

Terrain Intelligence and Battlefield Success:

A Historical Perspective

By Major William J. Bayles

Today, as in the past, terrain intelligence and obstacle data are critical to the success of any maneuver commander. Army professional journals frequently print graphic descriptions of National Training Center battles in which attackers are disrupted and subsequently destroyed in minefields that they failed to locate—until too late. During World War II, commanders learned many such lessons, at greater cost. This article describes successful and unsuccessful missions that illustrate the relationship of terrain intelligence to battlefield success.

The Second Battle of Schmidt

The Second Battle of Schmidt demonstrates a costly failure of terrain intelligence. On November 2, 1944, the 28th Infantry Division launched an attack toward Schmidt, Germany, to seize its road junction and gain maneuver space and additional supply routes for future operations. The attack drove the Allies closer to one of several large and operationally important dams on the Roer River.[1] The plan of attack called for elements of the 112th Infantry Regiment to secure the village of Schmidt, with supporting armored forces following to blunt the edge of any German armored counterattacks. Thus, the division's success depended on getting armored vehicles to Schmidt.

The V Corps commander assigned General Norman D. Cota's 28th Infantry Division to this important objective and allocated many assets to support the attack. A towed antitank battalion added fires to the tank battalion and tank destroyer battalion that were normally attached to the division. The bulk of V Corps' artillery and the entire 1171st Engineer Combat Group supported the division in this operation.

The "Keystone Division," named to reflect its Pennsylvania National Guard origins, needed all the help it could get. In addition to fighting a resolute enemy, it had to contend with very difficult weather and abominable terrain. The weather was wet and cold, though temperatures generally remained above freezing in early November. Constant rains soaked the ground, and roads quickly

became quagmires under almost any traffic. The clouds and low ceilings associated with the rain grounded the U.S. aircraft charged with isolating the Schmidt battlefield from German reserves.[2]

The terrain was perhaps more hostile than the weather because the steep-sided valley of the Kall River was between the 28th Division and the objective. This gorge was more than 1,000 meters wide and about 150 meters deep. The sides were thickly forested, and only one cart track offered potential for armored or supply vehicles to cross. Charles MacDonald, author of two official histories of this attack, assessed the situation: "General Cota could only hope that the cart track across the Kall, which had to serve as a main supply route, would prove negotiable: on aerial photographs, parts of the track did not show up."[3]

Although the trail and the bridge across the Kall River were vital to the operation's success, the 28th did little to ascertain their condition. The 28th relieved the 9th Division on October 26 and planned to attack on October 31. They later postponed this attack until November 2, which allowed time for intelligence collection. The 1171st Group tasked the 20th Engineer Battalion to provide three reconnaissance teams. The 3rd Battalion, 112th Infantry, had an experienced patrol led by the S-2, 1LT Greene; they were known as the "Greene Hornets."

Though assets for reconnaissance were available, little patrolling occurred because of the enemy's presence and the forbidding terrain.[4] After the attacking infantry passed through the gorge on November 3, sketchy and incorrect information about the condition of the trail and bridge was passed back to decision makers. As the 3rd Battalion dislodged German defenders from Schmidt, the Greene Hornets guarded the battalion's flank north of the gorge and never traversed the treacherous trail.



Kall Trail supply route between Vossnack and Kommersheidt on the Vossnack side of the gorge. Thrown tank tracks litter the trail.

Because conditions in the gorge were unknown to the leaders who could focus the engineer effort, the trail remained a bottleneck throughout the operation. The 20th Engineer Battalion's primary mission was to clear the trail, and Companies A and B were assigned this task. Although mobility efforts on the trail started after nightfall on November 3, only three engineer platoons worked on it during the night. These soldiers worked with hand tools until a bulldozer arrived in the middle of the night. The dozer broke down after working for about an hour. The 20th Engineers employed no other assets until after noon on November 4, when General Cota personally ordered the 1171st Group commander to send "a competent officer" to take charge of the trail-clearing operation.[5]

The engineer effort at the gorge was clearly too little and too late to relieve the bottleneck. Three small tracked vehicles, called weasels, carried supplies to Schmidt during the night on November 3, and three tanks traversed the gorge with great difficulty the morning of November 4.

This support was also too little and too late because the Germans counterattacked that morning. Their tank and infantry forces drove the Americans out of Schmidt, although the battle continued for several more days. Some additional vehicles traversed the difficult Kall Gorge,



The M29 cargo carrier (weasel) was the first vehicle to traverse the Kall Gorge and support the 28th Division's attack.

but the 20th Engineers never made it an acceptable supply and reinforcement route. Disabled tanks from the first abortive attempts to force the passage blocked the trail.

Had General Cota been provided accurate information concerning conditions in the Kall Gorge, he could have devised a plan to overcome the obstacle. The most crucial engineer asset at his disposal was a command structure to oversee mobility efforts on the trail and ensure that resources were prepared to work as soon as the area was secured. However, the absence of terrain intelligence hobbled General Cota's operation from the beginning. As a result, the Kall Gorge cost the Keystone Division success at Schmidt.

Operation Flashpoint

U.S. Army planning for Rhine River crossings in the spring of 1945 reflected costly experiences such as the Battle of Schmidt. In contrast to the 28th Infantry Division's operation, the 79th Infantry Division conducted extensive reconnaissance before Operation Flashpoint—the crossing of the Rhine.

"During the actual assault...divisional engineers crossed in the first wave and reconnoitered routes of advance and minefields."

Extensive terrain reconnaissance was a vital part of the preparation for Operation Flashpoint. During planning stages, the corps engineer merged the S-2 sections of the supporting 1148th and 1153rd Engineer Combat Groups. These staff sections coordinated an intelligence collection effort and performed their own reconnaissance to determine detailed information about the crossing area and the river. They determined soil trafficability and located potential bridging, rafting, and assault sites. All sites were further reconnoitered by infantry commanders accompanied by engineer leaders down to the platoon level. During the actual assault operation on March 24, divisional engineers crossed in the first wave and reconnoitered routes of advance and minefields. They found weak spots in the German obstacles on the far shore.

Operation Flashpoint was a walkover because there was little enemy resistance. However, extensive terrain intelligence enabled the 79th to accomplish

detailed planning and rehearsals vital to heavily opposed crossings.[6]

Other Campaigns

Combat engineers in the European and Mediterranean Theaters of World War II frequently conducted terrain reconnaissance and evaluation missions. In some cases, engineers augmented maneuver forces during reconnaissance operations. In the final analysis, even though "There was initially a marked reluctance to permit engineers to collect their own intelligence and put it in a form suitable for use by engineers,"[7] engineers did contribute to intelligence collection efforts throughout the European Campaign.

During World War II, the U.S. Army organized and equipped the combat engineer battalions much like today's wheeled corps combat battalions. The nondivisional combat battalion was identical to its counterpart in the infantry division. These units had organic reconnaissance sections,[8] as did the armored engineer battalions in armored divisions.[9]

The headquarters and headquarters company of the engineer combat group also had a reconnaissance section. Doctrine charged the group S2 to be a combined collection planner, intelligence agency, and liaison with division G2s.[10]

Just as the organizational structure provided for the reconnaissance mission, doctrine and training heavily favored engineer reconnaissance. Every mission outlined for combat engineers in FM 5-6, *Engineer Field Manual: Operations of Engineer Field Units,* placed reconnaissance as the first step. This manual devoted an entire chapter to reconnaissance, outlined sources of terrain information, and defined engineer reconnaissance as "searching for engineer information regarding topography, resources, and enemy installations and activities affecting engineer operations."[11] FM 5-5, *Engineer Field Manual: Engineer Troops,* indicated that engineer headquarters' S2s at all echelons were responsible for the collection plan, gathering and evaluating engineer information, and supervising reconnaissance training.[12] Outside the engineer community's doctrine, combat engineers were clearly expected to make a contribution, as indicated by FM 100-5, *Field Service Regulations: Operations:* "Small engineer groups should constitute a portion of ground reconnaissance units to obtain and report information concerning routes of communication and movement, demolitions, land mines, and obstructions."[13]

The Cost

History shows that combat engineers were organized, trained, and employed for reconnaissance during World War II. The efforts of the engineer S-2s were sometimes duplicated by their maneuver counterparts or information was not shared soon enough, but the system established by doctrine produced the necessary information most of the time. Nevertheless, the European Campaign provided an example of the tragic cost of inadequate terrain intelligence—the Battle of Schmidt.

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Endnotes

[1]MacDonald, Charles B., and Mathews, Sidney T., *Three Battles: Arnaville, Altuzzo, and Schmidt,* Center for Military History, Washington, D.C., 1952, p. 251.

[2]MacDonald, Charles B., *The Siegfried Line Campaign,* Washington, D.C., Center for Military History, 1984, p. 345.

[3]Ibid.

[4]MacDonald. *Three Battles...* p. 255.

[5]Ibid. p. 313.

[6]*Rhine Crossing by the 79th Division,* 24 March 1945, Headquarters, 79th Infantry Division.

[7]Final Report of the Chief Engineer, European Theater of Operations. 1942-45., Headquarters, European Theater, p. 90.

[8]FM 5-5, *Engineer Field Manual: Engineer Troops,* Washington, D.C., War Department, 11 October 1943, p. 53-54.

[9]Forty, George, U.S. Army Handbook, 1939-1945, 1979: Charles Scribner's Sons, p. 64.

[10]FM 5-5, p. 4.

[11] FM 5-6, *Engineer Field Manual: Operations of Engineer Field Units,* Washington, D.C., War Department, 23 April 1943, p. 25.

[12]FM 5-5, p. 13.

[13]FM 100-5, *Field Service Regulations: Operations,* Washington, D.C., War Department, 15 June 1944, p. 52.