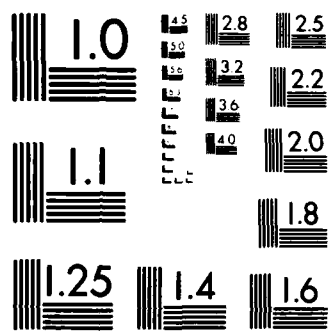


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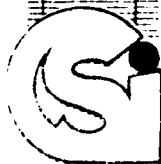
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THE BATTLE OF SCHNEE EIFEL
OFFENSIVE, DELIBERATE ATTACK, FOREST

UNITS:

4TH INF DIV
12TH INF RGT
22D INF RGT
8TH INF RGT
28TH INF RGT

13-19 SEPTEMBER 1944

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Submitted to the Combat Studies Institute, U.S. Army Command and General Staff College, in partial fulfillment of the requirements for subcourse P651, Battle Analysis.

Fort Leavenworth

18 May 1984

ABSTRACT

COMMON REFERENCE: Schnee Eifel, 15-19 September 1944

TYPE OPERATION: Offensive, Deliberate Attack, Forest

OPPOSING FORCES: US: 4th Inf Div
12th Inf Rgt
22d Inf Rgt
8th Inf Rgt
28th Inf Div

German: 2d SS Panzer Div

SYNOPSIS: In September 1944, the 4th Inf Div, V (US) Corps, later supported by the 28th Inf Div, attacked the heavily wooded ridgeline east of St Vith, called the Schnee Eifel, to rupture the Siegfried Line. The 2d SS Panzer Division gave ground initially but eventually stopped both US divisions. This battle is an excellent example of operations conducted in hilly, forested terrain.

BIBLIOGRAPHY:

MacDonald, Charles B. The Siegfried Line Campaign. US Army Official History. Washington, D.C., Government Printing Office, 1953.

U.S., War Department, 4th Infantry Division. Action Against the Enemy: Reports After Action 1-30 September 1944. 10 October 1944.

U.S., War Department, 4th Infantry Division. Combat Report: Penetration of the Siegfried Line and Occupation of the Schnee Eifel. 5 October 1944.

Van Creveld, Martin L. Fighting Power: German and U.S. Army Performance: 1939-1945. Westport, Connecticut: Greenwood Press, 1982.

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I. SECTION I: Introduction to the Battle of Schnee Eifel:

SECTION IA: Date, Location, and Principal Antagonists:

The battle of Schnee Eifel took place along an imposing ridge line east of St Vith, France, in September 1944. (See Map 1.) Preceded by combat patrols, the 4th Infantry Division resumed an eastward march on 12 September 1944. By nightfall the next day, two regiments had crossed the German border and moved into assembly areas in the shadow of the Schnee Eifel ridge line. To the north, the 12th Infantry Regiment assembled at the village of Radscheid; the 22d Infantry Regiment settled nearby in Bleialf. Both regiments pushed reconnaissance patrols forward without serious opposition but reserved any real attempt to move into the "West Wall" for the following day.

On September 14th, both regiments attacked abreast at 1000 hours to seize the high ground on the crest of the central plateau beyond the Pruem River, an objective more than ten miles away. The 8th Infantry Regiment remained in division reserve. The two forward regiments designated initial objectives astride a lateral highway that followed the crest of the Schnee Eifel. These regiments also were to protect the division's exposed flanks because the closest units of the 28th Division to the south were more than four miles away. Other friendly troops were over 25 miles away to the northwest.

The battle of Schnee Eifel lasted until September 18, 1944. In four days of combat, ranging from light to intense, the 4th Infantry Division tore a gap almost six miles wide in the Siegfried Line or "West Wall," but this gap had no axial roads

and few identifiable objectives short of the Rhine River to warrant a major effort to secure them.

Opposing the 4th Division at Schnee Eifel was the 2d SS Panzer Division which numbered about 750 men in four organic battalions, a total of about 2650 men. In support, the division had fourteen 75mm antitank guns, thirty-seven artillery pieces, one assault gun, and a Mark V Panther tank.

SECTION IB: Sources of Information:

A wide variety of resources were used for the conduct of the Schnee Eifel battle analysis. The principal reference used, as a basis for additional research including original source material, was the official U.S. Army history of the battle contained in The Siegfried Campaign by Charles B. MacDonald.

Technical references included several equipment handbooks and comparative analyses of both German and American organizational structure, equipment, and leadership. Additional technical materials were used to better understand the doctrine and tactics of the period. These included Army Field Manuals: FM 7-40, Rifle Regiment (1942); FM 7-20, Infantry Battalion (1944); FM 30-5, Combat Intelligence (1944); and, FM 100-10, Field Service Regulation (1940).

Original sources included reports, journals, summaries, and after-action reports at all levels of command but primarily those of the regiments in contact. Maps and overlays at 1:25,000 and 1:100,000 scale were used to augment written research materials, although many proved to be unclear and difficult to correlate to the battle documentary.

SECTION IC: Source Evaluation:

The objectivity of the reference materials, as well as its volume, was limited to information contained in the U.S. Army Command and General Staff College library. The Army Historical Series on World War II (the basic research guide) is universally respected by historians for its accuracy, comprehensiveness, and objectivity. Liddell Hart, a skeptic of official history, once described them as the best official history of the war. The Siegfried Line Campaign made good use of unit journals, reports and postcombat interviews. Documentation of German actions is less complete and reliable because portions were destroyed prior to capture and because of the overall fragmented administration of the Wehr macht during that phase of the war. Nevertheless, both German Army interviews and reports were used. The overall accuracy of technical materials was excellent. Objectivity of reports was, of course, subject to the emotions, sensitivities and prejudices of the writers. Generally, they were well written, factual and straight forward.

Considerable research was made of the intelligence available to field commanders. Recent disclosures concerning Allied capabilities to intercept and decode high-level ULTRA transmissions were not considered. Based on a quick review of the ULTRA microfilm on the battle dates and a study of other intelligence materials, it is apparent that any information gained from ULTRA intercepts pertaining to 4th Infantry Division operations in the Schnee Eifel would have been insignificant and would not necessitate revision of the accepted history of the battle.

II. SECTION II: The Strategic Setting:

Most history books understate the significance of the penetration of the Siegfried Line. The significance of the battle of Schnee Eifel has been similarly understated. Surprisingly, some works give greater significance to the Schnee Eifel's defense during the subsequent Battle of the Bulge. In one book, no mention of the battle is made other than dating it somewhere between the 4 September 1944 capture of Antwerp and the beginning of the Arnhem "Market Garden" operation. The official chronology simply states:

4th Division penetrates West Wall in Schnee Eifel: 12th Inf cuts Schnee Eifel highway and drives NE along it taking Hill 698, 22d reaches crest of Schnee Eifel ridge and gets one battalion on E slopes overlooking Hontheim.¹

In reviewing the strategic setting of the Schnee Eifel battle, it is not necessary to analyze in depth the strategic causes, conflicting national interests, comparative military systems or previous combat performance of the adversaries. The battle was not decisive and was not of strategic importance to the outcome of the war. The United States was well into its third year of the war and the Germans in their sixth. National strategies, objectives, and capabilities at that stage of the conflict are well known.

The period of time in which the Siegfried Line Campaign was fought has been overlooked, as previously stated, in favor of the spectacular events of the previous months with the

Normandy invasion and subsequent breakout and pursuit by Allied Forces across France. The Allied "whirlwind" advance of late summer 1944 had reached its peak by early September. Allied Armies were almost a year ahead of the strategic calendar goals and casualties were generally light. Regardless of the problem of obtaining adequate ports, the steady buildup of men and material on the continent had been relatively rapid. By the end of summer, the imposing Allied strength consisted of 26 infantry divisions, 15 armored divisions and scores of separate groups, brigades and regiments of all combat arms. By the time of the linkup with invading Allied columns from the "Operation Anvil" landings in southern France, the combat power available to the SHAEF Commander totaled over 49 divisions, most of which were at full strength.

Opposing this enormous force were 48 infantry and 15 panzer-type units and separate brigades of the Wehrmacht, which had been significantly debilitated. German units were thrown together in composite and provisional organizations. They were demoralized by a summer of successive defeats. Generalfeldmarschall Gerd von Rundstedt, Commander-in-Chief West, personally estimated his forces at no more than half the authorized number of both personnel and equipment. Allied forces enjoyed favorable ratios in virtually every measurable field of strategic and tactical comparison. Guns alone were 2.5 to 1 and tanks approximately 20 to 1! The disparity between air forces was even greater.

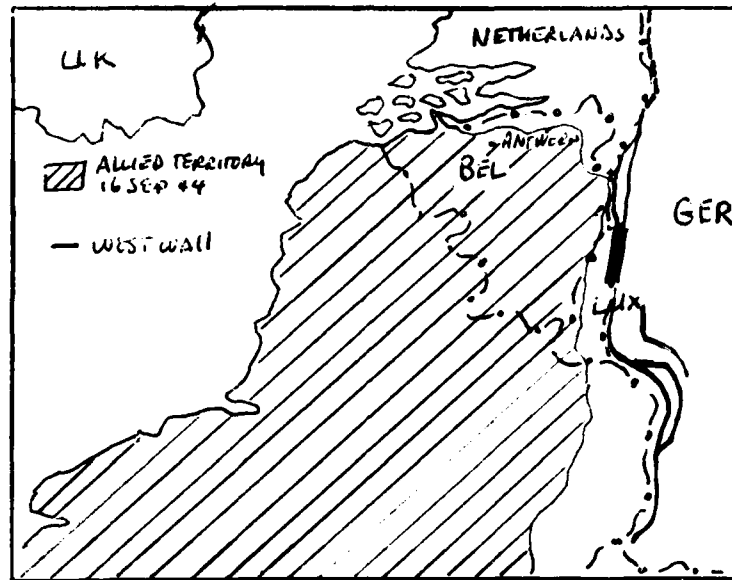
By September, Allied strategy had reached a strategic crossroads. Their advance across France had in many ways been as chaotic as the German retreat. The supply system was

stretched to its limit and had become a matter of grave concern to Allied commanders at all levels. Forward units were simply at the end of their tethers. By the time Allied units reached the Siegfried Line, they were almost 350 miles away from friendly ports. Although Antwerp had been taken virtually undamaged, and was well located to support the attack into Germany, a strong German force still blocked the Schelde Estuary from Allied shipping. The efforts of the famous "Red Ball Express" were barely adequate to maintain momentum, let alone support a major offensive. Because of the strong German defense, early probes of the "West Wall" were unsuccessful, and over a period of several weeks in early autumn, the entire front stabilized. Under General Eisenhower's "Broad Front" strategy, Allied Forces were spread thin from the North sea to the Swiss border. Operation "Market Garden" was hurriedly planned, in part, to avoid the potential stalemate. The final thrust into Germany would be two pronged: Montgomery in the north through the heart of the Ruhr and Patton in the south toward Metz. The first army would move east between the Montgomery-Patton arrow.

The Germans had taken full advantage of the lull in the Allied offensive by pulling back, regrouping, and redistributing forces along lines personally designated by the Führer. With orders to defend at all costs, the Germans had done well in manning these lines known as the "West Wall" (Virtually synonymous with the Siegfried Line) which ran from the Belgian coast, including the Schelde Estuary, southeastward to the Siegfried Line proper to the western borders of Alsace and Lorraine.

(See Map 1.)

THE "WEST WALL"



Map 1.

At the beginning of the Schnee Eifel battle, opposing forces were deployed as follows: On the northern flank, along the Netherlands border and the northern half of the Siegfried Line, was the 21st Army Group and the First US Army confronting Generalfeldmarschall Walter Model's Army Group B (15th, 1st Para and 7th Armies). On the southern flank was Generaloberst Johannes Blaskowitz's Army Group G (1st and 19th Armies) confronting Patton's 3d Army. What remained of the 5th Panzer Army was in reserve well within the German border.

It was in this strategic setting that the 4th Infantry Division, then commanded by BG Harold W. Blakely and assigned to the First US Army, crossed the German frontier on 12 September 1944.

III. SECTION III: The Tactical Situation:

SECTION IIIA: The Area of Operations:

(1) Climate and Weather. The climate in the region is characterized during autumn and winter by long periods of light rain and snow. Although less rain falls there during summer, more precipitation is likely to curtail air activity and saturate the fine textured soils found in the region. Temperatures are usually above freezing even during the winter. Although snow covers the ground 7-8 days a month, rainfall during the battle was far above average during the fall and winter of 1944, and it was one of the most severe weather periods recorded. Freezing temperatures came early and stayed for long periods. During the battle, visibility was near zero because of heavy mist and rain. These adverse weather conditions hampered operations for tanks and artillery fire and produced poor footing for armor. In addition, no air cover could be provided to the 4th Infantry Division. Troop Morale was negatively affected by the wet weather conditions because of the uncomfortable conditions in muddy foxholes. The weather had minimal effect on equipment and supplies; however, lines of communication were hampered by the inability of units to maintain visual contact.

(2) Terrain.

(a) Observation and Fire. The densely wooded forests of the Schnee Eifel severely hampered the ability of friendly and enemy forces to exercise surveillance over critical areas of the battlefield. The woods also negated the effects of

friendly and enemy artillery fire, therefore, causing heavy dependence on small arms and other direct fire weapons. The dense woods also prevented friendly use of armor during the attack and assisted the enemy's defense. This rugged terrain enabled a few Germans to do the work of many, and also prevented the 4th Infantry Division from concentrating its force for an attack at a critical period.

(b) Concealment and Cover. There was an abundance of concealment and cover available in the battle area provided by the dense woods along the Schnee Eifel and the extensive fortification along the German "West Wall." Although the fortifications in the Schnee Eifel were not as extensive as elsewhere, they proved to be a formidable obstacle to the advance of the 4th Infantry Division. The rugged forest area greatly assisted the German defense and hampered the American advance by denying friendly forces the use of armor and stifling the attempts of 4th Infantry Division commanders to concentrate forces for penetration of the "West Wall."

(c) Obstacles. Natural obstacles consisted of the steep Schnee Eifel ridge itself, the dense forests, Mon Creek in the southern area, the Kyll River in the north, and the Prum River running north to south across the area. Man-made obstacles consisted of extensive concrete fortifications such as dragon's teeth and pill boxes along the "West Wall," plus mine fields, destroyed bridges, and the villages of Montheim, Sellerich, and Herscheid in the south. These obstacles, man-made and natural, caused the battle to be fought mainly by infantry and favored the German forces. The inadequacy of roads and trails through

the Prum State Forest in the south canalized the 23d Regiment's attack and caused the destruction of an infantry company. Because of rugged terrain along the ridge, the American advance was slowed, enabling the enemy to reinforce and occupy fortifications.

(d) Key Terrain. The most prominent key terrain is the Schnee Eifel ridge which is 2,286 feet high, running along the German border for about 15 miles from Ormont to the vicinity of the village of Brandscheid where it develops into a relatively open plateau. General Gerow realized that he possessed no mass forces for the attack, yet the assignment of a rugged route of advance like the Eifel meant that American commanders still were thinking in terms of pursuit warfare. If this were so, the spread formation of the V Corps was acceptable even in front of the fortifications such as the "West Wall." The German 2d SS Panzer Division was defending against the 4th Infantry Division, never expected an assault over the rugged terrain of the Schnee Eifel, and had concentrated forces on manning the fortifications along more logical routes of advance. The initial success of General Barton's forces confirmed his belief that the "West Wall" was only a minor obstacle; however, German counterattacks and the effects of weather on U.S. forces stifled the U.S. advances and permitted the Germans to occupy fortifications along the "West Wall." The rugged terrain along the Schnee Eifel discouraged the use of armor and prevented a true pursuit by the 4th Infantry Division. By 15 September, the Germans had been able to stop the advance of the 4th Infantry Division and began massing mortar and artillery fire and conducting limited counterattacks.

(e) Avenues of Approach. Avenues of approach used by the 4th Infantry Division were the roads leading into the Schnee Eifel from the villages of Radscheid and Bleialf. Additionally, the Losheim-Kyll Gap was used by the division reserve. Since the division was attacking with only two regiments abreast, the avenues of approach were considered adequate. Both avenues afforded attacking forces good concealment and cover; however, maneuvering space was not adequate because of heavy forests. The numerous trails and uncharted fire breaks caused some of the units to become disoriented and therefore slowed the attack. Additionally, attacking forces were screened by drizzling rain. The combination of severe weather and rugged terrain favored the German forces and gave them time to reorganize and consolidate their defenses. The negative impact of this combination on friendly forces caused them to become uncoordinated, severed lines of communication, and otherwise stalled their advances.

SECTION IIIB: Combat Effectiveness of Opposing Forces:

(1) Strength and Composition. The 4th Infantry Division went into action on 14 September 1944 with the following task organization and personnel strengths:²

8th Infantry Combat Team
 8th Infantry Regiment (3455)
 C/801st Tank Destroyer Battalion
 (173)
 A/893d Tank Destroyer Battalion
 (169)
 29th Field Artillery Battalion
 (597)
 PLT/A/4th Engineer Battalion (28)
 A/4th Medical Battalion (105)

12th Infantry Combat Team
 12th Infantry Regiment (3467)
 PLT/B/70th Tank Battalion (25)
 B/801st Tank Destroyer Battalion
 (175)
 B/893d Tank Destroyer Battalion
 (163)
 42d Field Artillery Battalion (589)
 B/81st Chemical Battalion (133)
 PLT/B/4th Engineer Battalion (31)
 B/4th Medical Battalion (111)

22d Infantry Combat Team
 22d Infantry Regiment (3318)
 B/70th Tank Battalion (97)
 C/893d Tank Destroyer Battalion
 (171)
 44th Field Artillery Battalion
 (593)
 A/81st Chemical Battalion (129)
 PLT/C/4th Engineer Battalion (32)
 C/4th Medical Battalion (107)

DIVARTY
 20th Field Artillery Battalion
 (493)
 955th Field Artillery Battalion
 (attached)
 377th AAA Battalion (attached)
 801st Tank Destroyer Battalion
 (attached)
 893d Tank Destroyer Battalion
 (attached)

Major Combat Equipment³
 (See Diagram 1.)
 12 - M10 Tank Destroyers
 (3-IN Gun)
 12 - M10 Tank Destroyers
 (3-IN Gun)
 18 - M2A1 Howitzer (105mm)

Major Combat Equipment
 (See Diagram 1.)
 5 - M4A1 Tank (75mm Gun)
 12 - M10 Tank Destroyers
 (3-IN Gun)
 12 - M10 Tank Destroyers
 (3-IN Gun)
 18 - M2A1 Howitzer (105mm)
 12 - 4.2IN Chemical Mortars

Major Combat Equipment
 (See Diagram 1.)
 17 - M4A1 Tank (75mm Gun)
 12 - M10 Tank Destroyers
 (3-IN Gun)
 18 - M2A1 Howitzer (105mm)
 12 - 4.2IN Chemical Mortars

Major Combat Equipment
 12 - M2A2 Howitzer (155mm)
 12 - M2A2 Howitzer (155mm)
 12 - M51 Quad-50 Cal AAMG
 36 - M10 Tank Destroyers
 (-24) (3IN Gun)
 36 - M10 Tank Destroyers
 (-36) (3IN Gun)

DIV TRPS

70th Tank Battalion (-) (attached)
102d Cavalry Group (attached)
4th Reconnaissance Troop (155)
4th Engineer Battalion (641) (-)
4th Signal Company (222)
4th QM Company (193)
704th Ordnance Battalion (463)
4th Medical Battalion (466) (-)
4th MP Platoon (71)

Major Combat Equipment

(See Diagram 2.)
(See Diagram 2.)

This task organization remained fixed throughout the period 14-19 September 1944 except for two changes: the 801st Tank Destroyer Battalion was detached from division control on 16 September and both 4th Recon Trp and A/70th Tank Battalion were attached to the 8th Infantry Combat Team on 17 September. A combination of artillery ammunition shortages, overcast skies and the main V (US) Corps effort in the south denied any substantial external support to the 4th Infantry Division. The Division had to accomplish its mission with what it had on hand. However, the division received 2074 replacements to cover 2681 casualties.⁴

The major German unit opposing the 4th Infantry Division was the remains of the 2d SS Panzer Division, reinforced with initially 12 and later 14 nondivisional battalions. The exact German organization, unit strengths, equipment and weapons are nearly impossible to determine. However, very accurate information was obtained through German prisoner interrogations and collected data through U.S. intelligence agencies. The following task organization was obtained through those sources:⁵

2d SS Panzer Division "DAS REICH" (See diagrams 1 and 2.)

SS Panzer Regt. 2 (Destroyed; 1 Mark V "Panther" remaining)
SS Panzer Inf Regt. 3 (Consolidated into one battalion)
SS Panzer Inf Regt. 4 (Consolidated into one battalion)
SS Engineer Bn. 2 (2 companies)
SS Artillery Regt. 2 (2 batteries totaling 18 - 105mm, 2-150mm how.)

SS Assault Gun Bn. 2 (2 companies totaling 9 - 75mm Aslt guns)
SS Antitank Bn. 2 (2 batteries totaling 13 - 75mm guns)
SS Antiaircraft Bn. 2 all destroyed
SS Reconnaissance Bn. 2
SS Rocket Launcher Bn. 2

Attached Units as of 14 September 1944

Regimental Combat Team "GOMBEL" (staff and students from Officer and NCO training school - Mainz)
Battalion Combat Team "WEITEN" (350)
Battalion Combat Team "BONGARTZ" (300)
Composite Battalion, 12th SS Panzer Division (remains of the 25th and 26th SS Pz. Gr. Regiments) (300)
Battalion Combat Team "WEBER" (Personnel recently released from hospital) (300)
Luftwaffe Pilot Training Battalion (organized as a Security Bn.) (500)
626th Security Battalion (250)
1031st Security Battalion (400)
669th Ost Battalion (German-led, former Russian PWs) (500)
105th Infantry Training Battalion (replacement Bn. from 105 Inf. Div.) (300)
118th Infantry Training Battalion (replacement Bn. from 118 Inf. Div.) (400)
454th Grenadier Replacement Battalion (replacement Bn from the 454 Inf. Div.) (500)
34th Light Field Artillery Battalion (2 small companies of artillerymen fighting as infantry - ISS Corps unit) (250)

In addition to the above units, the 2d SS Pz. Division received as reinforcements the 107th Infantry Training Battalion and the 6th Luftwaffe Fortress Battalion on 16 September 1944. Replacements arrived beginning 16 September through 19 September so that both the 3d and 4th SS Pz. Gr. Regiments increased to 2 battalions each and the 2d SS Pz. Regiment increased to 12 tank companies (Mark IV 75mm tanks). None of the SS infantry battalions exceeded 300 personnel and the attached battalion-sized units ranged in size from 200 to 400 personnel each.⁶ The "type" organization shown in Diagram 1 gives an approximate idea of the personnel and equipment of the German units involved. This "type" organization seems compatible with the information provided in the 4th Infantry Division G2 Periodic Reports.

The fighting quality of many of these units was questionable. The I SS Corps Commander, General Major KRAEMER, stated that most of them were disbanded, especially the replacement battalions, and the personnel used to not only fill his organic combat units but his special troop units as well.⁷ The corps commander supported the 2d SS Pz. Division with five from his heavy (170mm) gun battalion. Since the V (US) Corps attacks were not coordinated and the attacks conducted by the 4th Infantry Division occurred at the same place, General Kraemer was able to effectively support the 2d SS Pz. Division with accurate and deadly fire.⁸

DIAGRAM 1: Comparative Infantry Scales of Manpower/Equipment













	US 	US 	GE OST 	GE PG 	GE SCTY 	GE REPL 	GE CT 
INF	3118	871	708	868	546	973	213
ENG	--	--	127	91	127	86	16
PI	158	47	55	72	37	62	13
AL	112	25	55	27	27	--	18
IT PORT	27	9	--	--	--	--	--
TD PORT	18	6	6	6	6	6	2
IV PORT	--	--	4	4	--	4	--
AT GUN (LT-160)	18	3	--	--	--	2	2
INF TOW (IT)	6	--	3	--	--	2	2
AA GUN (IT)	--	--	--	6	--	1	4

DIAGRAM 2: Comparative Unit Scales of Manpower/Equipment

	US 	GE SS 	US 	US SP 	US 
MEN	751	669	935	644	509
MG	285	133	75	71	22
RL	35	--	46	62	38
MED TANKS	53	59	--	--	--
LT TANKS	17	--	17	--	--
ARM CARS	--	--	37	36	--
AT GUNS	--	--	--	36	--
MED MORT	1	--	9	4	--
FLD GUNS	--	--	--	--	16
ASLT GUNS	6	--	8	--	--

(2) Technology. The overall technological balance between 4th Infantry Division and 2d SS Pz. Division was nearly equal. Differences in equipment were minor with the slight advantage going to the German side in terms of rate of fire and penetration capability. But this was balanced by the greater American numbers of small arms, tanks, field guns and ammunition. An overwhelming American superiority was in ground attack aircraft, but this advantage was lost due to the continual low visibility which prevented close air support.

Because of the nature of the terrain and low cloud conditions, the battle for the Schnee Eifel was an infantry fight. Most of the combat was a struggle of platoons and companies against pillboxes and close-quarter infantry counterattacks. Additionally, both sides had to consider the effects of indirect fire on their courses of action either in attacking the German strongpoints or counterattacking American penetrations. To assist in the analysis of the effects of technology on the course of the battle, Diagram 3 provides a comparison of the characteristics of the principal weapons used:⁹

DIAGRAM 5: Sample Weapon Comparisons

		<u>TYPE</u>	<u>CALIBER</u>	<u>RANGE</u>	<u>R/F</u>	<u>WT (lbs)</u>	<u>SHELL(lbs)</u>
RIFLES:	US	M1	7.62mm	500m	20RPM	9.5	--
	GE	G98	7.92	800	10	9.0	--
AR:	US	SAR	7.62	600	60	17	--
SMG:	US	M3	11.43	100	70	6	--
	GE	MP41	9.0	100	90	10	--
MG:	US	M1919	7.62	1200	120	33	--
	US	M2HB	12.7	2000	100	128	--
	GE	MG42	7.92	1200	150	26	--
MORT:	US	M2	60	1800	30	42	3
	US	M1	81	3000	45	141	7
	GE	GrW34	81	2400	45	121	7.7
	GE	GrW42	120	5700	15	600	35
	US	M1/M9	60	640	4	17.3	3.4
RL:	GE	RPzB43	88	150	4	20.5	7.2
	GE	PzFst60	150	80	1	13.8	6.75
IG:	GE	1018	75	4800	6	1120	12
	GE	1033	150	4700	2	3850	84

As the diagram indicates, both sides were well armed since all the weapons, except for the Infantry Guns (IG), were found within the battalion. In small arms, the Germans were out-classed in rifles. The U.S. M1 was semi-automatic, while the German G98 was bolt-operated, giving the American rifleman greater firepower. However, the German platoons and squads had nearly one-half of their soldiers armed with SMGs while the US units had very few. These SMGs and the numerous MGs (MG42) gave the German platoon much greater firepower than their U.S. counterpart. At the company level, the American platoons could be supported with the firepower of the 60mm mortars and M2 and M1919 machineguns. The companies were supported by the battalion's 81mm mortars and additional M1917A1 MGs. German platoons were supported by the company's with the MG42 in the MG configuration, while the companies were supported by the battalion's 81mm and 120mm mortars. In addition, the German battalions were supported, often attached to the battalion, with the regimental 75mm and 150mm Infantry

guns. These organic artillery pieces insured effective and responsive indirect support in addition to the battalion mortars. The U.S. regiments had six infantry howitzers assigned, but often they were disregarded in favor of division artillery support. The sheer weight of German battalion organic and attached indirect support was clearly superior to that of the American battalion, and the Germans used it effectively against dismounted American attacks. However, the divisional indirect support available to the American battalion was clearly superior to the divisional support within the German division in quantity, accuracy and rate of fire. But to take full advantage of this benefit, the American battalion had to receive priority for support and the support had to be carefully coordinated.

Mr. Kraemer comments that the lack of American infantry-artillery coordination and the lack of light organic artillery for the infantry was a factor in the inability of the 4th Infantry Division to exploit their early success in breaking through the Siegfried Line.¹⁰ American attacks were repeatedly broken up by concentrated and accurate German mortar and artillery fire. This fire was also the main contributor to the high number of American casualties.¹¹ Technology, by itself, was not the key factor in this battle. Rather, it was how each side used its available technology. The German organization and doctrine concentrated their firepower at the lowest practical level. This insured responsive support at each level of leadership within the battalion. American battalions had to rely on external fire support more than the Germans, and if that support was unavailable, the American battalion was at a disadvantage.

(3) Logistical Systems. The logistical requirements in this battle were similar to the needs of most other units on the front during this period. There appear to be no "special" requirements nor any requests for large amounts of extra supplies.

There were a number of logistical problems that affected the entire theater during this period. The Allies had moved very rapidly across Europe in 1944 and were still being supported through the beaches and ports of Normandy. Not only did this create exceptionally long supply lines but the facilities themselves were not able to process the total tonnage required to support the Allied forces operating in France. It was essential to capture additional ports and to begin operating these facilities. This would shorten supply lines and increase the amount of tonnage that could be supplied. Although this situation made further offensive operations inadvisable, Eisenhower wished to maintain the current Allied momentum. He determined that two offensive drives could be supported, recognizing that this was a gamble because the supply lines were already overtaxed.¹²

This situation affected the 4th Infantry Division in several ways. The division had to be resupplied over a great distance which strained its support capability. Fuel had been a problem early in September but sufficient stocks seem to have been available by midmonth. At the first of the month, the division's supply vehicles had to make a 250-mile round trip in order to obtain needed fuel.¹³ This situation improved around midmonth as the Army truckhead moved forward to the vicinity of the Corps command post.

Ammunition was a problem for the 4th Division throughout the month of September. Resupply vehicles had to drive over sixty miles one way to obtain ammunition.¹⁴ At the supply point, not all needed types of ammunition were available. There was a significant shortage of artillery ammunition at this time.¹⁵ To help relieve the problem of ammunition shortages and long supply lines, the Army relaxed its policy of holding a basic load of ammunition in reserve and allowed divisions to draw additional ammunition. This helped in most areas but not in the area of shortages already mentioned.

Maintenance problems increased throughout September. This was due more to poor road conditions and number of miles being driven than to enemy action.¹⁶ There was an abundance of replacement vehicles available, and it was often quicker to replace items than to fix them. In this fashion, the fighting efficiency of the combat units could be maintained. There were several items that appear to have been short, but these were primarily cargo vehicles, not combat vehicles. These shortages do not appear to have had a negative impact on the division.

The German Army in this sector seems to have had greater supply problems than the Allies. Supply services appear to have broken down and many items were often in short supply. Supply dumps were moved far back from the front to prevent them from falling into the hands of the rapidly advancing Allies.¹⁷ Allied air power certainly had an effect on the German supply services which now had to transport needed supplies over much greater distances. This created shortages in certain types of

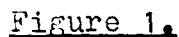
supplies such as ammunition. By the second week of September, the 2d SS Panzer Division had no ammunition for its 75mm anti-tank guns, its light and medium howitzers or its 210mm mortars.¹⁸ While this situation improved somewhat by midmonth, the supply situation was still critical.

While the supply situation of the Allies had its problems, the support provided was adequate. Movement over the roads was never impeded by civilian traffic. This was important to the support units which had to relocate almost daily in mid-September in order to provide the needed support. The constant movement of these elements reduced their capabilities, however, logistical support never became a major factor in the battle.

(4) Command, Control, and Communications Systems.

Command and control was exercised within the 4th Infantry Division from the division commander to his regimental combat team commanders and DIVARTY commander. Control of division troops and service support elements was under the supervision of the appropriate staff officer. Field Order #37 (131730E Sep 1944), which initiated the attack into the Schnee Eifel, illustrated the command relationships of the division:¹⁹

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advantage of opportunities in sector. An example was the actions of RCT 12 on 14 September, whereby after penetrating the Siegfried Line at Hill 697 without opposition, the RCT halted when it reached its objective. The opportunity existed for RCT 12 to exploit forward to the KYLL River, but the emphasis on coordinated advances prevented the exploitation of this opportunity. The division's emphasis on coordinated advances by three RCTs, on line, without a designated main effort, resulted in three independent RCT attacks struggling against a coordinated German defense.

The German commander, SS General Heinz Lammerding, had far greater command and control problems but concentrated his effort to what he considered the decisive area--the BLEIALF-PRUM road.²⁰ The 2d SS Pz. Division commander had to gather all his retreating and rear guard units and place them into defensive positions while concurrently receiving numerous ad hoc units to his task organization. While no German records are available to indicate his orders, GEN Lammerding appears to have assigned the attached units directly to his existing regimental staffs and in some cases disbanded the ad hoc units and distributed the personnel to his understrength units. This would have greatly reduced his span of command and control while at the same time placed the newly formed units under experienced leadership. Another complicating factor for GEN Lammerding was that the majority of both his divisional and regimental staffs had become casualties. However, German staff organization worked in his favor. The German divisional staff was organized to give primary emphasis to operational planning. The division

operations officer coordinated, if not controlled, all other staff agencies. The operations officer served as the Chief of Staff as well. In the event of large staff casualties, the operations section was reconstituted first so that immediate continuation of operations planning could resume. Senior surviving support services leaders reported to the Operations Officer for instructions and the staff positions of intelligence, personnel, supply and quartermaster were filled as personnel became available.²¹

The U.S. Army staff was not organized in the manner of the German staff. Each U.S. staff officer was co-equal and he was coordinated in his efforts by the Chief of Staff. Whereas the German staff was organized for the conduct of operations, the U.S. staff was organized for collection of data for the commander and for organizing the personnel and equipment needed to fight. This managerial technique worked well based on U.S. business managerial experiences and U.S. preference for organizing overwhelming material resources to defeat an opponent.

Both the German and U.S. Army had extensive communications means within the division. Radio and wire communications connected all echelons from company to division. Within the companies, messengers and wire were the most common means. The quality of U.S. radios was better in terms of reliability and weight. As a result the U.S. Army relied on radios more than wire while the opposite was true in the German Army.

The Germans found the Siegfried Line communications systems a wreck when they occupied the positions in September 1944.²² It took them a couple of days to establish the

necessary wire nets. The loss of extensive radio equipment during the retreat from France meant that units were without communications to battalion or regimental headquarters when U.S. artillery cut wire lines. But, since the main U.S. threat to the German defense was on the BLEIALF-PRUM approach, sufficient radios were assigned to that sector to insure adequate control.

U.S. records do not indicate any problems with the use of radios during the battle. Greater problems were experienced with radio repair and replacement because the division advance was so rapid across France and into Belgium that repair part depots were far away. However, the majority of the signal equipment was repaired within three days.²³

(5) Intelligence. A variety of intelligence assets were available to support U.S. forces during the battle for the Schnee Eifel. Intelligence support was provided to the 4th Infantry Division by six attached functional teams which provided expertise in enemy order of battle, interrogation of prisoners and civilians, photo interpretation, and counter-intelligence. Interrogation and counterintelligence personnel were further detailed to provide support at regimental level. Intelligence assets at V Corps were comparable to those at division level with the addition of a weather detachment and a radio intercept capability. Intelligence assets available to division and corps are shown in Figures 2 and 3. Aerial reconnaissance support was provided by Lightning and Mustang aircraft belonging to the 67th Reconnaissance Group, IX Tactical Air Command, supporting First Army.

Regardless of the echelon to which the assets were attached, the V Corps G-2 coordinated and directed all intelligence collection. Specific LRI and detailed information requirements for the impending attack against the Siegfried Line were published and disseminated by corps on 11 Sep 44.²⁶ Particular attention was directed toward determining the strength, composition, and disposition of enemy forces and the character of the obstacles along the line. The 4th Inf Div never published its own LRI or intelligence annex for the operation; the level of detail requested by corps was no doubt considered adequate to meet division requirements. The corps LRI and collection requirements were probably passed to subordinate units and attached teams by the division G-2 during briefings or staff visits. Additional intelligence requirements reflecting the corps commander's concerns about the reported formation of panzer brigades and a possible buildup of enemy forces on the corps front and flanks were received by the division G-2 via radio on 16 and 17 September, respectively. Both taskings were immediately passed to the regimental S-2's.²⁷

Timely dissemination of intelligence was made in accordance with the V Corps Intelligence SOP. Daily written reports covering the previous 24 hours were submitted by intelligence elements to their supported S-2/G-2 who then prepared a similar periodic report for distribution to staff sections within the headquarters and higher, lower, and adjacent units. The 3250th Signal Service Company's reporting requirement deserves special mention because it was certainly unique by today's standards. In addition to a summary of intercepted enemy traffic, that

unit's report had to contain the actual intercepted messages in German, followed immediately by the translation of each message! Aerial photographs and reconnaissance reports were disseminated by V Corps G-2 as soon as they were received from First Army, usually 12-24 hours after the mission was flown. In addition to prescribed periodic reports, perishable information was passed via teletype, radio, or telephone to higher headquarters and appropriate subordinate and adjacent units. Situation updates were passed in a similar manner from division to corps every six hours. Finally, on an "as required" basis, V Corps G-2 prepared and distributed an estimate of the enemy situation.²⁸

Such an estimate was prepared prior to the 4th Infantry Division's attack into the Schnee Eifel. After discussing enemy forces, the Siegfried Line, and the terrain, the V Corps G-2 accurately concluded that the enemy would defend the line with whatever forces he could muster, conduct local counterattacks to restore the line when it was breached, and be able to reinforce only with small miscellaneous elements.²⁹ Given this situation, how were available intelligence resources employed and what was their contribution to the upcoming battle?

As stated previously, V Corps published SEI and detailed information requirements on 11 Sep 44. First Army was requested to provide aerial reconnaissance of the corps zone four times daily to look for enemy dispositions, concentrations, and movements in defense of the Siegfried Line; aerial photographs of the area were also requested. Special missions could be requested by divisions through the corps G-2 as the need arose.

Each division was tasked with using all available agencies to maintain continuous reconnaissance and observations of its zone to determine the enemy's intention of defending the Siegfried Line and the strength, composition, and disposition of forces and the location and character of obstacles. The 4th Infantry Division was directed to pay particular attention to enemy movements and dispositions on its left flank.

Aerial reconnaissance and photography of the Siegfried Line was conducted on several occasions in the days preceding the attack. Results of the missions conducted on the 12th were received by the 4th Infantry Division on the 14th. No significant new information was reported. Deteriorating weather conditions, combined with the fact that the air base was 100 miles to the rear, rendered further photographic and visual reconnaissance unsatisfactory.⁵⁰

Information derived from radio intercept, codenamed PEARL, was provided by the 3250th Signal Service Company assigned to V Corps and the 113th Signal Radio Intelligence Company assigned to First Army. The 3250th consisted of 137 personnel, including a small traffic analysis section, and probably had only an intercept capability, although the requirement for direction-finding equipment had been stated several months before. The 113th was authorized 288 personnel, including an attached 32-man (Type 1B) traffic analysis and cryptanalysis section, and operated both intercept facilities and a radio controlled DF net. Both units were under the control of the Signal Officer at their respective echelons but were tasked by the G-2 for intelligence. Both units were targeted against enemy transmitters

operating no higher than Army level with the major effort normally concentrated on divisional and lower nets.³¹ PEARL had provided useful intelligence during the pursuit across France and Belgium but was apparently of little use during the battle for the Schnee Eifel itself. The last apparent report from PEARL during this period gave the location of the 2d PZ Div as of 120900B Sep 44; it was received by the G-2, 4th Inf Div at 121415B the same day.³²

Similarly, ULTRA had no discernible effect on the operation. ULTRA intelligence was disseminated to HQ, First Army by a Special Liaison Unit attached to the G-2 section. If any dissemination at all was made to lower echelons, it was probably done in personal discussions or by effectively disguising the source of the information and including it in other G-2 reports. ULTRA documents for the period provided little more than confirmation of the enemy's desire and desperate attempts to organize a defense of the "West Wall."

The 4th CIC Detachment deployed two agents to each of the three regiments in the 4th Inf Div and the bulk of its resources in the division rear area. The detachment's main functions were to screen civilians for enemy stragglers, collaborators, and local Nazi officials and search for documents that might have been left behind by the retreating enemy. CIC activities undoubtedly enhanced rear area security but provided little if any information of tactical value.

Interrogation of prisoners was the major source of intelligence during the battle. IPW elements supporting each regiment conducted initial interrogations and examined captured documents

at regimental collecting points located in the vicinity of the regimental CP's. Particular emphasis was placed on determining unit identifications, composition, disposition, and strength and other information of immediate tactical value. Prisoners were then evacuated to the division PW enclosure (vicinity St Vith) where MII team 4170 personnel conducted additional screening and interrogations. The majority of prisoners were then evacuated directly to Army with only high-interest prisoners going to corps. Approximately 800 prisoners captured by the 4th Inf Div during the period 14-20 Sep 44 provided a wealth of information. Many prisoners belonged to the miscellaneous, hastily-organized units which had been moved up in recent days to defend the Siegfried Line; most were undoubtedly glad that their part in the war was over.

Reports from front-line troops were also a major source of intelligence during this period. While the location of pill-boxes might be known from other sources, the question of whether they were occupied could only be answered by on-the-ground investigation. The enemy's intention of defending along the Siegfried Line was clear; just how stiff the resistance would be could only be determined by sending troops against the fortifications and analyzing reports of what was encountered.

Little specific information is available about German intelligence assets or their employment and effectiveness during the battle. Undoubtedly, the enemy attempted to obtain information by whatever means were available--aerial reconnaissance (weather and aircraft availability permitting), interrogation of PW's, and front line troops--with the latter probably being

the most lucrative source. The enemy also had a functioning and highly-prized radio intercept capability to exploit the U.S. forces' lack of radio discipline, but its effectiveness against the 4th Infantry Division is unknown.³³ The former Chief of Staff of the 1st SS Panzer Corps as much as stated after the war that his unit's problem in the battle for the Schnee Eifel was a lack of forces and not a lack of intelligence.³⁴ It was probably an accurate assessment.

Intelligence Agencies - 4th Infantry Division²⁴

<u>Agency</u>	<u>Strength</u>	<u>Remarks</u>
Order of Battle Co. 2	10, 2 ^{LT}	Attached to G-2 section.
Prisoner of War Interrogation (IPW) Tn No. 31	20, 4 ^{LT}	Sptd 12th Inf. Withdrawn by Corps on 11 Sep 44.
Prisoner of War Interrogation (IPW) Tn No. 34	30, 4 ^{LT}	Sptd 8th Inf.
Prisoner of War Interrogation Tn No. 35	20, 4 ^{LT}	Sptd 22d Inf. Provided 10 and 2 ^{LT} to 12th Inf after Tn 31 was withdrawn
Military Intelligence Interpretation (MI) Tn No. 4173	20, 4 ^{LT}	Attached to G-2 section. Primarily German linguists for interrogation of civilians. Used to interrogate P's.
Photo Interpretation (PI) Tn No. 31	10, 4 ^{LT}	Attached to G-2 section.
4th Counterintelligence Corps (CIC) Det	20, 14 ^{LT}	Attached to G-2 section. Provided 2 ^{LT} to G-2 Sect.

Figure 2.

Intelligence Agencies - V Corps²⁵

<u>Agency</u>	<u>Strength</u>	<u>Remarks</u>
Order of Battle Tm	10, 2 M	Attached to G-2 section
Prisoner of War Interrogation (IPW) Tm No. 11	20, 4 M	Attached. Operated at Corps PW cage.
Military Intelligence Interpretation (MII) Tm No. 407F	20, 4 M	Attached to G-1 section. Primarily French linguists for interrogation of civilians.
Military Intelligence Interpretation (MII) Tm No. 413F	20, 4 M	Attached to G-2 section. Primarily French linguists for interrogation of civilians.
Photo Interpretation (PI) Tm	20, 4 M	Attached to G-2 section.
Photo Interpretation (PI) Tm	20, 4 M	Attached to Corps Arty
205th Counterintelligence Corps (CIC) Det	10, 14 M	Attached to G-2 section
Det 2, 21st Cavalry Sqn	30, 19 M	Attached to Corps Arty
3250th Signal Service Co	80, 129 M	Assigned to V Corps. Included a Type 1A Traffic Analysis section.

Note: Two additional IPW Tms were attached to Corps. They were normally further attached to divisions as required. Two additional PI Tms were attached to Corps but operated at the Army Photo Interpretation Center.

Figure 3.

(C) Doctrine and training. The German force that occupied the Siegfried line did so within a defensive doctrine well practiced in the German army.³⁵ This defensive doctrine established a main defensive zone 2-3 kilometers deep of 3 lines of trenches with strongpoints, antitank guns, obstacles and a small tactical reserve. Forward of the main defensive zone were 3 security zones. The farthest zone was the motorized reconnaissance screen that moved as far forward as possible to make contact with the enemy. Next were the forward positions, 5-10 kilometers from the main defensive zone and occupied by platoons with light artillery and tanks on key terrain dominating routes of approach. Finally, there were the combat outposts on key terrain 1-2 kilometers forward of the main defensive zone. Behind the main defense some 1.5 to 3 kilometers were the artillery security positions. These light and medium artillery battery positions, protected by antitank guns, supported the defense with indirect fire and provided defense against enemy mechanized breakthroughs. Finally, in depth were the heavy artillery positions and large mobile reserves.

A German infantry division would occupy about 10 kilometers of front with 2 regiments (4 battalions) in the main defensive zone and would also occupy the outpost line. The third regiment (2 battalions) would occupy positions in depth within the main defensive zone. The divisional reconnaissance or fusilier battalion, in conjunction with the self-propelled, antitank battery of the divisional antitank battalion, constituted the reserve as well as the mobile reconnaissance screen.

The reconnaissance screen would be commanded by the division's most capable and aggressive leader who would attack the enemy with automatic weapons, antitank weapons and assault guns, then delay to a subsequent position and attack the enemy again. This action was intended to delay and confuse the enemy and to determine his main routes of approach. As the enemy approached the forward positions, the reconnaissance screen would hand the battle to the forward platoons of the main defensive zone regiments.

These platoons would cover the withdrawal of the mobile screen, engage the enemy with long-range fires and conduct a fighting withdrawal to inflict casualties and deceive the enemy as to the main defensive zone. The combat outpost line absorbed the forward position forces, protected the main defense zone from surprise attacks and halted the enemy's initial attack with antitank automatic weapons, and artillery fire. This caused the enemy to commit his reserves against the main defensive zone very early. The outposts would remain in position as long as possible to adjust artillery fire against the enemy attack echelons. The main defensive forces were to hold the enemy "at all costs." Using the successive defensive positions, massed artillery concentrations, interlocking automatic weapons and antitank fires, and immediate counterattacks against any penetrations, the main defensive regiments would stop the enemy attack. The self-propelled assault guns and fusilier battalion would counterattack any penetration which the forward regiments could not contain.

Often the situation required the infantry division to defend sectors as wide as 20-40 kilometers. Normally, one of two methods was used. The division commander would be required to keep all 3 regiments (6 battalions) on line and could either defend in a single trench line with self-contained strongpoints or defend in a series of interlocking strongpoints up to 1-2 kilometers deep. The trench method allowed safety in resupply and movement between strongpoints, but the other method gave more depth to the defense. In both cases, the enemy could not be stopped by this defense. The Corps had to retain mobile reserves to counterattack. Outposts and mobile reconnaissance elements would be pushed forward as in normal doctrine.

The 2d SS Pz Division was required to defend a sector of the Siegfried Line several kilometers wide.³⁶ Using the two regimental headquarters available, it appeared that the 4th SS PzG. Regiment was in the north and the 3d SS PzG. Regiment was in the south. General Lammerding had the mobile elements of the two regiments establish a series of roadblocks to delay the American approach into the fortified zone while the non-mobile elements and especially the attached non-divisional units occupied and prepared the defense zone. The division appeared to have initially defended a series of strongpoints on the main approaches into Germany. These were the ST. VITH-SCHONBERG-ROSE HILL, ST. VITH-RETH, and ST. VITH-ELZHALF-PRUM approaches. The densely wooded SCHNELL HILL highground, vicinity of hills 697 and 655, was only lightly covered. As more attachments and reinforcements were received, GEN Lammerding filled in his defense line and thickened those sectors under direct threat.

Each German strongpoint used one of the existing bunkers as a shelter but fought outside in trenches to provide greater visibility of their assigned sector. An automatic weapon was the principal weapon of each squad strongpoint with the riflemen and submachinegunners providing security. Indirect fire was only used to break up American attacks because the number of mortar and artillery rounds was limited. The available anti-tank guns were concentrated on the BLEIALF-PRUM approach since that was the main mobility corridor into the division sector. Each regiment retained a battalion-sized unit as a counter-attack force which was used repeatedly to limit the American penetrations. According to German prisoners, the greatest casualties within the division occurred during these counter-attacks.³⁷

From available information, it appears that the German forces had an adequate doctrine and successfully employed their forces in accordance with that doctrine. GEN Lammerding correctly determined the main thrust of the American attack and allocated sufficient forces to block it. The early loss of the SCHLIEFEL highground could not be avoided due to lack of troops, but as troops became available, defensive positions were organized that limited further American advances. Additionally, German counterattacks, especially the infiltration attacks in the SCHLIEFEL highground, caused sufficient concern to the Americans that the 4th Infantry Division reserve, the 3th NCT, was committed to that area and not used on the main approach.

U.S. Army offensive doctrine required the infantry division to fight "combining fire, movement and shock action."³⁸ It sought to combine flanking action with frontal action against known or suspected enemy weak points. Two regiments were allocated to the main and secondary effort with the third in reserve. Small units that found enemy weaknesses and succeeded in penetrating his defenses continued to advance to their objectives. As these small units created gaps, battalion, regimental or divisional reserves were to be used to exploit these gaps or to reduce areas of resistance remaining in the rear of the attacking echelon.

The main attack force was reinforced and allocated priority of fires to seize the divisional objective. The secondary attack was used to hold the enemy in position and to deceive him as to the location of the main attack. Flexibility was required in planning so the division could shift emphasis to either regimental zone. An assigned objective was the focus of effort for each unit. Intermediate objectives were assigned but no pauses were to be made unless they were imperative for reorganization. Each regiment was assigned a zone 1000-2000 yards wide with battalion zones 500-1000 yards wide. Zones were as deep as necessary to insure penetration of the enemy's depth of defense to at least the main artillery positions, 3-5 kilometers deep. Supporting weapons were used to aid the regiments and battalions in reaching their objectives.³⁹

Artillery and Chemical Mortars - provided area fire to suppress, disrupt and destroy enemy positions and provide smoke to conceal friendly movement. Artillery/Chemical Mortar liaison was extended to company level.

Infantry Mortars - supplemented artillery fires within the fire coordination plan. Company mortars were mainly allocated to attack point targets such as automatic weapon positions that held up the company attack.

Antitank Guns - covered the important enemy tank approaches into the front and flanks of the unit. They also were assigned to point targets such as enemy antitank guns, pillboxes, crew-served weapons emplacements and other point targets.

Tanks - used as support and maneuver elements. In support, tanks assisted infantry by destroying or neutralizing enemy automatic weapons, artillery, obstacles, counterattacking troops and tanks. Tanks could support from positions both forward and behind attacking infantry. Tank units could be assigned objectives and given infantry for the purposes of destroying or neutralizing enemy antitank weapons, mines or obstacles and also holding terrain captured by tanks.

Reserves were used to:

1. Exploit success of the main attack by further flanking action.
2. Envelop resistance holding up the attack echelons.
3. Strike enemy counterattacking the attack echelons.
4. Attack the flank of resistance to the advance of an adjacent regiment.

The orders and actions of the 4th Infantry Division were not absolutely doctrinal. The initial attacks by the 12th and 22d BCT were made without any designated main effort. Each BCT had an assigned sector, objectives, and route of attack with designated coordination points to maintain contact.

This controlled attack plan did not allow the subordinate commanders initiative to exploit opportunities, and consequently, early opportunities to break through were lost. On 15 September, the division committed the 8th RCT to envelop resistance to the 12th and 22d RCT. This was clearly within doctrine, but when the 8th RCT could not outflank the resistance, the division committed the RCT to a part of the line that could not achieve decisive results. The opportunity to commit the reserve to assist the 22d RCT on the main axis through the SCHNEE EISEN was never made. Even after the commitment of the 8th RCT, the remaining division reserve, the 70th Tank Battalion (- two companies) was available but not used. This battalion could have supported the 22d RCT which was being held up by small arms and artillery fire on relatively open terrain. No other major tactical doctrinal errors appear to have been committed by the regimental and battalion staffs, but at the squad, platoon, and company level, the coordination of infantry, artillery and use of tanks and tank destroyers appeared weak. This may have resulted from training problems within the units.

Martin Van Creveld's analysis of American and German fighting power in World War II is critical of American emphasis on control, coordination, and support of the battle compared to the German emphasis on fighting the battle. This U.S. Army emphasis was reflected by the proportion of the most talented and experienced personnel serving in the combat service support branches. As a result, the combat arms were short in both quantity and quality of manpower.⁴⁰ Because the demands of theater commanders exceeded the number of army divisions which had been

fixed at 89, the divisions fought without rest, and combat arms soldiers fought until they were killed, wounded, or captured. This prevented major units from leaving the line to absorb replacements and train them effectively. American replacements went from training centers directly to front line units. They were expected to have their training completed by unit veterans, but there was often a lack of time or inclination to conduct such training.⁴¹

The 4th Infantry Division, by September 1944, fits Van Creveld's example. Extensively trained in Great Britain prior to the Normandy landings, the division had been in continual combat since June. Casualties within the infantry regiments from 1 June to 1 September 1944 were as follows:⁴²

	<u>Authorized Strength</u>	<u>Casualties</u>	<u>Percentage</u>
8th Inf	3118	3930	126%
12th Inf	3118	4227	138%
22d Inf	3118	4274	139%

Certainly, there were personnel in the unit that survived this entire period and provided guidance and leadership to the replacements. But, the actions of the units indicated that the veterans' guidance was one of caution. In the attack, consistent, aggressive actions by the attacking regiments were lacking. Additionally, the skill levels of low-level units were handicapped because of inexperienced, newly commissioned officers and junior company commanders.

The most critical analysis of these deficiencies was made by the US Corps Commander, G.I. Kraemer.⁴³ The general reported that American attacks in September were characterized as:

1. Artillery preparations which indicated location of attack and which were not followed immediately by ground attack. This allowed the German defenders to get out of their protective bunkers and occupy fire positions.

2. Infantry attacks in tightly bunched platoon-size groups that were easily repulsed by mortar and artillery fire.

3. Lack of effective tank-infantry coordination. American tanks did not attack in mass, but appeared as 2-3 vehicles close to the road. If one or two were hit by antitank fire, the others would withdraw leaving the infantry behind.

These descriptions indicated severe training weaknesses at the unit level. This may indicate why the divisional and regimental orders were so specific in control of the subordinate units. But even the higher level commands were not innovative or talented. Gen. Kraemer reported that German forces could always anticipate American attacks by the radio intercept units and the regular American practice of attacking at 0800 or 1400 or 1500 hours daily. His comments were verified by the attack times in the 4th Infantry Division's Field Orders from 14-17 September.

German combat effectiveness was not up to the standards that the German commanders sought. Replacement battalions were filled mainly with over- and under-aged conscripts recently arriving from abbreviated basic training camps. These units were to have been disbanded and the personnel used to fill regular units. However, they were not afforded the usual German pattern of training and assimilation as part of their new unit. As a result, they were not effective and suffered high casualties.

The security battalions were filled mainly with soldiers handicapped by wounds or illness. Designed to guard rear installations, these units did not withstand the level of combat at the front and often surrendered at the first opportunity.⁴⁴ As long as these soldiers remained on the defensive under the protective cover of their fortifications and were led by experienced leaders, they provided sufficient resistance to halt the 4th Infantry Division attack.

(7) Condition, Morale, and Leadership. The "Steadfast and Loyal" Division was riding a crest of battlefield successes that predicted a relatively easy penetration of the Siegfried Line. Having arrived in England on 29 January 1944, the 4th Infantry Division actively pursued training in preparation for the opening of the second front in Europe. Operations Neptune and Tiger were successful exercises that prepared for 4th Infantry Division for Utah Beach at Normandy.

On D-Day itself, the division assaulted Beaches Tare (Green) and Uncle (Red) before advancing to Cherbourg by 29 June 1944. Time for reorganization, training and lessons learned evaluation was directed by higher HQs. During 6-17 July, the 4th Infantry Division played an integral part in securing the Carenton/Periers corridor. The remainder of July and early August saw several engagements leading to the liberation of Paris by the 4th Infantry Division and the 2d French Armored Division on 25 August.

Destroyed bridges east of Paris hindered the advance. By early September the division crossed the Aisne River and pushed task forces Taylor and Regnier across the Oise and Somme

Canals. On 5 September, the division crossed the Meuse River as the Germans, realizing that a defense west of the Siegfried line was impossible, conducted delaying actions while the rear guard was pulled inside the German border for reconstitution. At this time the German armies were staggered and confused to such an extent that weeks would have been required before a defensive line could have been organized. The 2d SS Panzer Division was in need of reorganization as evidenced by its shortage of personnel and critical artillery pieces.

Casualties for both sides during the period of 12-30 September was 40%. This was similar to the casualty level since Normandy. This factor weighed heavily on both sides. The Germans were hampered even more by the fact they possessed no reserves in their sector. This casualty rate was dispersed through all ranks and impacted on the leadership shortfalls for both sides.

The weather did little to help morale. The environment of the Schnee Eifel was cool, wet and cloudy with early morning fog. The dense woods, muddy roads and generally unfavorable terrain slowed the division's advance. Nevertheless, because the 4th Infantry Division had entered late in the war, it was eager to prove itself. Its early successes from Normandy to the crossing of the Meuse River aided morale despite the weather, terrain, destroyed bridges and a gasoline shortage. The success also may have bred complacency and overconfidence as evidenced by the leadership breakdown at "HILF" and lack of aggressive combat upon penetrating the "West Wall."

The German Army was a superb fighting organization. Its morale, elan, unit cohesion and resilience was unsurpassed. Nazi ideals gave the military an exalted social status but it was the Army's internal organization that kept it together. This organization was a product of long development and improvement drawn from defeat.

The average 2d SS Panzer soldier did not fight for social prestige or Nazi ideology. He fought because he felt himself a member of a well integrated, well led team whose structure and administration were perceived to be just. The Army's doctrine, training, and organization were all geared to fighting. The best went forward. Awards, promotions, and organizations were designed to produce and reward fighting men. As the result of this institutional control, the troops did not question where they fought, against whom, and why.

Both sides recognized the importance of leadership at the tactical level. However, both sides differed markedly in the selection and education of commissioned and noncommissioned officers. The German system was characterized by long, intensive training. Noncommissioned officers were trained to perform duties at a level two grades higher than their own. Officers were originally selected based on character, but as the war progressed, the process of selection and training became less rigorous.

The American system was characterized by the suddenness of the Army's expansion. Early in the war, the noncommissioned officers often were inferior to their better educated subordinates. Eventually, time and the increase in numbers of noncommissioned

officers resolved this problem. Fully 50% of the U.S. enlisted force was composed of noncommissioned officers in contrast to 10% of the German system. American officers were selected based upon education and intelligence. Their training was characterized by a system that was impersonal and centralized whereas German officers had developed in a decentralized system with strong unit identity. Both systems produced capable, resolute leaders.

The attack by the 4th Infantry Division lacked concentration and amounted to a reconnaissance in force. There was no dynamic leadership leading to a decisive follow-through. General Raymond C. Barton had been commanding since 1 July 1942. He abruptly left his command on 17 September. He was replaced by General Wakely, but it was too late in the battle for this to have any significant effect. As artillery, mortar, and resistance increased, combat stress took its toll. The 22d Infantry nearly panicked near BULF as officers broke under heavy shelling, counterattacks, inadequate lines of communication and minimal use of air, artillery, and armor.

The Germans appeared to fare better under the stress of battle. They remained flexible by capitalizing on the poor weather to reinforce, replace, shift and concentrate forces. U.S. leadership appeared reluctant to concentrate forces and to aggressively engage the Germans. If the U.S. leadership had had more combat experience, the "West Wall" penetration could have been more successful. The German cadre's experience and organization helped its forces withstand the attack of the 4th Infantry Division.

The U.S. attack was slowed by a lack of gasoline, poor weather and lack of fighting power. The Germans were short of equipment, supplies and personnel but retained strong fighting power. They held and finally launched a counteroffensive that failed only because of the 4th Division's relative size. The German resistance demonstrated the importance of morale and leadership even in desperate conditions with severe equipment shortages. Fortunately for the U.S., even excellent morale and leadership could not replace sheer size.

IV. SUMMARY IV: The Fight:

During the advance through Belgium, September 7 to September 15, no appreciable resistance was encountered. German units in front of the 4th Infantry Division were intent on getting away. The enemy made no effort to take a stand until the Siegfried line was reached by American troops. When the 4th Division struck the line at the Schnee Eifel, the 12th Infantry Regiment was on the left, the 22d Infantry Regiment was on the right, and the 8th Infantry Regiment was in reserve. The leading regiments halted on September 15 along the MUDIALF-AUX road approximately four kilometers west of the Siegfried line.⁴⁵ At 2400 hours on September 15, the 12th Infantry Regiment sent two patrols to conduct a reconnaissance along the line. The patrol from 2/12th Inf penetrated the line and passed some pillboxes but encountered no enemy. One patrol proceeded through MUDIALF and penetrated the line almost one kilometer east of the city. The other patrol hit the line approximately 800 meters northeast of MUDIALF. Upon receipt of information that the Siegfried line was only partially defended, the division commander ordered an attack and penetration of the line to take place at 141000 Sep 1944.⁴⁶

It was the 7th German Army's intent to fight and hold the terrain forward of the "West Wall" as long as possible in order to gain time for further improvements in the Siegfried line, the fortification of which had been completely neglected.⁴⁷ There were two courses of action open to General der Paffen SS, Hermann Hoyer, commander of the First SS Panzer Corps on 11 September 1944. He was to continue to delay enemy attacks

by a successive defense forward of the "West Wall" in order to gain time. The other was to break contact with the enemy, withdraw to the "West Wall", and set up a stable defense in order to stop the enemy attack. The second course of action was chosen.

Although it ran against the 7th German Army intent, the rationale for adopting course of action 2 was at least three-fold. First the complete exhaustion of the subordinate divisions which had been continuously fighting by day while moving at night limited the ability to withstand any severe enemy pressure. Second, an armored spearhead heading from STAVELT toward TALLER was threatening the Corps' right flank. Third, the enemy had attacked with armor toward CLEAVEAUX on the 10th of September. If this spearhead continued further, it would threaten the Corps' left flank and move seriously, by moving eastward, could simply occupy the southern part of the "West Wall." This area was completely unmanned.⁴⁸ Considering the relative combat power and logistical base, I SS Panzer Corps was unable to adopt course of action 1.⁴⁹

The Second Panzer Division was ordered to fall back on the "West Wall" during the evening of 11 September.⁵⁰ The Second SS Panzer Division was ordered to establish a security line from SCHWELLEN (9374) to CURRIER (9367) to HENNINGS (9377), roughly nine kilometers west of the Siegfried Line.⁵¹

Day 1 (14 September 1944): (See Sketch 1.) (Page 75)

With the 22d Infantry Regiment on the right and the 12th Infantry Regiment on the left, the 4th ID advanced up

the Schnee Eifel Ridge. The Siegfried Line was found to contain far more pillboxes than had been shown on the intelligence map. In the 22d Regiment's sector, the enemy consisted of mixed units which included Russian, Luftwaffe, and SS soldiers. Many pillboxes were defended and there was heavy German artillery and antitank fire. Attacking units of the 22d Infantry received considerable casualties. The 12th Infantry, however, encountered enemy troops composed of young and very old men who had little training and whose morale was very low. Most pillboxes were completely undefended with the exception of an occasional machinegun position or, in some cases, Germans returning rifle fire through embrasures. The Germans made no effort to defend the fortifications in the 12th Infantry's sector to include any organized resistance from entrenchments.⁵²

After reaching the crest, the 22d Infantry turned south, the 12th Infantry turned northeast, and by nightfall, the division held about five kilometers of the ridgetop. The division sector measured along the ridge was approximately 30 kilometers wide. There was a 10 kilometer gap between the 22d Infantry and the 28th Infantry Division on the right and a 40 kilometer gap between the 12th Infantry and the 9th Infantry Division of VII Corps on the left. These gaps were covered by thin cavalry screens operating just west of the border. Both flanking divisions were also considerably farther west than the 4th Infantry Division. Fifth Corps had no significant reserves because the 5th Armored Division was on line with and south of the 28th Infantry Division.⁵³

The 12th Infantry Regiment initiated the assault at 1010 hours with the first and second battalions abreast and received intermittent artillery and mortar fire. Vehicular movement was hampered by a virtually impassable and meager network of muddy roads. Cross-country movement was severely restricted by the heavily wooded terrain. The Second Battalion encountered enemy small arms and 20mm fire but was able to complete a penetration of the Siegfried Line in the vicinity of GRIERASCHEN (0871) by 1300 hours. The First Battalion continued an advance against small arms fire and also penetrated the line. The Third Battalion continued to protect the left (north) flank of the division.⁵⁴

The 22d Infantry Regiment assaulted in column at 1130 hours with the Third Battalion leading, followed by the First and Second battalions. The Third Battalion reached the line by 1305. The first fortifications were breached enabling the battalion to reach a road in the vicinity of (0967) (2 km west of ELLERICH). This penetration consisted of heavy fighting against small arms, mortar, and anti-aircraft fire. Enemy 88's were used and more pillboxes were encountered than originally expected. The enemy, which included SS troops, refused to surrender until they were wounded or blasted from their positions. The First Battalion passed through the gap developed by the Third Battalion, turned north and reached its objective by 1515 hours. The Second Battalion also passed through the gap, pushed east against light resistance, and reached the high-ground in the vicinity of (1069) (1 km east of ELLERICH) by 2100 hours. By the close of the day, the existing penetration

of the line within the 22d Infantry's zone of action was more than two kilometers wide with one battalion more than two kilometers past the enemy's first line of fortifications.⁵⁵

The 8th Infantry Regiment was the division reserve. At 1030 hours, the Second Battalion, then holding roadblocks in the vicinity of ST VIER (9574), was ordered to conduct a motor move to the vicinity of SCHONBERG (0574) to relieve the 3d Battalion, 12th Infantry Regiment from the responsibility of protecting the north flank of the division. The battalion closed in its new area at 1430 hours. At 1530 hours, the remainder of the 8th Infantry commenced movement from the vicinity of ALFENSTEG (0171) to the vicinity of RADSCHNID (0771) and closed into position at 1930 hours. The 102d Cavalry Group screened the left flank of the division, established roadblocks, and repelled small enemy counterattacks during the division's attack.⁵⁶

Parts of the 2d SS Panzer Division had been ordered to retreat to the "West Wall" during the night of 12-13 September. The remainder of the division withdrew during the night of 13-14 September.⁵⁷ On 14 September, the First Panzer Corps officially halted its retreat and began to defend the "West Wall." General Keppler split the 85 kilometer frontline between the 2d SS Panzer Division to the north and the 2d Panzer Division. The 2d Panzer Division was to occupy and defend a 30 kilometer frontline stretching from ROLLEIN (1382) - STADENHILL (2430) - BURG (0860) - PRADSTADT (1060).⁵⁸ The combat power available was unimpressive. There were approximately 750 men in four

organic battalions and 1900 men in nine attached battalions. Fourteen 75mm antitank guns, 37 artillery pieces, one assault gun and one Mark V Panther tank were available to support the force.⁵⁹ In addition to this force was the nondescript garrison troop of the "West Wall" mainly consisting of work force units to improve the fortifications.⁶⁰ Small arms and machineguns were also available. In sum, the 2d SS Panzer Division is to be considered as an infantry type organization whose combat effectiveness had been severely damaged during the retreat from France. It was tasked to defend a front line with forces unable to occupy all of the pillboxes.⁶¹ The 2d SS Panzer Division's tactical employment and mission can only be derived by concluding it from the actual combat reports as presented by the respective opponent.

To accomplish the defensive mission, the 2d SS Panzer Division obviously concentrated its remaining combat power along the more logical routes of advance through the Schneeifel. Thus, positions were occupied in the following priority: IGSHEIM (1382) in order to preclude an enemy advance along the 1421 approach to the west, ROETHEBEL PRUNT (1476) and FORSTHAUS SCHEEDEL (1675) which constitutes a major road intersection on top of the ridgeline, an economy of force operation along the Schneeifel ridgeline concentrating on SS-LARZERNHAIN (9270) and the presurable main effort to the south covering the roads which lead to the east in the vicinity of LAUBSCHEN (0066) and GELLEN (1167).

This line can be considered as the first defensive line which was bolstered by local reserves held back in order to

counterattack and regain lost terrain. This pattern of defensive employment was developed at the east front and became a familiar if not stereotyped pattern of tactical approach. The mission assigned to the division was presumably to hold terrain, deny enemy penetration and gain time for both establishing the second defensive belt in depth and reconstituting combat power.⁶²

These efforts were in the beginning stages and it was not until 19 September, when the battle was over, that the Germans had obtained two companies of infantry and three Mark V tanks.⁶³ This can be regarded as the first I SS Panzer Corps' operational reserve force.

The operational art followed was a prime example of "poor man tactics" and a strict adherence to some basic principles of war: Concentrate combat power in the likely enemy avenue of approach and take risks elsewhere by employing economy of force operations. Form and employ local reserve forces if combat strength is declining.

Day 2 (15 September 1944): (See Sketch 2, Page 76.)

The 4th Division order for 15 September committed the 8th Infantry on the left of the 12th Infantry and assigned march objectives to all three regiments 15 to 20 kilometers farther east across the Rhine River. The 8th Infantry moved out at 0300 hours. At 1300 hours, the head of the column was stopped in the vicinity of HELLER (1302) by heavy artillery, small arms, and machinegun fire. As the second battalion was stopped at the head of the column, the third battalion attempted a penetration at 0401 (0401). The battalion encountered strongly fortified

positions and intense artillery, machinegun, and small arms fire. By 1730 hours, the attempt had failed. At approximately 1800 hours, MG Barton decided to abandon the march plans and ordered the 8th Infantry to disengage from the enemy under the cover of darkness. The 2d and 3d battalions disengaged and moved to an assembly area in the vicinity of RADSCHEID (0771) in preparation for an attack to the east between Combat Team 12 and Combat Team 22 the following morning. The First Battalion remained in the vicinity of RADSCHEID throughout the day.⁶⁴

The 12th Infantry attacked at 0800 hours to the east to secure the crossing of the Myll River. Immediate contact was made with the enemy. Due to strong resistance in the thick woods, the advance was slow. Progress continued, however, with many casualties resulting from heavy artillery, mortar, and small arms fire. Three platoons of Company D, 70th Tank Battalion were attached at 0600 to "mop up" the woods behind the regiment where an increasing number of enemy elements were infiltrating between CT12 and CT22.⁶⁵

The 22d Infantry, prior to the attack at 0800 hours, received a counterattack on the left flank which was repelled. However, the enemy continued to infiltrate from the north and northwest throughout the day. The Third Battalion continued its attack on the heavily fortified town of BRANDSCHEID (0866). Progress was extremely slow due to heavy enemy resistance. The 1st and 2d battalions continued the attack to the east but again, progress was slow due to enemy resistance, thick woods, and poor visibility.⁶⁶

After the change in the mission for the 8th Infantry, the northern flank became the responsibility of the Corps cavalry. The division Command Post, which was moved to AUM in the early afternoon, was left out on the flank. At nightfall, the 8th returned to Belgium in the first retrograde movement it had made since Caroling 1941, and was established just south of JOINT STATION.

From the 2d SS Panzer Division's perspective, the initial contacts did not pose a serious threat. In addition, it took the divisions until the morning of 15 September to occupy their positions. On that day, there was an enemy attack northwest of 1411 (1505) which led to a five kilometer wide and 2-3 kilometer deep bulge along the line of BRANDSCHEID (0865) and SPHIL-GRICH (1166).⁶⁷ The Division ordered a counterattack near JOINT STATION (1268). The counterattack, conducted by about 300 men, was able to block the enemy penetration, but was unsuccessful in regaining the initial defence line.⁶⁸

Day 3 (15 September 1944): (See Sketch 3, Page 77.)

The 8th Infantry attacked to the northeast between 0512 and 0522 at 0730 hours. In the early afternoon, leading elements were receiving artillery fire. By 1915 hours, the 2d and 1st battalions overcame moderate artillery fire and small enemy patrols and had succeeded in advancing about three kilometers to the northeast. The third battalion was regimental reserve.

The 12th Infantry launched its attack to the northeast at 0745 hours with its battalions in column. Third battalion was regimental reserve. At 0900 hours, enemy elements were

able to infiltrate between Company D and the remainder of the Second Battalion in the vicinity of SCHLAUSENBACH (1175). This resulted in the encirclement of Company E by 1100 hours and an increasingly intense firefight. The First Battalion, pushing from the southwest, and Company L, converging from the northwest, broke through the enemy forces surrounding Company E and, by 1610 hours, re-established contact between all elements.⁶⁹ All three battalions were now on a line extending northeast from KUNIGSMUTH (1272). Although heavy artillery fire from the enemy continued throughout the day, the battalions continued to advance to the northeast. By 1800 hours, the enemy's resistance slackened and the regiment consolidated and prepared for the continuation of the attack on the following day.⁷⁰

The 22d Infantry began its attack on the morning of 16 September with the mission of capturing the town of BRANDSCHEID (0866). The Third Battalion attacked to the southwest and astride a road. It received heavy small arms, artillery, and automatic weapons fire. The First Battalion, also advancing to the southwest, encountered many pillboxes and received heavy artillery fire. By 1600 hours, the First Battalion had reached its objective near SWILLRICH and was consolidating. The Second Battalion held positions facing KONTMANN. Elements of Third Battalion, on the north side of the road, had succeeded in reaching the edge of BRANDSCHEID. Elements on the south side were blocked about 500 meters southwest of the nearby cross-road (0761) by fortifications and extensive minefields. At the close of the day, two companies in column succeeded in

entering the town of MANASSAS while elements south continued to be held up by enemy resistance.⁷¹

The division was now confronted by organized defenses on both flanks. Enemy shelling, which had been steadily increasing, was very intense during the night of September 16 and casualties were high. The division ordered a resumption of the advance to the east by all three regiments at 0900 hours on 17 September. The 22d Infantry was to secure MANASSAS before moving east.⁷²

Day 4 (17 September 1944): (See Sketch 4, Page 78.)

The 4th Infantry Division commenced its attack at 0900 hours on 17 September. The 8th Infantry moved out to secure favorable ground, "top up" enemy, and destroy pillboxes. The advance was hindered by inclement weather, lack of a road network, poor visibility, and thick woods, but Combat Team 8 continued to "top up" within the area while encountering small arms, mortar, and increasing enemy artillery fire. The Second Battalion, lacking any route of advance, was forced to bypass into CP 12's zone of action to reach its objective. The Third Battalion remained in their original assembly area until 1600 hours then displaced forward to a new assembly area.⁷³

The 12th Infantry attacked with 2d and 3d Battalions to secure favorable terrain, clear the woods, and destroy pillboxes to the north and northeast. The battalions continued to move throughout the day but their actions were impaired by thick woods, inclement weather, heavy artillery, small arms, and mortar fire.⁷⁴

The 22d Infantry attacked at 0900 hours to seize the town of KAMBSCH. (0866). The regiment was to continue attacking to the east to secure high ground east of SHILSHIC. (1137) and to protect the southern flank of the division. CT22 attacked simultaneously to the east and southwest with the First Battalion taking the hill east of SHILSHIC while the Third Battalion was to take KAMBSCH. The Second Battalion was moved around on the north flank in preparation for continuing the advance eastward by the regiment after the capture of KAMBSCH. At 1000 hours, the First Battalion, advancing to the base of a hill just east of SHILSHIC, was counter-attacked. Company A was surrounded and isolated from the remainder of the battalion. Based upon an order of still disputed authority, First Battalion withdrew to the position from which they had started. By nightfall, 19 men of Company A had succeeded in joining the battalion. Others came in during the night, and by the next morning, the company had a strength of 62 men and 2 officers. Meanwhile, Company K of the Third Battalion, riding on tanks, moved down the main road to KAMBSCH. At the edge of town, they ran into fortifications and heavy fire. At about 1500 hours, Company K and the tanks were withdrawn from KAMBSCH to assist First Battalion. At 2000 hours, the 22d Infantry was ordered to discontinue efforts to take KAMBSCH. The Second Battalion continued to the east through dense woods against heavy opposition. That night, the division was holding approximately the same ground as on the previous night.⁷⁵

During 17 September, continued enemy attacks between KAMBSCH and KAMBSCH could be repelled by local counterattacks.

The result was a complete enemy retreat.⁷⁶ Thus the original defense line was established again. The center sector of the 2d SS Panzer Division was not extensively manned until 15 September. It was the economy of force area.

Day 5 (15 September 1944):

The 8th Infantry continued to clear approximately 500 enemy soldiers that had succeeded in surrounding the First Battalion prior to darkness on the evening prior. The Battalion moved to the crossroad at (1471) and, by 1600 hours, had surrounded the enemy at (135716) and remained engaged with them until nightfall. The Second Battalion moved two kilometers westward while clearing the area of enemy troops. The Third Battalion, in reserve, also cleared its area of enemy troops.⁷⁷

The 12th Infantry continued to clear the enemy within its area and secure favorable ground. The Third Battalion moved east and went to a crossroad at (1675) and engaged the enemy in a heavy firefight during the day. The enemy was eliminated by 1600 hours. The 1st and 2d Battalions moved a short distance and established assembly areas, cleaned up all resistance by the end of the day, and protected the northern flank of the division.⁷⁸

The 22d Infantry continued to clear the enemy within its area and secure favorable terrain. The First Battalion moved approximately one kilometer to the north, "hopping up" as it advanced, and established a line from (1163) to (1167) between the two main roads running north and south in their zone of action. The Second Battalion remained in its position and was

engaged with the enemy to the east. The Third Battalion sent patrols to the southwest into the town of MALLORY and met enemy resistance. The battalion was subjected to mortar and artillery fire throughout the day.⁷⁰

Day 11 (11 September 1944):

The division order, issued at 1700 hours on 10 September directed that the division "continue to exert aggressive pressure against the enemy."⁶⁹ No advance was ordered and none was made. The Germans made four counterattacks during the day, one on each flank and two in the center. Three of the counterattacks were of perhaps battalion strength and were supported by heavy artillery and a few tanks.⁸¹

The 8th Infantry was prepared to continue exerting pressure against the enemy. At 0600 hours, the Third Battalion was subjected to a counterattack from the east by an estimated battalion-sized force subsequently identified by PW's as being composed of various elements of SS elite troops. The counterattack was repulsed as the Third Battalion returned a greater volume of small arms, automatic, and indirect fire. The First Battalion continued the attack against a small pocket of enemy at (1471) and by 1400 hours had developed the situation into a heavy firefight. At 1530 hours, an estimated two-company counterattack was received by the Third Battalion from the northeast. Elements of the Second Battalion initiated movement to the southeast to assist in the encirclement of this force and the battle continued until dark.⁸²

At 1200 hours the enemy launched a counterattack at 1230 hours from the direction of (1274) with approximately 30 troops from six different companies. The counterattack was supported with artillery and five live breaching vehicles. Surprise was achieved and the enemy drove the First Battalion back approximately 400 meters. The Second Battalion initiated movement to the east to secure more favorable terrain. At 1330 hours, Third Battalion counterattacked to recover lost ground and continued to exert pressure throughout the day. At 1430 hours, elements of the First Battalion became engaged with part of the same enemy force at (1371). Tanks were employed by this Battalion and the enemy activity immediately diminished. By 1600 hours, the attack had been repulsed on the northern flank. First Battalion remained in position, Third Battalion assembled in the vicinity of (1374), and Second Battalion moved to the east at 1630 hours to secure a position in the vicinity of (1377).¹⁵

The 22nd Infantry received a counterattack from the direction of (1274) in the First Battalion sector. The enemy advanced northwest astride the road and the battle ensued in the vicinity of (1277). Heavy artillery fire was ordered, but the enemy refused to withdraw, and the fight continued until 1400 hours, at which time pressure began to slacken.

The First Battalion, observing further enemy activity to the west and south, called for artillery support to move over to the position. Toward the close of the day, enemy activity subsided and the battle remained in previous positions, with no further enemy activity.

During 14-15 September, enemy attacks along the Schnee Eifel ridge line leading towards LAARDOFF MIL could be contained by local counterattacks. On 16 September, however, the attempts were not successful in expelling the attacking enemy troops. There was no decisive outcome of the battle. Local German counterattacks temporarily gained marginal ground but, as a rule, would lose it again. Considering the great number of casualties involved, further attempts to change the situation were given up on. Finally, on 17 September, both sides obviously appeared to be put up with the situation as it was.⁶⁹

The Aftermath (20-30 September 1944):

The situation was now definitely stabilized. Enemy artillery fire slackened and no further important counterattacks were made. On 26 September, plans were announced for an operation by the 22d Infantry to capture LAARDOFF MIL. Before the end of the day, those plans were cancelled and it was announced that the division would remain in place for 8 to 10 more days. On 27 September, the 112th Infantry from the 28th Division was brought in to take LAARDOFF MIL. However, this plan was also cancelled and the 112th was withdrawn. By 29 September, it was announced to unit commanders that V Corps would be relieved by VII Corps and would then shift to the north for a new offensive. On 4 and 5 October, the 4th and 28th Divisions were relieved by the 2d Division and moved to positions east of LAARDOFF.⁷⁰

The Germans did not achieve a tactical victory. However, from an operational point of view, the battle contributed to free forces for the 7th Army's main effort in the area of Aachen, and to further gain time and forces to prepare for future counteroffensive operations (Battle of the Bulge). At the tactical level, three factors positively influenced the German defensive effort. First, the "West Wall" fortifications contributed to block the enemy's attack and give help to the defenders psychologically. In order to neutralize the fortifications, numerous artillery batteries of at least 305mm caliber would have been necessary. They were not available to the enemy. Second, weather and climate conditions during autumn did not allow the substitution of air power for artillery. In addition, air attacks proved less efficient against stationary, sheltered targets as opposed to moving targets. Third, one major factor appeared to be in the value of tactics: an inability on the enemy's side to concentrate combat power and to rapidly switch from the imperatives of pursuit to deliberate attack.⁸⁷

Furthermore, U.S. infantry followed a certain familiar pattern; most of the time, attacks were conducted cautiously with hesitance and a lack of momentum.⁸⁸ The infantry attack formation was normally supported by tanks. Once the tanks had been knocked out by either antitank weapons or artillery fire, the accompanying infantry generally came to a full stop and would continue only after heavy artillery and air reinforcements had been called in place. Thus German defensive measures

almost exclusively concentrated on halting U.S. tank and air assets. In doing so, they were able to stop enemy attacks in the very stage of initial employment. It follows that time for their own reaction and countermeasures was gained.³⁹ Thus, the tactical initiative was regained most of the time at combat action level.

V. SECTION V: Significance of the Action:

From the American perspective, the Schnee Eifel was not a decisive battle because the V Corps failed to achieve a breakthrough of the Siegfried Line. The immediate effects of the Battle of Schnee Eifel were nearly inconsequential for both sides. Neither gained a real advantage from the encounter. Because of the terrain and heavily wooded area, the battle proved to be a test of strength at the unit level (company and platoon) in infantry tactics in close combat and combat against well fortified pillboxes. Clearly, no strategic objectives were realized by either side, and since it was not decisive, neither side gained an immediate advantage.

In the long-term view, the battle had little effect on national objectives, although a good argument can be made for some positive effects on the German side and some negative effects on the U.S. side. The logic of this conclusion is that the failure of the U.S. V Corps to rupture the Siegfried Line permitted the German forces, especially armor forces, to regroup and consolidate for one last offensive effort at the Ardennes using the cover and concealment of the heavily wooded Schnee Eifel area. A successful penetration would have made the German offensive much more difficult because their forces would have been split and outflanked by the U.S. The U.S. needed to capture and hold some extended eastwest roads. To shorten logistical lines which had been a constant problem in the drive into France and further inland. Since neither side was defeated, both were in a position to recover, but the U.S. gained some advantage because of manpower and equipment availability at this point in the war.

This battle was, by all standards of measurement, essentially inconsequential and ranked very low in importance compared to numerous other battles in the war. The Schnee Eifel battle is a good study in close combat by Infantry units in thickly wooded terrain and with reduced mobility because of extremely poor weather.

There were several lessons learned, but it is very difficult to determine if anyone actually applied these in future operations. In fact, the lessons learned were not new but rather a rehash of some that had been previously learned.

Typically, we experience the same problems over and over with each new war. One such lesson learned was that the U.S. was at the end of a very overextended supply line, and this was one of the reasons that it was so critical to obtain an east-west road network to allow for better logistical support of the combat forces. This extended supply line did not allow for a buildup of sufficient force to overwhelm the enemy and consequently led to a failure of V Corps to penetrate the Siegfried line.

Also, the 4th Infantry Division failed to designate a main effort. This did not allow concentration of superior force at the decisive point. There was also a failure to decisively commit the reserves against the main effort, and only part of the reserve was committed. Again, this was not on the most important axis.

A key mistake was the failure to properly coordinate the attacks, a violation of one of the key tenets of today's

Airland battle doctrine. The lack of coordination among the infantry, armor, and artillery prevented the U.S. from exploiting any advantages temporarily gained. It should be noted, though, that weather and terrain did play a major role in hampering coordinated infantry and armor attacks.

Much of the blame for poorly coordinated attacks can be placed on a lack of proper training of U.S. personnel. A major flaw was revealed in artillery preparations in that all artillery preparations indicated the location of the attack. This advance warning permitted the German defenders to get out of their protective bunkers and occupy firing positions. Infantry attacks were most often in tightly bunched platoon-size groups that were easily defeated. The Americans also fell into the habit of attacking at 0800 or about 1400 or 1500 hours daily; the German defenders anticipated each attack and to some degree gained an advantage.

These lessons were important during the battle of Schnee Eifel, during the fighting at Normandy, during the World War I and even today. As already mentioned, these lessons were not new but rather they represent basic applications of the principles of war, and history has shown these to be important to military students throughout time.

The lessons of Schnee Eifel certainly are applicable to contemporary military students. On the modern battlefield, it will be very important for U.S. commanders to know how to achieve local superiority because he most likely will be greatly outnumbered. The commander will not have superiority unless he

makes it happen, and it will be vitally important that he be able to coordinate all available combat power (to include combat multipliers) to help him achieve that superiority.

Excellence in training is essential to success in battle, and it should not take even one defeat to learn important tactical lessons. In fact, training is even more important today because of the increased technology and more advanced weapons systems found in today's military forces. As proven during the battle of Schnee Eifel, combat is not the time nor the place to learn how to operate equipment or how to effectively employ it.

NOTES

¹Compiled by Mary A. Williams, United States Army in World War II, Special Studies, Chronology 1941-45. (Washington, D.C.: U.S. Government Printing Office, 1958), p. 272.

²U.S., War Department, 4th Infantry Division. Action Against the Enemy: Reports After Action 1-30 SEPTEMBER 1944, 10 October 1944. pp. 20-21, 34.

³George Forty, U.S. Army Handbook 1939-1945 (New York: Charles Scribner's Sons, 1979), pp. 54-51.

⁴U.S. War Department, V (US) Corps: Report After Action Against the Enemy 1 SEPTEMBER 1944 - 30 SEPTEMBER 1944, 5 October 1944, pp. 8-11, G1 Report.

⁵U.S. War Department, 4th Infantry Division, G-2 Periodic Reports 13-19 September 1944. Also U.S. War Department, Technical Manual TM-1-30-45, German Army Handbook, 11 MARCH 1945, pp. II-10 to II-97.

⁶Fritz Kraemer, I SS Pz Corps in the West in 1944, U.S. War Department Manuscript No. C-024, not dated, pp. 1-3.

⁷Kraemer, pp. 6-7.

⁸Kraemer, p. 9. Current reports from the 4th Infantry Division Artillery 12 indicated far more artillery pieces than the Germans possessed. It seems that the German technique of frequent artillery displacement was not well known. See reports dated 13-21 September 4th Infantry Division Artillery Journal File, 1944.

⁹W. J. R. Davies, German Army Handbook 1939-1945, (New York: Arco Publishing, Inc, 1981), pp. 107, 114-115, 144. Also Forty, pp. 91-111.

¹⁰Kraemer, pp. 30, 34-36.

¹¹U.S. War Department, 4th Infantry Division. Combat Report, Penetration of the Siegfried Line and Occupation of the Schnee Eifel, 5 October 1944, pp. 8-10.

¹²Holand G. Koppenthal, The European Theater of Operation: Logistical Support of the Armies, (Washington, D.C.: Department of the Army, 1959), p. 11.

¹³V Corps After Action Report, Section IV - G4 Logistics Report, (5 Oct 1944), p. 2.

¹⁴IBID, p. 2.

15 Charles A. MacDonald, The Siegfried Line Campaign, (Washington, D.C.: Department of the Army, 1963), p. 55.

16 Headquarters, 4th Infantry Division Report, AG 312 1, (10 Oct 1944).

17 Generalmajor Fritz Kraemer, I SS Panzer Corps in the West in 1944, (U.S. Government Report).

18 MacDonald, p. 43.

19 U.S., War Department, 4 Infantry Division, Field Order 37, 13 September 1944, p. 1.

20 MacDonald, p. 53.

21 Martin van Grevel, Fighting Power: German and U.S. Army Performance, 1939-1945 (Westport, Connecticut: Greenwood Press, 1982), pp. 47-48.

22 Kraemer, p. 4.

23 7 (SS) Corps IAA, pp. 1-2, Signal report.

24 After Action Report, 4th Inf Div, 10 Oct 44.

25 Intelligence Operations, V Corps, European Campaign 18 May 42 - 10 May 45; After Action Report - Sep 44, 7th V Corps.

26 V Corps Intelligence Annex to FC 426, 11 Sep 44.

27 V Corps msgs 160600 Sep 44 and 171000 Sep 44.

28 Intelligence Operations V Corps European Campaign 18 May 42 - 10 May 45.

29 V Corps G-2 Estimate No. 11, 102400 Sep 44.

30 V Corps G-2 message, 132130 Sep 44; Intelligence Operations V Corps European Campaign 18 May 42 - 10 May 45.

31 Letter, 30 Sep, Subj: Signal Questionnaire Answered by Signal Radio Intelligence Companies, 12 Aug 44; Memo, Signal Corps Ground Signal Agency, Subj: Report on Organization, Operations, and Training of Signal Radio Intelligence Companies in the USA, 15 Oct 44; Signal Corps Technical Historical Report, First U.S. Army Signal Service, 20 Oct 43-28 Feb 45; Collet Operations Data, First Army, Europe, 1944-45, dtd 15 Nov 45.

32 7th V Corps message, 120900 Sep 44.

33 28th Inf Div G-2 Periodic Report 446, 14 Sep 44.

34 Interview with Generalmajor Fritz Kraemer, 13 Jul 60-043.

35 Guenther Blumentritt, Defense (AS 1-299) (Washington, D.C.: Office of the Chief of Military History, date unk)., pp. 10-15.

36 Macdonald.

37 2-2 Periodic Reports, 17 September 1944.

38 Field Manual 7-40 Rifle Regiment, War Department, Washington D.C., 9 February 1942, pp. 85, 100-104.

39 Field Manual 7-20 Infantry Battalion, War Department, Washington D.C., 1 October 1944, pp. 96-113.

40 Van Creveld, pp. 166-174.

41 Van Creveld, pp. 72-73.

42 4th ID, Reports After Action (10 Oct 44) p. 34.

43 Kraemer, pp. 29-35.

44 2-2 Periodic Reports, 17 September 1944.

45 D.C., War Department, 4th Infantry Division, Penetration of the Siegfried Line and Occupation of Schnee Eifel. 14 Sept - 1 Oct 1944.

46 D.C., War Department, 4th Infantry Division, Army Around Forces Fact Sheet. 3 JUL 1946-5 MAR 1946.

47 General der Waffen - SS Georg Meppler, I SS Panzer Corps Northern France: The West Wall; around Aachen. 15 Aug - 18 Oct, 1944, U.S. War Department Manuscript No. 1-623, 1947, p. 35.

48 ibid, p. 43.

49 Macdonald, p. 43.

50 ibid.

51 Meppler, I SS Panzer Corps Northern France: The West Wall; Around Aachen, p. 34.

52 D.C., War Dept, 4th ID, Penetration of the Siegfried Line and Occupation of Schnee Eifel.

53 ibid.

54 D.C. War Dept, 4th ID, Army Around Forces Fact Sheet.

55 ibid.

56 ibid.

70. General, 1st SS Panzer Corps Northern France; the West Wall;
Army Action. p. 34.

71. id., p. 37.

72. id., p. 3.

73. General der Waffen - SS Georg Kempfer, 1st SS Panzer Corps
1st Lt. - 10 Oct 1944, U.S. War Department Manuscript No. -155,
1st, p. 14.

74. Kempfer, 1st SS Panzer Corps Northern France; the West Wall;
Army Action. p. 36.

75. id., p. 37.

76. id., p. 37.

77. id., War Dept, 4th Lt., Army Ground Forces Fact Sheet.

78. id.

79. id.

80. General, 1st SS Panzer Corps Northern France; the West Wall;
Army Action. p. 34.

81. id.

82. id., War Dept, 4th Lt., Army Ground Forces Fact Sheet.

83. id.

84. id.

85. id., War Dept, 4th Lt., Registration of the Disfranchising
and Segregation of German Life.

86. id., War Dept., 4th Lt., Army Ground Forces Fact Sheet.

87. id.

88. id.

89. General, 1st SS Panzer Corps, Northern France; the West Wall;
Army Action. p. 34.

90. id., War Dept, 4th Lt., Army Ground Forces Fact Sheet.

91. id.

92. id., War Dept, 4th Lt., Registration of the Disfranchising
and Segregation of German Life.

93. id.

31 Ibid.

32 U.S., War Dept, 4th Ed, Army Ground Forces Fact Sheet.

33 Ibid.

34 Ibid.

35 Koppler, I SS Panzer Corps, p. 17.

36 U.S., War Dept., 4th Ed, Army Ground Forces Fact Sheet.

37 MacDonald, p. 54.

38 Koppler, I SS Panzer Corps, Northern France; The West Wall; Around Aachen. p. 44.

39 Ibid, p. 45.

1. REFERENCES

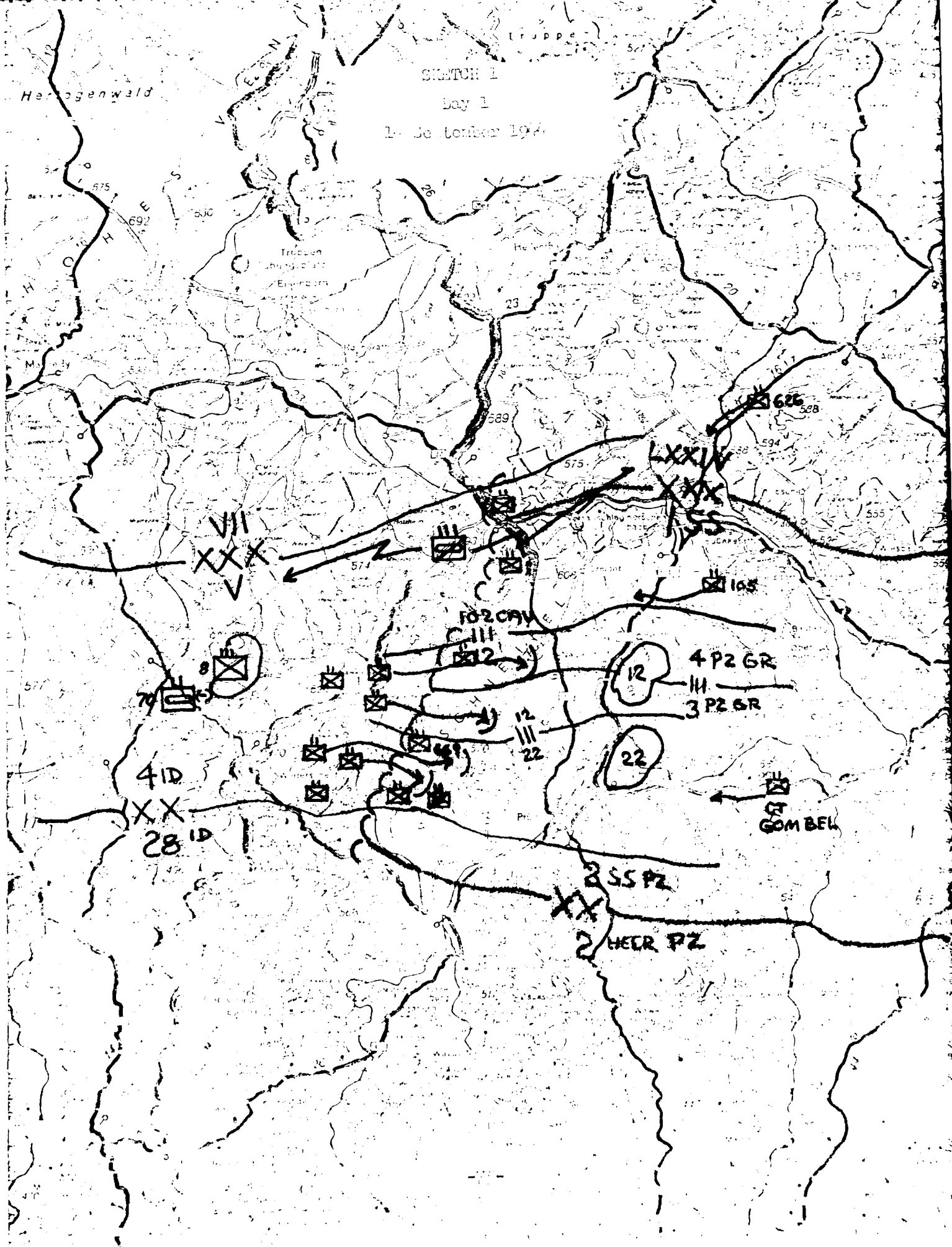
1. Ensbritt, Quentor. Defense. Washington, D.C.: file of the Chief of Military History, undated.
2. Davies, A. J. L. German Air Landbook 1939-1945. New York: Arco Publishing, Inc., 1961.
3. Hart, George. U.S. Army Landbook 1939-1945. New York: Warline Publishers Corp., 1972.
4. Hecker, Fritz. U.S. Army Corps in the West in 1944. U.S. War Department manuscript no. 3-024, undated.
5. Howard, Charles L. The Meuse River Line Campaign. U.S. Army Official History. Washington, D.C.: Government Printing Office, 1953.
6. Howard, Roland L. The European Theater of Operations: Logistical Support of the Allies. Washington, D.C.: Department of the Army, 1959.
7. U.S. War Department, 4th Infantry Division. Action Against the Enemy: Reports After Action 1-30 September 1944. 10 October 1944.
8. U.S. War Department, 4th Infantry Division. Combat Report: Operations of the Siegfried Line and Occupation of the West Wall. 9 October 1944.
9. U.S. War Department, 4th Infantry Division. 1-2 Periodic Reports: 11-12 September 1944.
10. U.S. War Department, Field Manual 7-20, Infantry Battalion, Washington, D.C. 1 October 1944.
11. U.S. War Department, Field Manual 7-41, Infantry Regiment. Washington, D.C. 1 February 1942.
12. Davies, Arthur L. Infantry Corps: German and U.S. Army Performance: 1939-1945. Westport, Connecticut: Greenwood Press, 1964.
13. Sullivan, John. United States Army in World War II, Official History, Germany 1941-45. Washington, D.C.: U.S. Government Printing Office, 1945.

SKETCH 1

Day 1

1-30 September 1944

Herzogenwald



Herzogenwald

SKETCH 2

Day 1

15 September 1944

Truppen

Truppen
Eisenborn

Herzogenwald

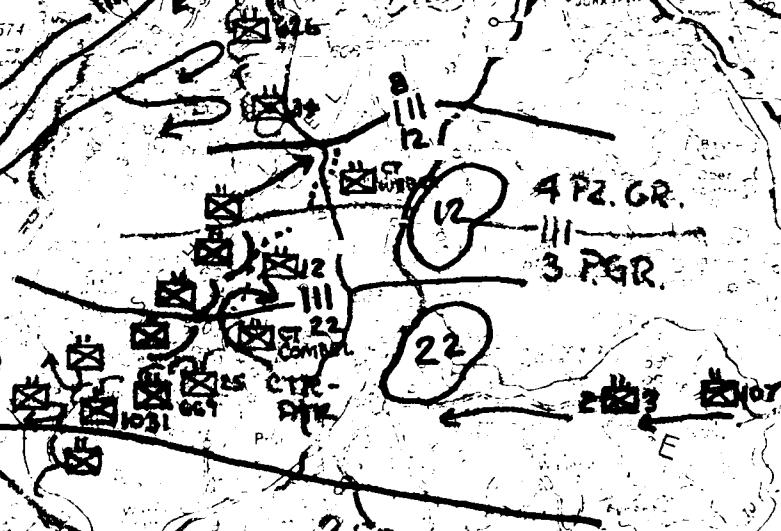
VII
XXX

162 CAV

4 PZ. GR.
III
3 PGR.

4D
XX
28D

255 PZ
XXX PZ
2 HERR PZ



Day 3
16 September 1944

Т р у д ы

Day 3

16 September 1944

VII
XX
V

41D
XX
284

4 PGR
- III -
3 PGR

2 SS 72
XX
2 HEIR 72

17 September 1944

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