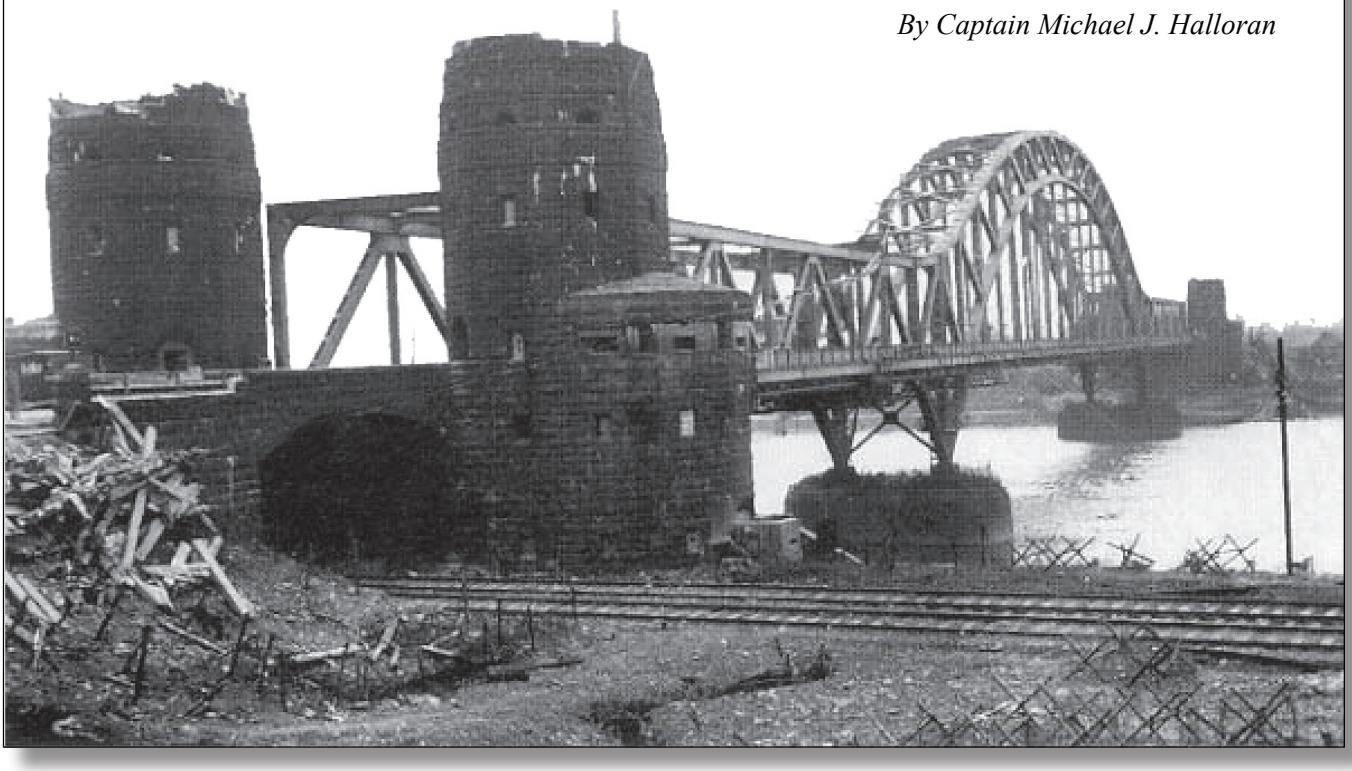
The Bridge at Remagen

By Captain Michael J. Halloran



"We were across the Rhine, on a permanent bridge; the traditional defensive barrier to the heart of Germany was pierced. The final defeat of the enemy, which we had long calculated would be accomplished in the spring and summer campaign of 1945, was suddenly, now, just around the corner."

—General Dwight D. Eisenhower

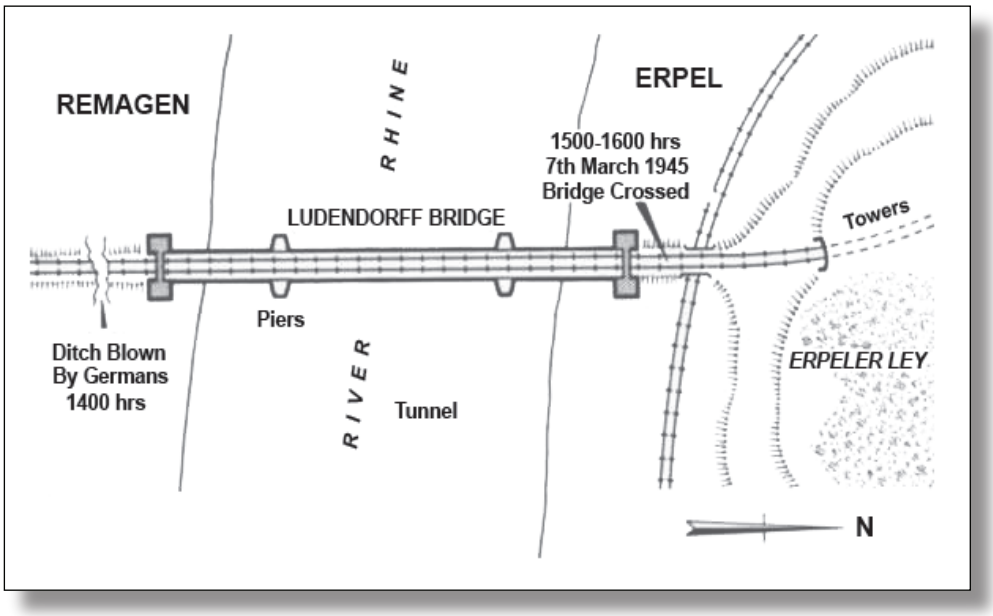
After successfully breaking through the defenses at the border of Germany early in 1945, the Allied forces had one obstacle—the Rhine River—denying them access to the heart of Nazi territory. At each Allied advance, the Germans destroyed the bridges spanning the river. The Ludendorff Bridge in Remagen was often overlooked due to its location 40 miles from the front lines. Thus, it was one of the few bridges still standing on 7 March 1945.

Remagen is located between Cologne and Koblenz. The Ludendorff Bridge stretched from the city of Remagen on the western bank to a 600-foot hill, known as the *Erpeler Ley*, on the eastern bank. The first American force to arrive at the bridge was a task force from the 9th Armored Division, commanded by Major General John W. Leonard. The task force consisted of the 14th Tank Battalion (minus Delta Company), the 27th Armored Infantry Battalion, and one platoon of C Troop, 85th Cavalry Reconnaissance Battalion.[1] Major Hans Scheller commanded the German forces defending Remagen and the Ludendorff Bridge. These forces included a bridge security company of 36 men led by Captain Willi Bratge, an engineer company of about 120 men led by Captain Karl Friesenhahn, 180 *Hitlerjugend*, an antiaircraft unit of 200 men, 20 men from a *Luftwaffe* rocket battery, 120 Eastern "volunteers," and roughly 500 civilian *Volksturm*. In all, the German forces amounted to roughly 1,000 men.[2]

Key Factors of the Battle

On 7 March 1945, Soldiers from the 9th Armored Division task force arrived at Remagen and captured the Ludendorff Bridge. The American forces won the battle by massing the effects of fire, rapidly conducting the operation, and taking the initiative. While the Germans did mass the effects of their flak guns and other available assets on the American tanks, they did not have enough firepower to overcome the American forces. Since the Germans did not integrate the effects of their fires with well-planned defensive positions, the Americans were able to reach the western banks of the Rhine River. This enabled the Americans to mass their own fires against the German units on the eastern bank. The Germans, fearing retaliation from superiors for failure to

follow orders, took no initiative to improve their situation. However, had they emplaced explosives in different locations, the bridge may have collapsed. The American forces took the initiative from the start of the operation because intelligence had suggested that the bridge would be collapsed by the time they arrived at Remagen. The capture of the Ludendorff Bridge led to the passage of thousands of Allied forces into the center of Germany and aided in the ultimate defeat of Nazi Germany.



The daylong fight for the Ludendorff Bridge across the Rhine was intense. The bridge was weakened during the fighting and eventually collapsed. By then, a firm American bridgehead had already been established.

Minimal German Resistance

The first key factor in this battle—the minimal German resistance in Remagen—allowed a fast push by the American forces to the Ludendorff Bridge. The German failure was caused primarily by the lack of rear-allocated forces and reliance on the *Volksturm*. The Germans allocated most of their forces to the front lines, thinking that the Allied forces would never reach the Rhine River, 40 miles behind the German defensive positions. This left minimal troops to reinforce their rear.

The bridge commander in Remagen, Captain Willi Bratge, had to rely on the *Volksturm* for the bulk of his forces. All over Germany, *Volksturm* troops were conscripted and committed close to their homes in the hope that they would fight to defend their homes and localities. These forces discovered that every time they showed resistance, the American forces methodically demolished every structure that could house defenders. It did not take long to discover that a quick surrender spared their lives, homes, and property.[3]

The German soldiers in the bridge security company were attached from a convalescent unit, where they were recovering from wounds. Most of them were still wearing bandages. During one of several air raids on the city of Remagen, the ferries used to transport workers and civilians from one side of the Rhine to the other were destroyed. In addition, German policy refused to allow planning for rear area defense in depth. All of the above, each of which had a profound effect on the outcome of the battle, help explain the minimal resistance provided by the German forces.

When the American Soldiers of the 9th Armored Division arrived at Remagen, they came upon almost no hindrance between the city's entrance and the Ludendorff Bridge. Due to the low morale of the *Volksturm*, the obstacles they had built were too weak to block tanks, the roadblocks they had emplaced allowed ample room for vehicles to pass, and some obstacles had been emplaced in open terrain.[4] Because most of Captain Bratge's forces consisted of the *Volksturm*, he had counted on them to provide the greatest defense in the city. However, the *Volksturm* had deserted and most of the main German force was located at the eastern side of the bridgehead. In addition, the members of the bridge security company were virtually useless in combat. Once troops from the convalescent unit became strong enough, they were sent back to rejoin combat units, and few replacements were sent.

The destruction of the ferries forced large amounts of civilian traffic across the Ludendorff Bridge. The German troops securing it had to check passes and keep people moving. This took away from the time the troops had to prepare defenses and demolitions. German policy allowed for few prepared defenses; little time to emplace; and no antitank ditches or mines, barbed wire, or trenches on the way to the Rhine. This allowed the 9th Armored Division to arrive at the bridge rapidly with few casualties, and German resistance at the bridge soon found it was not strong enough to withstand this unweakened American force.

Lessons Learned. Several lessons can be drawn from this key event. Due to Hitler's prohibition of defense in depth and the failure of the *Volksturm*, the German forces had no defensive plan in Remagen. By the time the Americans arrived there, the Germans had neither time to emplace an effective defense nor enough troops to defend the city. If obstacles or defensive positions had been emplaced, the Germans could have delayed the Americans' speed crossing the Ludendorff Bridge. The first company to cross the bridge consisted of dismounted infantry, and with machine guns mounted in the buildings, the Germans could have easily reduced these Soldiers. Tank ditches dug around the city and antitank mines emplaced along the routes to Remagen could have prevented Company A, 14th Tank Battalion—under the command

of First Lieutenant Karl Timmermann—from reaching the western banks of the Rhine. In turn, these tanks would have been delayed in decisively engaging the German flak guns on the eastern banks. Preparing a proper defense would have significantly diminished U.S. capabilities and assets available to attack the bridge. In addition, the delay could have given the German forces adequate time to mount a counterattack.

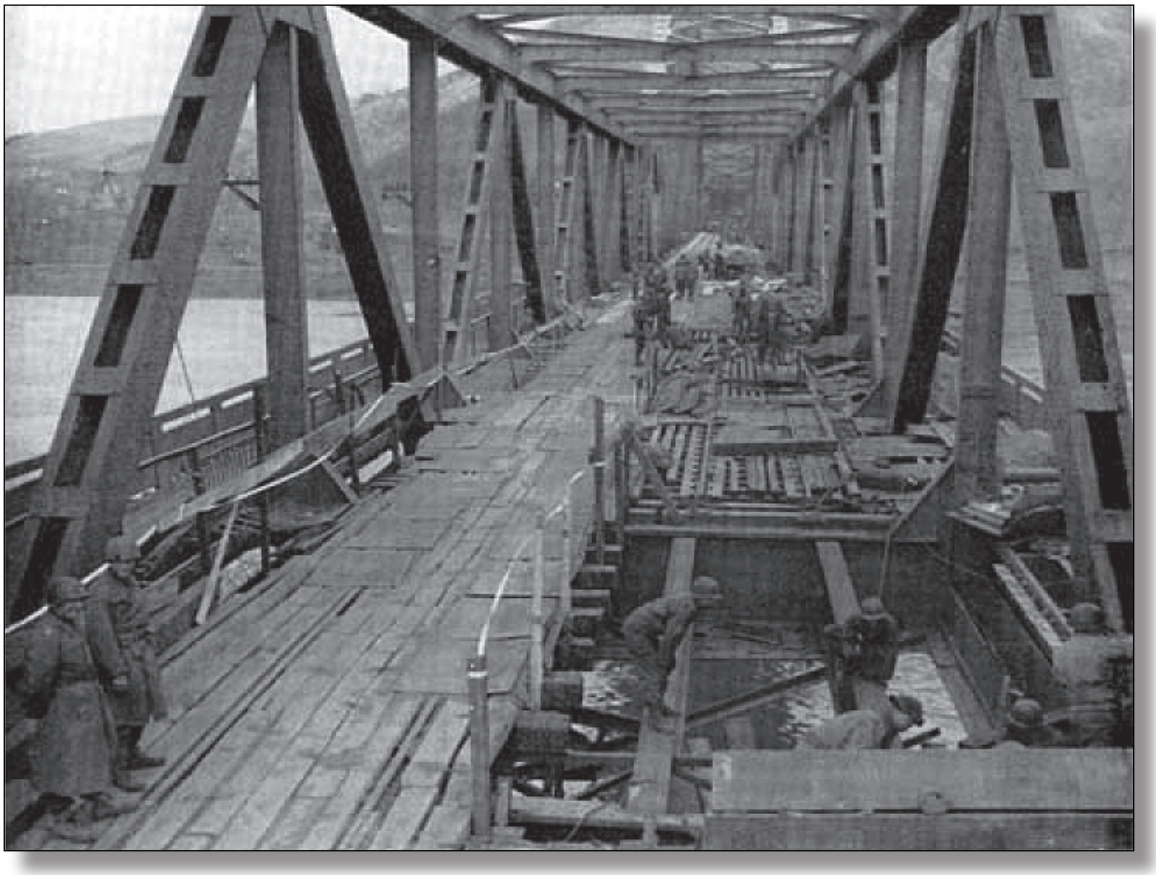
Doctrinal Guidance. The lessons learned from this key event are covered in United States Army doctrine. Field Manual (FM) 3-90, *Tactics*,[5] states that the defender does not wait passively to be attacked but aggressively seeks ways to weaken attacking forces before the initiation of close combat. The German forces at Remagen waited on the eastern banks of the Rhine River while the 9th Armored Division approached. They did nothing to weaken the American forces before they reached the bridgehead. FM 3-90 also states that a defense is more effective when there is adequate time to thoroughly plan and prepare defensive positions. Between the overcrowded traffic on the bridge and the official prohibition of defense in depth, the Germans forces at Remagen had no time to emplace a thorough defense.

Failed German Demolition Attempt

The failed attempt by the Germans to destroy the bridge with preemplaced explosives presents the second key factor in the successful U.S. operation. This failure was caused by many factors. During World War I, the French Army had occupied the Remagen area. While in charge of the Ludendorff Bridge, they discovered that each stone pier supporting the bridge contained two large demolition chambers that could be packed with explosives for easy destruction in case of an enemy attack. The French filled these chambers with cement.[6]

Weeks before the U.S. attack at Ludendorff Bridge, another German bridge had been inadvertently destroyed when an Allied bomb set off pre-positioned demolitions. Orders went out that all demolition material was to be removed and replaced on bridges only when an Allied army attack was imminent. Also, those responsible for losing a bridge to the enemy or for blowing up a bridge too soon faced a possible death sentence. Finally, Captain Friesenhahn ordered 600 kilograms of explosives, the amount determined necessary to destroy the bridge, but only received 300 kilograms. The type of explosives he received was an industrial explosive, which was less powerful than the regular military grade.[7]

The effects of these causes provide insight on how the bridge was taken. When the Germans began plans to demolish the bridge in case of attack, they discovered that the only way to remove the cement from the wells in the piers was to remove the main supports of the bridge, which could collapse the entire bridge.[8] Second, Hitler's order not to emplace explosives until an attack was imminent had a psychological effect on the engineers guarding the bridge. If any of the engineers armed the explosives too soon, they could suffer the death penalty. Third, the explosives on the Ludendorff Bridge were not detonated until the U.S. tanks were on the



U.S. Soldiers examine damages to the Ludendorff Bridge at Remagen, March 1945.

Present-day Remagen Bridgehead

western banks of the river, giving no time to adjust to the failed attempt. Last, due to the shortage of explosives and their low quality, the explosion inflicted minimal damage on the bridge. A main member of the bridge was damaged and a 30-foot hole was blown in the structure, but the bridge itself remained standing.

Lessons Learned. This key event presents a number of lessons. Although the engineers were not provided with the correct amount or type of explosives to blow the bridge, they failed to improvise with the supplies they had. If their limited amount of explosives had been placed in more effective positions to yield a larger explosion in one specific part of the bridge, they might still have collapsed the bridge or at least caused major damage. Instead, the Germans attempted to complete the previous plan with half the amount of explosives required. Furthermore, they failed to properly allocate supplies, insisting on sending large amounts to the front lines, which incapacitated the rear defenses. Once the German forces realized the Americans were encroaching on the Rhine River, they failed to respond in a timely manner or adapt to the changing situation by allocating supplies to the Rhine River bridges.

Doctrinal Guidance. The lessons learned from this event are also covered in U.S. doctrine. FM 3-34, *Engineer Operations*, states that responsiveness is "providing the right support in the right place at the right time."[9] It includes the ability to anticipate operational requirements and involves identifying, accumulating, and maintaining the minimum assets and capabilities to meet the support requirements. Flexibility is the capability to adapt logistical availability based on changing situations, missions, and concepts of the operation. Flexibility may also include improvisation, which is the ability to make, invent, or arrange what is needed from what is on hand. The Germans failed in all three aspects by neglecting to allocate necessary supplies at the right time. In turn, the engineers did not receive the right amount or type of explosives.

Communications Failures

The third key factor in the success of the American forces was caused by the limited communications in Remagen. The means of communication and transportation available to the German troops at Remagen were very meager. Until the beginning of March, neither Captain Bratge nor Captain Friesenhahn had a vehicle. The radio and telephone apparatus available to the Remagen commanders, although serviceable in normal times, was inadequate for an emergency. One telephone line connected the bridge to the regular German army line running between Bonn and Koblenz, and another line was connected by a civilian adapter to military district headquarters in Wiesbaden. Frequent bombings disrupted the lines for long periods, but even when undamaged, they were so busy it usually took a full day to complete a telephone call. For contact with the attached units in Remagen, Captain Bratge had to depend on the civilian telephone system, which was fairly reliable in normal times. However, electricity was needed to operate the line and could not always be obtained during combat. Also, the line had a tendency to go dead

suddenly when jarred by explosions, and it remained dead for weeks after a large bombing attack.[10]

The limited means of communication had multiple effects. When First Lieutenant Timmerman's few men on the east bank were most vulnerable, Major Scheller, the German commander, left the battle to find reinforcements, leaving Captain Bratge to conduct a counterattack. The ineffective communication systems at Remagen made it nearly impossible to contact any units outside of the defenders' immediate area. Without adequate transportation, the fastest means of contact was by bicycle. Major Scheller did not arrive at the 67th Corps Headquarters until 10 March. The possibility of German forces conducting an effective counterattack on the 9th Armored Division was nonexistent.

Lessons Learned. The main lesson offered in this event is the importance of communication on the outcome of a battle. The inability of the German forces to contact higher headquarters or any of the surrounding units made it impossible to conduct an effective counterattack. The minimal forces on the eastern banks were not strong enough to defeat the U.S. attackers. When the Soldiers of Company A, 27th Armored Infantry Battalion, arrived on the eastern banks of the river, they had been beaten down by constant fire from the German flak guns and snipers, and the unit was at its weakest point. If the German higher headquarters had prioritized communications and transportation assets at Remagen, Major Scheller would have been able to reach them and surrounding German units with enough time to prepare for a counterattack. Destroying Company A would have prevented the American forces from gaining a foothold on the eastern banks and taking the heights of *Erpeler Ley*. With American forces stuck on the western side of the river, the Germans would have had time for reinforcements to arrive.

Doctrinal Guidance. U.S. doctrine portrays the importance of an effective counterattack. FM 3-90,[11] states that the commander directs a counterattack to defeat or destroy enemy forces, exploit an enemy weakness, or to regain control of terrain and facilities after an enemy success. The commander plans and conducts a counterattack to attack the enemy when and where he is most vulnerable, while he is attempting to overcome friendly defensive positions. In every way, the situation was right for the Germans to conduct a successful counterattack on Company A. If the Germans' communications had been more effective—so they could have contacted another unit to reinforce them—they probably would have destroyed the American forces on the eastern banks and gained the time to receive the necessary reinforcements.

Summary

American forces captured the Ludendorff Bridge by an effective use of massing the effects of fire, rapidly conducting the operation, and taking the initiative. The German forces at Remagen relied heavily on the *Volksturm*, an untrained civilian force, leaving an ineffective defense within the city and limited firepower arrayed against the 9th Armored Division units. The highly trained American forces, upon reaching the banks of the Rhine River, integrated the fires of their tank companies in multiple positions and engaged the German forces on the east banks with massed firepower. This allowed Company A, 27th Armored Infantry Battalion, to successfully cross the bridge and secure the bridgehead. The German forces were often slow to adapt to changes and often failed to effectively react. From their positions atop *Erpeler Ley*, the Germans could see the approach of the American forces, allowing ample time to blow the bridge or even retest the explosives. Seeing the size of the American force and knowing their composition, the Germans knew they were outnumbered and should have attempted communication with nearby units much sooner. The American forces moved rapidly from the start of the operation, adapting to change with little or no pause. When the 9th Armored Division Soldiers were given the mission to cross the Rhine River, they did not know that the Ludendorff Bridge was still standing. The American forces adapted to the situation and took the initiative to conduct a bridge-crossing operation within hours of discovering the still-standing bridge.

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Endnotes

[1] M. Oyloe, C. Donnell, R. Gilmore, W. Hagan, R. Hardie, "Remagen Bridgehead, Offensive, Hasty Assault, River Crossing," United States Army Combat Studies Institute Battlebook 16A, Army Command and General Staff College, Fort Leavenworth, Kansas, 1996.

[2] Hechler, Ken, *The Bridge at Remagen*, Pictorial Histories Publishing Company, Incorporated, Missoula, Montana, 2001.

[3] Ibid., p. 40.

[4] Ibid., p. 41.

[5] FM 3-90, *Tactics*, 4 July 2001.

[6] Hechler, p. 58.

[7] Oyloe, Donnell, Gilmore, Hagan, Hardie, p. 45.

[8] Hechler, p. 58.

[9] FM 3-34, *Engineer Operations*, 2 January 2004.

[10] Hechler, p. 43.

[11] FM 3-90, *Tactics*, 4 July 2001.