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INFANTRY IN ATTACK OF
A FORTIFIED POSITION

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PREFACE

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For the purpose of clarity in this monograph and also as an aid to the reader, annexes have been chronologically arranged in the sequence in which reference is made to them. By utilizing this method of referral--linking each historical example mentioned during the course of the discussion to a separate annex--it is felt that the reader's visualization of the actions of a particular unit will tend to become more vivid in his own mind inasmuch as a geographical representation of that action is thus available for his perusal.

To avoid any misconception as to the meaning of the term "fortified position" insofar as is applicable to this monograph, it might be defined thusly: "...A typical prepared defensive system of fortifications consists of a number of mutually supporting strong points, such as concrete emplacements called 'pillboxes'...". (5:103) Another method of defining the term is as follows: "A fortified position is a defense which contains numerous steel and concrete works. The defensive works usually consist of fortified weapons and emplacements, protected troop shelters, entrenchments, and obstacles." (8:79) To best illustrate the definitions as stated above, a cross-section of a typical emplacement of the Siegfried Line has been included as ANNEX A, (1:1) and the trace of the "West Wall" as ANNEX J.

"The point of view expressed in this paper is that of the author--not necessarily that of the Infantry School or the Department of the Army."

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INTRODUCTION

Throughout the history of Mankind from its very inception when Neanderthal Man first devised the most effective weapon of his day--a pointed stick improved by the addition of a flint cutting edge--thus becoming the most feared warrior of the Old Stone Age (500,000 B.C.-35,000 B.C.), through the advent of the Atomic Era, wherein nations now possess the awesome secret of being able to unleash destruction on a scale never heretofore paralleled; Man has continually waged war. In so doing, he has developed certain techniques of military strategy designed primarily to bring about the day when he finally emerges triumphant over his antagonist. From these humble beginnings, the evolution of military doctrine has slowly developed through the centuries until today it is embodied in a set of truisms known as the "principles of war" which are nothing more than "...fundamental truths governing the prosecution of war". (6:25)

It is not the intent of this monograph to discuss war in its broadest application as an appendage of national policy, nor is it concerned with elaboration of grandiose military strategem. More directly, however, the monograph will be restricted in scope to a topic which was of great concern to the United States during World War II and which will undoubtedly once again command our attention should hostilities be renewed in one of the world's many trouble spots; namely: the role of Infantry in the attack of a fortified position, and more specifically, the intelligence and reconnaissance aspects that must not only be considered prior to the attack, but which must be developed to the maximum in order to permit a commander to take full advantage of all available information likely to affect the accomplishment of his mission.

The history of military operations is replete with instances in which fortified positions played a decisive role in the conduct of a campaign.

"It is stated that Peter the Great, at the Battle of Pultowa, which terminated in the total defeat of the Swedish Army, owed his success to intrenchments which he had had the foresight to construct in front of his line of battle, upon the night before the action." (19:2) During the course of the Civil War, General Sherman remarked that he was unable to dislodge the enemy at New Hope Church by virtue of the fact that they were too strongly intrenched. (19:8)

It is important, therefore, that we as Infantry commanders fully appreciate the important role that intelligence and reconnaissance play in an operation of this nature. Regardless of whether or not the fortified position is considered to be a series of two or three mutually supporting pillboxes holding up the advance of a rifle company, or a tremendous, partially subterranean fortified complex on the magnitude of Gibraltar, the principles to be observed in its seizure and destruction are similar; only the actual techniques of operation may vary in scope slightly.

The reduction of a fortified position by a commander who has previously analyzed all possible information concerning the characteristics of the position based both on previous reconnaissance and the combined efforts of the intelligence agencies at his command follows doctrine which is certainly not new. This may readily be seen by the following statement which appeared in a text published in 1882 for use by the cadets of the United States Military Academy. "Whatever be the kind of assault, it should be preceded by reconnaissance, made as full as possible, for the purpose of ascertaining the best and easiest approaches to the work,...the numbers and kind of troops composing the garrison...." (19:221) That same principle is in evidence today as contained in FM 100-5, which states in part that one of the special considerations involved in the attack of a fortified area should include detailed intelligence upon which training and plans can be based. (6:151)

It will be the purpose of this monograph, therefore, to attempt to prove the validity of the principle as outlined on the preceding page, and by the use of historical examples taken from experiences encountered by United States forces in World War II, certain aspects of the intelligence and reconnaissance problems peculiar to attacks on fortified positions will be discussed and certain conclusions drawn therefrom. The reason that both intelligence and reconnaissance have been considered in the same vein is that they are so closely interwoven, a discussion and analysis of one excluding the other would tend to present a distorted point of view insofar as attacks on fortified positions are concerned.

It should be brought out that the research for this monograph was conducted from sources available at the Infantry School Library, Fort Benning, Georgia.

DISCUSSION

Early on the morning of 10 May 1940--at 0530 to be exact--the German High Command unleashed the might of the "Wehrmacht" by sending its divisions across the frontiers of Holland, Belgium, and Luxemburg; thereby announcing to the world that the invasion of the low countries had now become reality. One of these divisions rolling westward astride the Aachen-Maastricht road had assigned a portion of its advance guard--an Engineer assault detachment of battalion size with two attached Infantry companies--a mission for which it was singularly prepared; namely: the assault and destruction of Fort Eben-Emael. This fortress was considered by many military experts at the time to be "...one of the strongest fortifications in Europe...", (18:78) and was the keystone of the strongly fortified line in the Albert Canal region located just across the Maastricht complex. The entire force had been motorized for the mission and therefore arrived at Maastricht within one hour of crossing the Belgian border. After very little delay, the unit succeeded in crossing both the Meuse River and Albert Canal thus placing itself on the west side of the canal about four miles from the fort itself. Fort Eben-Emael was located on a bluff about two hundred feet above the surface of the canal overlooking both the canal and the Meuse River. From this dominating height, it overlooked all approaches and appeared indeed to be unassailable. (ANNEX B)

During the remainder of the day, the assault detachment made no attempt to initiate an attack but waited until nightfall to secure the assault boats it had previously used in crossing the Meuse. Early the next morning, after a preliminary bombardment on Fort Eben-Emael by the "Luftwaffe", and under the protective fire of the attached Infantry, the Engineer assault detachments moved forward in the attack. By using their explosives, flamethrowers, and cratering charges, the Germans were able to

reduce the works and emplacements one by one until by 1250 hours on 11 May, the Belgian commander surrendered the fortress and the siege of Fort Eben-Emael was terminated. (18:88)

History reveals therefore that although only thirty hours had elapsed after the invasion of Belgium, the mighty Fort Eben-Emael had been reduced with a minimum of difficulty by the German forces. Yet, when one considers that the garrison numbered approximately 1,300 officers and men, it is apparent that the fort had not been lightly defended. (18:87) To what then did the Germans owe their success in this venture? The answer lies in the fact that extensive preparation had been undertaken prior to the start of the operation. The German General Staff had gone to painstaking effort to accumulate and analyze all the possible available data concerning the dispositions of the fortification of Eben-Emael. The units which participated in the assault had rehearsed for weeks on a duplicate fort which had been constructed in Germany until all personnel were familiar with the location and calibre of weapons, type of demolitions needed to reduce any particular portion of the defenses, and the terrain surrounding the fort together with its approaches. True, it must not be overlooked that the rapidity of the German advance from the time the troops first crossed the border did catch the Belgian defenders by surprise and contributed materially to the reduction of a position considered until then to be "...all but impregnable". (18:87) However, the detailed and thorough information concerning the fort which had been gathered previously and the preciseness of the rehearsals which had been conducted prior to the attack being launched played the decisive role in the final capture of Eben-Emael. It must also be taken into consideration that Engineer troops were utilized to excellent advantage in this operation since they composed the greater portion of the assault force, but whether Engineer or Infantry, each man knew his job in advance and thus the entire operation was able to proceed like clockwork.

If at no other time prior to this, the seizure of Fort Eben-Emael in so short a time proved to students of military tactics that hitherto so-called "impregnable" fortresses could be successfully reduced if the enemy possessed the needed intelligence concerning its defenses and was able to take maximum advantage of this fact. In the example discussed above, the Germans were particularly fortunate in that they were familiar with the intimate details of the fort; not only did they know how best to reduce it, but they also had information concerning details of construction, thickness of the concrete reinforcing walls, location of the best avenues of approach, strength of the opposing forces, and generally those salient items of information which greatly facilitated their plan of assault. It is too much to expect that this abundance of information will always be readily available, but in any case in this instance the Germans utilized fully a principle which was later to appear in an Army Ground Forces Board report concerning assaults on fortified positions and which was expressed thusly: "Thorough planning and preparation, as well as rehearsal and review, are absolutely essential to success...". (1:6)

The assault of Eben-Emael was not merely a fortuitous occurrence which had been decided upon by the German General Staff at the last minute, but a deliberate carefully planned maneuver designed to take its proper place in the schedule of the "blitzkrieg". The fortress was a critical objective dominating the approaches to Maastricht, and could not therefore, as stated in FM 100-5 be "...bypassed or neutralized and later reduced by siege or an attack from the rear". (6:150) Despite the fact that intense effort had been made by the attacker to systematically ferret out the needed information concerning the defenses of Eben-Emael, its swift capitulation more than justly exemplified that the lesson learned had not been in vain, and that there is no adequate substitute for proper utilization of intelligence.

During the fall of 1944 when United States troops were participating

in campaigns in Germany involving penetrations of portions of the Siegfried Line, senior commanders emphasized in various reports the importance of proper coordination of intelligence and reconnaissance measures in any operation devoted to attacks on fortified positions. One of these reports, written by the commanding officer of the 1st Battalion, 117th Infantry Regiment, expressed the feelings of the author as follows: "...Using the mosaic supplied by Corps, supplemented with oblique photos, each company in the battalion constructed a sand table replica to scale of its zone of action. All officers and non-commissioned officers studied it until thoroughly familiar with every detail. Assault teams were also rehearsed on similar terrain in the rear. This training proved invaluable". (2:1) A division commander (not identified in the report) stated that: "...Our division, in its preparation for the assault on Siegfried Fortifications has made effective use of the Maginot Line. Rifle platoons have been put through problems in the attack of fortified positions using the areas with wire and pillboxes as the training ground. We have found the training valuable as it permits detailed planning and practice for assault teams as well as exercises involving coordination in all areas..." (4:1)

Violation of the concept of thorough preparation and full utilization of intelligence and reconnaissance agencies to secure all available data on fortified positions likely to be encountered may result in the unnecessary failure of a unit to seize its objective primarily through lack of sufficient information and not by virtue of an unsound tactical plan. The historical example as briefly discussed below dealing with the operations of Company G, 385th Infantry Regiment, 76th Infantry Division, in an attack against pillboxes of the Siegfried Line near Minden, Germany during the period 19-22 February 1945 is a case in point.

On 3 January 1945 the American First and Third Armies launched a counteroffensive to reduce the salient produced as a result of General

Von Rundstedt's unsuccessful attempt to reach the port of Antwerp in the last German offensive action of the war known to all as the "Battle of the Bulge". By 28 January 1945, Allied pressure forced the German Army to retire to the protective bastion of the Siegfried Line along the Ardennes Front. (22:3) The Siegfried Line in this area was a "...continuous line of fortifications running generally adjacent and parallel to the Western border of Germany. The fortifications of the line itself in this sector included reinforced concrete emplacements and shelters plus obstacles of concrete, steel, and earth." (12:81) On 29 January the Third Army, spearheaded by the XII and XIII Corps, resumed its offensive into Germany. This time it had the mission of crossing the Sauer River, securing a bridgehead, and pressing the attack relentlessly. The XII Corps assaulted across the Sauer with the 5th and 80th Infantry Divisions. The 5th Infantry Division, on the Corps right flank, was reinforced with Combat Team 417 of the 76th Infantry Division, the first time any element of the 76th participated in an offensive operation. After four days of fighting, the 5th Infantry Division managed to establish a bridgehead across the Sauer River, and at 1200 hours 11 February 1945 Combat Team 417 reverted back to 76th Infantry Division control. On that same date, the division was given the mission of expanding that portion of the Sauer River bridgehead in the zone of the 417th Combat Team. This operation was carried out in the succeeding five days, until by 16 February the 385th Infantry Regiment had completed the relief of the 417th Combat Team and now occupied the high ground between the Prum and Sauer Rivers. (22:3-10)

On 17 February 1945, the 385th Infantry Regiment was given the mission of expanding the Sauer River bridgehead by attacking towards the Prum River. "This position, deep in the outer defenses of the Siegfried Line, faced an average of 40 pillboxes to the square mile....The Germans, employed in their mutually supporting pillboxes, had good fields of fire on any attacking

force...." (22:6) The 2nd Battalion of the 385th, one of the attacking units, devised a plan which called for the attack to be launched by Companies E and F with Company G initially in reserve. For three days, Company G occupied reserve positions in this area. (ANNEX C) Although the 2nd Battalion, at this time, was faced by the fortified positions and pillboxes of the Siegfried Line, there is no indication of any attempt by the unit to either reconnoiter in force to determine exact locations of the fortifications, or to avail itself of patrols in an attempt to discover the extent and dispositions of the fortifications. "The enemy situation was vague. The company was in battalion reserve and had little information of the enemy facing the 2nd Battalion. Doubt existed as to whether the pillboxes were enemy occupied." (22:7)

At approximately 1200 hours 19 February, Company G received the mission of advancing along Company E's right flank and seizing three pillboxes on a hill northwest of Minden, Germany. The attack was to start at 1400 hours and by the time the company commander had been oriented, and he in turn had oriented the platoon leaders and pointed out the direction of attack, there was little time for any detailed ground reconnaissance. Limited visibility from the line of departure prevented the company officers from properly analyzing the terrain to the objective. In addition, there were dense woods in each company zone of action. The company plan of attack was to have the 1st and 2d platoons as the assault echelons with the 3rd platoon in reserve. As scheduled, Company G crossed the line of departure, but within a short time the 3rd platoon lost contact with the leading elements when its radio ceased functioning. At 1500 hours the 3rd platoon leader reached the edge of the woods, halted his platoon, and went on reconnaissance in an attempt to regain contact. The company commander, in the meantime, attempted to seize the objective with his remaining platoons but upon emerging from the woods, the platoons were taken under fire and unable to move. The entire company

therefore withdrew to the positions it had just vacated and because of approaching darkness, the attack was called off until the next day. The company dug in for the night and prepared to resume the offensive commencing at 1400 hours 20 February. (22:11)

Again during the following morning, there is no evidence of any attempt to either reconnoiter or determine from the Battalion S-2 the latest enemy information available. Starting at 1300 hours that afternoon, intense artillery fire fell on Company G and continued until dark. Any movement forward was met with fire, so once again the attack was postponed. A new plan was formulated which called for the attack to be resumed at 1000 hours 21 February. The attack was launched as planned and although the personnel of Company G were as uninformed on the enemy situation as they had been the preceding day, the pillboxes were finally secured by early afternoon. (22:12)

A major factor in the initial failure of this operation can be traced to the commanders concerned not realizing the value of previous reconnaissance and not taking advantage of the intelligence agencies at their disposal. Even thorough map reconnaissance would have somewhat alleviated the lack of ground reconnaissance performed, particularly when it is realized that the company was in reserve for three days prior to its commitment and yet the commander concerned knew so little of the enemy situation when his unit finally was committed. An all-out effort to initiate ground reconnaissance by personnel of the 2nd Battalion would have substantially assisted the commander in determining the identity and location of the enemy in opposition since "...It alone (ground reconnaissance) can make positive enemy identification and can determine whether terrain is occupied or unoccupied by the enemy". (6:53)

No doubt existed that there were fortifications in the area which had to be reduced; the question, however, resolved itself into exactly where were they located and in what strength were they defended. It is felt that

aggressive ground reconnaissance would have provided a large portion of the answer. Company G, therefore, required three days and made several attempts to seize an objective well within its capabilities, an objective that should have been reduced on the first attempt and in a matter of hours.

An historical example which illustrates how effective can be the combat operations of a unit when it has prepared for and has been fully briefed on conduct of attacks involving reduction of a strongly defended fortified position is discussed below. The unit concerned is the 1st Battalion, 363rd Infantry Regiment, 91st Infantry Division, in its seizure of Monticelli, Italy during the period 13-17 September 1944.

A brief description of the general military situation at the time follows. "Activity along the entire Fifth Army front, following the successful conclusion of the Arno River Campaign, was characterized by intensive preparation for the impending assault on the Gothic Line." (15: 83) On 13 August 1944 II Corps, of which the 91st Division was a part, relieved the division of its previous mission--protecting the right flank of the Fifth Army--and moved it to the rear in the vicinity of Gambassi to commence a period of intensive training in the reduction of fortified positions. This training was conducted in anticipation of operations the following month which would involve breaching the Gothic Line in order for the Fifth Army to continue its advance. For the remainder of the month of August, the 91st carried out the training program outlined by II Corps. Intensive patrolling, terrain reconnaissance, and assault techniques for seizure of fortifications were some of the subjects stressed. (15:85)

On 25 August 1944 II Corps issued Field Order No. 12 which assigned the 91st Division the mission of seizing Mount Calvana and Highway 65 just south of San Piero. (15:93) This operation was expected to be the first in a series of engagements in which the Germans would briefly occupy delaying positions until forced to withdraw to their main defensive positions in the Goth-

ic Line. This prediction proved accurate as the various regiments of the division continued their advance up the face of Italy in the face of stubborn enemy resistance. Finally, on 11 September 1944, the 363rd Infantry Regiment was given the mission of seizing Mount Altuto, Monticelli, and Mount Castel Guerrino in that sequence--the first of the Gothic Line positions which would have to be seized. (15:97) (ANNEX D)

"Monticelli,..., was one of the most important positions in the Gothic Line....(It) constituted the anchor of the Gothic Line in the 91st's sector." (15:99) The following description more clearly illustrates the type of objective now facing the regiment. "Monticelli is a rocky, cone-shaped peak, 3,000 feet high, wooded three-fourths of the way up, but devoid of any cover or concealment in the last six-hundred feet before the summit. On its sides pillboxes and dugouts were built in such a way as to afford protection for each other....Row after row of barbed wire, one foot high and twenty-five feet wide were placed at 100-yard intervals to the top of the mountain." (15:99)

The attack plan conceived by the commander of the 363rd was to have the 1st and 2nd Battalions lead the attack followed by the 3rd Battalion initially in reserve. The 1st Battalion was then occupying positions north of St. Agata while the 2nd Battalion was in position northwest of Ponzalla. (ANNEX E)

At 0600 hours 12 September the 363rd launched its attack for Monticelli but because of the extreme ruggedness of the terrain and dogged enemy resistance, was unable to seize it that day. On 13 September the attack was resumed and although leading elements of Company F managed to push within 500 yards of the crest, again the objective could not be seized. The Germans had built their pillboxes in such a manner as to incorporate every advantage of terrain and fields of fire, together with such longrange observation as could be obtained from the firing apertures of the pillboxes.

Despite the efforts of the 1st Battalion staff in obtaining detailed maps of the area, most of the enemy positions on them were not accurately recorded. Briefings had been conducted prior to the start of the operation and as previously mentioned rehearsals in this type of assault had been conducted for several weeks prior to the commitment of the unit; yet neither battalion was able to successfully maneuver close enough to the objective to put into practice the techniques they had studied. Throughout the day of 14 September small patrols from the 1st Battalion were dispatched with the mission of capturing prisoners of war in order that they might be interrogated as to the dispositions of the pillboxes on Monticelli. It was not, however, until that night that a patrol from Company B succeeded in doing so. Interrogation of the several prisoners captured revealed that a small dip extending along a ridge on the west slope of the mountain would offer partial concealment to a unit's using that avenue of approach. Accordingly, on 15 September Company B, using that approach, managed to partially outflank the main positions of Monticelli and finally seized a toehold on the crest of the ridge. The remainder of the 1st Battalion was then ordered to reinforce Company B in its exposed position and although the entire battalion was subjected to several counterattacks during the night of 15-16 September, the Germans were unable to dislodge them from their precarious position. On the morning of 16 September the attack was again resumed and once again the battalion was obliged to move painstakingly forward reducing individual pillboxes as they were encountered. Although more positions had been reduced by nightfall of 16 September, the crest was still in enemy hands. The battalion, therefore, consolidated its gains and awaited the coming of daylight to resume its offensive. (15:104)

That night it was decided to make a final assault on the morning of 17 September with the 1st and 2nd Battalions launching a coordinated attack starting at 0525 hours. The 3rd Battalion, by virtue of excessive casual-

ties it had suffered in the day's previous fighting, was to be in reserve. The attack lasted the entire day and by 2240 hours that evening, elements of both battalions were just short of the crest. At dawn the following morning after an intense artillery preparation which had continued throughout the night, the 1st Battalion resumed the offensive and by 0840 hours the objective was secured. (15:110)

Here is an operation in which the personnel involved had spent considerable time developing techniques which they thought would prove successful. Rehearsals had been staged, the type of terrain over which the operation was to be conducted had been studied, intelligence estimates as to enemy strengths and dispositions had been copiously gathered and analyzed; yet, despite these measures it took the combined efforts of an entire regiment to reduce one complex of a fortified position. It must not be overlooked that in this instance terrain definitely favored the defender and therefore made the mission of the 363rd Regiment that much more difficult to accomplish, but despite this, one fact clearly emerges. That is that in any operation of this nature, despite the reconnaissance and intelligence that is done prior to the start of the attack, despite the completeness of the rehearsals and excellent training of the personnel, not a single source of information that might be of assistance in the attack should be neglected; in this case, interrogation of prisoners of war was the key that opened the door to success. "...The search for information of the defender's position is a continuous process...." (8:86) This is but one other consideration that is a part of the overall intelligence effort directed towards finding means of correctly interpreting the most current enemy dispositions.

Another historical example in which every opportunity was taken for prior ground reconnaissance, thorough planning, and the utilization of intelligence agencies to procure up to the minute information regarding type of fortified positions likely to be encountered is an account of the opera-

tions of the 1st Battalion, 291st Infantry Regiment, 75th Infantry Division in its attack on Wolfsgantzen, France on 5 February 1945.

The 75th Infantry Division arrived in England in November, 1944. It saw its first action when it was committed in December as a part of the Allied effort which successfully halted the German offensive in the Ardennes during the "Bulge". Upon completion of that campaign, the division was utilized to assist in cleaning up the Colmar Pocket. The role one of its units played in that operation is the one to be discussed in the following pages.

On 31 January 1945 the division began its attack to the south in conjunction with the 3rd Division on its left and the 28th Division on its right; the mission being to seize the line Horburg-Wolfsgantzen. For this attack the units of the division were initially employed with the 289th and 291st Infantry Regiments leading and the 290th Infantry Regiment in reserve. (20:9)

At 0745 hours 1 February 1945 the 291st Infantry launched an attack with a two-fold mission of maintaining contact with elements of the 3rd Division on its left and seizing the eastern (left) portion of the division objective. Throughout the first day small progress was made in the face of determined enemy resistance and by the morning of 2 February, the 291st had reached the edge of the woods overlooking Wolfsgantzen. (ANNEX F) For the next three days, the 2nd and 3rd Battalions attempted various seizures of Wolfsgantzen but each time German counterattacks prevented the objective from being taken. (20:10)

On 5 February it was decided by the regimental commander that the 1st Battalion would attack Wolfsgantzen at 1400 hours that day supported by all available artillery and with a tank company and platoon of engineers attached. The regimental attack order was received by the 1st Battalion at 1000 hours that morning at a time when the battalion was disposed with all

three companies on line---Company C on the left, Company B in the center, and Company A on the right. (ANNEX G)

When the attack order was received, the battalion had been occupying its positions for the past two days and three nights. "Patrolling and reconnaissance had been continuous throughout this period...." (20:12) Detailed information had been obtained concerning location of enemy pillboxes and fortifications together with an accurate estimate of enemy strength in the zone. Patrols had further discovered that an excellent approach existed along the Windelsolen Canal in the form of a sunken road. (20:12) Captured prisoners of war revealed valuable information as to future German plans. "...it was learned that their positions (Wolfsgantzen) were one of the last remaining defenses protecting the narrow escape corridor being used by the German Nineteenth Army in its withdrawal from the area south of Colmar...." (20:13)

The battalion commander, therefore, possessed sufficient detailed information about the enemy together with the additional information brought to him by the patrols sent out from the 1st Battalion to make a complete estimate and adopt a course of action most likely to ensure success. In line with this, he directed that a sketch of the town be drawn together with its defenses whereby it was then possible to give each company detailed instructions and assign specific areas of responsibility for seizure and consolidation of the objective. Thorough coordination was achieved by all elements participating in the attack, so that the time which the battalion spent occupying the woods' line overlooking the objective was well and profitably used. "...Most of these...plans were made by the battalion commander and his staff prior to receipt of the order for the attack. At various intervals during this period he informed his company commanders of his plans and they passed the word down to their platoons and squads. As a result, when the attack order was received at 1000 hours 5 February every man in the battalion

had a good idea of where he was going, what he was going to do, and why."
(20:18)

The battalion attack order was issued orally to the company commanders and representatives of attached and supporting units at 1030 hours 5 February. At that time also a copy of the sketch of the town's defenses was given to each assembled commander. The order called for Companies A and C to launch a coordinated attack with Company B initially in reserve prepared to be committed in the zone of either attacking company.

At 1400 hours the companies crossed their line of departure, and by 1800 hours the objective had been seized and the battalion was in the process of reorganizing in a perimeter for the night. (20:28) "...Prior to midnight all major elements of the battalion had closed into town. Check of the companies disclosed the battalion's losses in the operation were two killed and seven wounded. Enemy losses were estimated at 160 captured, and an unknown number of enemy killed or wounded...." (20:30)

Once again as a result of careful prior planning, ground reconnaissance, and proper utilization of intelligence agencies, a fortified position was taken in a matter of four hours wherein previous attacks on that same objective by other battalions of the regiment had failed during a three day period.

It has been mentioned previously in this monograph that as United States troops developed more experience during the latter stages of World War II in the seizure of fortified positions, it soon became apparent that one of the measures needed to help ensure success was thorough ground reconnaissance and timely use of all available intelligence information on the type and disposition of the particular fortification to be reduced. This concept was not only voiced by commanders in the field, but was specifically mentioned in a report submitted by the Army Ground Forces Board in the European Theatre of Operations. An extract of a portion of this report reads as follows:

"...Preparation (technique of a typical assault) must include complete recon-

naissance on the ground, terrain study, and map and aerial photographic study. Exhaustive study of terrain is necessary as many pillboxes were not shown on 1:25,000 overprint." (1:4) Another military writer expressed essentially the same thought by stating that one of four essential elements necessary to successfully reduce a fortified position was complete knowledge of enemy installations and doctrine. (9:28)

The operations of the 2nd Battalion, 9th Infantry Regiment, 2nd Infantry Division, in its attack on the pillbox sector at Wehlersheid, Germany from 13-16 December 1944 illustrates how inadequately the above principles were adhered to initially, thus preventing the unit from accomplishing its mission until this situation was rectified.

The 2nd Division landed on Omaha Beach on 7 June 1944. It was committed through France, and after participating in the reduction of Brest on the Breton peninsula, it relieved the 4th Infantry Division in the Schnee Eifel Forest, Germany on 4 October 1944. The division, in turn, was relieved by the 106th Infantry Division on the night of 10-11 December, when it then proceeded to vicinity of Elsenborn, Belgium in preparation for resumption of an attack northeast to the Roer River. (13:82) (ANNEX H)

On 11 December 1944, the 9th Regiment received the mission of attacking astride the Krinkelt-Rocherath-Wehlersheid Road to seize Wehlersheid and to be prepared to continue the attack north on order. At the time of receipt of this order, specific detailed information as to location of enemy units was unknown although his general order of battle had been determined. In addition, knowledge as to location of pillboxes in the area was vague. "...No detailed information was available as to enemy dispositions in the area as the 9th Infantry Regiment closed in...." (13:83) "It was known, however, that the line was held by elements of the 277th Volksgrenadier Division, with the 991st Infantry Regiment at Wehlersheid." (13:84) "...Patrols sent out to contact the enemy and reconnoiter for obstacles

were unable to definitely locate the pillboxes...." (21:2)

The commanding officer of the 9th Regiment, in his order, directed the 1st and 2nd Battalions to attack abreast at 0830 hours 13 December to seize by surprise the pillbox area at the Wehlersheid Road Junction and to be prepared to continue the attack to the north on order. The 3rd Battalion, in reserve, was to follow the 2nd Battalion. (21:3) (ANNEX I)

The S-2 of the 2nd Battalion, immediately upon receipt of the regimental order, went to contact elements of the 395th Infantry Regiment (99th Infantry Division)--then outposting the proposed line of departure--for the purpose of gaining any additional current information regarding terrain, obstacles, and enemy dispositions. Aerial photographs of the area were made available to the 2nd Battalion staff, and plans for the attack were made primarily from these maps because of the nature of the densely wooded terrain in the battalion's zone of action. Coordination and planning continued throughout 12 December, until at 1930 hours that evening the battalion order was issued. The attack was scheduled for 0830 hours 13 December with Companies F and G in the lead followed by Company E in reserve. (21:4)

Despite the efforts of the battalion staff in procuring intelligence information, no ground reconnaissance was initiated prior to the start of the attack nor were patrols sent out that night to discover what they could of the location of the pillboxes facing them. Consequently, when the attack started, the commanders concerned still did not have more than a vague idea of the location of the fortifications to their front.

At 0830 13 December the attack commenced as planned but neither leading company was able to make substantial progress in the face of heavy fire emanating from hitherto unlocated pillboxes. During the remainder of the day five pillboxes were located and destroyed primarily by trial and error but the objective still remained in enemy hands came nightfall. The regimental commander thereby ordered the battalions to consolidate their gains

and resume the attack at 0800 hours 14 December with the 2nd and 3rd Battalions assaulting and the 1st Battalion in reserve.

This time, during the night patrols were dispatched in an attempt to definitely locate enemy pillboxes, and although several were located, the main defensive line of the enemy was still not known. At 0800 hours the attack was resumed but again the story was the same. "...3rd Battalion fared no better than had the 1st and 2nd Battalions the previous day. Guns located in pillboxes of concrete and steel, swept all obstacles with withering small arms fire and observed mortar and artillery fire...." (21:19) By early afternoon, neither battalion was making any progress so once again the attack was stopped and the units withdrew to their previous positions.

During the morning of 15 December enemy artillery slackened in the zone of the 2nd Battalion and by 1200 hours had ceased altogether. (21:21) The battalion commander thereupon ordered an intensification of ground reconnaissance for the remainder of the day in order that the patrols might have ample opportunity this time to seek out the locations of the fortifications and study the approaches to them. His efforts met with some success, since "...pillboxes, suspected heretofore, were definitely identified and located." (21:21)

This information was promptly forwarded to regiment, and with this new information in his possession, the regimental commander decided to continue the attack that night by employing a different technique. His plan now envisioned an infiltration through communication trenches to the pillboxes beyond. It was believed that the first row of pillboxes, locations now known, could be destroyed by daybreak and the attack continued.

At 1700 hours that evening, the infiltration order was issued. Its concept was simple. A patrol from Company G would depart at 2000 hours under cover of darkness, overcome the obstacles, systematically surround each pillbox, and then demolish them with prepared demolitions.

The rest of the plan called for the remainder of Company G to follow the patrol, which in turn would be followed by the 2nd Battalion (-) and the 3rd Battalion, in that order.

Prior to the patrol's departure, each man was completely oriented on the location of known pillboxes, routes were carefully picked, terrain analyzed, and assault teams assigned and rehearsed. The patrol departed as scheduled and by 2400 hours the 2nd Battalion had penetrated to a depth of 300 yards within the pillbox sector. The 3rd Battalion thereupon proceeded through the gap created and by 1000 hours 16 December both battalions had moved through completely, destroyed the pillboxes, and captured Wehlerheid. In so doing, the 2nd Battalion seized 24 pillboxes, captured 161 of the enemy, and killed or wounded many more. (13:85)

Once more, terrain reconnaissance and utilization of intelligence gained proved its worth in an operation of this nature. An initial failure had been redeemed, but it was not until these two factors were brought into play that the battalion was able to accomplish its mission. Throughout this monograph, with the use of historical examples as an illustration, an attempt has been made to discuss the effectiveness to which reconnaissance and intelligence can be put if properly applied in situations involving attacks on fortified positions. No claim is made that rigid adherence to these principles alone at the exclusion of all others will result in unqualified success one hundred percent of the time, but the claim is made that failure to observe the rudiments of these principles and to take advantage of them will make success in this type of operation very remote indeed.

It should also be brought out that certain corollaries exist in the overall intelligence and reconnaissance picture that are worthy of note and which should be mentioned since they form an integral part of this discussion.

The first of these concerns interrogation of civilian residents of an

area in addition to normal interrogation of prisoners of war. This possible additional source of information is even more likely to produce tangible results in situations where the enemy has occupied a country and in so doing has incurred the wrath and hatred of the civil population. During the entire Allied campaign in France during World War II, the anti-Nazi "underground" was active in its endeavours to assist the Allied effort which it considered to be a force of liberation and not an enemy force. "...The Russians also made considerable use of the civilian population for intelligence missions, using them to obtain desired reports on the enemy situation."

(3:37) How does this factor have any bearing on attacks of fortified positions? It does in this way. In many instances, civilians may have been pressed into forced labor groups to assist an invader in either constructing or strengthening existing fortified positions. Thus they often possess detailed knowledge not only as to the location of the positions, but also information regarding structural characteristics and possible weaknesses of the position in question. Quite often, they are more than willing to reveal this information if handled by skilled interrogators. The classical example of a situation in which exactly these conditions were prevalent is found in the region of Alsace where the residents of the area were quite aware of the extensiveness of both the Maginot and Siegfried Lines, both in the process of construction shortly before the outbreak of World War II. Sympathizers with divided loyalties were quite willing to reveal what they knew to either the French or German faction.

Another factor to be considered is the value of aerial photographs. True, they assist the ground commander in innumerable ways as far as facilitating his task of reconnaissance, study of the objective area, and terrain analysis. They are not the complete answer, however, since although the aerial photograph will reveal the existence of a well camouflaged fortified position, it will not always reveal the location of the embrasures or firing

slits, nor will it reveal whether or not the pillbox is occupied--this assuming the enemy is a well-trained, disciplined soldier cognizant of the fundamentals of concealing his whereabouts. The primary value of the aerial photograph is that it is current as no map can ever be, and that it is an excellent indicator of recent enemy activities in the region as far as movement is concerned. Only aggressive, carefully planned ground reconnaissance can definitely locate occupied pillboxes or fortifications of a similar nature. This is brought out in the historical example which follows.

One of the major stumbling blocks to the German infantry and armored columns in their advance through Russia was the heavily fortified zone of Krasnogvardeysk, south of Leningrad, during early September of 1941. "Here the enemy had employed the most modern system of field fortifications ever encountered on the Eastern Front." (3:65) Its tactical importance lay in the fact that it blocked all the highways and railroads leading to Leningrad. (3:63)

"...The defense system of Krasnogvardeysk had been prepared long in advance and consisted of an outer belt of concrete and earth bunkers.... At a distance of 1,000 to 3,000 yards behind the outer defense belt there was an inner one consisting of a heavily fortified position encircling the periphery of the town....All the fortification installations were underground. The defense was carried out in subterranean passages which were established along terrain steps and were equipped with well camouflaged embrasures. The heavy weapons likewise were in subterranean emplacements which were invisible from the outside....There were even concrete pillboxes with disappearing armored cupolas for artillery and machine guns.... All installations were interconnected by underground communication passages...." (3:62-66)

The detailed description of the defense system above has been inserted so that the reader may fully appreciate the task confronting the German

commander in attempting to reduce a fortress of such magnitude. It would seem at first glance that employment of the normal means of tactical formations together with utilization of conventional armaments would hardly be sufficient for the task at hand. Also, one must consider the tenaciousness with which the Russian soldier is known to possess when he is defending his homeland.

As would be expected, the Russians defended their position persistently, and repeated attacks by several German infantry divisions could not breach the defenses. It was finally decided by the German Corps Commander to assign to the 6th Panzer Division the mission of breaking through the Leningrad Line in this area by attacking Krasnogvardeysk from the rear.

(3:64) It was only after following a plan of attack based on precise aerial photographs that the division was able to crack the outer defense belt in the village of Salyzy. Battalion after battalion of German infantry was poured into the gap created and the Russian withdrew to their inner defenses. Here the story was slightly different. "...The next day, pursuing German infantry divisions bogged down before the heavily fortified positions." (3:65)

For two days, the Germans butted their heads against against a seemingly invincible wall. Were they utilizing the principles of reconnaissance in attempting to penetrate this fortified complex? Yes, but "...Neither the best ground nor air reconnaissance could spot this fortification system even at close range. Not even after its guns had opened fire could it be located,...All frontal assaults of the infantry were unsuccessful." (3:66)

How was this fortress taken then? By use of a reconnaissance patrol. During the night, a patrol had advanced into the fortified complex and suddenly encountering the rearmost outlying bunker of the position, the patrol seized it without further ado. By the most fortunate of coincidences, a

Russian military engineer--the builder of the fortification system--was among the captured personnel. Once he fell into German hands, the plans of all the fortifications within the entire defensive complex were revealed, and for all intents and purposes the battle was won. The following day the German thrust proved successful, and "...with that, the most tenacious Russian defensive battles of 1941, between Krasnogvardeysk and Leningrad, came to an end." (3:67)

The above example was deliberately chosen to illustrate that reconnaissance and intelligence are not mere watchwords applicable to small unit tactics only. In this instance an entire division was able to accomplish a mission which seemed herculean and which affected the destiny of two field armies--merely because one reconnaissance patrol was able to reduce one bunker. True, it was fortunate that the engineer was in the particular bunker at that time, but had not the patrol been utilized, his presence there would not have influenced the action one iota. Also, what factor was primarily responsible for the outer defenses crumbling in the vicinity of Salyzy? The use of aerial photographs and an appreciation of their worth, within limitations.

To sum up therefore the salient points upon which this monograph is based, or more appropriately those factors which the author has developed and attempted to prove, it might be said in closing that "...the search for information of the defender's position is a continuous process.... Vital information such as the exact structural characteristics of the emplacements is secured using all available means of intelligence and reconnaissance, and is placed in the best form for the using troops. This data, together with information obtained from aerial reconnaissance, gives the commander of the attacking force a basis for selecting the location of his main effort and for formulating his plan of action." (8:86)

CONCLUSION

In summary, therefore, the principles of intelligence and reconnaissance which must be borne in mind by Infantry units engaged in an attack on a fortified position are as indicated below. Although these considerations have been listed separately under the two main headings, this does not indicate any order of priority, nor can one separate any single item of intelligence from one of reconnaissance and consider it as completely divorced from another in the planning sequence since all are interrelated.

1. Every media of intelligence available to the commander should be utilized to its fullest extent. Specifically these measures include:
 - a. Securing and analyzing maps and aerial photographs for the purpose of determining the most current data on locations of enemy fortifications and obstacles likely to be encountered.
 - b. Emphasizing the importance of information to be gained by vigorous and continual interrogation of prisoners of war and civilian residents of the area. The benefit to be derived from these sources is directly dependent, of course, on the efficiency and availability of IPW teams. Commanders of front-line units, however, can often derive information of immediate tactical significance from civilians who sometimes unknowingly have valuable information to render regarding enemy strength and dispositions within the fortified area.
 - c. Questioning of either friendly adjacent units or units being relieved should not be ignored since such units are in a position to know something about the type fortification prevalent in the area.
 - d. Briefing of all personnel prior to the start of an attack so that individuals will be able to proceed directly to pillboxes or emplacements marked for destruction with a minimum of confusion and under condi-

tions of limited visibility.

2. Included under the reconnaissance measures to be considered are the following:

a. Utilizing patrols for thorough ground reconnaissance of the objective area. This may be the only means of definitely establishing any weaknesses existing in the fortified position by virtue of its structural configuration, or of determining the exact location of firing apertures otherwise undetectable.

b. Requesting photographic coverage of the fortified area from aircraft either assigned to the unit or available from a higher headquarters. This will prove particularly beneficial in fortified areas where ground patrols have difficulty in maneuvering either due to the terrain or to excellent observation of the enemy.

c. Utilizing engineer reconnaissance teams wherever possible to gather technical information about the fortification such as thickness of the material used, dimensions of the emplacement, and type of demolition most likely to perform the job of destruction quickly and economically.

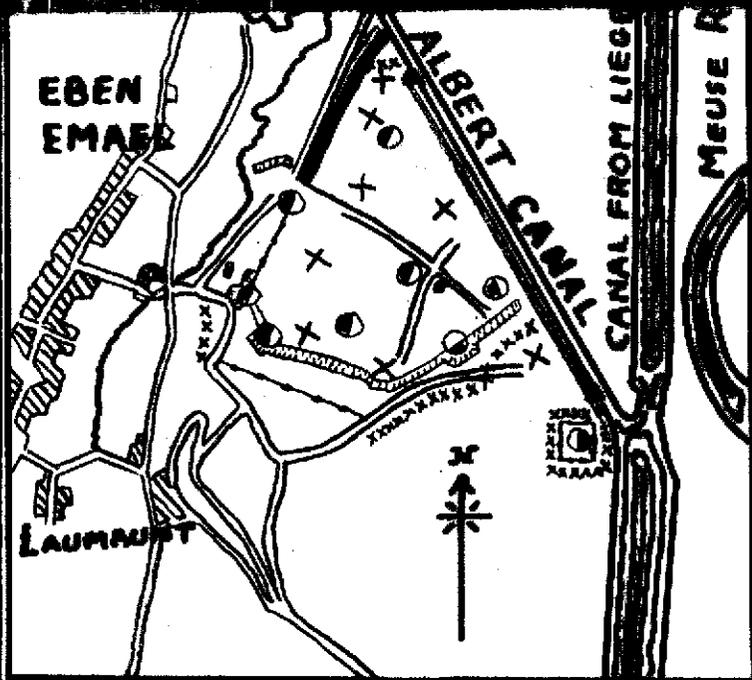
d. Rehearsals to be conducted as often as conditions permit thereby allowing personnel to develop and improve their assault techniques and to become familiar with the detailed plan of maneuver contemplated. The extensiveness of this is dependent on the time available and on the existing tactical situation.

e. Allocating sufficient time to subordinates by senior commanders, again whenever possible, to permit the subordinates to coordinate their plans and effectively conduct their reconnaissance prior to the attack.

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LEGEND

- WORK WITH ARMORED TURRENT
- + WORK WITHOUT ARMORED TURRENT
- XXXX WIRE OBSTACLE
- ▬ TANK OBSTACLE (DITCH)
- ▬ TANK OBSTACLE (DITCH w/WATER)
- ▲ PILLBOX, SMALL EMPLACEMENT
- WATER TOWER
- STRONG FENCE