CSI BATTLEBOOK

CSI BATTLEBOOK 19-A

RHINE RIVER CROSSING

Combat Studies Institute
Fort Leavenworth, Kansas

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OF aerial bombardment, artillery preparation, ground smoke, or airborne assistance. This operation is an excellent example of a well planned and ably executed river crossing by an Army on the move.
RHINE RIVER CROSSING

Offensive, Deliberate Assault, River Crossing

conducted by the

THIRD U.S. ARMY AND THE FIFTH INFANTRY DIVISION

22 - 24 MARCH 1945

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ABSTRACT

(From Course P651 Battle Information Sheets)

COMMON REFERENCE: Rhine River Crossing (March 1945)

TYPE OPERATION: Offensive, Deliberate Assault, River Crossing

OPPOSING FORCES:

**United States:**
Third U.S. Army
XII Corps
Fifth Infantry Division

**German:**
Seventh Army
XIII Corps
559th Volks Grenadier Division
159th Volks Grenadier Division

SYNOPSIS: General George S. Patton Jr., Commander of the Third Army, was anxious, in March 1945, for his forces to cross the Rhine River. He wanted the crossing in order to push into Germany, and he wanted it in order to beat Field Marshall Montgomery across the river. On 21 March 1945 the Fifth Infantry Division, conqueror of twenty-two rivers in the ETO, was alerted to prepare to launch a surprise night crossing of the Rhine at Oppenheim. Despite the haste involved in the assault timing, engineers made elaborate preparations for supporting the infantry and bridging the river.
The crossing of the Rhine in assault boats by the 11th Infantry Regiment at 2200 hours on the night of 22 March was lightly opposed and successful. On 23 March other regiments of the Fifth Infantry Division crossed the river by ferry and LCVP. Exploitation of the bridgehead began on 24 March when the 44th Armored Division crossed the river. German counterattacks were defeated confirming the successful crossing.

The Fifth Infantry Division crossed the Rhine River without the benefit of aerial bombardment, artillery preparation, ground smoke, or airborne assistance. This operation is an excellent example of a well planned and ably executed river crossing by an Army on the move.

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Patton, General George S., Jr., War As I Knew It, Boston, 1947.

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CHAPTER I

STRATEGIC SETTING

Overview

By early 1945, Hitler's armed forces were under heavy pressure on three sides: the Russians on the Eastern front; the British, Canadian, French, and the United States on the Western Front; and by a mostly British and US force in Italy. At home Germany's logistical base was also suffering from Allied strategic bombing as the war was brought to the German heartland. Japan and Italy, the other partners in the Axis power struggle, were in no position to strengthen Germany with additional forces, war materiel, or food.

Allies Into The Heartland

The Allied amphibious and airborne assault into Normandy in June 1944 led Allied forces across France toward central Germany. The German counterattack in December of that year into the Ardennes region staggered the Allies. This "Battle of the Bulge", as it became known, was intended by Hitler to break through the Ardennes to Antwerp, cut off and destroy the northern Allied armies, disrupt the Allied timetables, and give the German Army time to rush eastward and defeat the Russian offensive expected in early
At this time Hitler’s military leaders were extremely concerned with Russian vengeance as the Soviets drove Germany back from occupied territories in Eastern Europe. Some military leaders wanted to sue for peace with the United States and Great Britain so they could devote their attention to stopping the Russian attack from the East. Hitler would not permit such an action and the Battle of the Bulge became a bit of bloody history.

From mid-December 1944 to the end of January 1945 Germany lost 200,000 soldiers, most of its aircraft, and 600 tanks to the Bulge battles. These combat losses used up Hitler’s last disposable, strategic reserve. They were additionally intolerable because they were exacerbated by: Allied bombing of the German logistical base (further limiting replacement of war damaged materiel); heavy losses on the Eastern front battles with Russian forces; and having to hold against General Mark Clark’s Fifth Army and General Alexander’s Eighth Army in Italy.

"By 21 March, most of the German Seventh Army had been destroyed (by Patton’s and Devers’ attacks) and the German First Army was struggling for its life in a shrinking salient. . . . The Rhineland campaign had been one of the greatest defeats inflicted on Hitler. . . . The effect was to destroy the German Army in the West, so that no effective forces remained available to defend long stretches of the East banks of the Rhine."
Crossing the Rhine

After the success of the Normandy and Anzio landings, the Allies never doubted they would defeat and occupy Germany. The preparations for crossing the Rhine began in England in August 1944.7 Dossiers were compiled on specific bridge sites and preliminary estimates were made of tactical crossing equipment.8 This planning continued through the Winter of 1944-45 and more river intelligence was gathered. Fifth Infantry Division gained much experience in assault river crossings as they battled their way across France, Belgium, and into Germany.9+10 "Patton, who in Sicily had brushed off supply as a bothersome detail, demonstrated how well he had learned his lesson by stuffing his Third Army dumps with engineer bridging equipment to be used in spanning the Rhine...months later that foresight paid off when George took the Rhine on the run and jumped Third Army across it on those beautiful engineer stores".11+12

The Fifth Infantry Division crossing of the Rhine River on 22 March 1945 was a total success. The success of the crossing can be attributed to a combination of factors, all leading to the Division's ability to move its initial forces across the Rhine without being detected by the German Army and expand the bridgehead rapidly without sustaining significant casualties.
The Germans initially tried to defeat the U.S. Army on the west side of the Rhine, but failed to use the natural obstacle presented by the river to their advantage. After being pushed to the east side of the Rhine, German forces were disorganized and ineffective as a fighting force. Terrain dominating the river from the east was not occupied and a normal counterattack force was not organized. This was principally due to German inability to consolidate forces and plan a defense without first receiving permission from Hitler. The German Army did not anticipate the quick actions of the Third U.S. Army at the Rhine. They expected a large build up along the river prior to any attempt to cross. When the crossing did occur, it caught the German forces completely by surprise and unprepared to defend.

Patton's Third Army was not of course the "first" Allied unit across the Rhine nor the only unit plan to cross. The bridge at Remagen was captured on March 7th, and was augmented by other tactical bridging emplaced adjacent to that bridge site. General Montgomery and his forces in the North planned to cross the Rhine on the 23d of March and did so.
NOTES


4. Ibid., pg 352.

5. Ibid., pg 355.


8. Ibid., pgs 34-35.

9. Ibid., pg 39.


12. Ibid., pg 519.


17. Weigley, op. cit., pg 644.
CHAPTER II

PERSONNEL (G-1)

Comparison of Forces

It was obvious that the Americans had many advantages at the time of the crossing of the Rhine.

Although there were losses in Lorraine, The Bulge, and to a lesser extent Saar-Palatinate, the American XII Corps, under Major General Manton Eddy, was back up to its proper fighting strength at the time of the Rhine River crossing. General Eddy was an ideal choice to command. He was a veteran of General Pershing's American Expeditionary Force (AEF), and was known as a bold and skillful officer. Florid in appearance, and hardy of nature, General Eddy was more than equal to the task at hand. General Eddy proved himself as Commander of the Ninth Infantry Division before taking command of XII Corps. The XII Corps became part of Third Army in August of 1944. It crossed the Mosel, the Sauer, and the Our Rivers in the Spring of 1945, and secured Bitburg prior to the crossing of the Rhine.

The Fifth Infantry Division, in whose sector the operation was to take place, was "combat effective." There were few overall personnel shortages and all key leadership positions from the
small unit through corps levels were properly manned. The American troops were well trained and, owing to their recent successful operations, were also well seasoned. The Fifth Division had already made 22 river crossings prior to the crossing of the Rhine. It fought its way across France after the breakout at Normandy through Verdun, Pannes, and Metz. The division participated in the Battle of the Bulge moving from Saarbruken to Echternach in December of 1944.\(^1\) From there the division moved to Kirchberg and crossed the Sauer River into Bitburg.

The Fifth Infantry Division led the XII Corps into Germany on 22 March 1945. The soldiers were healthy and fit, and morale was high. The American personnel replacement system was in excellent working order. For the first time replacements exceeded losses and the Fifth Division's overall strength was approximately 15,000 officers and men.\(^2\) Pay, postal, leave, and other administrative services were functioning well. US forces were certain that final victory was near. Clearly, the Americans enjoyed the advantage on the personnel side of the equation.

The German personnel replacement system, on the other hand, was in almost total disarray. The German losses in Lorraine, The Bulge, and Saar-Palatinate were enormous. German commanders had only two days following the orders of Field Marshall Kesselring to reestablish the Seventh Army's defense on the west side of the Rhine. These fleeing remnants were thinly spread across a fifty mile front.\(^3\) General Hans Felber, Commander of the Seventh Army, had only two corps headquarters and less than four
divisions. The only regular corps headquarters was the German XIII Corps under General Von Oriola. The other headquarters, German XII Corps headquarters, was in truth Wehrkreis XII, the former local military district headquarters, which had heretofore been engaged solely in recruiting, training, and rear area defense. This element was grossly under strength and had no practical combat experience. Its combat forces consisted of remnants of the 2d Panzer Division, rear echelon security detachments, convalescent companies, and hastily organized and equipped cadre and students from the nearby Wiesbaden Military Academy. These were organized into loosely structured task forces (Kampfgruppen). The German XIII Corps consisted of the remnants of two divisions, the 559th Volks Grenadier Division which was only at about 60% strength, and the severely depleted 159th Volks Grenadier Division. There were critical personnel shortages from the small unit through corps levels.

Both the small unit leaders and the vast majority of German troops were severely undertrained and had limited experience, most of which was gained in recent defeats. After the war, senior German officers were to comment that the lines were manned by old men, boys and disabled veterans, none of whom had the will or means to fight..... Pay, postal, leave, and other administrative services were almost nonexistent. The Germans were at a significant disadvantage from the personnel standpoint.
Factors Contributing to Victory

The U.S. Fifth Division's considerable advantage in key leadership positions, personnel strength, unit cohesion, and morale/discipline complimented their edge in weapons, equipment, and materiels. The resulting overwhelming superiority in these vital areas contributed significantly to the impressive Allied victory in crossing the Rhine at Oppenheim.

Overall American casualties were extremely light during the river crossing. Only 28 total combat casualties were reported during the entire assault phase of the operation. The wounded were promptly administered immediate medical treatment by their comrades and field medical corpsmen, and then evacuated to the rear for further treatment via medical evacuation channels. According to the best records, the bodies of those killed in action were recovered and buried by graves registration units.

Few records exist from the German account of this action. Indications are, however, that they suffered considerably higher casualties than did the Americans. Moreover, the German medical treatment and evacuation system, and their graves registration system were in disarray. Many wounded died unattended where they fell due to the lack of formal medical attention and/or prompt rearward evacuation. By this point, the Germans were in a
general disorganized retreat all along the front, and made little attempt to recover or remove either their dead or wounded."
NOTES


2. Fifth Infantry Division After Action Report. (G-1 Section), 3 April 1945, pgs 1-3.


4. Ibid.

5. Ibid.

6. Ibid.


11. Ibid.
CHAPTER III

INTELLIGENCE (G-2)

Overview

Any discussion of the intelligence planning for the Rhine River crossing must include a brief review of the events leading up to the operation.

The majority of intelligence planning for the crossing was conducted by XII Army Group and 3d Army, where an engineer and intelligence subsection was established to prepare the initial planning estimates. Tentative locations of crossing sites were selected, and estimates of the necessary tactical equipment were made as early as September 1944. In October, dossiers on the river and specific crossing sites were compiled. Later, these completed dossiers were reproduced and furnished to corps and divisions of Third Army. From November 1944 to March 1945, the technical data on crossing sites, terrain, and weather were continually updated as new information was obtained.

Intelligence for the operation was of a specialized nature. River crossings were unique missions with many aspects uncommon to normal operations.
Terrain intelligence was gathered from a variety of sources within the United States and Europe: from the British War Ministry, Department of Commerce and Department of State, universities in both the US and Great Britain, industry, and from numerous photographs taken by aircraft and ground personnel. Detailed studies were compiled involving such aspects of terrain as river trace and width; geologic and topographic nature on both sides of the river; water flow and velocity; nature of sand bars, islands, and other obstacles within or adjacent to the river; and the soil composition of the river bed itself.

Intelligence personnel also studied the enemy's capability to interdict the highly vulnerable river crossing operation by air. This required a detailed calculation of the enemy's probable air effort. Additional maps were prepared depicting the location of all existing German airfields. Areas were also located where enemy airborne troops might be dropped to attack the bridgehead operation.

As planning progressed, information gaps appeared that were vital to the operation. The needed information was secured by aerial reconnaissance and friendly counter-intelligence agents. Aerial reconnaissance units took daily vertical and oblique photographs to ascertain the condition of existing road networks, location of airfields, and enemy troop dispositions. Meanwhile, friendly agents confirmed aerial photography and gathered detailed data on the surrounding area and its civilian populace.
Detailed planning and preparation for the crossing paid enormous dividends and helped catch the Germans completely by surprise.

General Enemy Situation

By 19 March 1945, the enemy's position was untenable, and organized, large-scale resistance no longer existed. The enemy's only significant capability was his ability to organize and reinforce defensive positions East of the Rhine River. Intelligence personnel estimated that the enemy could organize hasty field defenses East of the Rhine; however, the Russian threat to Berlin would only allow reinforcements to come from central Germany, Italy, or Scandinavia --- not a probable or immediate option.

Over the course of the previous two months, the enemy took heavy losses in personnel and equipment, which rapidly degraded and disorganized his forces. The Fifth Infantry Division systematically mopped up enemy forces unable to get back to the Rhine River. Resistance began to crumble. How many combat effective personnel the enemy was able to salvage is only conjecture, but it was estimated that he lost not less than seventy-five per cent of his forces and had lost just as heavily in arms and supplies --- particularly in heavy guns. 2

The remaining question was what the enemy could effectively do to oppose advances East of the Rhine. Intelligence personnel felt
that the threat posed by the rapid advance of Third U.S. Army was sufficient to force the enemy to rush reinforcements from central Germany. However, these forces would have to be dispersed over a large sector. The Germans were concerned about the Russian threat on the eastern front, the First U.S. Army bridgehead at Remagen, and the rapidity with which the Third U.S. Army destroyed German defenses west of the Rhine. Consequently, it was assumed that the Germans would be left without adequate troops to man the Rhine River line and with insufficient time to move reserves into the threatened area and prepare defenses.

Although the enemy desperately attempted to deploy miscellaneous units and rush replacements to the area, he was unable to offer more than scattered and ineffectual opposition to the assault crossing by the Fifth Infantry Division on 22 March. The rapidity of the crossing and the speed with which the bridgehead was expanded gave the Germans little opportunity to recover. Initial surprise was so great that Fifth Infantry Division forces met no resistance and by-passed enemy soldiers sleeping peacefully in houses and buildings. Elements and remnants of the 159th and 559th Volks Grenadier Divisions attempted scattered counterattacks which were quickly repulsed.³

An indication of the low fighting quality and state of morale of enemy replacements was evidenced in the large number of prisoners of war captured during March.
Terrain Analysis Planning

The Fifth Infantry Division conducted a rather hasty river crossing operation on the evening of 22–23 March 1945. However, higher headquarters had intensely prepared for many months prior to the crossing at Oppenheim. This was especially true in terms of analyzing the terrain. The G-2 section of XII Army Group, as well as the staff of the XII Army Group Engineers, did extensive analysis of the terrain and the rivers in order to assist the commanders at Group and Army in their choosing of the crossing sites.

In September 1944, the XII Army Group Engineers procured and distributed maps of western Germany. The G-2 section of XII Army Group began to collect all available information on the geography, geology, and physiography of Germany. By the end of September, the first generalized terrain study of Germany was underway. Its purpose was to illustrate the broad characteristics of landscape, and it narrowed considerations for immediate operations within known and workable limits. The Engineer section of XII Army Group assisted in the effort.

The study demonstrated the characteristic compartmentation of Germany and the magnitude of the Rhine as an obstacle. The engineer section developed data on the Rhine showing cross-sections, crossings, and hydraulic characteristics. From this generalized study, XII Army Group was able to develop its
operational concept for the attack into the German heartland along the Hessian Corridor approach.

By mid-December 1944, operations planning for the Rhine crossing intensified as XII Army Group stormed through eastern France and Rhine operations became more imminent. Two regions south of the Ruhr were studied for possible crossings. One, between Gingen and Worms, led to the Frankfurt area, then to the Fulda entrance of the Hessian Corridor. The other, between Cologne and Koblenz, was north of the first region.

After it was learned from the strategic plan which sections of the Rhine river the armies would probably cross, the specific crossing sites were chosen. The XII Army Group Engineers prepared a number of large-scale maps in order to study the terrain and soil conditions adjacent to the Rhine. This was particularly important since in certain sections of the Rhine (bordered by wide, flat flood plains) cross country movement to the river was impossible for vehicles after heavy rains or floods. The only exception was when movement routes were prepared with steel plank or other surfacing materials. Also, in wooded terrain the natural terrain corridors had to be followed to reach the river.

In addition to the data on the geological and topographical aspects of the ground, crossing sites data was obtained such as the trace and width of the river, velocity of the current, nature of banks, bars, islands, dikes, levies, and other obstacles within the river. The detailed crossing site analysis also included the
condition of existing bridges noting their location, load
capacity, description of spans, and approaches. Also included
were the location of existing and possible German airfields and
drop-zones where friendly or enemy airborne troops might be
dropped. As one can see, a very detailed analysis of the terrain
was conducted.

Nierstein-Oppenheim Crossing Site

The Nierstein-Oppenheim area was chosen as one of XII Army Group's
crossing sites due to its terrain advantages. The area offered a
good network of roads from the north, east, south, and west. It
also contained a bridge with a floating center section and several
ferry sites. The terrain was good. Hills and a town masked
friendly approaches on the east side of the river and a long,
flat, open plain extended from the east bank several miles from
the river. The east bank would require no engineer work in order
for vehicles to drive off the LCVP's onto the beach. The
river was approximately 980 feet wide and at the time of the
crossing was abnormally low, with the current moving at 3-4 feet
per second. Observation of the enemy bank was excellent from the
hills on the west bank. The flat, open terrain of the east side
of the Rhine was criss-crossed by small canals and irrigation
ditches. The only obstacles to the friendly advance, besides the
river, were an abandoned railroad embankment running along one
portion of the river bank, and several half-sunken barges and
river craft scattered near the east shore. The off-road
trafficability along both sides of the site was generally poor except during dry weather, but the road network was excellent. The avenues of approach into the site and away from the site were good. The east-west road network provided good access into the Nierstein and Oppenheim areas.  

Climate and Weather

The weather up to and during the operation was generally good, and the visibility and cloud conditions generally allowed for reconnaissance flights over the crossing site area.

On 21 March 1945 the weather was partly cloudy due to a frontal system from the west. Winds were light to moderate from the west. Visibility was 3-5 miles.  

On 22 March the weather was basically the same as on the previous day. There was some increase in cloud cover during the daytime, but the clouds still remained generally broken. There was early morning fog and haze during the day. The lack of precipitation prior to the assault crossing helped in the trafficability in the Rhine plain on both sides of the river. It also allowed excellent air observation and intelligence prior to the start of the operation.
Intelligence Targeting

The location and commitment of enemy reserves, both tactical and strategic, were the subject of close study and analysis during the Rhine River operation. Particular emphasis was placed on the identification, location, strength, and disposition of enemy units in zone.

Of greatest concern to intelligence analysts, were the pin-point locations of enemy Command Posts (CP), ammunition dumps, and lines of communication (LOC). When any of these targets were identified, the information was immediately passed through channels to XIX Tactical Air Command for air attack. As a result of close and effective cooperation between Army intelligence and tactical air assets, a number of the aforementioned enemy targets were destroyed.

Daily spot reports were extensively used by intelligence personnel to complete analysis of the Enemy Order of Battle. Significant enemy developments were compiled by Third U.S. Army in a series of intelligence estimates on enemy strengths and capabilities which were reproduced and disseminated down to division level.

Excellent staff coordination and cooperation were exercised between Division and Army G-2 sections during both the planning and conduct of the Rhine River operation.
The general missions of U.S. counterintelligence during this time period were:

- To provide maximum security for U.S. military interests against espionage, sabotage, and subversion activities.

- To destroy the enemy secret police and affiliated para-military organizations.

- To dissolve the Nazi Party and its affiliates, and to prevent their rebirth in any form.

- The establishment of port, frontier, and travel control within the area of operation.

The attention of all friendly units was directed to the danger of time bombs, booby-traps, and other secreted demolitions in buildings, on bridges, in culverts, at road junctions, etc. With the enemy withdrawing and desirable billeting and CP facilities limited, time-bombing and booby-trapping by the enemy was highly probable. The employment of these tactics by the enemy in Third U.S. Army zone had already been confirmed by prisoners of war interrogation. Counterintelligence personnel warned all units to take nothing for granted and to exercise precaution against these
The Germans also made full use of espionage agents. It should be noted that espionage agents apprehended in the Fifth Infantry Division zone were predominately Belgian and French. The unintelligent, relatively harmless line-crossers formerly encountered were no longer employed. The agents used at this point in the war were shrewd, resourceful, multi-lingual, and tough (whether they were male or female).

**The Use of ULTRA**

ULTRA's contribution to the successful assault crossing of the Rhine River by the Fifth Infantry Division is a matter of conjecture. ULTRA did, however, demonstrate that reliable forecasts of enemy action could be composed out of separate items from a single source. ULTRA contributed to victory by comparing in detail the contemporary flow of information at the Army and National levels. By revealing the enemy's plans before he decided to abort them, Allied commanders were provided an unprecedented advantage in battle. Since ULTRA was derived from decodes of the Wehrmacht's wireless communications, there could be no doubt about its authenticity, and action based upon it could be taken with the greatest confidence.
NOTES


3. Ibid., pg 190.


7. Ibid., pg 2.

8. Ibid., pg 3.

CHAPTER IV

OPERATIONS (G-3)

General Patton, Commander of the Third US Army, called his boss, General Bradley, XII Army Group Commander, on 23 March and made the following report:

"Brad, don’t tell anyone, but I’m across."

"Well, I’ll be damned – you mean across the Rhine?"

"Sure am, I sneaked a division over last night. But there are so few Krauts around there, they don’t know it yet. So don’t make any announcement – we’ll keep it a secret until we see how it goes."

That night General Patton called General Bradley again and said, "Brad, for God’s sake tell the world we’re across. We knocked down 33 Krauts today when they came after our pontoon bridges. I want the world to know Third Army made it before Monte starts across."
Training and Planning

Although hastily conducted, the Fifth Infantry Division crossing of the Rhine River was in the planning stages for many months as outlined in Chapter III. Extensive studies were prepared over a period of months by staffs at all echelons of the U.S. Armed Forces, from Headquarters U.S. Army Europe to individual battalions and detachments.

In October 1944, engineers from the Third Army established a school for all engineers in anticipation of the river crossing. Each combat battalion spent three days at the school and was trained in the use of floating equipage to include the construction of the class 70 floating Bailey Bridge, the use and operation of storm boats, tandem M2 assault boats powered by 22 horsepower outboard motors, and rafts and ferries of all types. Another school was established to train soldiers in the use of both the 22 and 55 horsepower motors. This school was located on the Moselle River near Trier and the training included all phases of operation, stoppage, maintenance, and emergency procedures. The school continued to operate until certain designated engineer battalions had a minimum of 200 trained motorboat operators each. The reason for this training was that the first waves of the river crossing were to cross in boats paddled by the occupants, and succeeding waves would be transported in tandem M2 assault boats powered by 22 horsepower outboard motors or by storm boats powered
by the 55 horsepower outboard motors.

Third Army units were provided scale models (1:100,000) of each of the proposed crossing sites to be used for detailed study and planning. The models were photographed under dim lights, and prints were furnished to the troops to assist them in identifying landmarks and landing sites during limited visibility.

Engineer units were assisted by Navy crews using LCVP's and LCM's. These craft were delivered to the Army in November 1944 and a training site was established on the Moselle River. Considerable experimental work was done to determine the best way to launch the craft under varying conditions of current and from various types of banks. Army personnel developed loading plans to ensure proper loading of the craft with Army supplies and equipment. Navy and Army personnel trained together in the proper use of these craft in swift river currents, and to be able to accomplish their tasks at night, as quietly as possible.

An engineer depot for floating bridge and assault equipment was established by Third Army at Toul, France. This site had an additional advantage of being on the Moselle River, thereby enabling tests to be made of new equipment as it arrived in the depot. Third Army had determined the amount of equipment needed for the Rhine crossing in November 1944. During the next several months, units of the Fifth Infantry Division sent representatives to the depot for familiarization and training on the equipment.
Several types of booms were developed to protect crossing sites from waterborne attack. These were to be placed in three increments upstream from the site and would serve to protect the crossing sites from specially trained and equipped German barges and swimmers. The first boom, placed approximately 800 yards upstream, was designed to stop barges and boats. The second boom, placed approximately 500 yards upstream, was designed to stop floating debris and mines. The third boom, placed approximately 300 yards upstream, was designed to stop swimmers, one-man submarines, and any mines that might get through the first two booms. The anti-mine nets used during the crossing operation at Oppenheim succeeded in snaring a number of Germans swimmers carrying explosives the first night after the bridge was completed.

The extremely swift current of the Rhine River posed several major problems. Sufficient numbers and sizes of Navy anchors were not available to anchor the pontoons, nets, and booms so there was a fair amount of improvisation. One was a box made of Bailey Bridge panels and filled with rubble; another was made by welding flukes to Bailey Bridge panels. Additionally, the swift current posed a hazard to the upstream pontoons of the floating Bailey Bridge, as the water tended to swamp the bows. After much experimentation, a false bow was developed that provided more freeboard and prevented the pontoon from filling with water and sinking. These false bows were manufactured in France and Luxembourg by local contractors.
Orders to Cross are Issued

On 21 March, General S. Leroy Irwin, Fifth Infantry Division Commander, called a conference of his senior leadership to discuss plans for movement of the division to a rear area for a well deserved rest. General Patton, on the other hand, had other plans and informed the XII Corps Commander, General Eddy, that he wanted to conduct an assault crossing of the Rhine, perhaps as early as that night. The Fifth Infantry Division would spearhead such an effort. General Eddy issued a warning order to Irwin that his division would cross upstream from Mainz, between Nierstein and Oppenheim. It was believed that the enemy would not expect a crossing so quickly after the arrival of U.S. units on the west bank of the Rhine.

General Patton's orders to the XII Corps and the Fifth Infantry Division had a certain amount of immediacy. General Patton's planning guidance to his staff and subordinate commanders explained his rationale: "Roads don't matter, terrain doesn't matter, exposed flanks don't matter. The only thing that matters is to keep on top of the Hun and to keep him on the run. That's the only thing that will win the war." Another reason for General Patton's urgency was that his rival, General Montgomery was planning a crossing operation to the north, and General Patton was intent on beating him across the Rhine.
The Fifth Infantry Division was the veteran of twenty-two successful river crossings since landing at Normandy. These earlier crossings turned out to be good rehearsals for what was to be the final barrier into Germany. In January 1945, the Fifth Infantry Division conducted a surprise assault without an artillery preparation across the Our River. The crossing of the Kyll River on 4 March 1945, was also very similar to the later Rhine crossing, in that it was a night assault against light resistance, with the 4th Armored Division passing through the bridgehead to continue the attack to the east.\textsuperscript{5}

Strategically, the Allied plan was to force multiple crossings of the Rhine, encircle the Ruhr industrial center, and then move into the rest of Germany. Hitler wanted his armies to defend on the west side of the Rhine River; it would be the beginning of the end once the Allies were fighting in Germany. The German will to resist invasion of his homeland, however, exceeded his ability to fight. The shortage of weapons, ammunition, and oil due to Allied air attacks against German industry, and the inability to replace crippling losses of trained soldiers signaled the defeat of the German Army. It was just a matter of where and when.\textsuperscript{6}

The constant push by Third U.S. Army units beginning with the crossing of the Moselle River on 13 March created an opportunity for the XIX Tactical Air Force to inflict damage and create havoc on the withdrawing German Army. The continuous strafing along the crowded roads not only destroyed large amounts of equipment but
shattered the German ability to counterattack. On 20 March, remnants of 13 German divisions raced to the Rhine crossings that were still open, attempting to avoid complete encirclement by the Third U.S. Army.

The Third U.S. Army's mission was to cross the Rhine River in the vicinity of Mainz and continue with the First Army along the Frankfurt-Kassel corridor in a continuous drive into the heartland of Germany. The Germans reinforced their defenses in Mainz with two SS Divisions, so General Patton decided to move the crossing further to the south to achieve surprise. In an attempt to draw off German planes from the Rhine area, Allied aircraft (from 21-23 March) flew over 42,000 sorties attacking Berlin and other targets distant from the Rhine.

Operational Directive 92 (Appendix A) was issued on the morning of 22 March by General Eddy's headquarters, directing the Fifth Infantry Division to conduct an assault crossing and to establish a bridgehead across the Rhine River. Time was of the essence as the crossing was to be conducted that night. In mid-morning, General Eddy informed General Irwin that General Patton was insistent about making the crossing that night. Irwin told him that it would be extremely difficult to conduct a deliberate crossing on such short notice but that the Fifth Infantry Division would establish some sort of bridgehead. Irwin's 11th Regiment reported from Nierstein that enemy activity was not apparent at the river. General Irwin continued to plan and to talk with his commanders and staff throughout the day and into the evening. At
2223 hours he was notified that the first two companies were across the river.

The Fifth Infantry Division crossing plan called for the 11th Regiment, commanded by Colonel Paul J. Black, to lead the assault at 2200 hours, by crossing in rubber rafts supplied by the 204th Engineer Battalion. The 3rd Battalion would cross at Nierstein, and the 1st Battalion would cross at Oppenheim. Five hundred assault boats would carry the first waves, but these boats would be followed promptly by Navy LCVP's and DUKW's. Bulldozers and air compressors would go over in the early waves to begin cutting ramps for DUKW's and to prepare bridge and ferry sites. The planning called for some 7500 engineers to participate in the operation. Thirteen artillery battalions were positioned to support the assault on call, but for the sake of surprise, there would be no preliminary bombardment.

The enemy on the far shore was expected to be in a state of disorganization and able to offer only limited resistance. At this point, enemy forces consisted primarily of the German 7th Army, commanded by General Hans Felber, who had taken command only a month earlier. The German 7th Army had only four divisions and one regular Corps (XIII Corps), and a very wide frontage to defend. Two of these divisions were little more than remnants grouped around their staff. The 559th Volks Grenadier Division was at 60% strength. The 159th Volks Grenadier Division, severely disorganized, was designated as the Army reserve. This unit was General Felber's only hope of thwarting an immediate crossing of
An Overview of the Crossing

On 21 March, the XII Corps continued clearing the enemy in its zone east to the Rhine River. The weather was generally good and excellent air support was provided by the 262d Group, XIX Tactical Air Force. Operational Directive 92 instructed the Fifth Infantry Division to move into a new zone, relieve elements of the 90th Infantry Division and 4th Armored Division without delay, and to be prepared to conduct the first assault crossing of the Rhine River in military history. The 90th Infantry Division and 2nd Cavalry Group were to conduct a demonstration around Mainz to keep the Germans from reinforcing at the actual crossing sites.

Field Order 17 was issued during the day of 22 March directing the attack across the Rhine River, seizure of a bridgehead in the vicinity of Oppenheim, rapid advance northeast, seizure of a bridgehead over the Main River in the vicinity of Hanau, and continuation northward toward Giessen (Overlay #1). The Fifth Infantry Division would conduct the initial assault and detailed instructions for the crossing were given in Operational Directive 92 (Appendix A).

The initial division Command Post (CP) was established at Undenheim at 1430 hours on the day of the crossing. D-day, H-hour was set for 222200 March, and extensive preparations were
conducted in anticipation of the crossing. Assault boats, ferries, LCVP's, DUKW's, and bridging supplies were moved towards the forward assembly areas. Traffic control and smoke support plans were developed and one entire air support group was assigned the mission of giving air cover to the crossing site. The division planned to cross initially with two infantry regiments abreast, followed by one in reserve. To support this the 10th Regiment assembled near Hillesheim and the 11th Regiment near Oppenheim.

At 2200 hours the 11th Regiment crossed at Oppenheim in assault boats and by 0130 hours on the morning of 23 March both the 3rd and 1st Battalions of the 11th Regiment had crossed the Rhine and were 1500 meters east of the river. The 2nd Battalion, 11th Regiment, and the 1st Battalion, 10th Regiment, completed crossing by 0330 hours and by 0420 hours the town of Geinsheim was cleared. By 1030 hours on the morning of 23 March all of the 10th Infantry Regiment was across, and at 1045 hours all tank destroyers and anti-tank guns of the 10th and 11th Regiments had crossed.

Resistance was scattered and light, and enemy artillery was ineffectual. In the 11th Infantry, the 3rd Battalion moved to the north and the 1st Battalion moved to the northeast. By 1400 hours, Trebur was occupied by the 3rd Battalion, 11th Infantry; Wallerstadten by the 1st Battalion; and Geinsheim by the 2nd Battalion. The 10th Infantry Regiment seized objectives to the southeast. The 1st Battalion seized Erfelden, while the 2nd Battalion was on a line from Leeheim to Wolfskehlen. The 3rd
Battalion began clearing a loop of the Rhine in the immediate vicinity of the bridgehead. The 2nd Infantry Regiment, initially in reserve, began crossing at 1200 hours on 23 March to establish a defense of the bridge site, and was later relieved by a battalion of the 26th Infantry Division at 1745 hours when that battalion was attached to the Fifth Infantry Division. By 1940 hours the tank destroyers and the tank company of the 2nd Infantry Regiment had crossed the river. By the morning of 24 March, the division had its organic artillery in position in the bridgehead (Map 1). Photographs of the actual crossing are contained on pages P-1 through P-3.

Support for the Crossing

Engineer support was provided by the 1135th Engineer Group. The first ferry was completed by 0630 hours on 23 March and four ferries were put into operation during that day. By 1730 hours a 975-foot treadway bridge was completed and began accommodating vehicles by 1800 hours. Several more bridges were established in the next few days but they did not effect the crossing of the Fifth Infantry Division.

The Navy LCVP's and LCM's used by the division were initially located in Toul, France, 160 miles from the Rhine and Oppenheim. The unit was not alerted until 21 March and the boats left Toul shortly after noon on the 21st of March. LtCdr Leide was the Navy representative and made his initial reconnaissance of the crossing
sites with Army Engineers during the day and early evening of 22 March. It was then that he learned that the crossing was scheduled for that night. At 2200 hours when the first troops were silently crossing the river, the LCVP's and LCM's were still lumbering along the back roads of France on their way to Oppenheim. They were scheduled to enter the water at H+4 and arrived just in time. The flat-beds and tank retrievers on which the craft were loaded closed at the launching site at 0100 hours. The first LCVP was in the water at 0300 hours. LtCdr Liede had no time to brief his officers who arrived with the boats, but the operation went much as planned. By 0630 hours all 24 LCVPs were in the river. Half of the LCVP's and LCM's were used in the early hours of the crossing to ferry personnel and vehicles. The rest of the landing craft were used in a later operation to support VIII Corps in a crossing at Boppard. These boats operated continuously for the next 72 hours.\footnote{11}

According to Army Engineer records, the Navy was credited with transporting approximately 1,000 vehicles and 15,000 troops across the Rhine in the first 24 hours. It took slightly more than six minutes to make the round trip. One thing that was not anticipated was the physical exertion and fatigue on personnel from lifting the landing craft entry ramp on an average of once every three minutes over a period of hours. Two sailors fainted from exhaustion, and thereafter, the Army contributed extra manpower to help handle the ramps.\footnote{12}
As summed up by the Fifth Infantry Division history:

"By this time (afternoon of 23 March 43) the Rhine bridgehead had taken on the appearance of Normandy transplanted into Germany with beachmaster, bridgehead dumps of ammunition and supplies, DUKW’s, Weasels, and LCVP’s, pushing back and forth transporting ammunition and supplies to the assault troops pushing inland....."13

Artillery preparatory fires were not used on 22 March to support the initial division crossing because of the desire for surprise. However, as the bridgehead was expanded to approximately five miles, extremely heavy supporting artillery fires were provided by the Fifth Infantry Division and XII Corps Artillery. Large scale harassing and interdictory fires were delivered on all enemy approach routes into the bridgehead. Initially, enemy artillery reaction was light and generally limited to smaller caliber self-propelled weapons; however, on 23 March, a sharp increase in enemy artillery was encountered by lead units. This fire emanated almost entirely from anti-aircraft weapons employed in a ground role as a substitute for the decimated German artillery.

Initial planning at XII Corps had included the use of artillery liaison airplanes to transport infantry during the assault phase of the crossing of the Rhine. A full scale test was conducted during which one infantry company was transported over a
comparable distance in a period of approximately 90 minutes using 12 aircraft. It was planned to transport 3 rifle companies and one heavy weapons company by using 90 such aircraft. All necessary pilots and aircraft were assembled and the operation was cancelled only because of the extremely rapid advance made by the initial waterborne troops.

Although enemy artillery reaction was light, the Oppenheim crossing was made under strong and repeated air attacks. Some attacks occurred during early morning hours; however, the majority occurred from dusk until 0230 hours in the morning. Flights of as many as 20 single and twin-engine enemy aircraft, including jet-propelled planes, bombed and strafed in a desperate effort to eliminate the crossing sites. Many aircraft appeared at altitudes under 6000 feet, but a sizeable number were engaged by AAA units at altitudes from 6000 to 15,000 feet and at slant ranges up to 13,000 yards. The most popular targets, both day and night, were the bridge sites, with many flares dropped to aid in bombing. Very few targets were hit because of enemy desires for self-preservation which led to exaggerated tactics in dive-bombing. Smoke generator units were employed effectively and contributed significantly to the protection of the crossing sites, keeping a persistent haze over the crossing sites at Oppenheim and Nierstein.

Traffic control was a monumental feat and although this aspect of the river crossing did not affect the initial assault elements of the Fifth Infantry Division it is worthy of mention. An accurate
estimate indicates that between 24 March, when the first bridge opened, and 31 March about 60,000 vehicles crossed over XII Corps bridges. This figure includes approximately 10,000 vehicles from XX Corps to the south.\(^5\)

**Unit Historical Account**

The Fifth Infantry Division's own unit history graphically tells the story of the division's assault crossing on the night of 22 March. It is reproduced here for two primary reasons. First, and perhaps most importantly, to provide clarity and accuracy and to give recognition to the many brave soldiers of the Fifth Infantry Division who participated in the operation. Secondly, to provide a contrast between the historical record made at the time (1945), and the more recent research which has benefited from access to strategic resources not known to the participants of the crossing.

"At precisely 2145 hours 22 Mar 45, the 3d Bn's spearheading companies, 'I' and 'K', moved down to the river bank where 204th Engr Bn personnel awaited in readiness. Preparations functioned quickly, smoothly, and above all, quietly, as assault teams were formed and loaded into the boats. 'K' Co shoved off at 2230 and paddled across the 800 feet (at that point) river without a shot being fired from the enemy shore. In the first boat to reach the far bank were: 'K' Co CO,
1st Lt Irven H. Jacobs, Lt John A. Mannow, Pfc William Hewitt, Pfc Vergil Miller, Pvt Theodore Strategos, Pvt Richard J. Huiller, Pfc Arthur Juengel, Pvt John Surace, T/5 Richard E. Rose, and Pvt John L. Paquitt. They were the first of the Division to cross the Rhine, and when the balance of ‘K’ Co arrived on the East bank, it marked the first time in history that a crossing of the Rhine River had been forced by troops in assault boats.

“As ‘K’ Co hit the shore, a group of seven surprised Germans promptly surrendered and paddled themselves across the river without escort.

“Meanwhile, just as ‘I’ Co, commanded by Capt Link, prepared to follow up ‘K’ in crossing, heavy fire opened from the right flank where 1st Bn troops were simultaneously crossing approximately 700 yards down-stream at Oppenheim. It developed that ‘B’ Co’s 1st Plat had been spotted by enemy machine gunners, who commenced firing while assault boats were yet in mid-stream. Regiment then advised 3d Bn that 1st Bn would delay its crossing for ten minutes, but Lt Col Birdsong, 3d Bn CO, decided to get ‘I’ Co across anyway while all of ‘K’ Co organized on the far shore. Along with ‘I’ Co’s first wave were Maj Stiller, aide to Gen Patton, and Lt Cocke of the Air Force who went
as observer with the infantry. A flurry of shellfire managed to partially silence enemy automatic weapons in the 1st Bn sector, but this heavy firing also alerted the enemy along the entire regimental front, and as 'I' Co neared the far shore it also received some enemy machine-gun fire. No casualties were incurred, but when 'L' Co crossed in 3d Bn reserve ten minutes later, personnel paddled under increasingly heavy small arms fire. Some infantrymen were wounded.

"During this time, 1st Bn assault troops of 'A' and 'B' Cos were meeting with very heavy resistance in crossing approximately 700 yards South of the 3d Bn at Oppenheim. The Rhine crossing itself was a tribute to the courage of riflemen, for whom it was necessary to paddle 800 feet into the very teeth of the enemy fire. 'B' Co under 1st Lt William Randle was the first of the battalion troops to make the East bank, while 'A' Co commanded by 1st Lt Bryant pulled abreast. When assault boats were eagerly beached on the hostile shore, enemy fire increased and included that of panzerfausts. An example of what was required in order to establish and extend the 1st Bn bridgehead is the action of 'B' Co's 2d Plat which was reorganized and led by S/Sgt Foster Ferguson, who took over platoon leadership when
the platoon sergeant became a casualty.
Concentric rifle and rifle grenade fire alone
punched a hole in the enemy's perimeter defense
system which consisted of a strong line of machine
gun nests, but no pillboxes. Fierce small arms
skirmishes raged for a half an hour. Temporarily,
at least, enemy resistance reached fanatical
proportions, with infantrymen of Ferguson's
platoon firing directly into large rectangular
foxholes to eliminate strongpoints. Deadly
marching fire extended the bridgehead, and shortly
thereafter the 1st Bn struck inland. Pfc Paul
Conn, Jr, 'B' Co rifleman, remained behind to hold
down an enemy machine gun nest that was by-passed.
It was an all night affair for Conn who was forced
to dig-in with his bare hands, for less than 30
yards away the enemy machinegun intermittently
opened at anything that moved. 'I was tempted to
swim back across the Rhine,' said Conn afterwards.
Conn remained in a cramped position through the
entire night, and when daybreak came he saw ten
Germans who comprised the machine gun nest. Conn
(sic) then attempted to work his M-1, but it
jammed. Finally in desperation he flung all
cautions to the wind, pulled out a hand grenade and
rose before the enemy. Transfixed at the sight of
a lone American menacingly coming toward them, the
ten Germans threw up their arms and surrendered.
Thus ended Conn's ordeal and the last vestige of enemy resistance on the river's edge.

"Lt Col Birdsong, 3d Bn CO and Headquarters crossed the river at 2230 hours in the midst of a small arms engagement near the far shore, but at this time the bulk of enemy resistance was being concentrated against the 1st Bn. All assault troops were across the river by now clearing last bits of enemy resistance from beyond the East river bank, and the 11th CT's attack was beginning to take form as artillery liaison officers and forward observers were also across. Armor of Co A, 737th Tk Bn and the 803d TD Bn were preparing to cross on motor barges and render direct support, along with amphibious tanks of the 748th Tk Bn. Despite the intense small arms fire encountered by the 1st Bn and some by the 3d, it was evident that surprise had been achieved in the operation for a German artillery reaction did not come until 0030 hours on the following day --- or two hours after the crossing had begun. Assault companies prepared to strike inland at the time enemy artillery commenced falling into the river and hitting both banks ineffectually. Approximately 50 rounds of shell fire, including that of self-propelled weapons, fell in the Oppenheim area, but crossing of supplies and
additional troops continued. In Regimental reserve, 2d Bn was alerted and prepared to cross near Nierstein, follow up and consolidate ground taken by the 3d Bn. The 10th Inf Regt prepared to follow into the 1st Bn's bridgehead opposite Oppenheim to take up the Division's right sector.

"'A' Co of the 11th met with violent small arms fire as it sought to clear a group of buildings along the bridgehead's right flank. Some 20 prisoners were taken and 14 of the enemy were killed. In seizing the area 1st Lt Harry Kaylor, Executive Officer of 'D' Co, evacuated wounded back across the river under fire.

"At midnight troops of the 10th moved in columns down to the river and at 0155 hours, 23 March, the crossing of the Regiment began with the 1st, 2d and 3d Bns following after the 1st Bn of the 11th at Oppenheim. The 7th Engr Bn handled the assault boats.

"Across the river the 10th Regt moved immediately to the Southern flank Eastward toward Leesheim. Cos 'A' and 'C' of the 1st Bn made contact by 0245 hours and moved out abreast toward Erfelden. Co 'C' encountered some resistance from small arms upon approaching the objective, but the enemy
force was incapable of halting the advance, and the majority was soon taken prisoner.

"The last battalion of the 10th Inf was completely across at 0655 hours, and as the two regiments fanned out along the Eastern bank, the US Navy brought up landing craft to the West bank and put them into the water. Combat engineer battalions of the 1135th Engr Gp constructed four ferries and began building the treadway bridge. By 0700 hours, the two regiments had all six battalions across, one ferry was working and the Landing Crafts, Vehicle-Personnel were scuttling back and forth carrying supplies.

"With all but sniper and some bypassed resistance broken in its bridgehead sector, the 1st Bn continued the attack inland and struck Northeast toward Geinsheim, Division Objective No. 1. The axis of advance was the main road leading to Geinsheim, and all assaulting platoons with 'B' Co on the left and 'A' Co on the right, moved forward abreast deployed as skirmishers. 'A' Co left its reserve platoon and Co CP in position at the farmhouse which it had previously cleared while a similar contingent of 'B' Co was yet engaged in rounding up outflanked resistance. Co 'C' in Battalion reserve also crossed the river. The
going became very rough as assault troops neared
the road junction at about 1,000 yards inland.
Heavy small arms engagements took place and as
units attained the road junction they emerged into
a broad expanse of open terrain which afforded no
cover or concealment. The advance continued along
the main road for several yards when suddenly
large concentrations of mortar fire showered the
area. The enemy enjoyed unobstructed observation
in illuminating 1st Bn positions with flares.
Shelling grew in intensity, and artillery and
self-propelled weapons joined mortar fire in
forcing both units from their course. Forward
elements of both companies were by now pinned down
and reluctant to go forward in the face of severe
fire. Eight casualties were incurred as platoons
milled about and herded together until T/S Troy B.
Key, an 11th Inf veteran and acting platoon leader
of ‘B’ Co, together with T/Sgt Brown, a platoon
sergeant of ‘A’ Co, rallied the men forward and
out of bursting radius. Sgts Key and Brown moved
about in the fragment infested area to direct the
positioning of flank-covering machine gun fire,
then went forward to lead their respective units
with shouts of ‘Let’s get ‘em --- keep going.’
This resulted in a marching fire attack against
violently resisting Germany infantry that employed
very heavy panzerfaust fire. The Battalion Aid
Station, under Capt. Scott, by now also had crossed the river and set up in the farmhouse along the riverbank. Although outnumbered, 'B' and 'A' Cos continued to advance towards Geinsheim and suffered no casualties in gaining several hundred yards. It was the opinion of all, that had the units not moved forward as they did, annihilation by terrific and accurate concentrations of enemy shellfire which followed would have been likely. 'B' Co on the left flank, bore the brunt of an infantry attack which enemy launched from Geinsheim shortly thereafter. Fierce small arms (rifle fire, rifle grenades, hand grenades, and bazookas) engagements ensued at close range, and the line was defended through close coordination of 'A' and 'B' Cos. Lt Bryant of 'A' Co and Lt Randle agreed that Geinsheim could be taken without further help. Despite the fact that 81mm mortars, under artillery fire in rear positions, could not render full support, the 1st Bn inflicted severe loses on the enemy, while suffering miraculously light casualties (two wounded) itself in so fierce an engagement. The 19th FA fired heavily too in supporting the defense and by 0400 hours the enemy withdrew presumably to Geinsheim where a 25-foot-wide canal provided a defense to its eastern approaches. It was believed that enemy artillery was emplaced in
the vicinity of Leeheim and Erfelden and these areas now became the targets for heavy counter-battery fire as laid down by Corps Artillery. Actually a 10th Inf attack was now developing in that direction.

"Meanwhile, during the time of the 1st Bn's bridgehead fight, the 11th Inf's 3d Bn was involved in extending its bridgehead some 1,000 yards to the North. By midnight the entire 3d Bn, less the rear CP Gp, had crossed over into the bridgehead, with 'L' Co receiving very heavy small arms fire as it crossed in Battalion reserve during the latter period. 'K' Co began clearing the left half of the 3d Bn river area while 'I' Co moved south to come near 1st Bn troops on the right flank. 'K' and 'I' Cos quickly moved inland to secure 500 yards of depth on the left, and 300 yards on the right. T/Sgt Heber Braley, 'K' Co platoon sergeant, stumbled into a large foxhole where four Germans napped. The Germans immediately gave up, inquiring if these were American paratroopers. Meanwhile, 'L' Co in reserve mopped up all remaining resistance between 'K' and 'I' Cos along and beyond the shoreline.

"'K' Co sent two platoons North to secure the Southern tip of a small airfield by 0400 hours.

-50-
Resistance was at first moderate, consisting mainly of strong small arms fire including that of panzerfausts. A short while later some very close action developed at the edge of the air strip in darkness, and in local engagements which resulted in the capture of T/Sgt Heber Braley, 1st Plat Sgt, and Lt Alexander G. Booras, platoon leader.

Realizing that disorganization at this time threatened the bridgehead's entire left flank, Lt William B. Belchee, platoon leader, regained control of the situation by personally contacting remnants of both platoons. He moved beyond the enemy lines under heavy fire, and reorganized the leaderless platoons. Meanwhile, a good number of men of this platoon had taken cover in an air-raid bunker, and were now surrounded. This information came from Sgt Clarence A. Ritchie who was captured but later escaped. Sgt Ritchie also informed Lt Belchee that the enemy was preparing to launch a counterattack. Lt Belchee called to the rear for artillery fire which soon commenced to fall --- just in time; for the enemy had attacked his positions. 'I' Co meanwhile was ordered from its phase line on the extreme right flank --- some 1500 yards distant --- to move up to 'K' Co's flank while 'L' Co in reserve occupied 'I' s former position. The switch occurred at the right moment for 'I' Co, as it neared the designated flank, ran
flush into a German company seeking to encircle ‘K’ Co. Back at the airstrip, Lt Belchee built up a defensive line and together with his depleted unit fought off an attack by 60 enemy infantrymen who filled the airstrip with wild shrieks as they attacked. In his fierce small arms fight, ‘K’ Co killed 20 and took 40 of the enemy breaking the attack. It must be remembered that this engagement actually took place behind enemy lines, for Lt Jacobs, ‘K’ Co CO, simultaneously directed a minor action from his CP in the small town, but ‘I’ Co by now went to work on the main enemy force along the right flank. An outline of the bridgehead operation at this time showed continuous action along the entire regiment front, with the 1st Bn attacking Geinsheim at daybreak, and the 3d Bn reducing enemy resistance on the left half. ‘K’ Co losses were four EM killed and seven EM wounded --- evacuated. Others who at first were listed missing returned.

“When ‘I’ Co encountered the German force which aspired to cut and encircle ‘K’ Co, CO Capt Link directed that his 60 millimeter mortars and machine guns immediately be set up at forward points. Although positions were unorthodox, these tactics later proved invaluable because the enemy force immediately became pinned down by the sudden
and accurate shellings. Sg t Joseph A. Hartke, 
weapons section leader, zeroed in on the enemy 
while gunners Pfc John B. Knight and Sg t Stanley 
A. Valancius maintained a continuous barrage. All 
came under direct small arms fire with which the 
enemy resisted. No less than three enemy machine 
guns and 10 automatic rifle positions were 
accounted for by this devastating fire. 'I' Co's 
machine guns were strategically set up to give the 
maximum of overhead fire, and this too, kept the 
enemy pinned down. Not long afterwards Germans 
were giving up in large numbers and by 0730 hours 
the entire enemy force had either been killed or 
captured. Seventy-six Germans and two officers 
were rounded up while at least 15 dead were 
counted on the field of battle. 'I' Co suffered 
two killed in this engagement. Three 'I' Co 
runners, Pfc Conn Connewalt, T/4 Frank McArdle and 
Pvt Paul Bonwits, were in the midst of marching 41 
prisoners back to the enclosure when they suddenly 
collided with a by-passed enemy platoon. The 
uncaptured Germans were apparently full of fight 
for they quickly deployed and set up a machine 
gun. The runners hurriedly informed the prisoners 
of war of their plight and tactfully added 'Alles 
Kaput.' The prisoners shouted emotional pleas to 
their erstwhile comrades upshot of which was the 
30 fully armed Germans boarded the bandwagon to
increase the particular prisoner tally to upwards of 70. By 0900 hours of 23 Mar 45, the 2d Plat of Co 'C', 803d TD had been ferried across the Rhine, the first of the Third Army armor to cross, and were committed almost at once to help clear the 3d Bn front. 'I' Co jumped off, attacking west of the canal between 'K' and 'I' Cos. Heavy support fire by artillery and tank destroyers enabled the company to move rapidly forward and dissect (sic) the main Trebur-Geinsheim route at phase line where 40 enemy shaken by violent shellings, neatly stacked arms and surrendered. Two 'K' Co personnel who were missing as a result of the air strip action earlier in the morning, T/Sgt Heber Braley and Medic William B. Rea, were liberated when the contingent surrendered. 'I' and 'L' Co patrols probed into Trebur itself at 1053 hours that morning encountering but slight resistance in the form of rifle fire.

'It was dawn 0530 hours on 23 March when 'B' and 'A' Cos resumed the attack on Geinsheim, following up the enemy who had partially blown one of the canal bridges while effecting withdrawal. At this time 3d Bn troops had fought deeply on the left, but resistance was lighter there. The opening of this period also marked the beginning of 24 hours of the greatest Luftwaffe activity ever.
experienced by the regiment in its sector, including the Caumont strafings and Verdun bombings in earlier French campaigns. For the most part of these attacks were directed at bridging sites in Oppenheim and Nierstein. The first of these attacks occurred at 0600 hours when 12 German fighters appeared to climax an hour-long enemy SP shelling of Oppenheim crossing site, while troops of the 3d Bn, 10th Inf Regt, were attempting to load into assault boats and paddle across the river. Enemy aircrafts dropped bombs along the river and attempted to machine gun troops and installations, while they themselves were under constant automatic weapons and anti-aircraft fire. One bomb struck the 3d Bn rear CP in Nierstein wounding Lt Bishop, Bn Com O, and wireman Pfc Burrell, both of whom were laying wire.

"Across the river and inland 'B' Co was meeting with intense small arms and bazooka fire as it drew to within 300 yards of Geinsheim. 'A' Co, committed to take the right flank of the town, met with lighter resistance. The German arm-band Volksturm joined the Wehrmacht troops in defending the town, but these only afforded token resistance and either slipped away or gave up as prisoners or hid in cellars until captured. S/Sgt Charlie L.
Houston, acting 3d Plt sergeant of 'B' Co together with Lt Laurel Venters, coordinated a successful attack on the enemy who was in position at the Geinsheim canal. Aptly termed "Walking Death," marching assault fire was vigorously employed by riflemen of the platoon and enemy troops along the canal were split into disorganization by the relentless advance. S/Sgt Thomas C. McCrystal, 'D' Co section leader, repaired a jammed machine gun while under heavy fire. He then moved up to where the riflemen of 'B' Co were dug in, and personally opened with continuing and devastating fire, which eventually provided assault troops—with an opening through which one entry into Geinsheim was effected. S/Sgt Dexter Cunningham, whose 'D' Co heavy machine gun section was attached to 'A' Co, also performed nobly. He previously had suffered three separate wounds from an exploding panzerfaust. He refused evacuation and insisted on participating in the Geinsheim attack, during which he personally positioned and directed invaluable covering machine gun fire, immeasurably contributing to the attack. He was evacuated only when the town was completely cleared. Lt Venters cut down a German with tommy-gun fire while dodging a potato-masher. Pfc Frank Benedict, a BAR man, killed an enemy machine gunner with a
burst and took the balance of the crew prisoners with another burst. The entry into town was gradual, but by 0900 hours all enemy resistance collapsed. 'A' and 'B' Cos outposted forward and ferreted prisoners from houses, basements and public buildings. By 0945 23 Mar 45, the Battalion had taken Division Objective No 1, Geinsheim, together with more than 150 prisoners, 'B' Co taking approximately 100, and 'A' Co capturing 50. At this moment, supporting armor of Co 'A', 737th Tk Bn, was being ferried across the river --- on their way to Geinsheim to assist the 1st Bn in an attack on Wallerstadtten...."16

Summary

On the night of 22-23 March, the Fifth Infantry Division crossed the Rhine River at Oppenheim with six battalions. The crossing was made almost flawlessly, with scattered enemy resistance, and with very few casualties (eight killed and 20 wounded).17 As the infantry crossed in rubber assault boats, bridging and ferrying equipment was assembled, and landing craft operated by attached Naval personnel were launched. Shortly after midnight of 23-24 March, the Fifth Infantry Division had a secure bridgehead, two bridges were completed by the 1135th Engineer Group, and the 4th Armored Division was moving toward the crossing sites.18
Thus ended the first successful assault crossing of the Rhine River. From a strategic viewpoint, it was certainly a deliberate crossing due to the extensive and detailed planning effort. From the Fifth Infantry Division perspective, however, with less than 24 hours from the receipt of the Warning Order to the execution, it was definitely a hasty river crossing. The combination of in-depth staff planning, coordination and cooperation among the services, and the experience of the Fifth Infantry Division made this a successful and unparalleled river crossing effort.

2. Ibid., pg 522.


5. Ibid., pgs 276-319.


First elements of Armor of the Fourth Armored Division are ferried across the Rhine River at Oppenheim Germany to back up Third Army Infantrymen of the Fifth Infantry Division, who made the initial crossing at daybreak 23 March 1945.
Advancing into Germany with the Third U.S. Army, Infantrymen of the 2nd Regiment, Fifth Infantry Division at Nierstein, Germany, board a landing craft to cross the Rhine River, 23 March 1945.

(106 Military Operations; Campaigns Germany. CARL SC 203352)
Tank destroyers of the 803rd TD Bn, Fifth Infantry Division, Third U.S. Army, are ferried across the Rhine River at Oppenheim, Germany to reinforce Infantry troops, 23 March 1945.

(106 Military Operations: Campaigns Germany. CARL SC 203291)
**TABLE 1**

CLASS III ISSUES (THIRD US ARMY)

<table>
<thead>
<tr>
<th>DEC</th>
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<tr>
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<td>4</td>
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<tr>
<td>20</td>
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**FIGURES IN GALLONS (Thousands)**

**DECEMBER 1944 – APRIL 1945**

- MOG
- DF2
- OE10
- OE30
- KEROSENE

TABLE 2
ARTILLERY AMMO USAGE FOR XII CORPS

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<th>Month</th>
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DECEMBER 1944 - APRIL 1945

### TABLE 3
**TOTAL ISSUES OF MAJOR ITEMS**

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<td>162</td>
<td>100</td>
<td>524</td>
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<td>TAC VEH</td>
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<td>1115</td>
<td>343</td>
<td>255</td>
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**JANUARY 1945 - APRIL 1945**

TABLE 4

LOSSES OF MAJOR END ITEMS

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<td>209</td>
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December 1944 - April 1945

TABLE 5
MAINTENANCE UNIT REPAIRS

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<td>250</td>
<td>300</td>
<td>350</td>
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</table>

DECEMBER 1944 - APRIL 1945

\[ GP \text{ VEH} \quad \square \text{ CBT VEH} \quad \square \text{ ARTY} \quad \square \text{ SM ARMS} \]

TABLE 6
SUPPLY RECEIPTS¹

<table>
<thead>
<tr>
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<tr>
<td>30</td>
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<td>70</td>
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LONG TONS (Thousands)

DECEMBER 1944 - APRIL 1945

CL I  CL II  CL III  CL IV

### TABLE 7

#### MILEAGE OF VEHICLES (March 1945)

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<thead>
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<tr>
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<td>2.3</td>
<td>1.8</td>
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<td>0.1</td>
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<tr>
<td>DUMP</td>
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</tr>
<tr>
<td>4T</td>
<td></td>
<td>9.3</td>
<td>8.2</td>
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10. MacDonald, op. cit., pgs 266-273.


13. Fifth Infantry Division History in the ETO. Prepared by the Fifth Infantry Division Historical Section, HQ, Fifth Infantry Division, 1945, (unnumbered pages).


15. Stevenson, op. cit.
16. Ibid.


Preface

Due to the lack of information on logistical data and organization of service support units in support of the Rhine River crossing, the logistical analysis of the operation will be mainly directed to the support provided at Army and Corps level. Very little information is available concerning the Fifth Infantry Division.

Records and reports were apparently not maintained at the division level due to the minimal staffing levels and the enormous amount of time needed to gather and maintain such quantities of data. As illustrated in Appendix C, the typical Division G-4 staff did contain a statistics section; however, its purpose was to maintain figures on stockage levels, use data, and supply requirements. The Fifth Infantry Division was concerned with fighting the battle while higher headquarters was both staffed for and concerned with support and consumption data. This situation is similar to that experienced in present-day Army units.
General

During the Spring of 1945, all G-4 Sections were responsible for the assignment and movement of supplies as well as medical, technical, and labor troops not employed as combat troops. Accordingly, they were responsible for all types of Quartermaster, Ordnance, Medical, and Transportation Corps units. Additionally, certain types of Chemical, Signal, and Engineer units were under G-4 supervision for supply and transportation.¹

The Third U.S. Army strength totaled 320,000 men in March 1945 and had a ratio of 141 service troops for each 1000 personnel.² Appendix B contains detailed strength data by type unit.

The Third U.S. Army G-4 staff was headed by BG Walter J. Muller. His staff contained 34 officers and warrant officers,³ and was organized as shown by the organizational chart at Appendix C. Appendix D lists the staff responsibilities of the G-4 as listed in FM 101-5 in effect at the time of the crossing.

The problems experienced by Allied Forces following the initial landing at Normandy caused some changes in the organization and methods of supplying the forces. General Patton had little regard for logistical considerations in the early part of his campaign to defeat the Germans. His rule of thumb was to make due with those means readily available, even if they were not designated as

-63-
supplies for the Third Army. It was not until February of 1945 that the entire theater had partially recovered from the supply and transportation problems that began in September of 1944.

The displacement of logistical support bases, the shift of service support troops and their rolling stocks, shortages of supplies, and personality conflicts all contributed to the problem of supplying the force.  

Failure to resolve these problems severely impeded the advance of Allied combat forces, and during the latter part of 1944 General Patton's Third U.S. Army was forced to stop due to lack of fuel. General Eisenhower asked LTG Brehon B. Somerville to look into the problem and make changes to better support the battlefield.

In December 1944 and January 1945, the theater's most serious supply problems were the shortage of ammunition, tanks, tires, general purpose vehicles, and communication wire, and the inability to handle the large quantities of supplies that were moved forward from the seaports. In order to resolve the shortage of supplies, new priority lists were established and more efficient forecasting and planning was implemented throughout the theater. To ship supplies to the front, a Rapid Express Service (REX) was established for high priority cargo. In addition, a fast rail service was started to handle small tonnage of urgently needed items. This system was called the "Toot Sweet Express."
The biggest problem was resupply planning. Units down to division level did not understand the time factors involved in resupply, procedures on requesting supplies, maintenance of statistical history on supply consumption, or prioritization of requests. General Patton's forces were one of the worst. He very seldom even spoke to his G-4.6

With the problems experienced in 1944, the Rhine River crossing was somewhat different in that detailed planning began in the fall of 1944 and did, in fact, include the logistical considerations to support the crossing. The main logistic problem was transportation. The bridge crossing over the Rhine was forecast to rapidly become a bottleneck.7 Several organizational changes were made in the logistical structure of the COMMZ. The most important was the stationing of additional truck transport companies forward to support the anticipated rapid advance of forces towards the Rhine. The actual advance was far more rapid than envisioned by the theater logistic planners, which only exacerbated the resupply problem.

Prior to the Rhine River crossing by the Third U.S. Army, the logistic situation had improved. Procedures were changed, planning included logistic considerations, and many tactical commanders were aware of the consequences of supply constraints. The supply system, in essence, was primed to support the crossing operation.
Classes of Supply

"Rations (Class I) were probably the best-handled category of Quartermaster supplies on the European continent, or at least the one causing the fewest crises." The shortage, or potential shortage, of food was always regarded as a major emergency and all necessary action was taken to resolve the problem. The majority of problems that did arise in the area of rations were usually in the transportation or distribution of Class I. These problems, however, were dealt with by cutting through the normal "red tape," adjusting priorities, or making exceptions to command policies. The problems with rations themselves dealt with the quality rather than the quantity of food on hand. "The objective was to give the combat troops --- especially those in contact with the enemy --- hot, tasty, varied, and nutritious meals as soon as possible." Logistical planners made every effort to provide fresh bread and fresh coffee to supplement the diet.

The types of rations issued and the consumption rates are shown in Appendix E.

Some difficulties were encountered in providing sufficient quantities of food prior to and after the crossing of the Rhine River. First, the number of POW's increased from 150,000 to 1,500,000 in less than a week. Under the circumstances, theater stocks were hard pressed to provide rations to prisoners.
and the civilian population. Second, the accurate forecast of the number of combat troops was a problem. Control over rations was a problem from the start of the theater operations, but the process was complicated by inaccurate figures from the requesting units. Although the daily telegram system served as the primary means of communicating supply requirements to the rear, much duplication of figures occurred. These problems were anticipated and stocks were accumulated, but the recurring problem was the lack of transportation. Through the establishment of a priority supply system, and continuous movement by truck, rail, and aerial resupply, the troops, POW’s, and civilian population received adequate food rations.

Clothing and General Supplies

Historical records make little mention of problems experienced in the area of Class II supplies, with the exception of clothing. As the Third U.S. Army After Action Report stated, "Present type of winter clothing is not satisfactory. It is not sufficiently warm, wind resistant, water repellent or shrink proof, the material cloth is entirely too light in weight. The wide range of sizes makes it difficult to maintain balanced stocks in depots." Class II supplies suffered the same problem with transportation as did Class I. In supporting the rapidly moving forces of General Patton, the distances traveled created transportation problems. "..... strained transportation facilities operating over extended supply lines were taxed to the utmost to provide the advancing
armies with gasoline, ammunition, and operational rations. The Transportation Corps did not have an opportunity to bring up the kitchen-prepared rations that contributed to good circulation, or to build up adequate stocks of winter clothing in the forward areas.

The entire story of clothing support began long before the crossing of the Rhine. The cold, wet weather in the latter part of 1944 and the early part of 1945 did cause problems, but the crossing occurred during the spring which meant better weather and the reduced requirement for heavy clothing. Besides the quality and transportation of clothing items, problems existed in the quantity of stocks. Production bottlenecks, shipping tie-ups, low priorities, and deficits in forwarding the supplies were the major deficiencies.

There were special issues of winter clothing during February of 1945. Items included in the issue were the field cap, mittens, wool muffler, nylon poncho, heavy socks, and field trousers. Appendix F contains specific issue and consumption data on clothing and other Class II and IV items.

**Petroleum**

From August 1944 through March 1945, the need for fuel was critical to the operations of General Patton's Third U.S. Army as it fought its way across France towards the heart of Germany.
General Patton always felt that his forces should be transported to the battle. Hence, the importance of fuel for his Army. "While it is abhorrent to see a division moving under this system, it results in a rapid advance with minimum fatigue." In order to obtain the required fuel, a combination of resupply procedures had to be used. These methods included resupply by standard requisition, by establishing credits, by automatic procedures, and by local exploitation (Patton's apparent preferred method).

Although it seemed that sufficient fuel was on hand in theater to support General Patton's crossing, the problem became the distribution of fuels to the forces who needed to move troops and equipment. With the delay in the distribution of fuel, heavy reliance was placed on the transfer of fuel by 5-gallon cans. The link between the pipeline and the tactical unit was the "jerrican."

Besides the transportation problems, the theater logisticians found it difficult to accurately forecast future requirements because most units were not correctly submitting fuel figures. Also, fuel was not managed by the Quartermaster Corps once it left the COMZ. After General Patton's experience of fuel shortages and with the importance of POL to Third Army operations, fuel figures "suddenly" began to reflect actual usage and needs. POL experts were sent to the forward areas to assist in the management of POL distribution points. New storage tanks were built at each army disposing facility and fuel points were placed to the rear of
the combat zone.

In March, XII Army Group stocks rose to over 35 million gallons. The POL situation for the Third U.S. Army is given in Table 1. With these stocks, the QM service began a move to store fuels in "depth" with the emphasis on stocking forward. As General Patton approached the Rhine, supplies were in abundance and the transportation problems were partially resolved, but this situation was not to continue for long. Because of the surprise achieved by the Fifth Infantry Division on 22 March 1945, the crossing itself did not require a vast amount of supplies, especially ammunition and fuel. However, after the crossing, resupply of fuel became a problem. General Patton was again moving at tremendous speeds and the logistic tail was finding it difficult to maintain lines of communications. The sporadic arrival of fuel tank cars, the inability of the forward units to return jerricans, and the loss of time due to frequent moves of dispensing points created additional problems in supporting General Patton.

Although the crossing was a feat of extreme daring, military skill, and leadership the continued battle was only possible by the air resupply system. "Had the air supply system not existed, the destruction of Nazis Germany would have taken a lot longer and cost a great deal more." Consumption rates for Class III are contained in Appendix G.
Ammunition

The ammunition situation in February and March of 1945 was very similar to the problems experienced in the early stages of operations in France, i.e. a shortage of supplies due to the rapid movement of the tactical/combat units, and the lack of transportation assets to move the supplies. In February, it looked as though the situation would not be correctable. Roads were impassible due to mud and the railyards were full and unable to handle additional supplies. Movement of combat units slowed somewhat in March and tank transporters, M-23 trailers, and additional truck transport companies were used to haul Class V to strategically located ammunition dumps, ASP 46 (Wollstein) and ASP 48 (Hollrich). These new ASP's were established close to the Rhine River.

During March 1945, the Third U.S. Army ammunition units handled a total of 136,582 long tons of ammunition. Class V receipts by Third U.S. Army from the COMZ totaled 31,272 long tons. Consumption rates for Class V are contained in Appendix H. See Table 2 for Artillery ammunition usage by Third U.S. Army.

As General Patton's forces advanced across the Rhine and towards central Germany, it was necessary to establish additional ASPs to support his units. ASP 49 was opened at Assenheim. As General Patton continued his rapid move, however, this ASP was soon too
far to the rear to support the moving armor units. Those supplies for ASP 49 were diverted to a newly established ASP 50 farther to the east. At the end of March there were a total of five ASPs supporting the Third U.S. Army.

Major End Item Replacement

As a result of improved road conditions in March, supplies were shipped forward. There was an increase in the use of tank transporters and heavy equipment to move combat vehicles and supplies to forward installations.

The supply of combat vehicles, particularly medium and light tanks, was very good throughout March and the status of medium tanks permitted prompt replacements of battle losses. Additionally, new tanks provided the opportunity to replace battle worn armor which had been in the hands of the troops during past operations in France, Luxembourg, and Belgium.

Supply of fire control and sighting equipment showed improvement in March. The situation on two-and-one-half ton trucks was critical at times, but was relieved by receipts from the COMMZ. Table 3 contains specific data on major end items.
Medical Supplies

"Despite the fact that March ushered in one of this Theater's most active periods from a tactical standpoint, a period in which the problems of long supply lines developed, definite progress was made, toward a better medical supply situation within the Third U.S. Army." 18

There were 643 long tons of medical supplies shipped from the COMMZ to the Third U.S. Army in March. This was in comparison to 380 long tons in February. 19

Low casualty rate in March also contributed to the ability of the Army Medical system to keep up with demand. Additionally, supplies were stockpiled closer to the front which made them more readily available and required fewer transportation assets from requesting units. The stockpiling enabled depot units to move without adversely affecting the flow of medical supplies. Appendix F contains consumption rates for medical supplies.

Repair Parts

The critical shortages of tires and tubes (all sizes), hot patches, brake parts, and brake fluid from the previous month were relieved during March as the result of the opening of roads and
the rush of supplies now arriving from the COMMZ. In anticipation of future moves, requirements were placed for a reserve supply of 200 sets of medium tank tracks and 500 tank bogie wheel assemblies.20

Consumption of repair parts ordnance items during 23 February to 23 March 1945 totaled 14,559 tons.21

Maintenance

General Patton directed that the armor on the M4A3 be modified with additional armor plating for the forward portion of the tank. This task took weeks to complete and left little time for anything else. With its hands full during February modifying the M4A3 Medium Tank, maintenance units throughout the Third U.S. Army began moving to support operations across the Rhine. Fortunately, losses during February were light. Table 4 contains information on major equipment losses.

With the resupply problem of two-and-one-half ton trucks, a program was started in March to repair and rebuild the trucks in the Third U.S. Army. Another project started during March was the replacement of the 75mm gun on the M4A3E2 Tank with a 76mm gun.

Ordnance materiel reconditioned by Third U.S. Army maintenance units during March was is shown below.22 Table 5 contains information for the period December 1944 through April 1945.
**CUMULATIVE**

<table>
<thead>
<tr>
<th>TYPE EQUIPMENT</th>
<th>MARCH 1945</th>
<th>TO DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>GP Vehicles</td>
<td>11,437</td>
<td>60,330</td>
</tr>
<tr>
<td>Combat Vehicles</td>
<td>3,491</td>
<td>14,442</td>
</tr>
<tr>
<td>Artillery</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(105mm, 155mm HOW, 8 in)</td>
<td>1,882</td>
<td>10,236</td>
</tr>
<tr>
<td>Small Arms</td>
<td>36,758</td>
<td>141,091</td>
</tr>
<tr>
<td>Instruments</td>
<td>3,926</td>
<td>26,557</td>
</tr>
</tbody>
</table>

**Medical Support**

Problems with medical evacuation in March 1945 were a continuation of difficulties faced in the sweep across France in August. Fortunately, more favorable weather in March resulted in improved road conditions which permitted more successful evacuations. A total of 23,192 patients were evacuated from the Third U.S. Army area during March. Seventy-five per cent were evacuated by road, 5,698 patients were evacuated by air, and 2,081 were evacuated by rail.

The 7th and 58th Field Hospitals operated the air/rail medical evacuation holding units. The 7th Field Hospital moved to Niedermendig on 14 March. The airfield located there could not be used for air medical evacuation, however, until 27 March due to constant observation by enemy forces on the other side of the
Rhine River. The 58th Field Hospital operated a rail evacuation area at Ettelbruck until 17 March. The unit then moved to Trier to operate an air/rail holding unit for the remainder of the month.

The river crossing conducted by the Third U.S. Army, and specifically the Fifth Infantry Division, was carried out without serious opposition and was adequately supported by the hospitals at Bad Kreuznach and at Alzey. "On the night of the twenty-second the Fifth Infantry Division, jumping off at 2230, crossed the Rhine .....with a total loss of twenty-eight men killed and wounded." After the bridgehead was established, the 109th and 35th Evacuation Hospitals set up facilities at Neuheim and Darmstadt, respectively. Appendix I contains an analysis of wounded casualties hospitalized during the month of March.

Field Services

To ease the control of evacuation, two collecting points were established at Wittlich and at Mayen. The service continued its policy of evacuating the dead from division collecting points to Army cemeteries. In March, there were a total of 6,695 burials made at all cemeteries. Of these, 3,585 were American, 9 were Allied, and 3,101 were enemy soldiers.25

In the area of salvage, a record number of items (1,822,834) were collected during the month of March. Of these items, 1,802,934
were classified and the remaining were shipped to the COMMZ depot at Reims. The items were classified as Class B (1,156,580), Class C (154,474), and Class X (491,880).\footnote{26}

The following special purpose items were repaired by field range repair units and salvage repair companies: 3,184 fire units; 124 heaters; 2,634 lanterns; 2,283 stoves; 627 typewriters; and 115 hand pumps.\footnote{27}

**Transportation**

The history of the Third U.S. Army's eight campaigns during the period August 1944 until May 1945 can be characterized by a driving attack in fair or foul weather, across favorable terrain, mud, ice, and snow. It was further marked by good teamwork at all levels of support. Within the scope of transportation, it was identified by thousands of wheels carrying supplies that the Army needed to continue operation.

All classes of supplies transported to the Third U.S. Army during this prolonged period totaled over 1.2 million long tons and were transported more than 141 million ton miles by the Third U.S. Army's organic transportation pool. Additional statistics show that convoys totaling 264,606 vehicles were given 2,242 highway clearances; 3,655,322 vehicles passed through 109 traffic regulating points; 2,092 miles of railway track were constructed and placed into operation; and approximately 300 railheads were
actively used by the supply services of Third U.S. Army.\textsuperscript{28} The receipts in long tons by methods of transportation and by class of supply are shown in Table 6.

Attention will now be given to the transportation services provided during the period March–April 1945, with specific focus on the Rhine River crossing spearheaded by the Fifth Infantry Division.

During the month of March, increased reliance was put on railways for the movement of personnel. A continuing effort was made to improve railroad efficiency, timetables, and types and classes of equipment used. The following tabulation shows the volume of personnel moved by rail during March.\textsuperscript{29}

\begin{center}
\begin{tabular}{lrr}

Leave Trains & 15,815 \\
Troops, Duty & 28,525 \\
Displaced Personnel & 19,413 \\
POW’s & 104,828 \\
Miscellaneous & 2,902 \\
\hline
Total & 171,483
\end{tabular}
\end{center}

As properly foreseen, the two rail lines from Thonville to Trier and from Luxembourg to Trier had to be placed in service as quickly as possible. Throughout the month, these lines were used extensively for the movement of POW’s, displaced personnel, and hospital trains.
With the rapid advance of the Third U.S. Army across the Rhine River and eastward, and with the accompanying change in lateral boundaries between the Third and First U.S. Armies, the rail line extending eastward from Luxembourg, Thonville, Saarbrucken, Bad Kreuznach, and Mainz became of paramount importance (Map 2).

Generally, this line was in good condition, however there were seven bridges that had to be repaired or rehabilitated, and some of the rail yards were badly bombed, including those in the Mainz area. Heavy emphasis was placed on this project and work was effected by the 347th General Service Regiment and the 706th Railway Grand Division. Overall coordination of this effort was provided by a District Rail Transportation Regulating Officer (DRTRO), a staff of railhead officers, and enlisted men all headquartered at Bad Kreuznach. The main function of the DRTRO was to allocate railheads to supply services for immediate use after the lines became operational.

Supplementing the vast usage of railways was the necessary requirement for long truck hauls (Table 7). Trucking operations during the month of March resembled those of the Third U.S. Army’s dash across France. It required the use of extra truck companies to supplement the 42 organic truck companies that supported the Army during normal operations. The extra truck companies were obtained from the XII Army Group in the amount of one Quartermaster Battalion and fifteen truck companies.
The most significant transportation problem facing the wheeled assets was the movement of POW's from the forward corps cages rearward to Army enclosures. Rapid evacuation was essential and a solution to the problem was of immediate concern. The number of trucks allocated to the Provost Marshall was inadequate to handle the huge numbers of POW's, so a system to use empty supply trucks returning rearward was devised.

The infantry had to keep up with the rapidly advancing armored units, so additional motor support had to be furnished. This placed additional heavy demands on the transportation system, but by close supervision all missions were met.

During the actual crossing of the Rhine, amphibious trucks from the 453rd Amphibious Truck Company were used to support the 89th and 90th Infantry Divisions. This company completed 234 trips across the Rhine for the 89th Division alone, carrying ammunition, rations, mail, equipment, personnel, and POW's. There were 220 trips made for the 90th Division. The 453rd Amphibious Truck Company transported a total of 1,365 tons of supplies and equipment during the Rhine River crossing.31

Truck support for the month of March is statistically summed up below. The trucks traveled a grand total of 3,632,472 miles.32
Type of Supply | Number of Trucks
--- | ---
Class I | 4,399
Class II & IV | 848
Class III | 4,901
Class V | 10,282
Engineer Materials | 424
Signal, Medical, Chemical | 574
Personnel | 2,059

Road conditions during the period improved greatly due to extensive road and bridge construction by the engineers. Highway traffic was able to move freely with little to no restriction. More than 350 convoy clearances (for 24,816 vehicles) were issued by the G-4 Traffic Headquarters.  

**Enemy Capabilities and Limitations**

During the entire thrust towards the Rhine, tremendous pressure was placed on the German industrial base. Hitler's desire for more war material became increasingly difficult to provide. Air attacks on industrial factories, the lack of manpower, and the shortage of raw materials were the main reasons for Germany's homeland economic problems. Most German military leaders felt that defeat was only a matter of time, but Hitler demanded loyalty to the Third Reich.
Several days prior to the crossing of the Rhine, the situation was described in the following manner: "...as American planes wreaked havoc from the air, hardly any semblance of organization remained in German ranks. Highways were littered with wrecked and burning vehicles and the corpses of men and animals. Improvised white flags flying from almost every house and building along the way added a final note of dejection to the scene. To the most optimistic German, the end was near.*34

The situation for the Germans changed very little after the Fifth Infantry Division and the remainder of the Third U.S. Army crossed the Rhine. Main roads were clogged with abandoned, damaged, and wrecked vehicles and equipment. During March, the Germans lost the following vehicles:*35

<table>
<thead>
<tr>
<th>Type</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tank, Mark III &amp; IV</td>
<td>94</td>
</tr>
<tr>
<td>Tank, Mark VI</td>
<td>69</td>
</tr>
<tr>
<td>Artillery (75mm &amp; over)</td>
<td>381</td>
</tr>
<tr>
<td>Vehicles (all types)</td>
<td>2,271</td>
</tr>
</tbody>
</table>

The German forces had little, if any, logistic support and equipment to fight with. "Seldom did the Germans employ weapons heavier than rifles, machine guns, machine pistols, and Panzerfausts, except for occasional mortars and one or two self-propelled guns."*36 A shortage of fuel added to their problems.
Vital Lessons Learned

As a summary to the logistics chapter, a review of historical records indicates the following vital lessons learned in supply and field services.

Supply:

a. Quartermasters at all levels were not equipped to carry out the supply mission unless they had sufficient transportation assets under their control or under an organization of subordinate status.

b. Issue of supplies directly to the transportation assets of using units was not practicable under mobile conditions. Divisions universally preferred to draw in bulk and have their own breakdown. In a rapidly changing situation, supply points moved so often that it was not practicable to keep the smaller units informed of the changes.

c. Elaborate standing operating procedures were not well adapted to changing situations and were generally not necessary. The principle of simplicity and avoidance of duplication was vital to responsive logistical support.
d. The daily telegram system of requisitioning supplies was not suited for a fast-moving operation.

e. Supply discipline of the American soldier, if improved, would have been highly beneficial.

f. The operational-type ration was best in a mobile situation. The "A" rations were only good in a static situation.

g. The gratuitous issue of Post Exchange items was essential to health and morale.

h. An uninterrupted flow of POL supplies was the most important and most difficult of all Quartermaster supply functions in a mobile situation. A temporary failure had more disastrous and far-reaching effects than a failure in any other class of supply.

Field Services:

a. Quartermaster units were best used by assigning them to battalions on a functional basis rather than a geographical basis.

b. Basic training of QM troops and officers must be highly realistic for best results.
c. Captured enemy equipment was of great importance. A special organization must be formed and placed close behind the assault troops to police up the equipment for intelligence evaluation, and use of serviceable items.

d. The graves registration company could not perform its required functions as organized and equipped.

e. Cemeteries were best operated under an Army rather than a Corps or Division. The primary reasons are to capitalize on the availability of qualified personnel, and to reduce the interference with tactical operations.
NOTES

1. HQ, XII Army Group, Notes on Service Troops, Organization, G-4, 18 July 1945, pg 1.

2. Ibid., pgs 7-8.


5. Ibid., pg 352.


9. Ibid., pg 486.


12. Ross and Romans, op. cit., pg 609.


17. Ibid., Part 18 (Ordnance) pg 24.

18. Ibid., Part 17 (Medical), pg 52.

19. Ibid.


23. Ibid., Part 17 (Medical), pgs 47-49.


26. Ibid., Part 17 (Medical), pg 51.

27. Ibid., Part 21 (Quartermaster), Pg 24.

28. Ibid., Part 5 (G-4), pg 61.

29. Ibid., Part 5 (G-4), pg 60.

30. Ibid., Part 5 (G-4), pg 61.

31. Ibid.

-88-
32. Ibid., Part 5 (G-4), pg 60.

33. Ibid., Part 5 (G-4), pg 61.


36. MacDonald, op. cit., pg 271.

The operation across the Rhine River at Oppenheim by the US Third Army was highly significant in the study of modern military history. It was the first assault crossing of the Rhine during World War II and marked passage of the last major obstacle in Allied plans to drive into the German heartland. The operation had a decided influence on the outcome of the war. United States forces were able to move swiftly across the river without being detected by the German Army and rapidly expand and secure the bridgehead. From this point, Allied forces in great numbers moved directly into central Germany signaling the final collapse of the Third Reich.

The river crossing was successful in every respect. Although hastily conducted, deliberate and detailed intelligence and engineer planning was conducted for months before the operation and this factor paid significant dividends on D-Day. Comprehensive engineer training on river crossing techniques and equipment was also a key factor in success. Due to its size and scope, this crossing required unique improvisation of equipment and cooperation between US Army, Navy, and Air Forces. Navy assault craft and personnel employed specialized amphibious tactics to transport Army forces while an entire tactical air
support group provided cover in the air.

The types of water craft and bridging equipment used in the operation, and the coordination for their employment, were also significant. Each type of craft supported the other in a coordinated building block effort that led to total success. Rubber boats with paddles were followed by light assault boats with outboard engines, and heavier Navy landing craft. Actual bridging equipment was the last piece of the puzzle. The orchestration of this type of effort was monumental especially considering the short time between warning and execution. Only the detailed planning that preceded the operation guaranteed the successful outcome.

The Fifth Infantry Division was no stranger to conducting river crossings. Prior to the Rhine crossing, the Division had conducted twenty-two river crossings on its march across Europe. The staff, leaders, and soldiers of the Fifth Infantry Division were familiar with the preparation and execution necessary for a successful river crossing and this built a degree of confidence in their ability to execute the Rhine River operation — even on such short notice.

The crossing of the Rhine by the Fifth Infantry Division demonstrates the effective use of doctrinal concepts to achieve success. The crossing actually made effective use of the doctrinal procedures for both a hasty and a deliberate river crossing. Planning was thorough and detailed prior to reaching

-91-
the Rhine, and a hasty crossing was ordered to achieve surprise, keep the enemy off balance, and take advantage of German disorganization. The thorough planning accomplished prior to the crossing enabled the unit to make a sound estimate of the situation and adapt existing plans to execute an immediate crossing.

An analysis of the operational aspects of the Rhine River crossing by the Fifth Infantry Division indicates that a combination of procedures and practices contributed to success. Doctrinal procedures were followed, combined and joint operations were planned for and effectively implemented, command and control relationships were well established, and leaders at each level demonstrated the necessary skills to plan and orchestrate this difficult operation. Training was emphasized just prior to, and even during the operation. All these factors contributed to the Fifth Infantry Division's successful crossing and securing of the bridgehead at Oppenheim.

From a logistics perspective it is significant to note that the resupply problems faced by General Patton and the Third US Army still exist in 1984. Although the names and places have changed, history seems to repeat itself. Technology has reduced reaction times and increased the lethality of war, but the logistical train is still as vital to victory as it was to General Patton. Rapid movement caused problems in 1945 and it can happen today if tacticians and logisticians fail to adequately communicate with each other. The logistical analysis of the US Rhine River
crossing highlighted critical lessons learned (Chapter V) which deserve further attention and study.

Resupply can only happen if adequate transportation and lines of communication are available. The statistics in Tables 4 and 5 illustrate the large number of gains and losses of wheeled vehicles in comparison to tanks and artillery pieces in 1945. Approximately 23,487 trucks were used to haul personnel and supplies.1 Today's advanced weapons systems require more tonnage of support supplies, yet additional truck assets at direct and general support levels are not available to handle the increased demands. Approximately 171,483 personnel were transported by rail in March of 1945.2 Today there are few units in the active Army that are capable of managing the volume of rail traffic needed to support the AirLand Battle of tomorrow. The host nation will be depended on to provide the badly needed rail movement control and maintenance of rail lines in order to provide responsive logistical support to the battlefield.

As General Patton realized soon after his forces were halted due to a lack of fuel, planning is the key to success. But the planning must not only be done by the logistician. "The onus of supply rests equally on the giver and the taker. Forward units must anticipate needs and ask for supplies in time. They must stand ready to use all their means to help move supplies."3 At every echelon, priorities must be established when supplies are scarce. The tactician must constantly coordinate operations with the logistician in order to ensure proper, timely logistical
support. The Rhine River crossing by the Third US Army was well coordinated logistically and was supported by every branch of the combat service support divisions. The leaders of today and tomorrow, will face the same supply problems as the Third US Army. What will have priority? Who will get what first? How will it get there?

Another key aspect of the Rhine River crossing was leadership. Although senior US Commanders at Army, Corps, and Division were well established and competent, it was the leadership abilities of small unit leaders that guaranteed the success of the operation. Analyzing the actual crossing and securing of the bridgehead bears out numerous instances of platoon leaders and sergeants having to take immediate action to overcome pockets of enemy resistance. There are many accounts of individual acts of bravery during the operation. The aggressive style of General Patton is well known, but the real success of the operation can be directly attributed to the actions of the unit commanders and their subordinates. Senior leaders provided good plans and saw to the training of the units involved, but crossing the river and securing the bridgehead challenged the leaders at all levels.

Marshall Kesserling said, "As Remagen had been the grave of Army Group B, it seemed that the bridgehead at Oppenheim would be that of Army Group C."4

The German Army committed the same error at the Rhine that it had at Normandy, and with the same fatal results — the
characteristic refusal to admit tactical defeat. Instead of executing a planned withdrawal to the strong defensive positions afforded by the Rhine, he had chosen to stand and fight a hopeless battle in front of the Rhine. This resulted in his being too weak to hold the line which nature offered him.

Marshall Foch, following World War I, made the following statement concerning the importance of the Rhine River to European security: "The river is the deciding factor. The master of the Rhine is the master of the surrounding country. Whichever side does not control the Rhine has lost." Thus the United States crossing of the Rhine River, on 22 March 1945, signaled the final chapter of the German effort in World War II.

The closing comment on the Rhine River crossing at Oppenheim is that it was a superior example of a deliberately planned but hastily conducted operation. Results were extremely successful and the crossing can serve as an excellent example for tactical river crossings in the future.
NOTES


APPENDIX A

HEADQUARTERS XII CORPS
Office of the Commanding General
APO 312, U.S. Army

21 March 45

2200hrs

OPERATIONAL DIRECTIVE
NUMBER.............92

1. XII Corps regroups prepared to atk across RHINE R. Opns Overlay.

2. 5 Inf Div:

Move all divisional elms into new Z.
Relieve elms 90 Inf Div and 4 Armd Div in Z without delay prepared to cross RHINE R. Opns Overlay.

3. 90 Inf Div:

Atchd: 2 Cav Gp
Complete clearing of sector
Simulate preparations for river crossing NW of MAINZ on Corps Q.
Protect left flank of Corps along RHINE R.
Maintain contact with VIII Corps.

4. 4 Armd Div:

Clear area assigned by CD #91 and hold W bank RHINE R. until relieved by 5 Inf Div and XX Corps.
As rel by 5 Inf Div in Corps Z and by elms XX Corps or 89 Inf Div S of Corps Z, move to assy area - Corps Res.

5. 11 Armd Div:

Clear area assignd by OD #91.
Hold W bank RHINE R.
Upon relief by elms XX Corps, move to assy area - Corps res.

6. 89 Inf Div:

Assemble in assigned area. Opns overlay. Be prepared to move and relieve 4 Armd Div in area W of GERNSHEIM (M5428) to cross RHINE R. or to follow 5 Inf Div across RHINE R. through its bridgehead.

7. Arty:

Tentative organization and missions for spt of river crossing. Rescinds para 9, OD #91.

a. 183 FA GP:

Atchd: 255 FA Bn
       974 FA Bn
       58 FA Bn
       775 FA Bn

G/S Corps
Reinf 90 Inf Div.

b. 182 FA GP:

Atchd: 512 FA Bn
       771 FA Bn
       945 FA Bn
       740 FA Bn

G/S Corps
Reinf 5 Inf Div with 1 L and 2 M Bns.

c. 177 FA GP:

Atchd: 276 FA Bn
       179 FA Bn
       191 FA Bn
       738 FA Bn

G/S Corps
Reinf 5 Inf Div with 1 L and 2 Med Bns.

d. 33 FA Brig:

G/S Air Operations.

e. 410 FA GP (Corps Arty FDC):

Atchd: 244 FA Bn
       731 FA Bn
       288 FA Obsn Bn (-Btry B)
       (+Btry B, 286 FA Obsn Bn)

G/S Corps
Direct Fire Z/A 90 Inf Div.
8. Chemical:
   a. 161 Cml Co (SG):
       Attached 90 Inf Div effective at once.
   b. 84 Cml Co (SG):
       Attached 5 Inf Div effective at once. Opns overlay.

9. TDs:
   Co A, 808 TD Bn rel'd fr atchment 2 Cam Gp (90 Inf Div)
   passed to VIII Corps control eff 22 Mar.

10. Tks:
   a. 748 TK Bn:
       Atchd 5 Inf Div on arrival.
   b. 737 TK Bn:
       Rel'd from atchment 5 Inf Div atchd 89 Inf Div eff
       22 Mar; assemble and remain in 5 Inf Div area.

       EDDY
       Maj Gen

       OFFICIAL:

       Griffith
       G-3

1 Incl: Opns Overlay

DISTRIBUTION: G-3 "B"
APPENDIX B

Service Troop Support
(February and March 1945)

THIRD US ARMY

<table>
<thead>
<tr>
<th>Total Strength</th>
<th>320,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corps Headquarters (units)</td>
<td>3</td>
</tr>
<tr>
<td>Infantry Divisions (units)</td>
<td>8</td>
</tr>
<tr>
<td>Armored Divisions (units)</td>
<td>4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TYPE OF UNIT</th>
<th>STRENGTH</th>
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</thead>
<tbody>
<tr>
<td>Quartermaster</td>
<td>18,400</td>
</tr>
<tr>
<td>Ordnance</td>
<td>12,800</td>
</tr>
<tr>
<td>Medical</td>
<td>11,000</td>
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<tr>
<td>Signal</td>
<td>350</td>
</tr>
<tr>
<td>Chemical</td>
<td>500</td>
</tr>
<tr>
<td>Engineer</td>
<td>1,800</td>
</tr>
<tr>
<td>Transportation</td>
<td>350</td>
</tr>
</tbody>
</table>

1. HQ, XII Army Group, Notes on Service Troops, Organization Branch, G-4, 18 July 1945, pgs 7-8.
### SERVICE TROOPS PER 1,000 PERSONNEL IN THIRD ARMY

<table>
<thead>
<tr>
<th>Type Service Unit</th>
<th>Number/1000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quartermaster</td>
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<td>Ordnance</td>
<td>40.0</td>
</tr>
<tr>
<td>Medical</td>
<td>34.4</td>
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<td>Chemical</td>
<td>1.5</td>
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<tr>
<td>Signal</td>
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<td>Engineer</td>
<td>5.6</td>
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<tr>
<td>Transportation</td>
<td>1.0</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>141.0</strong></td>
</tr>
</tbody>
</table>
APPENDIX C
Third US Army G-4 Section

ACOFS, G-4

EXEC OFF

LIAISON

ADMINISTRATION
Personnel
Publications
Records
Reports
Internal Security
Distribution of Orders

FISCAL
Procurement Policies and Procedures
Sub-Allotment of Funds
Exploitation of Local Resources
Purchasing & Contracting

SUPPLY & STATISTICS
Supply Levels
Procurement & Distribution
Allocations
Unit Equipping
Equipment Maintenance
New Equipment
Salvage
Captured Material
Supply of Attached Allied Units
Supply Summaries
Periodic Reports

OPERATIONS
Movement of Service Troops
G-4 Situation Map
Compilation of Orders
Coordination of LOCs
Plans Rear Area Boundary

TRANSPORTATION
Highway Movement
Rail Movement
Traffic Control
Operation of Truck Units
Railhead Regulating

APPENDIX D

G-4 Responsibilities

The primary functions and responsibilities of the G-4 (Supply and Evacuation) Section were the preparation of policies for, and the supervision of execution of arrangements for supply, evacuation, transportation, and other administrative matters. Many functions performed by the G-4 section in 1945 have been transferred to other staff sections or the function has disappeared due to organizational changes and technology. However, the detail responsibilities specified in FM 101-5 must be viewed to understand the enormous task of the G-4 in the overall support of the battlefield. Specifically, the duties were:

a. Procure, store, and distribute all supplies—including animals.
b. Locate supply, evacuation, and maintenance facilities.
c. Transport supplies by land, air, and water.
d. Construct and maintain roads and trails, docks, and airfields.
e. Maintain equipment.
f. Recommend allocation of small arms and antitank mines (in coordination with the G-3).
g. Control traffic.
h. Construct, operate, and maintain utilities and other facilities relating to supply, shelter, transportation, and hospitalization (but not fortifications).

i. Evacuate and hospitalize men and animals.

j. Assign and move supply, medical, technical, and labor troops not employed as combat troops.

k. Salvage operations.

l. Collect and dispose of captured supplies, equipment, and animals.

m. Recommend protection of lines of communications and rear establishments.

n. Recommend location of rear boundaries.

o. Property accountability.

p. Funds and priority of expenditures.

q. Construct, operate, and maintain military railways.

r. Operate inland waterways.

s. Recommend new types of equipment.

t. Procure real estate, shelter, and facilities, including their lease, repair, maintenance, and disposal.

u. Acquire and improve airplane bases.

v. Prepare, authenticate, and distribute administrative orders.

---

APPENDIX E

Rations

TYPES OF RATIONS ISSUED (PERCENTAGE)\(^1\)

<table>
<thead>
<tr>
<th>Month (1945)</th>
<th>Type A/B</th>
<th>Type C</th>
<th>Type K</th>
<th>Type 10-in-1</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td>91</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>February</td>
<td>91</td>
<td>2</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>March</td>
<td>88</td>
<td>4</td>
<td>5</td>
<td>3</td>
</tr>
</tbody>
</table>

CONSUMPTION RATE FOR THIRD ARMY (23 FEB-23 MAR 1945)\(^2\)

- Tonnage On Hand (23 Feb): 4,238
- Tonnage Delivered: 30,475
- Totals: 34,713

- Tonnage On Hand (23 Mar): 2,819
- Tons Consumed: 31,894
- Average Ration-Strength: 441,000
- Lbs/Man (Ration-Strength): 5.78
- Average Field Strength: 314,448
- Lbs/Man (Field Strength): 8.11
- Total Division Days: 350
- Tons/Division/Day: 85.968

---


APPENDIX F

Class II/IV Items

The consumption rate for selected Class II/IV items during the period 23 February – 23 March 1945 is as shown below.¹

<table>
<thead>
<tr>
<th></th>
<th>Clothes</th>
<th>Engineer</th>
<th>Medical</th>
<th>GM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tonnage On Hand (23 Feb):</td>
<td>773</td>
<td>14,500</td>
<td>1,050</td>
<td>7,762</td>
</tr>
<tr>
<td>Tons Delivered:</td>
<td>146</td>
<td>11,297</td>
<td>542</td>
<td>3,633</td>
</tr>
<tr>
<td>Totals:</td>
<td>919</td>
<td>25,797</td>
<td>1,592</td>
<td>11,395</td>
</tr>
<tr>
<td>Tonnage at End of Period:</td>
<td>858</td>
<td>21,190</td>
<td>925</td>
<td>5,937</td>
</tr>
<tr>
<td>Tons Consumed:</td>
<td>61</td>
<td>4,697</td>
<td>667</td>
<td>5,458</td>
</tr>
<tr>
<td>Average Field Strength:</td>
<td>307,516</td>
<td>307,516</td>
<td>307,516</td>
<td>307,516</td>
</tr>
<tr>
<td>Pounds per Man:</td>
<td>.016</td>
<td>1.222</td>
<td>.121</td>
<td>.990</td>
</tr>
<tr>
<td>Total Division Days:</td>
<td>371</td>
<td>371</td>
<td>371</td>
<td>371</td>
</tr>
<tr>
<td>Tons/Division/Day:</td>
<td>.164</td>
<td>12.661</td>
<td>1.798</td>
<td>14.712</td>
</tr>
</tbody>
</table>

¹ Supreme Allied Expeditionary Forces, Consumption Rates of Us Forces in the Final Advance to the Rhine, 25 April 1945.
APPENDIX G
CLASS III SUPPLIES

Consumption Rates of Class III (23 Feb - 23 March 1945):

- **Tonage On Hand (23 Feb):** 10,419
- **Tonnage Delivered:** 58,249
- **Totals:** 68,668

- **Tons On Hand at End of Period:** 11,088
- **Tons Consumed:** 57,580
- **Average Field Strength:** 314,448 *
- **Pounds Per Man:** 14,649
- **Total Division Days:** 317
- **Tons/Division/Day:** 155.202

*The difference in strength figures in comparison with Class II/IV (Appendix 4-5) is unknown.

APPENDIX H
CLASS V SUPPLIES

Consumption Rates of Class V Supplies (23 Feb - 23 March 1945):

<table>
<thead>
<tr>
<th>Description</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tonnage On Hand (23 Feb)</td>
<td>29,409</td>
</tr>
<tr>
<td>Tonnage Delivered:</td>
<td>38,269</td>
</tr>
<tr>
<td>Totals:</td>
<td>67,678</td>
</tr>
<tr>
<td>Tons On Hand at End of Period:</td>
<td>32,965</td>
</tr>
<tr>
<td>Tons Consumed:</td>
<td>34,713</td>
</tr>
<tr>
<td>Average Field Strength:</td>
<td>307,516</td>
</tr>
<tr>
<td>Pounds Per Man:</td>
<td>9.031</td>
</tr>
<tr>
<td>Total Division Days:</td>
<td>371</td>
</tr>
<tr>
<td>Tons/Division/Day:</td>
<td>93.566</td>
</tr>
</tbody>
</table>

APPENDIX I

ANALYSIS OF HOSPITALIZED (WOUNDED) PERSONNEL
(March 1945)

I. Number of Wounded Admitted to Hospitals:

<table>
<thead>
<tr>
<th></th>
<th>Admissions</th>
<th>Deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>US Army</td>
<td>11,072</td>
<td></td>
</tr>
<tr>
<td>British</td>
<td>22</td>
<td></td>
</tr>
<tr>
<td>French</td>
<td>57</td>
<td></td>
</tr>
<tr>
<td>US Navy/Marine</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Enemy Forces</td>
<td>4,791</td>
<td></td>
</tr>
<tr>
<td>Civilians</td>
<td>634</td>
<td></td>
</tr>
<tr>
<td>Others</td>
<td>28</td>
<td></td>
</tr>
</tbody>
</table>

II. Severity of Wounds

<table>
<thead>
<tr>
<th></th>
<th>Admissions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serious</td>
<td>2,853</td>
</tr>
<tr>
<td>Slight</td>
<td>8,219</td>
</tr>
</tbody>
</table>

III. Classification of Wounds (other than burns):

<table>
<thead>
<tr>
<th></th>
<th>Admissions</th>
<th>Deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abdominal</td>
<td>518</td>
<td></td>
</tr>
<tr>
<td>Thoracic</td>
<td>933</td>
<td>62</td>
</tr>
<tr>
<td>Facial</td>
<td>862</td>
<td>6</td>
</tr>
<tr>
<td>Neurological</td>
<td>1,003</td>
<td>75</td>
</tr>
<tr>
<td>Extremeties</td>
<td>6,544</td>
<td>37</td>
</tr>
<tr>
<td>Buttocks</td>
<td>463</td>
<td>11</td>
</tr>
<tr>
<td>Other</td>
<td>645</td>
<td>1</td>
</tr>
<tr>
<td>Sub-total</td>
<td>10,968</td>
<td>277</td>
</tr>
<tr>
<td>Burns:</td>
<td>104</td>
<td>4</td>
</tr>
<tr>
<td>Grand Total</td>
<td>11,072</td>
<td>281</td>
</tr>
</tbody>
</table>
IV. Classification of Wounds by Causative Agent:

<table>
<thead>
<tr>
<th></th>
<th>Admissions</th>
<th>Deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gunshot Wounds</td>
<td>2,805</td>
<td>80</td>
</tr>
<tr>
<td>Shell Wounds</td>
<td>6,389</td>
<td>171</td>
</tr>
<tr>
<td>Bomb Wounds</td>
<td>540</td>
<td>18</td>
</tr>
<tr>
<td>Blast Injuries</td>
<td>420</td>
<td>1</td>
</tr>
<tr>
<td>Secondary Missiles</td>
<td>115</td>
<td>1</td>
</tr>
<tr>
<td>Burns</td>
<td>96</td>
<td>3</td>
</tr>
<tr>
<td>Other</td>
<td>707</td>
<td>7</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>11,072</strong></td>
<td><strong>281</strong></td>
</tr>
</tbody>
</table>

1. Third U.S. Army After Action Report, 1 Aug 44 - 9 May 45, Part 17 (Medical), pg 49.
SITUATION MAP: Fifth Infantry Division
Sector, 231400 March 45
Railhead Allocations to Third U.S. Army, Supply Services Prior to Rhine Crossing