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THE OPERATIONS OF COMPANY "H", 504TH PARACHUTE INFANTRY,  
(82ND AIRBORNE DIVISION) IN THE INVASION OF HOLLAND  
17 - 21 SEPTEMBER 1944  
(RHINELAND CAMPAIGN)  
(Personal Experience of a Rifle Company Commander)

Type of operation described: PARACHUTE RIFLE COMPANY  
DROPPED TO SECURE KEY TERRAIN TO EXPEDITE THE ADVANCE  
OF FRIENDLY TROOPS.

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ADVANCED INFANTRY OFFICERS CLASS NO. I

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OPERATIONS OF COMPANY H, 3D BATTALION,  
504 PARACHUTE INFANTRY, (82D AIRBORNE  
DIVISION) IN THE AIRBORNE INVASION OF  
HOLLAND, 17 SEPTEMBER-21 SEPTEMBER 1944  
(RHINELAND CAMPAIGN)  
(Personal Experience of a Company Commander)

INTRODUCTION

This monograph covers the operations of Company H, 3d Battalion, 504 Parachute Infantry, 82d Airborne Division in the Invasion of Holland, 17 September - 21 September 1944.

The situation in Europe at the end of August 1944 was one of great confusion and one of great opportunity. Apparently all organized German resistance east of the <sup>West</sup> Rhine had collapsed. Five Allied Armies were racing for the west wall. Victory was in sight. In America the rumors were being circulated through newspapers and radio that our victorious troops would be home for Christmas.

There had been revolt in the German Army High Command and though promptly and effectively dealt with, there was every indication that embers of the crushed revolt might soon be fanned into life with ever increasing news of Allied victories.

The top commanders of these victorious armies knew that their stabbing columns must soon come to a grinding halt. Their mighty war machine was rapidly being drained of its life blood, the supplies that were necessary to galvanize it into action. It was felt that the over extended supply lines, now stretching some four hundred miles to the beaches and wholly dependent on motor transport, could supply one army for an attempt to pierce the west wall and secure a bridgehead across the Rhine. Two American Armies under General Omar Bradley wanted the same route, (through Frankfurt) and the English Army Group under General

Montgomery wanted the northern route to flank the Seigfried Line. (1)(2)(Map A)

The relative merits of these plans are not included in this subject. Sufficient to say the Northern Plan was adopted.

#### THE GENERAL SITUATION

With the adoption of the Northern Plan, the fledgling First Allied Airborne Army was attached to the British Second Army.

The decision to use the Northern Plan amounted, in effect, to a concentration of all available supplies to one Army Group, in the hope of striking one decisive blow that would assure the impotence of the enemy's prepared defenses and cross all barriers leading to the industrial heart of Germany. With full success, it might destroy the enemy's capacity and will to resist.

The Northern Plan was titled "Operation Garden - Market." Garden being the ground phase and Market the airborne phase. Operation Garden - Market was to establish crossings over the rivers in the general area of Grave, Nijmegen, and Arnhem. This involved the additional obstacle of the Neder Rijn, but had three main considerations:

1. Outflank the Seigfried Line.
2. Strike on least likely line from the enemy view.
3. Have our airborne operating in most favorable conditions of range from home base. (3)

The British Second Army Plan (Map B) to accomplish their mission was to establish crossings over the Neder Rijn at Arnhem, the Waal River at Nijmegen, the Maas River at Grave, the Wilhelmina Canal north of Eindhoven at Son, the Zuid Willemsvarrt Canal linking Hedmond and Hertogensbosch, and a third canal partially

(1) P, Chap.XVIII; (2) A, p.149; B, p. 71; (3) A, p.170; B, p.72.

across the line of advance, the Maas Waal west of Nijmegen.

They intended to drop airborne troops across waterways on the axis of the main road through Eindhoven, Uden, Grave, Nijmegen, and Arnhem and build up a bridgehead force north of Arnhem, establish crossings of the <sup>Vijssel</sup>Issel River between Deventer Zurphen, with one column advancing from Apeld<sup>o</sup>orn to Nunspeet on the Zuider Zee, encircling all enemy forces in eastern Holland.

The 30th Corps, making the main effort, was to advance along the airborne carpet at Arnhem. The 8th Corps was responsible for the right flank of the 30th Corps and widening to the east. The 12th Corps was responsible for the left flank of the 30th Corps and widening to the west. (4) (Map B)

The Guards Armored Division was to spearhead the advance of the 30th Corps, followed by the 43d and 50th Divisions.

The success of Garden-Market was dependent upon the airborne phase, and it is a portion of that phase that is the subject of this monograph.

In an airborne assault, as in an amphibious assault, the highest headquarters concerned must make all detailed plans and coordinate them with the heads of the cooperating agencies. This operation, originating in England, with a flight over the English Channel, culminating in an assault in Europe, involved the Air Defense of Great Britain, the Allied Navies, and the Air and Ground Forces on the Continent. The overall plan is so complete and thorough that the units involved lose their personalities and identities except as a part of the overall plan. For this reason it is impossible to pick up the thread of action with Company, Battalion, or Regiment. It is sufficient to say that the operation falls into four phases: A Planning Phase, Preparation Phase, Airborne Phase, and Ground Phase.

(4) A, p. 172; C, p. 10.

## PLANNING PHASE

In the accomplishment of all phases a great stride forward had been made on August 8, 1944, in the organization of the First Allied Airborne Army, where all components necessary to plan, stage, and deliver airborne troops had been welded into a unified command. (5) Never, for instance, in combat zones of the ETO, had airborne troops been dropped in a compact mass upon the proper drop zones. Yet, despite this initial difficulty, all missions had been accomplished. There were many reasons for this failure, but many airborne <sup>Soldiers?</sup> believed the integration of troop carrier and airborne personnel under a single command would do much to correct this. (6)

The First Allied Airborne Army had recently been activated under the command of Lt General Lewis H. Brereton, former commander of the Ninth Air Force. It was composed of the U.S. IX Troop Carrier Command, 38th Group RAF, 46th Group RAF, one British Corps of Airborne Troops, one Polish Brigade, and one American Airborne Corps. (7)

The mission of the Army was to capture and hold crossings over the canals and rivers on Second Army's main axis of advance, Eindhoven, Grave, Nijmegen, and Arnhem, from about Eindhoven to include Arnhem. (8) To accomplish this mission there was ready for commitment, one Polish Parachute Brigade, one Airborne Division, and one Air Portable Division in the British Corps and two Airborne Divisions in the American Corps. (9) To transport these troops, the combined troop carrier forces had 1250 C-47 type aircraft and 354 British Bombers equipped to tow gliders. (10)

(5) C, p.5; (6) Personal knowledge; (7) C, p.3; (8) D, p.9;  
(9) D, p.1; (10) B, p.73.

These aircraft were able to lift all the parachute troops and approximately fifty glider loads for each U.S. Division, one Parachute Brigade and half the glider troops of the British Airborne Division. The aircraft limitations thus made a shuttle movement necessary. (11)

The U.S. 101st Airborne Division was assigned to capture bridges and defiles along the 30th Corps axis of advance between Eindhoven and Grave, and was allocated 493 aircraft for the D-Day lift. (Map B) The British 1st Airborne Division was assigned the mission of capturing the bridge at Arnhem and assigned 503 aircraft for the D-Day lift, and the 82d Airborne Division was to capture bridges at Grave and Nijmegen, and seize the high ground between Nijmegen and Groesbeek. They were allocated 530 aircraft. (12)

General Brereton delivered the decision for a daylight mission, the first ever attempted by the Allies. The decision was based on all out air power to lessen the advantages enemy gunners would have in daylight. It was also felt enemy night fighters, relatively intact, would be more of a menace than the day fighters. (13)

At a conference of all commanders concerned, staging areas, routes, photo coverage, drop and landing zones, navigational aids, timing, altitudes, speeds, payloads, formations and administrative details were decided upon. (14)

Two routes were selected, a northern route and a southern route. Both were to be marked with all type navigational aids, and both were to be used on D-Day, weather permitting, and either one from then on according to the situation. The formations for

(11) B, p.74; C, p.18; (12) A, p.172; B, p.75; C, p.13;  
(13) C, p.11; (14) B, p.86; C, p.13.

parachute dropping was to be serials of forty-five aircraft, in a nine ship vee of vees, spaced four minutes from head to head, to fly at a speed of 140 miles per hour to the IP, 130 miles per hour from the IP to the DZ, and 110 miles per hour at drop time. Drops were to be made from 500 feet. (15)

The glider formations were to fly at 120 miles per hour, at 1500 feet altitude, in a pair of pairs, echeloned to the right, up to 48 tugs in a serial, with seven minutes head to head time. Releases were to be at 500 feet. (16)

Particular emphasis was placed that no aircraft would take evasive action. They would fly the specified course as indicated to the drop zone or go down. (17) Each pilot was to mark, immediately upon return, the exact area he dropped his troops or tow. This was SOP, but the airborne troops were to mark on their maps where they landed, with the number of the aircraft and the name of the pilot, immediately after landing. The results were to be compared. (18)

The U.S. Eighth Air Force was to furnish fighter escort from the IP to the DZ, resupply troops on D plus one, bomb all known flak positions, and dive bomb flak positions that would develop during flight.

The Air Defense of Great Britain was to furnish the above from landfall to the IP.

The RAF Bomber Command was to carry out diversionary dummy drops, and bomb enemy installations.

The U.S. Ninth Air Force and 2d Tactical Air Force was to furnish air support for the airborne troops after the drop.

(15) D, p.13; Annex 2; (16) D, p.13; (17) D, p.13; Personal knowledge; (18) Personal knowledge.

The 2d Tactical Air Force was responsible for photo reconnaissance of the target area. (19)

The mission of the 82d Airborne Division was to secure the highway bridge across the Waal River at Nijmegen, the highway bridge on the Maas River at Grave, and secure the high ground between Nijmegen and Groesbeek. (Map C) Eight enemy battalions were believed to be in the division area. The written order was supplemented by a verbal order not to attempt the seizure of the Nijmegen Bridge until the high ground was secured. (20)

The Division plan was to land its three Parachute Regiments, with one Parachute Field Artillery Battalion, one AT battery of 57 mm. guns, and a command group, at H-Hour D-Day on drop zones as shown. The three remaining Artillery Battalions were to be brought in by glider on D plus one, and the Glider Regiment on D plus two. (21)

Nijmegen Bridge and the high ground between Groesbeek and Nijmegen was assigned to the 508 Parachute Infantry Regiment.

Groesbeek and the area south to the Forst Reichwald and west to the Maas Waal Canal was assigned to the 505 Parachute Infantry.

Bridges 7 and 8, across the Maas Waal, at Malden and Heumen, the highway bridge at Grave, and the division area west of the Maas Waal Canal was assigned to the 504 Parachute Infantry. (22)

The 504 Parachute Infantry assigned Bridge 7 and 8 to the 1st Battalion; Bridge 11 at Grave to the 2d Battalion. The 3d Battalion was to clear all enemy movement on the Grave-Nijmegen highway and be prepared to assist the 1st and 2d Battalions, or both. (23)

(19) D, p.13; (20) B, p. 72; (21) E, p.2; J, p.2; (22) E, p.2; L, p.1; (23) E, p.142; N, p. 3; Personal knowledge.

One enemy battalion was known to be in Grave and one battalion was believed to be protecting the bridges across the Maas-Waal Canal.

The 3d Battalion plan of attack (Map D) was to drop east of Overasselt on Drop Zone O, and reorganize and assemble in the nearby wooded area in SOP perimeter assembly: Battalion Command Post in the center; Headquarters Company 300 yards north; G Company 300 yards south; I Company 300 yards east, and H Company 300 yards west.

G Company was to block all enemy movement on the Grave-Nijmegen highway with road blocks at Lunen and Alverna.

I Company was to clear the enemy from their portion of the battalion sector from East Wijchensche Ven, establish road blocks at Diervoort and contact 1st Battalion in the vicinity of Diervoort.

H Company was to eliminate all enemy resistance in the drop zone, screen the assembly of the battalion, establish road blocks at Mary's Hoeve and become the battalion reserve upon movement of G and I Companies to their assigned sector. (24)

The H Company Commander decided to have his unit assemble by plane loads, each plane a tactical unit, and eliminate all enemy resistance in their area. Assembly into a company unit was to be conducted upon meeting any organized resistance, or in the battalion assembly area after sweeping the assigned area. (25)

The planning phase was now complete. The plans were detailed and thorough as they must be in an airborne operation. Everything must be right the first time. As soon as the unit is committed it must be able to take care of any contingency that might arise. It is too late then to go back for anything that might have been overlooked.

(24) N, p. 1; O, p. 1; (25) O, p.1; Personal knowledge.

### PREPARATION PHASE

In any airborne operation some tactical unity of the airborne troops must be sacrificed. The Army order stated that airborne units would be made up to conform with the tactical air formations desired by Troop Carrier Command. (26) The efficiency of the airborne organization is in direct proportion to the tactical unity lost and how quickly it is regained. In this operation our regiment, the 504 Parachute Infantry, was to have two departure fields, Spanhoe and Cottesmore; to be flown in three serials of forty-five aircraft each, four minutes between serials; to be dropped on drop zones (Map D) beginning at 1313 D-Day. In addition, two gliders were allocated for command vehicles at Balderton Departure Base. The gliders (CG4A, each containing one truck, 4x4,  $\frac{1}{2}$ -ton) were to land on LZ "N" and report to the 504 Parachute Infantry after contact had been established. (27)

The 3d Battalion, 504 Parachute Infantry, with other units, was sealed in Spanhoe Air Base, 2130 hours, 15 September 1944. Canvas cots and blankets were provided in the hangars by the Air Force. Battalion field kitchens were set up by the airborne agencies.

Early next morning, 16 September, unit briefings were conducted. Each man was issued a 1:50000 map of Groesbeek and vicinity, a 1:20000<sup>0</sup> map of the Netherlands, a partial pay in Netherlands, Belgium, and German currency, and a gammon grenade with plastic explosives. As soon as the grenades were fashioned they were collected and kept in platoon piles. Two K rations and one D ration were drawn. The basic load of ammunition had been issued prior to arrival at the Departure Base. The remainder

(26) D, p.9; (27) E; Annex 1,2; N, p.1; O, p.1.

of the morning was free for men to write letters, visit Red Cross Mobile Units and check personal equipment. The afternoon was spent in loading and checking bundle release mechanisms, loading and tying of bundles. All bundles had been rolled, loaded, and marked in accordance with Regimental SOP prior to movement to the departure fields. Generally, individual weapons, including BAR's and one-half the total number of rocket launchers, were carried in the hands of the individual. Crew served weapons were dropped in containers. (28)

The 300 radio was to be carried by the radio operator in a leg bag, with one spare battery.

The 536 radios, less batteries, were jumped in the leg pockets of the jumper. The batteries were carried in the same pocket. One set of spare batteries was carried in the field bag (musette bag) of the jumper. Extra batteries for all radios were dropped in the communication bundle.

Sound power telephones were carried in the leg pockets. EES telephones were carried on the jumper. *They*

The TO&E communication equipment of the company consisted of one 300 radio, five SCR-536 radios, one EES telephone, and five sound power telephones. Previous experience had shown this to be inadequate, and the company supplemented the wire system with a captured German six drop switchboard, four additional EES telephones, and one additional 300 radio. Each platoon carried one-half mile, and Company Headquarters carried one mile, of WD 130 assault wire. In addition, four miles of WD 130 was carried in the communication bundle. *They*

In the event of a badly dispersed drop, or under conditions when the unit could not reach their bundles, they would be able to fight as a unit on the amounts carried by the jumpers. (29)

(28) O, p.142; Personal knowledge; (29) Personal knowledge.

*for entertainment as in connection with briefing?*

Motion pictures were held in the evening concurrently with pilot-jumpmaster conferences, C.O. meetings, and rehashing of each plan of action. (30)

The succession of command with<sup>in</sup> the Battalion and Companies was published in special orders prior to departure to the airfields.

Each serial of forty-five aircraft was to carry one infantry battalion and one-third of Regimental Headquarters Company. SOP loading procedures were nine aircraft for Regimental or Battalion Headquarters Company, and eleven for each rifle company. At this time our Battalions were composed of a Headquarters Company and three Rifle Companies. Each Rifle Company was composed of a weapons section, headquarters section, three platoons of three nine-man rifle squads, and a platoon headquarters. This organization of the rifle company, while not official, was very satisfactory, preserved tactical unity in airborne operations, and was flexible and ideally suited for ground combat. The eleven aircraft for each rifle company were distributed as follows: Numbers 1 and 11, commanded by the Company Commander and the Executive Officer, contained the headquarters and weapons sections, tactically loaded to have skeleton crews if either were lost. Aircraft 2, 3, and 4 were assigned to the 1st Platoon, each carrying one rifle squad and a portion of Platoon Headquarters, and commanded by the Platoon Leader, Assistant Platoon Leader, and Platoon Sergeant, in that order. Aircraft 5, 6, and 7 carried the Second Platoon, with 8, 9, and 10 carrying the Third Platoon, all arranged as the First Platoon. This procedure varied somewhat within the Division and loading as listed above is that for

(30) 0, p.1.

Company H, the unit with which we are concerned. (31)

The Regiment at this time was probably at the peak of its fighting efficiency. For the first time since the invasion of Sicily it was able to have an extended period of time for rest and relaxation in congenial surroundings, and an opportunity to train and fit replacements into the organization prior to combat. Morale, always high, was of the best. All units were slightly over strength. Assuming H Company to be typical, the strength was eight officers and one hundred twenty-four men. (TO strength: eight officers and one hundred nineteen men) About fifteen percent were original members of the company, two-time unit citation winners, seventy-five percent were combat experienced, and about ten percent replacements, but with some combat experience during the latter days of Anzio. Five of the officers had been Company Commanders and three had handled more than one company in heavy action. All were ready for action and anxious for airborne action. Approximately four percent had allied decorations, ninety-five percent had Purple Hearts, and all had Combat Infantry Badges.

Sunday morning, 17 September, religious services were held for all denominations, after an exceptionally good meal. All members of the Regiment were assembled to receive a pep talk from Colonel R. H. Tucker, Regimental Commander, ending with: "We must and will take the bridge." (Bridge 11 at Grave, longest span in Europe, which must be captured to assure the success of the 82d Airborne and 1st British Divisions' objectives.) All units departed by truck for the aircraft at 0930, carefully made final checks, and enplaned at 1030. (32) Our preparations were now complete.

(31) Personal knowledge; (32) O, p. 2.

## THE AIRBORNE PHASE

In the airborne phase the units are grouped in aircraft, flying in a designated formation, at specified speeds, altitude and direction, yet each unit is completely isolated from the remainder.

Take off time for Company H, in serial A-11, was about 1040. They marshalled immediately over the field, rendezvoused with the gigantic air column on the northern route, dropping neatly into place and on schedule at 1132 hours. It was now possible for them to see huge portions of the might of the Airborne Army. The tremendous air column was over a hundred miles long and contained 1544 aircraft with 478\* gliders. 1113 bombers were in the air, and 1240 fighters, all in support of Operation Market. (33) The flight to the coast of Holland was uneventful. As the column approached the coast over the inundated area, they received their first flak from a position in a built up portion of the flooded area. Hits were scored on the column, and the Company's No. 2 Plane, containing the Platoon Leader and one-third the First Platoon, went down. All parachutists escaped from the aircraft. A Spitfire (British fighter aircraft) passed underneath the formation, his tracers walking directly into the pit. On the tail of the Spitfire was a P-47, and immediately following it a Typhoon (British rocket firing fighter). All registered hits and the flak position was destroyed.

There was occasional flak in the next ten minutes. The Company Commander, from his vantage point in the door, began to pick up landmarks and pass them on to the crew, who were all in good spirits, greatly cheered by the air support and ever increas-

\*Discrepancies in the total number of gliders. This writer accepted the report of Allied Airborne Army as official.

(33) C, p.1,2; B, p.90; D, Annex 2.

ing indications they were on course. The flak picked up in volume but was still light. About five minutes before jump time the First Sergeant was knocked down by a piece of flak that struck his back pack, tearing the main parachute but inflicting slight damage to the Sergeant. He insisted on jumping with the crew. (34)

All during the time the column was passing over the built up area, the occupants of the buildings had been waving bed sheets, white tablecloths and the like from windows and doors in mute pleas not to bomb. At about 1300 hours the main highway, with Grave in the distance, came into view. All members of the aircraft were overjoyed, laughing and shouting. They were on course, and no matter what happened now the objective was in sight. All members at or near the end of the stick were trying to shout words of praise and encouragement to the pilot and co-pilot. As the air column passed to the right and over the town of Grave, E Company, of the Second Battalion, could be seen dropping in their assigned area. The flak increased from flak towers guarding the highway bridge until it ranged from moderate to heavy. (35) Despite this, the pilot decreased speed and applied quarter flaps, slowing the plane to jump speed. If all members were happy before, they were doubly so, and every member seemed to exude confidence, the feeling that everything was clicking. The altitude was now between five hundred and six hundred feet, the red light had been on several minutes. The jumpers were standing, hooked up, and had been since the flak increased. At 1312 hours the aircraft crossed the checkpoint in the dike, some one thousand yards short of the drop zone. The

(34) O, p.2; Personal knowledge; (35) E, p.1; Personal knowledge.

Company Commander tripped the electrical bundle release mechanism twice, put one hand on the Communication Sergeant's huge leg bundle, containing the 300 radio and spare battery, and swung out the door, the Communication Sergeant exiting almost simultaneously. As the Company Commander checked his canopy, he heard the Communication Sergeant, a few feet away, swearing. The 300 radio was plummeting to the ground. A fragment or projectile had severed the webbing attaching it to the Communication Sergeant's harness. All jumpmasters of Company H were watching the No. 1 Plane intently, and the instant his parachute blossomed, the remaining nine planes emptied almost as one, although the green light jump signal had not flashed. The jump was purposely short by about one thousand yards to aid in accomplishing the mission. One or two planes fell burning, but the crews had exited first. The jump, like the flight in, was perfect. All sticks were very compact due to the slow speed at exit time. The center man of aircraft No.1 was within ten feet of the spot where he had been told he would land. There was little or no firing on the ground. The airborne phase was over. (36)

#### THE GROUND PHASE

The Company Commander immediately tried to contact the platoon leaders via 536 radio. They would not work, as had been expected. All platoons were in sight, rapidly moving in their assigned directions. The Company Commander, with his plane load, less those delegated specific duties, made a rapid swing of the area and moved directly to the Battalion assembly area. (Map D) The group was fired on several times but the enemy would immediately withdraw on a run. Many empty uniforms were found at

(36) N, p.2; O, p.2; Personal knowledge.

positions, indicating the local defense forces were intent on escaping by mingling with the civilian population. (37) At the Company portion of the Battalion assembly area, all sticks were assembled and reports being compiled. (The SOP for H Company was that each jumpmaster have one copy of the plane loading manifest, with name, rank, and serial number of each jumper. In addition, each platoon leader carried copies of his platoon manifest, and company copies were carried by the Company Commander, Executive Officer, and First Sergeant. Upon assembly, the jumpmaster of each aircraft forwarded one copy, with the appropriate notations, to Headquarters Section. These copies were the basis for the morning report.) There were no jump injuries and no casualties<sup>?</sup> in accomplishing the first phase of the mission. The total losses for Company H were one officer and fourteen men, in the plane shot down, all listed as MIA, four men wounded and returned to England in the aircraft, two men lightly wounded and present for duty, and one jump refusal. (38) With this report the Company Commander checked into the Battalion Command Post (Map D), arriving there at 1345 to find the Company Commanders and the staff assembled. All were unanimous in praise of the perfect drop.

H Company losses were the heaviest of the Battalion, in fact, their one aircraft was the only one of the Division shot down prior to jumping. (39) To demonstrate the flexibility of an airborne operation, when any company must be able to perform the operation of any other, H Company was completely assembled and equipped. G Company, whose mission was a road block at Alverna, <sup>G LUNEA</sup> was not completely assembled. Accordingly, the Battalion Commander directed that H and G Companies change missions. As the

(37) Personal knowledge; (38) N, p.2; O, p.2; (39) E, Annex 3.

Company Commanders left on the double, they found that G Company had completed their assembly under the Executive Officer and had formed on the road toward Alverna, while H Company under their Executive Officer was formed and waiting to move in the opposite direction. Rather than turn the Companies, the G Company Commander pointed to Alverna, H Company pointed to Grave, and the companies moved out on the double. The Company Commanders concerned notified the Battalion Commander they were on original missions again.

H Company moved into positions astride the road (Map D) with the Second and Third Platoons across the road facing north, and the First Platoon facing south. Two mortars were faced north, one south, since the sweeping of the area indicated little or no threat from Grave. Civilians reported approximately five hundred Germans in the town of Grave. At about this time the Battalion received word that the Grave bridge, No. 11, was entirely in the hands of the Second Battalion. (40)

At 1630 hours, the H Company Commander dispatched a patrol, of one officer and nine men, to the Maas River at the old ferry site opposite Grave. The patrol was to remain there and observe. The officer and one man were to return with a report on possible river crossing sites. (41)

At 1700 hours H Company moved forward to block any movement from Eindeschstraat, and along the Grave-Nijmegen road. Their previous position was rendered unnecessary by the success of the 2d Battalion. The Second Platoon was responsible for Nederasselt and the area to the river; the Third Platoon was responsible for the area from Nederasselt to the Grave-Nijmegen road, the First Platoon forming the perimeter rear. The area was occupied with-

(40) Personal knowledge; (41) N, p. 2; O, p.3.

out incident.

1730 hours on D-Day found all Regimental Objectives secured. (42) Action within our Battalion area was very light. The Second Battalion, less one platoon guarding the northern approach of bridge No. 11, were all south of the Maas. All assigned areas had been cleared and patrols were probing well out of the perimeter.

H Company remained in their positions for the remainder of D-Day.

D PLUS ONE

Action on D plus One was very light. All units of the battalion maintained their positions and patrolled vigorously in all directions from the bridgehead.

H Company dispatched two squads of the Third Platoon to Wijchen. One tractor trailer of about fifteen ton capacity, three motorcycles, and one prisoner were captured. The enemy deserted the town burning their vehicles. No casualties to H Company.

Beginning at about 1430 hours, four hundred and fifty gliders passed to our right, bringing in three battalions of artillery, one AT battery, and the Medical Company, landing on LZ "N".

Upon return to the H Company perimeter of the Third Platoon, two squads of the Second Platoon were assigned the mission of penetrating to the town of Hernen, capture transportation, and in general keep the enemy off balance. Two captured enemy motorcycles were attached for transportation of the machine guns, reconnaissance, and communications. The patrol encountered no enemy and consequently no prisoners or vehicles were taken.

(42) E, p.2; O, p.3.

Returned to the Perimeter at 2130.

All elements of the Second Battalion moved south of the River Maas, extending their zone to the south. I Company posted a two-man guard at the north end of Bridge No.11.

Third Battalion S-2 Section patrolled to Niftrik and returned encountering no enemy. (43)

B-24 Bombers brought in resupply at DZ "O" at 1620 hours. Drops were at a very low altitude but poorly concentrated. About eighty percent was recovered, the best record to date. (44) In this resupply it so happened that boxes of rations, detached from parachutes, struck company and platoon CP's, burst open, and scattered rations all through the company area in true fox-hole delivery. However, as movement was unrestricted, a more concentrated delivery was desirable.

All available men of Company H, less patrols and skeleton defense crews, were immediately put to work stock piling ammunition first, then rations, in convenient piles throughout the area.

The Battalion S-4, with assistance of Dutch civilians, farm wagons, and those animals the Germans had left to the Dutch, immediately began concentrating these small piles to larger ones. This was soon taken over by the Division G-4.

Jeeps and trailers began to appear on the roads from the glider lift. One section of 57's was attached to the 504 Parachute Infantry. The 376 Parachute FA Battalion, in general support of the Division, reverted to direct support of the 504 Parachute Infantry.

The situation appeared to be well in hand as of midnight, 18 September 1944, ending D plus One.

(43) P, p.2. (44) E, p.3; personal knowledge.

D PLUS 2

Ground contact with the Guards Armored Division was made south of Grave at 0820. (45) Columns of tanks and trucks, closely packed together, passed through the area. One column of light armor moved toward Nijmegen by way of Alverna and Honinghutie, and one column, with heavy tanks, by way of Heumen. (46)

With the exception of one patrol in the morning, Company H had only to watch the armor going through the area. One man was wounded on the patrol.

Company H received a warning order to move north later in the day.

In the overall plan of the Army the 101st Airborne Division had accomplished their mission as evidenced by the arrival of the Guards Armored Division. All missions of the 82d Airborne Division had been accomplished with the exception of the seizure of the highway bridge at Nijmegen. The Division Commander was now free to concentrate his available forces to secure this objective.

The 504 Parachute Infantry, less one company of each battalion, moved to Jonkers Bosch. The Second Battalion left one company to guard the bridge at Grave. First Battalion left one company to guard the bridges at Honinghutie and Heumen. G Company of the Third Battalion was assigned to patrol from Honinghutie to Grave and protect the west flank of the Division. The movement of the Regiment was by foot via Alverna, Honinghutie to Jonkers Bosch. Third Battalion, less G Company, closed in their area at 1800 hours, and set up a perimeter defense with Headquarters, H and I Companies on the outer perimeter and

(45) E, p.3; N, p.3; (46) A, p.177; personal knowledge.

Battalion Command Group in the center.

At 1830 hours the Battalion received orders to move at once to Hill 81 between Dekkerswald and Groesbeek as division reserve, to bolster a threatened area. (47) G Company was to follow in rear of the Battalion. The order of march was: H, I Headquarters, and G. The Battalion closed in the assigned area at 2130 hours and received a warning order to move at 0730 the next morning back to Jonkers Bosch. The Battalion hastily organized a perimeter defense and allowed men to get all possible rest.

### D PLUS 3

Third Battalion closed from the division reserve area on Hill 81 at 0730 transported by British trucks to Jonkers Bosch. Approximately ten enemy fighter aircraft "buzzed" the trucks as the troops hastily unloaded. For some reason they did not strafe or return.

During the period of the movement of the Third Battalion, the First and Second Battalions of the 504 Parachute Infantry, with Irish Guards Tank Battalion attached, were attacking and cleared the area from Jonkers Bosch to the Waal River in their zone of action. (48)(Map D)

At 0900 hours, the Third Battalion received a warning order that they would make an assault crossing of the River Waal that afternoon to secure the Nijmegen Highway Bridge. The Battalion Commander, Battalion S-3 and the Company Commanders immediately went forward on reconnaissance. The crossing was to be launched between two large buildings on the south bank of the river. These buildings, the power plant of the area, were located outside the western limits of the city of Nijmegen. Reconnaissance

(47) E, p.4; (48) E, p.5.

was limited somewhat as snipers still occupied the area. Machine guns from the town and opposite banks of the river kept the roof clear. From a position inside the building, one man at a time could get a good view of the area to be attacked. (Map E)

The map study and visual reconnaissance brought out the flat low area. All roads and the railroad were on top of dikes. These dikes cut the area into compartments. The ground in between was flat and level. With the exception of narrow deep drainage ditches, in regular straight lines, there could be no cover. Grazing fire was limited only by the maximum of the weapons fired.

The entire area was dominated by ancient Fort Hof Van Holland some 800 yards north of the river and 800 yards west of the railway embankment. The entire fort was surrounded by a moat some 75 feet wide.

Between the river and Fort lay a dike topped with a hard surface road parallel to the stream, denying observation and flat trajectory fire into the area immediately behind the dike. Extending from the highway bridge west to the railroad bridge, the dike was low, rapidly increasing in height as it continued westward to the Fort.

Extending westward from the Fort to the river ran an irregular line of trenches and emplacements, varying from 600 to 1000 yards from the river over very flat ground.

The river presented a formidable obstacle some 1200 feet in width, with a strong westward current estimated at eight miles an hour.

During our reconnaissance, Troop Carrier Command delivered supplies to forces at Arnhem. A veritable wall of small arms and flak greeted them from the area north of the Waal, all the way to Arnhem, indicating the German forces in our attack area

were present in strength.

It was possible for our troops, now moving up under battalion control, to move into covered positions along the rear of the dike the buildings were on. Tanks of the 2d Irish Guards would support the crossings by fire from positions on the dike. The Second Battalion, 504 Parachute Infantry, would support the crossings by fire from positions along the dike. (Map E) First Battalion, 504 Parachute Infantry, would follow the Third Battalion. The 376 Parachute Field Artillery was in direct support, to be supplemented with all available British Artillery arriving constantly. All artillery was to fire a ten minute concentration on the target area. Dive bombers and rocket firing typhoons were to bomb and strafe from 1445 to 1455. The area to be smoked at 1455 by artillery and mortars. (75mm howitzer and 81 mm mortar, not as satisfactory as desired.) Tanks were to fill in blanks of the smoke to the limit of their capacity. H-Hour was set at 1500 hours. (49)

Twenty-six collapsible boats were on the way forward from the 43d British Division. All boats were to be used in each wave, the first wave to consist of H and I Companies and the Third Battalion Command Group. The balance of the Third Battalion in the second wave. Succeeding waves to transport the First Battalion.

The Battalion plan of attack was to carry the trenches, bypass the Fort on the north side, move directly to Arnhem-Nijmegen highway and attack south down the highway. G Company, in the second wave, was to go into position astride the highway, block any movement on the highway, and protect the rear of the battalion. H and I Companies, in the first wave, were to attack south along the highway, I on the left (east), H on the right (west), and

(49) E, p.5; O, p.3.

seize the northern end of the highway bridge.

The Forward Observer from the 376 Parachute Field Artillery Battalion was attached to H Company with priorities of fire to H Company. The 81 Mortar Observer was attached to I Company with priorities to I Company.

Company C, 307 Airborne Engineers would furnish three men to ~~men~~ each assault boat.

Third Battalion arrived at the dike about 1400 hours, was divided into groups of thirteen men (capacity of boats 16 men) and placed along the dike in order of the crossing.

The boats arrived at 1430 and were hastily assembled. They were collapsible canvas boats, steered by a large wooden tiller, with 8 paddles, similar to canoe paddles, for power. They would carry only ten men in addition to the crew of three engineers, making necessary a quick revision in loading plans. The aerial phase of the attack was under way by this time. The company attack order had been issued and all men were aware of their assignments. H Company was to clean out the trenches in their area, all three platoons and Company Headquarters abreast, continue the advance to the cover of the first dike, reorganize, and attack due east north of the fort to the Arnhem-Nijmegen highway. Second and Third Platoons abreast, 3d platoon on the right, first platoon following the third, the second platoon was to keep visual contact with I Company on the left. Wire communication was to be left behind the rear CP. Each man was to carry the basic combat load, dropping one bandoleer, immediately upon crossing the river. The SOP was varied so that all equipment and ammunition was to be suspended from pistol belts and suspenders with belts left open, in order that all equipment could be removed

swiftly. No life belts or <sup>"</sup> Mae Wests <sup>"</sup> were available.

A rear command post was set up at the dike under the First Sergeant, leaving a supply group, and lightly injured men whose conditions had been aggravated by the marches and countermarches of the past twenty-four hours. They were, by using carts, to bring resupply of small arms and the wire communications across the river whenever possible.

The smoke cover was laid down at 1455 hours, but it was readily apparent that it would be insufficient, as had been feared. The first wave picked up boats and started across the dike at 1457 hours, and immediately came under small arms fire from both sides of the river and the railroad bridge. The wave was halted momentarily by a high wire fence placed by the power company parallel with the river. The H Company Commander cut one of the steel posts with a gammon grenade, and pressure of the men dropped two sections of the fence. All the boats of the first wave funneled through the gap thus created. The organization was mixed up somewhat in this funneling process. The Company Commander attached himself to the first boat, but as it was placed in the water it immediately sank. The current was swift enough to knock down those men in water over their waist, and they had to swim back to shore. The Company Commander discarded all equipment and assisted a non-swimmer back to the southern edge. He was so weakened by the struggle with the current that he could not pull the soldier completely out of the water, and left him half in and half out of the stream. (This incident is mentioned by contrast to a news dispatch that stated some men stripped to one bandoleer and their rifles and swam across the stream to participate in the fight.) The Company Commander then joined the

third boat to be launched. This boat lost two engineers prior to launching; immediately after launching, the third engineer at the steering tiller was knocked out of the boat. His place was taken immediately by the Platoon Sergeant, who quickly had the boat back on course. One by one the men wielding the paddles slumped forward, until about twenty yards from the north bank there were only two paddles operating. The Company Commander leaped into the water with the bow rope and pulled the sinking boat ashore. The boat was beached along a pile of rocks some two hundred yards west of the intended landing area. The three dead and five wounded were placed in what cover the rock afforded. Surviving was the Company Commander, the Platoon Sergeant, and the Company Medic. The flat ground was being swept by fire. The Company Commander picked up a Thompson Sub<sup>MG</sup> with a bag of clips and the three left on a run for the trenches. An average of one man was killed in each boat, although boats 4 and 5 of H Company escaped with none wounded or killed.

Of the twenty-six boats thirteen were lost in delivering the first wave. Of these, eight succeeded in returning to the south bank. Time was lost in the delivery of the second wave because the boats landed downstream and had to be manhandled to the launching sites. These eight boats were rapidly reduced to one, but the engineers, with complete disregard of their own losses, continued their trips until the mission was accomplished.

H Company continued through the trenches on the run, finding them generally deserted except for a few Germans who were killed, most of whom were huddled in dugouts seeking protection from the heavy fire from the south bank. The Company continued, almost without pause, to the dike. Reorganization was hasty, as

small arms fire was coming from the south bank. Some of this may have been from the friendly forces covering the advance. The platoons were of about equal strength, with some attachments of about sixteen men each. The weapons section had one 60 mm. mortar and eight rounds of ammunition. The Command Group consisted of the Company Commander, Communication Sergeant, with 300 radio, three messengers, the Forward Observer, whose assistant and radio were lost on the crossing, and about five men of the mortar section. This group picked up several stragglers and fought as a platoon in addition to other duties. The Second and Third Platoons crossed the diked road abreast in the first wave and continued toward the railway embankment, through the orchards, and along the ditches. They were followed closely by the Command Group. A German machine gun squad, displaced from the dike, opened on these platoons from the rear just as the Command Group came over the dike directly on top of them. Six Germans were killed in stride with no losses to the Command Group. Machine guns were mounted by the Germans in the protection of the north and south ditches, but in almost every one they neglected to cover the east and west ditches or occupied them too far forward. BAR or TSMG assault fire in these ditches rendered them untenable. Advancing swiftly up these ditches the attackers could then render flanking fire on the occupants of the north-south ditches, who hastily withdrew to the next line. Some 20 to 30 remained in position and were killed. With the Second and Third Platoons about halfway to the railway embankment, heavy 20 mm. fire was received from Fort Hof Van Holland. The Fort had not been damaged by the aerial bombardment and two sets of dual 20 mm. guns at the rear of the Fort, protected from the tank fire on the south bank, were firing into the rear of the company.

The First Platoon could not, from their positions, bring effective fire on the guns, and it was necessary to commit the group under the Company Commander. The 60 mortar ammunition was fired here and the <sup>TUBE?</sup> gun abandoned. The crew kept the Germans from the 20 mm. guns while one-half the force swam the moat, climbed the sides of the Fort and cleaned out the chambers directly under the gun, destroying some eight to ten enemy. They then continued in the rear of the Second and Third Platoons. As this group neared the same positions where the assault echelons had received fire from the Fort, they too were brought under 20 mm. fire. A messenger was dispatched to the Platoon Leader, First Platoon, to clean out the Fort and disable the guns. This was quickly accomplished with one casualty, the Platoon Sergeant, who continued with his unit for the remainder of the day. Twelve to fourteen enemy were accounted for this time. The First Platoon lost contact with the Company at this point, and the Company Commander did not regain control of this platoon until late in the evening. The Fort remained a definite problem all afternoon, as it consisted of many layers, until it was completely cleared by the First Battalion later in the day and occupied as the Regimental Command Post. Some thirty prisoners were taken by the First Battalion, plus inflicting numerous casualties to the enemy, before the Fort was (written off as) captured.

The Second and Third Platoons reached the railway embankment at about 1600 hours. All efforts to cross the embankment were repulsed by heavy fire. Grenades were exchanged over the dike. Many machine guns, including 20 mm., fired grazing fire along the top of the railway embankment. Men were dispatched south along the embankment in an effort to penetrate through culverts or to find an underpass. An unfortunate incident occurred because a

group of civilians occupied a concrete shelter under the railway embankment. The attacking force, seeking an entrance through the embankment, found the shelter, believing it to be a passageway and hearing voices, tossed in gammon grenades and assaulted the position, severely wounding two young women among others. The chamber did not have an exit on the east side.

In the assault of the embankment, one 88 mm. anti-tank gun and one smaller caliber AT gun, mounted on top of the embankment covering the railway bridge, were neutralized. The guns, dug in, were not physically in our possession, but could not be reached by the Germans as long as we remained within a few feet of them.

The Company Commander then directed that the attack be shifted south along the railway embankment to seize the northern end of the railroad bridge, pass under the railroad bridge, and attack the highway bridge from the west, with the right flank secured by the dike parallel to the Waal. This, if successful, would give us one bridge across the stream. The Second and Third Platoons pressed this attack with vigor and quickly overran the exterior positions. Here the Second Platoon was joined by a force of about ten men under the Company Commander of I Company. These two forces immediately attacked toward the highway bridge.

At about this time the Company Commander of H Company was joined by the Third Battalion Commander and his S-3. They were alone, having lost their command group in the crossing, and without communication were having a difficult time trying to regain control. We were the first elements they had contacted. A few minutes later this group was augmented by a force of about eighteen from various companies, organized as a platoon under the Assistant Platoon Leader, First Platoon, H Company. The entire force moved immediately to the railway bridge. A concrete and

steel fort had been constructed within the abutments of the railroad bridge. With one group of six men keeping the embrasures under fire, the remainder of the Third Platoon, consisting of eight men, entered the abutment, found the passageways in the dark and emerged into the fort. The squad leader, leading the assault (only one man could go up the narrow winding steps at a time), was severely wounded, but he killed and wounded several Germans. The remainder of twelve to fourteen surrendered. These were the first prisoners H Company had taken all day.

The H Company Commander had been trying to contact the Regimental Commander, advising him that the railroad bridge was in our hands and requesting tanks to cross the railway bridge. The Battalion Commander approved these recommendations and, with the attachment of H Company's radio and operator, attempted to get in touch with Regiment and elements of the other companies.

H Company Commander effected a quick reorganization of the First and Third Platoons, equalized their strength and dispatched the Third toward the highway bridge. Most of the First Platoon was placed to protect the railroad bridge, with one group dispatched back to the crossing site in an attempt to get ammunition. The supply was now very critical. A three man patrol was dispatched north along the west side of the embankment to contact the First Platoon Leader and his group, have them move to the railroad bridge and contact any friendly forces in the area.

At about 1630 hours, immediately after the occupation of the bridge, a message from the Regimental Commander, via radio, stated that tanks would act on the railroad bridge.

The southern edge of the bridge was not yet in our hands, but increasing pressure from the units on the south bank was

causing many Germans to try <sup>to</sup> ~~and~~ withdraw across the bridge. These units made several counterattacks across the bridge, which were easily dealt with. One did succeed in reaching within hand grenade distance of the fort, but was promptly killed. Many Germans, now hopelessly cut off, attempted to escape by jumping from the bridge. <sup>by platoons</sup> The men were shooting them in the air until stopped by the Company Commander due to the shortage of ammunition. Two German machine guns were mounted <sup>by platoons</sup> to sweep the long axis of the bridge, and the German situation was now hopeless. One of the German prisoners, who could understand English, was ordered out on the bridge to tell the Germans to cross to the south side and surrender. He was shot by the Germans pinned on the bridge. They were again swept by machine gun fire, and many leaped from the bridge even though they were not over the river. None surrendered at this time.

The Company Commander, H Company, remained at the railway bridge with the Battalion Commander until about 1830 hours, with approximately one-fourth of his known force, to attach to the tanks when they crossed the railroad bridge. At about this time tanks were heard on the northern side and were soon identified as British. They had crossed the highway bridge and were working over the area north of the highway bridge. Elements of the First Battalion, 504 Parachute Infantry, began to gather at the railroad bridge. The defense of the bridge was turned over to them and the remnants of Company H moved out quickly in the wake of the Second and Third Platoons, who had been attacking the highway bridge. The platoons had met considerable resistance from Germans occupying houses along the road. The houses were set on

fire and the enemy killed as they fled. Several were effectively blasted with a captured German Panzer Faust. Progress was slow but very steady. At about 1938 hours, the Second Platoon, H Company, and the group under Company Commander of I Company reached the highway bridge. They were joined within a few minutes by the Third Platoon of H Company and the Command Group. The Second Platoon Leader and the Squad Leader of I Company cut all wires leading to the bridge. I Company established a Command Post in the abutments and dispatched their men to the east. The First Platoon of H Company pushed to the north about four hundred yards and occupied positions astride the road. The Third Platoon occupied the west side of the bridge. The Second Platoon of H Company crossed the highway bridge to the south side. There were many Germans in the girders of the bridge, firing into the area, and many more Germans in the immediate vicinity of the bridge, all disorganized but quite capable of serious trouble, if they realized it.

The situation of the group at the highway bridge was critical. Although they were in possession of the objective, many of the men were without ammunition. Nearly all were down to the last clip. Messengers were dispatched to the Battalion Commander informing him the bridge was in our hands and requesting ammunition. The 300 radio, now with the Battalion Commander, was the only link with the south side. The Second Platoon Leader had expected to contact friendly troops on the south side of the bridge, but the Infantry had not arrived as yet. The Battalion Commander and S-3 arrived at the highway bridge. They had been promised ammunition to be delivered across the highway bridge. The mortar section of H Company was rounding up prisoners in the vicinity of the bridges and had about one hundred gathered underneath the railroad bridge.

They were being collected and guarded by men whose total amount of ammunition was approximately twenty-five rounds.

Prior to contact being made with friendly units, the tractor trailer captured by H Company on D plus One, driven by the Third Battalion Supply Officer and escorted by the Regimental Munitions Officer, roared across the bridge, loaded with ammunition. With all men busy and under some fire, it was speedily unloaded by a high ranking detail consisting of the above two men, the Battalion Commander, Battalion S-3, and the Company Commanders of H and I Companies. The truck returned to our area safely. With the resupply of ammunition the Second Platoon of H Company recrossed the bridge, capturing fourteen Germans in the girders, and killing several more. This time they contacted elements of the 505 Parachute Infantry. Patrols were sent out with instructions to have the Third Battalion assemble on the highway bridge and reorganize. A platoon from First Battalion, of about twenty-five men, reported in to the bridge and were immediately attached to H Company to strengthen the defense of the bridge.

With the situation now fairly well in hand the Battalion Commander left to report personally to the Regimental Command Post, now located in Fort Hof Van Holland. The reorganization of the Third Battalion was completed under control of the Company Commander, Company H. The Battalion Commander returned at about 2300 hours with orders to continue the attack toward Arnhem. All this time the highway bridge was strangely quiet. The enemy, disorganized and in great confusion, suffering heavy losses, should not be allowed to rest and reorganize. Prior to the physical occupation of the northern end of the bridge, eight light tanks had crossed. Two of these were destroyed just north of the bridge. No others crossed on the 20th.

Within the Third Battalion, G Company losses were light, with approximately ninety-five officers and men present for duty. H and I Companies, who had borne the brunt of the losses in the river crossing and carried the lions share of the fighting, were about forty-five officers and men each. With H and I Companies equal in strength, a toss of the coin decided that G and I Companies would continue the attack at 0430, with H in reserve. This attack is not included in the subject of this monograph.

The exact extent of enemy losses will probably never be known. Many prisoners were turned over to the first British troops to be contacted, in order to get rid of them. H Company turned over one group of twenty-six, and another of about ninety. One hundred and sixty-four were passed through U.S. channels credited to the Third Battalion. Two hundred and sixty dead were counted on the railroad bridge alone, eighty dead on and in the vicinity of the highway bridge. (These are unofficial estimates.)

As of midnight, 20 September 1944, all objectives of the 82d Airborne Division had been accomplished. The Division, however, remained in line, holding their gains and increasing them until 12 November 1944.

#### ANALYSIS AND CRITICISM

Operation Garden-Market was designed to quickly and cheaply gain a bridgehead over the Rhine River, with the possibilities of extending northward to the Zuider Zee, trapping some 200,000 German troops, and preparing a springboard to launch another metaled arm to encircle the Ruhr, the industrial heart of Germany.

The intention of the overall plan was good, involving sound military doctrine and could have been accomplished.

The method of accomplishing the objective was to drop airborne troops ahead of the advance and seize all key points with a rapid advance by one corps in a column of divisions. Thus creating a salient more than sixty miles long. The total force including airborne troops to initially hold this front was six divisions. Far too small to accomplish this mission, especially when they must also fend off attacks from the rear. If the 8th and 12th British Corps could have advanced in their sectors the overall mission could have succeeded. As it was the troops involved were in the unenviable position of having a lion by the tail.

The greatest significance of Operation Garden-Market was the employment of the First Allied Airborne Army. Here, for the first time, all phases of an airborne operation were integrated under one command. The accuracy and efficiency of the organization could not be questioned and the pattern of future operations was laid. Had weather permitted, the full use of this arm, it is almost certain that the operation would have succeeded to the extent of securing a bridgehead across the Rhine.

In the zone of the 82d Airborne Division the area assigned was far too large for one division. The known enemy in the area consisted of eight battalions. The force to destroy them consisted of nine battalions. With the advantage of surprise and strategical placing of the attacking force, the disposal of the original defending force was relatively an easy matter. However, to dispose of these forces, then occupy and defend a twenty-five mile perimeter against an enemy having the initiative and forces to concentrate, is too great a job.

That the division did succeed in holding this perimeter is due to the major waterways that greatly facilitated the defense

of that area and the high morale and fighting qualities of the individual soldier.

In any airborne operation especially, but in any combat operation, speed of movement and the spirit of the offensive must be highly developed in all units.

At first glance it would appear that some of the formations used by Company H were unorthodox. That is not true. The decision to move out on the attack prior to assembly of the company is a departure, but remember that the units were being placed by squads in the exact location they would have to maneuver to get into were it a ground operation. The Company had a series of missions that would have required the platoons to be widely separated. There is little percentage to be gained, when speed is of the essence, to assemble and split. The training and conditioning of the unit must enter into such a decision. Here each platoon leader was combat experienced and aware of the entire company problem. Had the formation spread, or the jump been made at a higher speed, with greater dispersal, the assembly would have come first.

Company unity would have been gained in the first ten minutes had there been adequate communication between the platoons and company. The 536 radio was worthless in this instance. It was carried only in the hope that the terrain might be favorable enough, as it was in Africa, to get the rated capacity of the set. It is believed the new AN-6 will solve many of the difficulties of assembly. If it does not, each platoon must have a 300 radio.

At the river crossing the use of three platoons and the command group abreast in the assault of the trenches was a logical formation. It was the best that could be employed in this situation where speed in crossing the flat terrain was essential.

In this same attack, the Battalion Order should have provided for the Battalion to stop and reorganize at the dike. Here the Battalion and Company Commanders could have regained some control of the units.

This attack, a devastating whirlwind affair, with each small unit determined to close with the enemy and destroy him regardless of the odds, paid high tribute to the skill, determination and the training of the small units involved. Lt General Sir Miles Dempsey, Commanding the British 2d Army, witnessed this attack from a vantage point within Nijmegen and was so impressed that when he met the Division Commander, Brigadier General James Gavin, later, stated: "I am proud to meet the Commander of the finest troops in any division in the world."

Adequate communication in this attack would have had absolutely no bearing on the outcome of this action, but it would have definitely eased the minds of the commanders involved. It also may have spurred efforts on the south side of the river, or could have arranged for a concentration of troops on the south side ready to sweep across the bridge the instant both ends were secured, to strike the badly beaten and disorganized enemy. This should have been prepared in any case. There can be little doubt that a determined, coordinated attack launched that evening would have swept on to Arnhem where the bridge across the Neder Rijn was still being held.

The greatest criticism that can be directed against the assault crossing of the Waal was that it was made in that manner. In airborne operations of the future there must be an adequate reserve of troops and aircraft ready for employment, as any commander keeps a reserve, with adequate communications from the

advance base to the rear. These troops if available could have been flown across the barrier. One other regiment which was available at the base, brought in on D-Day, D plus One or Two, would have made the crossing unnecessary.

Ducks were available in the 43d Division, as these were used to transport troops the following day on the roads. If these had been brought forward in lieu of the assault boats, assuming this was practical, they could have been introduced into the river under cover in the area just to the rear of the last building. (Map E) The troops could have been transported across the river more quickly in a concentrated mass. In addition the 50 caliber machine gun could have been used against some of the weapons firing and the troops would have been able to return fire while making the crossing and point out, by tracers, to the supporting weapons, the many positions that were raking the river.

The Division remained in action at the airhead until 12-13 November, fighting as infantry. A situation to be avoided unless dictated by extreme tactical necessity. One airborne division in the line can be held in place by one enemy division. Poised at an airhead ready to take off, or threatening to do so, it can tie up as many as five divisions to guard the areas it can threaten.

#### LESSONS/LEARNED

1. It is not only possible, but highly desirable, to move armies by air. This is not a new concept but it is merely observing the principles of War. These principles also cover unity of command.

2. Daylight employment of airborne troops is highly desirable. Formations can be tightened, time length cut and drops made with greater accuracy. The assembly of units will be expedited and enemy movements of reserves retarded by the support-

ing, air arm. In any airborne movement of any size, complete air superiority is essential to success.

3. The closer airborne units can jump to their objective, the greater the speed and surprise of the ground attack and the higher the chances of success.

4. Aerial resupply is highly unsatisfactory. In a drop of supplies, as on D plus One, when a portion of the drop landed in H Company area, there is bound to be great dispersion and losses of material. Approximately one-third of the force supplied is needed to assemble and separate the materials.

5. The value of a two-way attack on bridges was clearly demonstrated in this operation. Conversely, in the defense of bridges, defense must be arranged in a perimeter around the bridges, to include covering the waterways.

6. The value of a coordinated fire plan was clearly demonstrated in the assault crossing of the Waal. If the Germans had sited their available weapon so as to cover one final protective line in the river, the assault crossing would have failed.

7. Defense of a built up area, containing inflammable or partially inflammable buildings, is vulnerable to fire when heavier weapons are not present.

8. The gammon grenade is a very effective weapon in close-in fighting, but the weight, bulk, and limited range are very definite limitations.

9. The best weapon used by Company H in house-to-house fighting during the entire Holland Campaign was the German "Panzerfaust" with the "80" head. Its limited range in this operation was a greater problem than supply.