

[86]Leo Freiherr Geyr von Schweppenburg, "Panzer Tactics in Normandy," European Theater Historical Interrogation (ETHINT) 13 (OCMH, 11 December 1947), p. 7.

[87]See Warlimont, Inside Hitler's Headquarters, pp. 260-264; Görlitz, German General Staff, pp. 419-421, 442-443; and Seaton, Russo-German War, pp. 31-32.

[88]Guderian, Panzer Leader, pp. 289-291.

[89]Guderian, Panzer Leader, p. 290.

[90]Guderian, Panzer Leader, p. 291. Most historians have taken Guderian's self-congratulatory account at face value, and have either ignored the enormous problems created by his unique autonomy or else written off the criticisms of his actions by other German officers as being motivated by pettiness and jealousy. See, for example, Macksey, pp. 168-169; and Liddell Hart, pp. 71, 74-75, 92, 126.

[91]As an example, see the sentiments expressed in *"Der Generalinspekteur der Panzertruppen - Abteilung Ausbildung - Denkschrift über den Einsatz von Panzerverbanden im Sommer und Herbst 1943"* dated 17 October 1943, NAM T-78/202/6146636-6146646. The "Training Detachment" (*Abteilung Ausbildung*) that published this document was not the Army Training Branch, but rather Guderian's own training section. See Macksey, p. 169, for comments on Guderian's staff organization as Inspector General of Armored Troops.

[92]Röhricht, MS P-041g, p. 35.

[93]For a description of German antitank experiences and methods in 1943 and early 1944, see *"Der Oberbefehlshaber der Heeresgruppe Mitte Ia Nr. 5669/43. An den Oberbefehlshaber der 2. Armee"* dated 28 May 1943, NAM T-312/1283/000013-000015; *"Der Panzeroffizier beim Chef Gen StdH. Bb. Nr. 1174/43"* dated 14 August 1943, NAM T-78/202/6146586-6146592; *"Oberkommando des Heeres. GenStdH/Ausb. Abt. (II) Nr. 3500/43 (5). Betr.: Erfahrungsberichte Abwehr (5)"* dated 21 September 1943, NAM T-78/201/6144396; and *"Anlage zu Okdo.H.Gr. Mitte Ia Nr. 1406/44 (Erfahrungsbericht der 4. Armee über die Abwehrschlacht von Orscha)"* dated 6 February 1944, NAM T-312/1311/000673.

[94]*"Oberkommando des Heeres. GenStdH/Der Panzeroffizier. Bb. Nr. 1255/43. Mitteilungen an die 'Stabsoffiziere für Panzerbekampfung' Nr. 1"* dated 26 August 1943, NAM T-312/1313/000642-000644. In November 1944 the position of "Panzer Officer of the Army General Staff" was abolished, and its functions transferred to a new "General for Antitank Defense of All Arms" subordinate to the Inspector General of Armored Troops. By that time, Guderian had moved up to become Chief of the Army General Staff. See Keilig, I, Section 55, 1. At divisional level, the job of Stopak was often an additional duty of either the antitank battalion commander or of the senior engineer officer.

[95]See Robert L. Quinnett, "The German Army Confronts the NSFO," Journal of Contemporary History, 13, No. 1 (January 1978), 53-62; and Görlitz, German General Staff, pp. 420-421.

[96]Sixt, MS P-114a (III), p. 486.

Notes - Chapter VI

[1]Seaton, Russo-German War, p. 390.

[2]*"Taktische Erfahrungen"* dated 20 February 1944, NAM T-312/1495/000083. This memo appears to be an early draft of *"Anlage 2 zu A.O.K.6 Ia Nr. 295/44. Einzelerfahrungen"* dated 22 February 1944, NAM T-312/1495/000142, which discusses the same operational issues.

[3]Carl Wagener, "Battle Command in the East," MS P-082 (OCMH, 1954), pp. 2, 3. General Wagener was Hube's chief-of-staff in the First Panzer Army.

[4]Wagener, MS P-082, pp. 4-10.

[5]Commentary by Franz Halder in Wagener, MS P-082, p. 1.

[6]Manstein, p. 544.

[7]See Ziemke, pp. 258, 314.

[8]*"Der Führer. OKW/WFSt/Op Nr. 662656/43. Weisung Nr. 51"* dated 3 November 1943, in KTB/OKW, IV2, 1530-1534. The allocation of German forces between OKW and OKH theaters is further discussed in Ziemke, pp. 272-273, 309-310.

[9]*"Der Führer. Oberkommando des Heeres, Gen.St.d.H./Op.Abt.(I) Nr. 2434/44. Führerbefehl Nr. 11 (Kommandanten der festen Plätze und Kampfkommandanten)"* dated 8 March 1944 (with annexes) in Hubatsch, pp. 243-250. As was his wont, Hitler prescribed detailed tactical instructions for the defense of the Fortified Places.

[10]See Percy Ernst Schramm, Hitler: The Man and the Military Leader (Chicago: Quadrangle Books, 1971), pp. 158-159.

[11]Schramm, p. 159.

[12]Mueller-Hillebrand, *Das Heer*, III, 137-138.

[13]Mueller-Hillebrand, *Das Heer*, III, 174.

[14]See Ziemke, p. 215.

[15]*"Gruppe Schörner, Der Befehlshaber. An den Oberbefehlshaber der 6. Armee, Herrn Generaloberst Hollidt"* dated 13 February 1944, NAM T-312/1495/000017-000018. In this report General Schörner, later to command various army groups on the Eastern Front as one of Hitler's favorite commanders, had strong words of his own about German strategic leadership.

[16]See, for example, *"Werturteile zu den Zustandsberichten vom 1.7.44,"* NAM T-312/1500/000008-000024.

[17]*"Anlage 2 zu A.O.K.6 Ia Nr. 295/44,"* NAM T-312/1495/000144.

[18]See Mueller-Hillebrand, *Das Heer*, III, 138-139.

[19]Mueller-Hillebrand, *Das Heer*, III, 138.

[20]See *"F.E.B. 320. Anlage 1 au Tgb. Nr. 186/44. Erfahrungsbericht und Ausbildungsplan für eine 14-tägige Ersatz-Ausbildung"* dated 3 June 1944, NAM T-312/1497/000401-000405.

[21]*"Hauptmann Hofmiller, 17.Inf.Div. Erfahrungsbericht Felders. Btl.17 (13. Januar bis 1. April 1944)"* dated 1 June 1944, NAM T-312/1497/000414-000419; and *"Feld-Ersatz-Btl. 17, Erfahrungsbericht"* dated 5 June 1944, NAM T-312/1497/000420-000422. For another view of German training during this time, see Sajer, pp. 347-361.

[22]Order-of-the-Day to Third Rumanian Army, *"A.O.K.3 Generalstab Ia"* dated 24 April 1944, NAM T-312/1495/000716.

[23]*"Armee-Oberkommando 6 Ia/Id Nr. 2174/44. Betr.: Durchführungsbestimmungen für die Ausgabe des Anerkennungsbetrages des Marschalls von Rumänien für Panzer-Abschüsse"* dated 8 May 1944, NAM T-312/1495/000787-000789.

[24]See *"Gruppe Schörner,"* NAM T-312/1495/000018; and Sajer, pp. 383-390.

[25]Walter Hartmann, "Principles and Experiences of Position Warfare and Retrograde Movements," MS D-133 (OCMH, 1947), p. 20; and *"Oberkommando der Heeresgruppe Mitte Ia Nr. 1406/44,"* NAM T-312/1311/000672.

[26]See *"Armee-Oberkommando 2. Stabsoffz.f.Pz.-Bek. Betr.: Richtlinien fur den Ausbau der Stellungen"* dated 14 May 1944, NAM T-312/1313/000598; *"Erfahrungsbericht Abwehr (5),"* NAM T-78/201/6144395-6144396; and *"Oberkommando des Heeres. Gen.St.d.H./Ausb.Abt. (II) Nr. 500/44. Betr.: Erfahrungsberichte Abwehr (10)"* dated 18 March 1944, NAM T-78/201/6144407-6144408.

[27]Schramm, pp. 153-154.

[28]Hartmann, MS D-133, pp. 4-5.

[29]Hartmann, MS D-133, p. 6.

[30]Hartmann, MS D-133, p. 2. See also General Heinrici's comments in Liddell Hart, pp. 322-323.

[31]*"Oberkommando der Heeresgruppe Südukraine. Erläuterung zum Begriff Grosskampf-HKL,"* NAM T-78/202/6146376.

[32]Hartmann, MS D-133, pp. 7-8.

[33]Hartmann, MS D-133, p. 19.

[34]*"Erfahrungsberichte Abwehr (10),"* NAM T-78/201/6144408; and *"Oberkommando des Heeres. GenStdH/Ausb.Abt.(II) Nr. 3500/43(3). Betr.: Erfahrungsberichte Abwehr (3)"* dated 10 September 1943, NAM T-78/201/6144388.

[35]*"Generalkommando XXIX. A.K. Erfahrungsbericht,"* NAM T-312/1495/000168.

[36]A discussion of the rationale for the selection of defensive terrain and the construction of separated fighting positions is in Eike Middeldorf, *Taktik im Russlandfeldzug: Erfahrungen und Folgerungen* (Darmstadt: E.S. Mittler, 1956), pp. 132-140. During the war Middeldorf served as a division staff officer on the Russian Front, and later as a General Staff Officer assigned to the Army Training Branch.

[37]*"Oberkommando der Heeresgruppe Mitte Ia Nr. 1406/44,"* NAM T-312/1311/000672.

[38]Hartmann, MS D-133, p. 13.

[39]*"Oberkommando des Heeres. Gen.St.d.H./Ausb.Abt. (II) Nr. 500/44 (12). Betr.: Erfahrungsbericht Abwehr (12)"* dated 2 May 1944, NAM T-78/201/6144417.

[40]Hartmann, MS D-133, p. 14; *"Erfahrungsbericht Abwehr (12),"* NAM T-78/201/6144413; and Yekimovskiy, p. 19.

[41]Samsonov, pp. 134, 135-138.

[42]Ryazanskiy (quoting Bogdanov), p. 20; A. Ryazanskiy, *"Taktika tankovikh voisk v godi velikoi otechestvennoi voinie,"* *Voyenny Vestnik*, No. 6 (June 1967), p. 13. (The second-cited article is a continuation of the first in a subsequent issue. Hereafter cited as Ryazanskiy II.)

[43]*Polevoi ustav krasnoi armii 1944* (Moscow: Voyennoe Izdatel'stvo, 1944); translated by Office of the Assistant Chief of Staff G2, GSUSA, 1951. See also Middeldorf, pp. 126-131; Ryazanskiy II, pp. 13-14; and Yekimovskiy, p. 16, 17-18.

[44]Hermann Gackenholz, "The Collapse of Army Group Center" in Jacobsen and Rohwer, p. 367; and David M. Glantz, "Soviet Operational Formation for Battle: A Perspective," Military Review,

[45]Gackenholz, pp. 360-361; and Ziemke, p. 314.

[46]Ziemke, p. 314.

[47]Gackenholz, p. 362.

[48]Defensive preparations in various fortresses are discussed in *"Anlage zu A.O.K.2 Ia Nr. 2002/44. Richtlinien für den Ausbau der 'Festen Plätze'"* dated 3 April 1944, NAM T-312/1307/000955-000956; *"Armee-Oberkommando 2 Ia Nr. 504/44. Weisung für die Kommandanten der 'festen Plätze' Brest-Litovsk, Pinsk, und Lunieniec"* dated 22 March 1944, NAM T-312/1307/000969-000970; and *"Der Festungskommandant Abt. Ia Nr. 932/33. Betr.: Befestigung von Brest, Kampfführung, Kampfmittel, und Forderungen"* dated 12 May 1944, NAM T-312/1307/001012-001017 and overlay 001019. An after-action report describing a successful fortress battle at Kovel in early 1944 is *"Armee-Oberkommando 2 Ia 2702-44. Betr.: Erfahrungsbericht Kovel"* dated 29 April 1944, NAM T-312/1307/000916-000922.

[49]Gackenholz, pp. 364-365; and Edgar M. Howell, The Soviet Partisan Movement, 1941-1944, DA PAM 20-244 (Washington, DC: USGPO, 1956), pp. 201-202.

[50]Ziemke, p. 321; and Gackenholz, p. 366.

[51]Quoted in Ziemke, p. 321.

[52]Ziemke, pp. 323-325; Gackenholz, pp. 368-379.

[53]Ziemke, p. 325.

[54]Ziemke, pp. 403-409, 438-439; and Seaton, Russo-German War, pp. 528-529.

[55]Seaton, Russo-German War, pp. 467-486; Ziemke, pp. 350-364, 378-386.

[56]Guderian, Panzer Leader, p. 397. The final ruin of the General Staff is traced in Görlitz, German General Staff, pp. 477-499. At his situation conference on 20 April 1945, Hitler raged that "all the failures in the East are due to treachery," this assertion being the Führer's way of fixing the blame for Germany's defeat on the caste of officers that he detested. See Schramm, p. 178.

[57]See Schramm, pp. 135, 149-150, 156-158, 169-170, 178-179. See for example, Hitler's general order of 25 November 1944 in which he declared that "situations which have seemed hopeless have been redeemed by the courage of soldiers..., by the steadfast perseverance of all ranks, and by inflexible, exalted leadership." Quoted in Trevor-Roper, p. 202.

[58]Quoted in Cornelius Ryan, The Last Battle (New York: Simon and Schuster, 1966), pp. 362-363. The entire message is in KTB/OKW, IV2, 1589-1590.

[59]Radio message, *"OKW/WFSt/Op(H) Nr. 00688"* dated 21 January 1945, in Hubatsch, p. 300.

[60]Radio message of 21 January 1945 in Hubatsch, p. 300. In this same message, Hitler also made frontline commanders responsible for maintaining adequate aommunications with higher headquarters to allow the Fuhrer to monitor closely all operations. Hitler was unwilling to accept a "temporary breakdown in communications" as an excuse for independent action by an enterprising commander.

[61]Model eventually wound up in France where he did his best to bar the British and Americans from entering the Reich from the west. Surrounded in the Ruhr in April 1945, Model showed his eternal loyalty by committing suicide to prevent capture. The commanders of German army groups on the Eastern Front and the various army group redesignations are summarized in Seaton, Russo-German War, p. 591.

[62]Zeitzler, the Chief of Staff before Guderian, was relieved and stripped of his rank by Hitler after the bomb plot. As Chief of Staff, Zeitzler was implicitly answerable for the conduct of all General Staff officers and for the loyalty of the German Army as a whole. See Görlitz, German General Staff, p. 475.

[63]Görlitz, German General Staff, p. 476.

[64]Ziemke, pp. 336-337; and Guderian, Panzer Leader, pp. 354-355.

[65]Guderian, Panzer Leader, p. 387.

[66]Mueller-Hillebrand, *Das Heer*, III, 164.

[67]See Ziemke, p. 340.

[68]See Guderian, Panzer Leader, p. 364; Görlitz, German General Staff, p. 481; and Mueller-Hillebrand, *Das Heer*, III, 166-167.

[69]Guderian, Panzer Leader, p. 383.

[70]Guderian, Panzer Leader, pp. 361-362. A summary of the Volkssturm program with combat examples is in Military Improvisations, pp. 93-97.

[71]Radio message of 28 January 1945, *"OKW/WFSt/Op-Org. Nr. 00937. Betr.: Einsatz des Volkssturms,"* in Hubatsch, p. 301. This same message also called for corsetting *Alarmeinheiten* and newly-raised units with regulars as well.

[72]Interference by civilian zealots in military operations was especially rampant after the issuance by Hitler of the so-called "Scorched Earth" order of 19 March 1945. In this message, Hitler ordered the destruction of all German transportation, communications, industrial, and military facilities in the path of advancing enemy armies. This order made the Gauleiters responsible for much of this destruction in their own areas, and directed "troops to give the Gauleiters and Reich Commissars for Defense such assistance as they require." See *"Führerbefehl 'Verbrannte Erde'"* in KTB/OKW, IV2, 1580-1581. See also Guderian's comments in Panzer Leader, pp. 388-389.

[73]*"Gliederung des deutschen Heeres in den Jahren 1944/45: 1 März 1945"* in KTB/OKW, IV2, 1898. See also Clark, pp. 443, 453.

[74]See, for example, the defensive methods described in Rudolf Hofmann, *"Abwehr und Rueckzug des XXVII. A.K. Noerdlich der Weichsel im Januar 1945,"* MS P-143b-XIII (Historical Division, USAREUR, 1954), pp. 4-7, 13-17.

[75]Ziemke, p. 413.

[76]The discussion of Volkssturm strengths and weakness in city fighting is based on two separate interviews with former Volkssturm fighters, both of whom requested anonymity. Hitler Youth contingents also made fierce city fighters.

[77]Military Improvisations, p. 95.

[78]An impression of the friction between German infantry and panzer forces at this time can be gained from Gerd-Axel Weidemann, "German Panzer Battalion in the East, 1945," MS P-128 (Historical Division, EUCOM, 1952), pp. 12-13.

[79]*"General der Artillerie im OKH (Ia). Reisebericht über die Reise zur Heeresgruppe Weichsel v. 5-7.4.45"* dated 8 April 1945, NAM T-78/201/6144545, 6144547. This report also discusses coordination problems between the hodge-podge of German artillery units. See also detailed comments on various units in *"Anlage 3 zu Gen.d.Art. (Ia) Staff. A Nr. 379/45"* (undated), NAM T-78/201/6144551-6144553.

[80]*"General der Artillerie - Reisebericht,"* NAM T-78/201/6144545.

[81]Ryan, p. 353.

[82]A general discussion of the tactical considerations influencing the German tactic of pre-emptive withdrawal is in Military Improvisations, pp. 28-29.

[83]Quoted in Liddell Hart, p. 324. See also Guderian, Panzer Leader, p. 377.

[84]Military Improvisations, p. 29. See also German Defense Tactics, p. 36.

[85]Quoted in Liddell Hart, p. 324.

[86]Military Improvisations, p. 29.

[87]German Defense Tactics, p. 36.

[88]See Ziemke, p. 418.

[89]German Defense Tactics, pp. 38-40; Military Improvisations, pp. 29-35.

[90]See *"Oberkommando des Heeres. Gen.St.d.H. Ausbildungsabteilung (II) Nr. __/44. Betr.: Grosskampfgliederung in der Verteidigung"* and *"Anl. zu OKH/GenStdH/Ausb.Abt. (II) Nr. __/44. Bestimmungen über die 'Grosskampfgliederung,'"* NAM T-78/202/6146263-6146273. The copies of these documents in the National Archives microcopy collection are typed drafts only. The author presumes that final versions were actually sent to the field. The date of these is uncertain, the document symbols indicating only that they were done sometime in 1944. However, the cover letter invites army groups to reply by 1 February 1945, and so these were probably written in December 1944.

[91]In his memoirs, Guderian represents the short-withdrawal scheme as Hitler's invention, based upon the Führer's experiences in World War I. Guderian states (inaccurately, based on Third Panzer Army's experience in East Prussia) that the short withdrawal caused "main line of defense, major defensive positions, reserves, all [to be] buried beneath the tidal wave of the initial Russian breakthrough." Guderian is correct in stating that Hitler preferred the shorter retrograde movement over a larger one that "sacrifice[d] twelve miles without a fight"; however, he is incorrect in representing this scheme solely as some device of Hitler's petulance. Frontline commanders preferred the shorter movement to a bolder one for a number of practical reasons. Guderian, the penultimate panzer leader, was accustomed to thinking in terms of large swatches of territory. He seems to have given little credence to the qualms of frontline commanders, or else to have lost touch with the situation at the front to the extent that he was unaware of the negative morale effects that large defensive dislocations had on German troops. See Guderian, Panzer Leader, pp. 377-378.

[92]See *"Ausbildungs-Abteilung (II) Nr. 345/45. An Chef/Ausbildungsabteilung Zeppelin"* dated 16 March 1945, NAM T-78/202/6146301. These comments were written by a lieutenant colonel action officer on the General Staff.

[93]*"Oberkommando des Heeres. Gen.St.d.H. Ausbildungsabteilung (II) Vorentwurf: Bestimmungen über das Zurückverlegen der Verteidigung vor feindlichem Grossangriff"* dated 16 March 1945, NAM T-78/202/6146256-6146261.

[94]Source material used to develop "Rearward Displacement of the Defense"

is listed in *"Übersicht über Quellenmaterial (nur allerwichtigste Quellen)"* (undated), NAM T-78/202/6146368-6146369.

[95]See *"Ausbildungsabteilung (II) Nr. 345/45. Vortragnotiz für den Herrn Chef des Generalstabes des Heeres"* dated 20 March 1945, NAM T-78/202/6146215; and *"Generalstab des Geeres Ausb.Abt. (II) Nr. 345/45. Betr.: Zurückverlegen der Verteidigung vor feindlichem Grossangriff (2. Vorantwurf)"* dated 20 March 1945, NAM T-78/202/6146220-6146227. The National Archives microcopies also include several "buckslips" with various critical comments.

[96]See *"Oberkommando des Heeres. GenStdH/AusbAbt/GendArt (Ic) Nr. 350/45. Betr.: Grosskampfgliederung der Artillerie"* dated 1 April 1945, NAM T-78/202/6146193-6146197.

[97]*"Obkdo der Heeresgruppe 'Weichsel.' Der Oberbefehlshaber. Ia/Nr. 1468/45. Betr.: Kampfführung in der Grosskampf-HKL"* dated 24 February 1945, NAM T-78/201/6144548-6144550.

[98]*"General der Artillerie - Reisebericht,"* NAM T-78/201/6144545.

[99]Ryan, pp. 351-352.

Notes - Chapter VII

[1]Blumentritt, B-690, p. 10.

[2]Introduction to Guderian, Panzer Leader, p. 14.

[3]Röhricht, MS P-041g, pp. 43-44.

[4]F.M. von Senger und Etterlin, *Der Gegenschlag: Kampfbeispiele und Führungsgrundsätze der Beweglichen Abwehr* (Neckargemund: Kurt Vowinckel Verlag, 1959), p. 91.

[5]The basic work on the significance of unit cohesion in the German Army's last days is Edward A. Shils and Morris Janowitz, "Cohesion and Disintegration in the Wehrmacht in World War II," Public Opinion Quarterly, Vol. 12 (Summer 1948).

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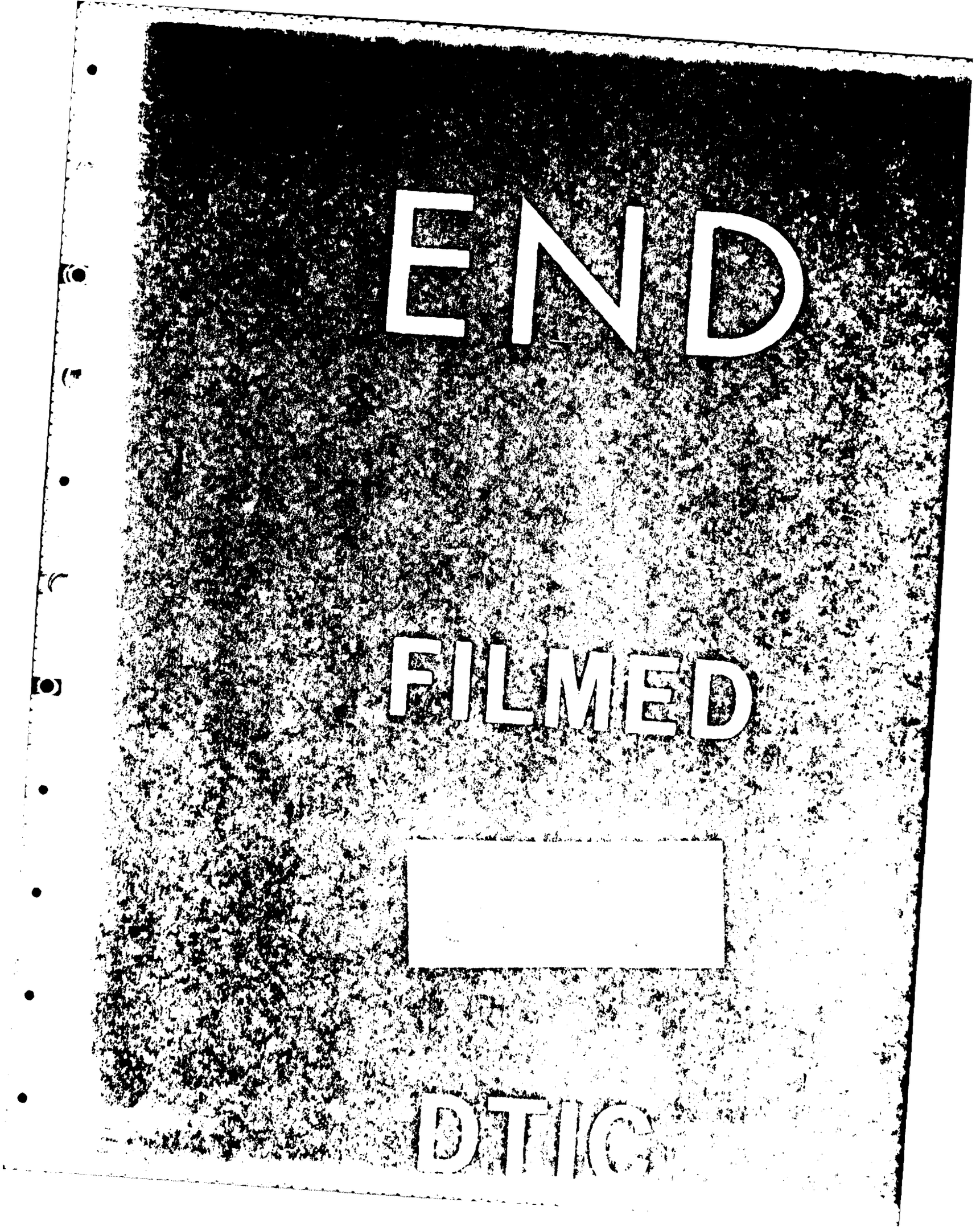
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