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THE OPERATIONAL EMPLOYMENT
OF THE LIGHT INFANTRY DIVISION

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A thesis presented to the Faculty of
the U. S. Army Command and General Staff College
in partial fulfillment of the requirements for the
degree

MASTER OF MILITARY ART AND SCIENCE

by

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BA, The Citadel, 1970
MA, Central Michigan University, 1984

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→ The purpose of this study is to examine the operational employment of the light infantry division in contingency and reinforcement roles. Considerations for employment were identified from an analysis of doctrine, contemporary military thought, and three historical examples of the employment of light infantry. The historical examples used were the German invasion of Crete, the Falklands War, and the battle at Bastogne. Thoughts by MG Franz Uhle-Wettler, LTG John Galvin, Steve Canby, Edward Luttwak, and Michael Duffy provide an appraisal of the use of light infantry.

→ This study found that there were many similarities in the employment of light forces despite differences in environment, threat, and time. Key similarities are: operations in rugged terrain, close air support superiority, and significant artillery support. Light units habitually operated in small units and at night. Tactics are characterized by raids, ambush, and infiltration. These tactics enhance the use of light infantry in a contingency role at the tactical level. Light divisions are not as effective at the operational level. Strategically, light divisions offer a tremendous capability for employment.

This study concludes that the best employment of the light division is in a contingency role in low intensity combat. The force can operate well in either the strategic or tactical levels of war. Properly augmented and employed in restrictive terrain, light infantry can be effective against heavy forces.

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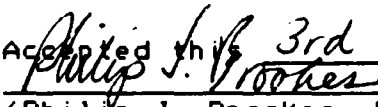
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The opinions and conclusions expressed herein are those of the student author and do not necessarily represent the views of the U. S. Army Command and General Staff College or any other government agency. (References to this study should include the foregoing statement.)

ABSTRACT

The Operational Employment of the Light Infantry Division,
by Major William A. Godwin III, USA, 180 pages.

The purpose of this study is to examine the operational employment of the light infantry division in contingency and reinforcement roles. Considerations for employment were identified from an analysis of doctrine, contemporary military thought, and three historical examples of the employment of light infantry. The historical examples used were the German invasion of Crete, the Falklands War, and the battle at Bastogne. Thoughts by MG Franz Uhle-Wettler, LTG John Galvin, Steve Canby, Edward Luttwak, and Michael Duffy provide an appraisal of the use of light infantry.

This study found that there were many similarities in the employment of light forces despite differences in environment, threat, and time. Key similarities are: operations in rugged terrain, close air support superiority, and significant artillery support. Light units habitually operated in small units and at night. Tactics are characterized by raids, ambush, and infiltration. These tactics enhance the use of light infantry in a contingency role at the tactical level. Light divisions are not as effective at the operational level. Strategically, light divisions offer a tremendous capability for employment.

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CHAPTER 1

INTRODUCTION

Army leadership is convinced, based on careful examination of studies which postulate the kind of world in which we will be living and the nature of conflict we can expect to face, that an important need exists for highly trained, rapidly deployable light forces. The British action in the Falkland Islands, Israeli operations in Lebanon, and our own recent success in Grenada confirm that credible forces do not always have to be heavy forces. Accordingly, we have committed ourselves to creating a new light infantry division structure...

General John A. Wickham, Jr.[1]

This declaration by General Wickham triggered the Army of Excellence initiatives that produced the light infantry division.[2] General Wickham's comments reflect a realization that the U.S. Army requires a balanced force designed to provide a visible, credible and realistic capability to deter conflict and should conflict occur, to terminate the conflict on terms favorable to the United States.[3]

The light infantry division represents a flexible force which is capable of employment in a wide range of geographical and hostile environments. The division is designed for rapid deployability to deter aggression and/or defeat the enemy.[4] The division accomplishes this mission through either contingency or reinforcement operations.[5]

Therefore, this study of the light infantry division will examine the employment of the force in contingency and reinforcement roles. Historical examples of the use of similar light forces will be analyzed to provide insight into the employment options for this force. Also, contemporary thought on the utility of light infantry will be discussed to explain the purpose of the force in the total force structure. The resulting conclusions will indicate how the light infantry division can be employed.

Department of the Army Field Circular 71-101 (Light Infantry Division Operations) characterizes the light infantry division as a tactical force with strategic responsiveness, lightness and flexibility.[6] The force provides the United States Army an improved capability to meet strategic demands without diverting already scarce strategic resources.[7] Further, this new force not only enhances strategic capabilities but tactical and operational capabilities as well.[8]

The employment of the light division is not limited to the strategic level of war. The division must also have utility at the operational and tactical levels. Further, the force must be capable of conducting operations at different levels of intensity (low, mid and high intensity).[9]

Since the level of intensity is independent of the level of war, a force may be involved in any or all levels of

intensity within a level of war. Low intensity conflict, for example, can be found at both the strategic and tactical levels of war.

Methodology

This chapter introduces the thesis and provides an explanation of the importance of the topic. It addresses the the questions of why the issue is significant and outlines the methodology of the study.

Since contingency and reinforcement operations are the principal roles of the light division, chapters two and three will examine these two types of operations from a historical perspective. Contingency operations considered are the German invasion of Crete in 1941 and the British expedition to the Falkland Islands in 1982. All the operations involved the use of light forces or forces tailored along the lines of the current light division. The study of these operations provides a contrast in style and operational method which adds to the understanding of the capabilities of the light division. Although airborne forces were used in these operations, this should not detract from the conclusions. World War II airborne divisions had many of the characteristics of today's light divisions.

Because of its historical significance, the reinforcement role is discussed in chapter three. The operation examined is the reinforcement of Major General Troy Middleton's VII Corps at Bastogne during December 1944 by the 101st Airborne Division. This operation offers parallels to the possible reinforcement of NATO units with a light division. Today, as in 1944, a light division reinforcing NATO will be opposed by an enemy which is predominately armored or mechanized. Such a force will severely test the capabilities of this type of division. This campaign provides an overview of a battlefield characterized by extreme violence and complexity, the epitome of the modern battlefield.

The results of the battle analysis are expected to yield operational principles or lessons learned which can be applied to the operational employment of the light division. These examples cover the spectrum of war from low to high intensity conflict and depict operations from the tactical level to the strategic level of war.

Chapter four provides an analysis of contemporary concepts of employment for light infantry. The chapter will be portrayed against the backdrop of a possible threat force, either Soviet, surrogate units, or irregular forces.[10] This backdrop facilitates a discussion of contemporary thought from several different standpoints. Specifically, the British analysis of Operation Goodwood

supports the need for light forces in Europe. Another viewpoint is provided by German Major General Franz Uhle-Wettler. Civilian writers such as Steven Canby and Edward Luttwak, and Army LTG John R. Galvin (Commander, U.S. VII Corps, Europe) help to round out the contemporary views. Field Circular 71-101 which provides the doctrinal basis for the light division employment will be included in the discussion. This analysis will identify tactical capabilities which determine how the division can be employed.

Based upon the foregoing chapters, conclusions will be developed concerning the operational employment of the light division. The conclusions will be a product of battle analysis, contemporary military thought, and doctrine. If the light infantry division is to contribute to United States military strength, the operational capabilities of the force must be thoroughly understood and correctly applied.

ENDNOTES

1. John G. Wickham, Jr. (Gen.), Army Chief of Staff White Paper on the Light Infantry Division, Army of Excellence (Washington: 16 April 1984), p. 1.
2. United States Army Field Circular 71-102, The Army of Excellence. (Fort Leavenworth: 1 May 1984). pp. 3, 5. This circular outlines the Army's efforts to provide a combat effective, responsive and balanced total force that is realistically attainable with available forces. Further Army leadership realized the need to have the ability to rapidly react to crises. Guidelines for the development of this force were that the designs would not exceed the Army's programmed end strength, determine whether the Army could be manned at ALO 2, develop a light division for rapid deployment and contingency missions, reduce heavy division strength to increase maneuverability and redesign Corps and EAC to improve their fighting capability.
3. United States Army Field Circular 71-101, Light Infantry Division Operations. (Fort Leavenworth: 31 July 1984) pp. 1-13, 14. Reinforcement operations are characterized by moving units into areas already occupied by other United States or Allied forces. Contingency operations entail deployment/employment of a unit into an area devoid of friendly forces or support bases.
4. The role of the U.S. Army and other forces is an important adjunct to the successful execution of the government's foreign policy and the protection of U.S. vital interests. The linkages between the U.S. Army and the political process are explained in Department of the Army Field Manual 100-1, The Army (Washington: 1 August 1981) and the Army Manual (Washington: April 1982). Both manuals provide a discussion of the complexity of nation-state relationships and the potential for future conflicts. Critical to protecting U.S. interests in this fluid world situation is the need to portray to future adversaries United States capability and will to respond rapidly with a strong military force if peaceful problem resolution fails.
5. Field Circular 71-101, p. 1-1.

6. Ibid, p. 1-6.

7. The 82nd Airborne Division is the U.S. Army's strategic reserve and possesses a forced entry capability. It is the only division size force with this capability available to the Chief of Staff. The use of a portion of this force in Grenada severely degraded the Army's capability to react to a simultaneous world crisis requiring forced entry. This situation will be developed further in Chapter three.

8. United States Army Field Manual 100-5, Operations (Washington: U.S. Government Printing Office, 20 August 1982), p. 2-3. This manual defines the three levels of war as strategic, operational, and tactical. The strategic level of war involves the employment of the armed forces of a nation to secure the objectives of national policy by applying force or the threat of force. Military strategy sets the fundamental conditions for operations. The operational level uses available military resources to attain strategic goals within a theater of war. Most simply, it is the theory of large unit operations and involves planning and conducting campaigns. The third is the tactical level. Tactics are the specific techniques smaller units use to win battles and engagements which support operational objectives. Tactics employ all available combat, combat support and combat service support assets. Tactics involve the movement and positioning of forces on the battlefield in relation to the enemy.

9. FC 71-101 defines the levels of intensity as follows: Low Intensity Conflict(LIC) is characterized by the limited use of force for political purposes by nations or organizations to coerce, control or defend a population, a territory, or to establish or defend rights. LIC includes military operations by or against irregular forces, peacekeeping operations, terrorism, and military assistance under conditions of armed opposition. LIC does not include protracted engagement or opposition by heavy forces. It includes combat with conventional light armed forces. (p. 2-3)

Mid intensity conflict is characterized by limited use of force for political purposes by nations or organizations to gain permanent or temporary control of territory through the use of regular armed forces. It does not include the use of nuclear weapons but may include some or all of the techniques and characteristics of low intensity conflict. (p. 2-4)

High intensity conflict is characterized by the unlimited use of force by one or more nations to gain or protect territory. It includes the use of nuclear weapons and may include some or all of the techniques and characteristics of low or mid intensity conflicts. (p. 2-5)

CHAPTER 2

CONTINGENCY OPERATIONS

The light infantry division provides an increased degree of strategic flexibility and deployability to United States Army. This added capability enhances the Army's ability to respond to the variety of challenges it might confront throughout the remainder of the century. The earmarking of light divisions to conduct contingency operations necessitates a historical overview of similar operations this force might be called upon to execute.[1]

Two contingency operations have been chosen to portray the operational employment of light forces. These operations, the German invasion of Crete in 1941 and the British reclamation of the Falkland Islands in 1982 represent campaigns conducted by light type units or units which employed the concepts of light infantry. Interestingly, both nations involved in these campaigns and the United States are also in the forefront of the discussions concerning the utility of light units.[2] The employment of light units in these three campaigns demonstrates the operational employment of light forces at the strategic, operational, and tactical levels of war.[3]

Crete, May 1941

The German offensive to conquer Crete was conducted in the latter part of May 1941. The operation, code named MERKUR, represented an initial step by the Germans to gain total control of the Mediterranean littoral.[4] The initial reasons for seizing Crete were to deny British access to the eastern Mediterranean and the Balkans and to support German operations in North Africa. In conjunction with future operations to seize Malta, Cyprus, and the Suez Canal, German grand strategy was designed to dominate the Mediterranean and cut off Britain from her Middle East empire, isolate Russia from the south, and support German operations in Africa.

Major General Kurt Student, commander XI Air Corps, presented the invasion plan for Crete to Hitler on 20 April 1941. Major General Student received enthusiastic support from Hermann Goering, who had already mentioned the concept to Hitler. At this stage of the war the Wehrmacht had completed the conquest of Greece and General Rommel was besieging Tobruk in North Africa. Although not readily apparent the plan put the Germans on the horns of a dilemma. The goal was a quick victory in the Mediterranean which would support Rommel without diverting critical troop assets

being husbanded for the upcoming invasion of Russia (Operation Barbarossa). Hitler reviewed the options of seizing Malta or Crete and somewhat unenthusiastically, issued Operational Directive 28 authorizing Operation Merkur on 25 April 1941.[5] The reason for Hitler's reluctance for the invasion is unknown. However, his reticence may have been a result of the need to conserve troops and resources for Operation Barbarossa.

Crete represents a true contingency operation not included in the original plan of conquest for the Balkans and one which was allocated a severely restricted planning period. The operation, approved on 25 April, was scheduled for execution on 20 May. It was envisioned as a very quick operation requiring ten days or less to complete.

The island of Crete is anything but a paradise. It is a jagged spine of mountains approximately one hundred and sixty miles long and between eight and twenty-five miles wide. The barren and eroded mountains dominate the entire island and determine the location of airfields, roads, and harbors. A military defender would classify the mountains impassable for unit movement. A narrow coastal zone runs along the northern coast which includes the major ports of Canea and Heraklion. Further, the topography restricts the construction of airfields to the northern coast at Maleme, Canea, Retimo, and Heraklion. The southern coast is devoid

of harbors, although Sphakia could be used in an emergency. Due to the rugged terrain, Crete has only one main road running along the northern coast from Maleme to Heraklion. Routes to the southern side of the island run either along the coast or traverse steep, rugged mountains. The principal route across the island from Canea to Sphakia constricts, in many places, to little more than a foot path.(Figure 1)[6]

The German invasion was unique in two aspects. First, the operation represented the first use of airborne forces as a separate entity. Second, the planning and execution of the operation was the sole responsibility of the Luftwaffe and not the German high command. General Alexander Loehr, commander of the Fourth German Air Force, was designated the joint commander.

General Loehr and his staff planned and executed a joint, combined campaign (with the Italians). The Fourth Air Force consisted of three elements. First, General Student's XI Air Corps included the ground combat forces and the air transport units. Second, General von Richtofen's VIII Air Corps was composed of combat aircraft. The third element was Admiral Schuster's Naval Command Southeast. The ground combat units scheduled for employment were the

Seventh Airborne Division and the Fifth Mountain Division (which participated in the conquest of Greece). General Loehr's position as the joint commander provided the Germans the flexibility to focus the combat power of the invasion force at the decisive point. This flexibility was to have decisive consequences for the success of the Germans.

General Bernard C. Freyberg of New Zealand, the commander of forces on Crete, was not as fortunate as General Loehr in regards to his command structure. Designated the overall commander by General Wavell on 30 April, General Freyberg had neither command nor control of the Air Force or Navy assets. As it turned out, the defense of Crete hinged on these two components.

The Allied forces on Crete numbered over twenty-eight thousand soldiers. Although a formidable numerical force, in point of fact, the force was very weak. General Freyberg commanded a multinational force consisting of units from Australia, Britain, Greece, and New Zealand. Most of these units had been evacuated from Greece and were tired, ill-equipped, and disorganized. The problem was aggravated by the fact that most of the units were service support elements not combat units. During the evacuation from Greece, the soldiers abandoned most of their equipment adding to General Freyberg's problems. Only the original five thousand man garrison was fully equipped. Since the

British had not planned to defend the island, weapons, ammunition, equipment, tools, and other supplies were not available to provision the large influx of soldiers. Illustrative of the problems encountered by the defenders was the lack of tools to construct fortifications. In desperation, the soldiers resorted to digging positions with their helmets.

The defense of Crete was based upon two possible invasion options. The first was an invasion of the northern coast by sea. The alternative was an airborne assault against the airfields. Neither option could be discounted, thus the defensive effort was divided. General Freyberg had enough soldiers to defend these areas, but did not have sufficient equipment. General Wavell directed General Freyberg to deny the Germans the use of the airfields on Crete.[7] Therefore, the priority of effort went to defending the airfields. Critical to the defense was the failure of the defenders to destroy the airfield runways.

General Loehr tasked the VIII Air Corps for photographic reconnaissance of the objectives and to attack Allied naval forces, air forces, artillery, and air defense positions. The XI Air Corps was tasked to conduct the airborne assault on the airfields and follow-on air landing operations to secure the island. Equipment too heavy or bulky to be transported by air would be convoyed under

Admiral Schuster's control. Items to be convoyed included all the heavy artillery, a battalion of tanks, and two battalions of mountain infantry. General Loehr had all the assets necessary for success, save one. The command had insufficient transportation assets, both air and sea, to achieve the desired success.

General Loehr's D-Day plan envisioned airborne assaults to seize the airfields. Once the airfields were secured these forces would link-up. On D plus one, the Fifth Mountain Division would airland along with the heavy equipment coming by sea and together, the two divisions would drive the British from the island. Canea, the capital, was designated the main effort. The Germans called the concept of attacking in dispersed formations the "oil spot" technique.[8] By attacking dispersed, the Germans could take advantage of success by reinforcing the area in which the greatest gains were achieved.

As stated earlier, General Loehr lacked sufficient air and sea transportation assets. Due to the lack of aircraft, the assault was conducted in two phases, one in the morning and one in the afternoon. The initial drops were scheduled in the morning at Maleme and Canea. Airborne assaults were scheduled for Retimo and Heraklion in the afternoon. The sea transport problem centered on the inadequacy of the ships to support the plan. In fact, the

ships were not ocean going vessels but local fishing boats confiscated to support the invasion. They were small, slow, lacked armament, and capsized easily. These shortcomings had frightful consequences at the outset of the operation.

The conquest of Greece required eleven days (20 May to 31 May). The campaign consisted of four distinct phases: the air war, the airborne assault, the sea invasion, and pursuit. The most critical aspects for light infantry operations are the first three.

The first phase was the air campaign. The German Air Force constantly bombed and strafed the land and sea targets. The Germans had complete mastery of the skies. The German success in driving the British from the skies was not equalled by similar successes in reconnaissance and in destroying the Allied artillery and air defense systems. The reconnaissance effort was thwarted by a failure to interpret the imagery accurately and a failure to monitor the buildup of forces around the airfields consistently. In fact, the German attack proceeded under the faulty assumption that there were approximately five thousand troops on Crete. German forces were shocked to encounter an opponent five times that size.[9] The inaccurate imagery interpretation also precluded targeting of the artillery positions. Thus, the preparatory bombings on D-Day had negligible effect on the British artillery. Conversely, the

same cannot be said for the effect of British artillery on the airborne assault force. The consequences of this oversight placed the entire operation in jeopardy.

Because the air and sea campaigns are inseparably linked, sea reinforcement will be examined prior to the land campaign. Just as the Luftwaffe controlled the skies, the British Navy controlled the sea around Crete. Admiral Schuster's efforts were hampered by an absence of German ships. The Italian Navy was tasked to provide escort ships for the makeshift flotilla. Planners assessed this weakness in naval strength as a risk which might imperil the invasion. To compensate for this weakness, the plan dictated that the convoys sail at night to avoid British destroyers.

The German effort was in vain. The first of two convoys departed Piraeus, Greece on the evening of 20 May only to be recalled several hours later when British destroyers were detected in the area. At 0900, 21 May the convoy was rerouted to Crete. This time the convoy almost slipped through. Unfortunately, it was intercepted at 2300 off Cape Spatha, just short of Suda Bay. The flotilla was routed with the British sinking most of the transports.

The second convoy departed Piraeus on the morning of 21 May. Like the first, it too was recalled to Greece in order to save it from the fate suffered by its predecessor.

The British war ships were subsequently sunk or driven from the area around Crete by the Luftwaffe. Although the German Air Force defeated the British Navy, the effort was too late because the British had effectively cut the sea line of communication. The sea line was never restored and the invasion force never received the heavy artillery and tanks considered necessary for success. The land forces were denied these critical assets which would have greatly facilitated the conquest of the island.

The invasion of Crete began at 0800, 20 May with glider infantry landing near the airfields and beaches at Canea.[10] Simultaneously, German forces were landing near Maleme. Both operations were preceded by heavy aerial bombardment to enable the paratroopers to secure initial objectives without difficulty. The opposition was not without warning. In fact, General Freyberg had known for two days that the invasion was scheduled for the twentieth. He gained this information from the interrogation of two captured fliers rescued from the sea after being shot down.

The initial assaults were conducted in the face of devastating fire. The intensity of the opposition shocked and fragmented the German assault. Prospects for cohesive unit action were smashed from the outset. The problem of command direction was complicated further by the loss of the senior commander at both locations. General Suessmann,

Seventh Airborne Division commander, planned on controlling the assault forces at Canea but was killed along with his entire staff when his glider crashed upon takeoff.

Brigadier General Meindl, General Suessmann's deputy, was severely wounded at Maleme and unable to direct the battle.

General Student, in Greece, was unaware of the problems his ground forces were encountering. A faulty perception of success was generated when all but seven of the five hundred plus air transports returned. This, coupled with a lack of radio communication, caused the Germans to regard the initial phase as a huge success. Not until later in the day did the severity of the situation become apparent.

The second phase of the assault was scheduled to begin at 1500 with airborne operations at Retimo and Heraklion. The invasion began to lose some of its cohesiveness at this time. Gone were the vestiges of surprise that accompanied the morning assaults. Due to a delay in refueling the air transports, the afternoon assault was conducted without close air support. The second wave of airborne forces was decimated by enemy ground fire. These forces were rendered ineffective, but led by intrepid small unit leaders, they conducted a brutal battle to tie down Allied forces and disrupt their attempt to reinforce Canea or Maleme.

General Student began receiving an accurate picture of the operation during the first evening, clarifying the earlier distortion. He was finally aware that the attack was in trouble. The assaults at Retimo and Heraklion were shattered; the assault at Canea was fractured, yet still held prospects for success. The effort at Maleme had suffered equally harsh treatment, but there the forces seemed to be making limited progress. The Maleme force controlled the north and northwestern sections of the airfield and had advanced up the northern slope of hill 107, the key terrain in the area.

Throughout the night, the German command was faced with three options. The first was to await the arrival of the sea convoy to reinforce the attack. Second was to airland General Ringel's mountain soldiers at either of the two airfields which were still under enemy fire. The third option was to scrape together one last airborne battalion and insert it into the area experiencing the most success in order to capture an airfield and then reinforce with the Mountain Division. On 21 May, Colonel Bernhard Ramcke led a hastily assembled battalion (550 men) in an airborne assault on the western end of Maleme airfield. Despite losing half his force, his efforts and those of the scattered remnants of the initial assault succeeded in throwing the defenders off balance long enough to allow the

Fifth Mountain Division to begin airlanding. Even though the Germans were able to begin these operations, the British were still able to direct artillery fire on the aircraft as they discharged cargo.

The airlanding was conducted one aircraft at a time. Each aircraft landing was engulfed in a storm of dust which impaired vision. This was both a blessing and a curse. On the one hand, it screened the aircraft from the observed fire of the defenders. Conversely, it impaired the vision of the pilots during landings, taxiing, and takeoffs. This was especially critical since the runway was littered with the carnage of crashed gliders and transports.

The Germans controlled Maleme by the evening of the 22nd. The fate of Crete, however, was sealed when the first aircraft landed. A line for reinforcement and resupply had been established. Major General Rengl arrived in the afternoon of the 22nd and assumed command of the beleaguered land forces. He immediately began consolidating and reorganizing the units and initiated actions to link up with other German forces and to secure the island.

The 85th Mountain Regiment was given the task of outflanking the defenders positions astride the Maleme-Canea road on 23 May. Owing to the ruggedness of the mountains, General Freyberg's forces were oriented West to block the road. The elite mountain troops' mission was to envelop the

British flank and seize Stylos. Straight line distance was only twenty-two miles. However, by going inland and across the untrafficable terrain, the mountain troops covered over fifty miles. The movement was conducted without vehicles or pack animals, so all equipment, to include mortars, mortar ammunition, and heavy machineguns, had to be hand carried. The Germans were further hampered by their wool uniforms and by a lack of water. The feat was incredible and yielded unexpected results. Stylos fell on 27 May and the linkup with the units at Canea was accomplished.

The end was near for the British garrison. From the beginning, General Freyberg had been doing the best he could with his ad hoc force. Repeated counterattacks were launched on German positions only to fail. These failures were attributable to poor coordination and communication, lack of sufficient reserves, and a scarcity of equipment. The Germans, on the other hand, clung desperately to every inch of captured terrain. Even though the units were fragmented and scattered, the elite quality of these special purpose units enabled them to improvise and maintain their positions. Another key to German success against the counterattacks was total mastery of the sky. German close air support thwarted any British daylight counterattack.

The British withdrew from Crete on 31 May. This withdrawal was facilitated by a stubborn British delaying

action from Stylos to Sphakia between 28 and 31 May. This action bought time for the British Navy to reappear and miraculously evacuate fourteen thousand soldiers to Egypt.

In summary, the battle of Crete offers many excellent considerations for the employment of light infantry divisions. Although not all-encompassing, the salient points in this campaign aid in understanding what a light infantry division can accomplish.

First, the units employed by the Germans had special qualifications. As such, these two divisions were of higher quality than regular Army or Air Force units. The special skills of mountaineering and airborne duty authorized a higher quality soldier. Therefore, both divisions were able to recruit and retain superior soldiers, noncommissioned officers, and officers. The high quality of the soldiers in the unit provided an intangible element which proved indispensable when the airborne forces were isolated in small groups following the initial assaults. These same soldierly qualities appear in the efforts of the 85th Mountain Regiment during its envelopment operations through the mountains.

A second element is the opposing force. The British units were not a cohesive force. This is not meant to impugn their fighting ability but the composition of the force contributed to its failure. The force was composed of

the remnants of units previously defeated in Greece. These units arrived without equipment and no replacement stocks existed on Crete. A large number of service personnel, or non-combatants, were among those evacuated to Crete and instead of contributing to the defense effort, they became a burden to an already over extended command. This combination resulted in a weak force opposing the German invasion.

The principle of surprise is the third factor. Surprise rotated back and forth between the two combatants. A critical ingredient for success in light infantry operations is surprise (especially against numerically superior forces). The lack of surprise cost the Germans dearly in the initial assault. The British were ready and waiting. Without initial surprise, the Germans suffered prohibitive casualties that would have defeated the invasion if reinforcements had not been available. On the other hand, the Germans used subsequent tactical surprise to unhinge the British position at Canea and conquer the island. This was achieved by a turning movement around Canea and into Stylos. The British were surprised when the Germans attacked their flank through what had been considered impassable terrain.

Close air support proved the most critical factor in the entire campaign. Germany controlled the sky and used

attack aircraft to support ground units. This support, in the absence of artillery, enabled the Germans to survive against the heavier armed and numerically superior opponent. Close air support was the element on which the battle turned. Airpower represented the medium to compensate for the German lack of tanks and heavy artillery. Control of the air furthered the German ability to reinforce the ground attack and to resupply the force once the sea axis was cut.

The ability of General Freyberg to repulse the German attack with air and naval assets is problematical. What is not is the ability of General Loehr to conduct a campaign at the operational level of war. He was able to marshal assets to conduct a campaign in three dimensions. His joint command of air, sea, and land forces enabled him to conduct a campaign in support of strategic aims. Reinforcing the limited success at Maleme, by directing all the land and air assets into the sector, turned an operation on the verge of collapse into victory. It is important to note that as the battle was fought, General Loehr and General Student, in Greece, were the only high level commanders capable of influencing the battle. The Division commander on Crete could not influence the battle due to the dispersion of operations.

A last significant element is terrain. The rugged mountains dictated that the fight would center on control of

the airfields. The terrain also established a mind set in the two opposing forces. The British viewed the mountains as too rugged and barren to support combat operations. Therefore, since the mountains were regarded as impassable, the British created a false sense of security by anchoring their flanks on them. The Germans took the opposite approach. Although the harbor and airfields were needed to sustain operations, the mountains represented an undefended route to the enemy's backdoor. This opportunity the Germans exploited as soon as possible. The mountain soldiers were experienced fighters and climbers who knew how to use terrain to their advantage. It is doubtful, given the harshness of the landscape, that a unit not physically and mentally conditioned to the rigors of mountain fighting and not trained to view terrain as an ally, could have achieved similar success.

The German high command envisioned Crete as a step in destroying British influence in the Mediterranean and seizing the Suez Canal. Instead, it became a dead end. The strategic significance of the island was never exploited. Failure to follow up the success with additional campaigns is based on two causes. The first was the initiation of Operation Barbarossa to conquer Russia on 22 June 1941. The second, and perhaps more compelling reason, was the high casualties experienced by German troops. The Germans

suffered between four and six thousand casualties, all from crack, elite units. The losses appalled Hitler, and he never allowed another airborne campaign. Eventually, the airborne and mountain divisions were used as standard infantry. The staggering losses at Crete and the subsequent dilution of quality resulted in a demise of the specialist nature of these forces. Although acquitting themselves well, they lost their unique stature as a special unit.

The Falklands War, April - June 1982

Argentina invaded the Falkland Islands on 2 April 1982. This act established the conditions for employment of a light force in a contingency role. This conflict demonstrates the need to have a strategically deployable force capable of responding to a variety of contingencies. Although the British do not have a light infantry division analagous to the United States model, they do maintain the 5th Infantry Brigade, composed of light infantry units, to respond to crisis situations and as a general reserve. The British are currently involved in an internal debate as to whether or not to develop more light infantry. Additionally, this conflict occurred at a time when the government was committing significant funds to a long-term

equipment modernization program which includes the purchase of Trident missiles. The Falklands War caused the government to reconsider its defense strategy. Little did the military architects of the 1982 defense budget expect to be fighting an engagement in the Falklands before the middle of the year.[11]

The Falkland Islands represent a unique operational setting. Their physical location presented operational challenges to both combatants. As was the case with Crete, any engagement would be a joint action involving air, land, and sea forces. Although the islands were only four hundred miles off the Argentine coast, the advantage was more psychological than physical. The four hundred mile distance was deceptive because it was at the operational limit of the Argentine Air Force. The British, on the other hand, had to deploy and sustain a sizable force eight thousand miles from England. The impact of distance was not lost on operational planners, nor was the climate.

Climate and topography are key factors in this war: specifically, those of the two principal islands, West and East Falklands. The islands are austere, consisting largely of moorland and hilly mountainside punctuated with peat bogs, scattered outcroppings of rock, coarse tough grass, and heather.[12] An unusual feature of the islands is a total lack of trees: no bush is larger than a stunted clump

of gorse.[13] During the war, the climate alternated between sun, snow, sleet, mist, fog, and driving rain. The two constants of this war were that the weather and wind were never the same for more than half an hour.[14] Two quotes sum up the physical environment.

After the possession of these miserable islands... The theater is worthy of the scenes acted out upon it. An undulating land, with a desolate and wretched aspect is everywhere covered by a peaty soil and wiry grass of monotonous brown color.

Charles Darwin[15]

Captain James Cook was more specific when he described the landscape "... as horrible and savage aspect I have not words to describe..."[16] The terrain pervaded all operations. It dictated objectives, shaped movement, and influenced operations and tactics. The sucking peat caused untold agony to the British soldiers as they "yomped" across East Falkland Island from San Carlos to Port Stanley.[17]

Argentina took overt action to resolve the question of who owned the Falkland Islands in early April. Their ground forces overwhelmed the local security garrison at Port Stanley on 2 April and proclaimed the islands an Argentine possession. This action set in motion the British execution of Operation Corporate.[18] Seven weeks would pass before the invaders would see British soldiers.

The Argentine Army garrisoned the Malvinas (the Argentine name for the Falklands) with approximately ten

thousand soldiers.[19] Approximately one hundred and fifty thousand soldiers were available on the mainland.[20] Air support originated primarily on the mainland (from Rio Gallegos) and consisted of Mirage and Skyhawk aircraft.[21] General Mario Menendez, Argentine ground force commander on the Malvinas, positioned his forces at Port Stanley (the largest garrison), Darwin-Goose Green, and Fox Bay on West Falkland.[22] Most of the soldiers were infantrymen. However, there was one marine regiment, some armored vehicles, and several AMX 13 tanks. Artillery support was provided by thirty 105 mm howitzers and four 155 mm howitzers.[23] Given the advantages of time and the ability to occupy favorable defensive terrain, the Argentine force should have repelled any British assault. The opportunity for British strategic surprise was certainly minimal given the eight thousand mile sea voyage to reach the objective area.

The British force was constrained due to a shortage of Navy lift assets, even though numerous civilian vessels were pressed into service such as the ocean liners Nordlund, Canberra, and Queen Elizabeth II. The British force was tailored to conduct a land, air, and sea campaign. The objective was to control the air and sea approaches to the Falklands and then to defeat the enemy forces in a land battle. This study will concentrate on the land campaign.

A critical key to the success of this campaign was the air war. The British capability to deploy aircraft forward was limited (two small aircraft carriers). Only forty attack aircraft were deployed.[24] The ground forces, commanded by Major General Jeremy Moore, consisted of two brigades (a total of eight infantry battalions), three 105 mm howitzer batteries (eighteen guns) and two sections of Scimitar and Scorpion tanks (four tanks in each section).[25] Additional fire support was provided by Navy ships positioned to support the battle. The 3d Commando Brigade landed in the Falkland Islands on 21 May, seven weeks after the onset of hostilities.

The British scheme to reclaim the Falkland Islands was based on demoralizing and strangling the enemy garrison by keeping the sea clear of Argentine ships and the sky clear of Argentine planes.[26] This policy began with the British declaration of a two hundred mile maritime exclusion zone around the Falkland Islands on 12 April. As the forces sailed from England to the objective area, the first step of a sea blockade was being taken. The blockade employed submarines and surface vessels as well as aircraft. On 7 May the British announced the establishment of a total exclusion area to within twelve miles of the Argentine coast.

The total exclusion zone established by the British set the parameters for the air war. The British plan was to wage an air interdiction/counter air campaign. This was the only way to achieve air supremacy. The British plan had to be precise since they were dealing with a limited number of aircraft. The British air campaign lasted throughout the war and severely limited the availability of Harriers to support the land campaign with close air support. This was deemed an acceptable risk if the Harriers could keep the enemy air force away from the fleet and the land units. The foundation was now in place for the conduct of a land campaign.

"...an operation for landing with a view to the repossession of the Falkland Islands."
3 Commando Brigade orders, May 1982[27]

Soldiers of 40 Commando liberated San Carlos, East Falkland on 21 May.[28] The 40th secured San Carlos and was followed by 2 Para, 45 Commando, and 3 Para. The initial plan called for a night amphibious operation to begin at one thirty a. m. and to be completed by dawn. Speed was essential.[29] The objective for 2 Para was the Sussex Mountains eight kilometers to the south of the bridgehead. The high ground to the west was secured by 45 Commando and 3

Para seized Port San Carlos. The night landings, a calculated risk, occurred fifty miles across the island from Port Stanley. The British achieved tactical surprise and unopposed landings.[30]

The successful landings were the culmination of an elaborate deception plan. The choice of landing sites was debated until 17 May when San Carlos was chosen over Fox Bay, Darwin, and Port Stanley.[31] The British knew that by sailing their force eight thousand miles neither strategic nor operational surprise was possible. However, tactical surprise could still be achieved. The plan succeeded because it was well planned and believable.

The plan began with the fleet sailing southward close to Port Stanley. Then under the cover of night and foul weather it slipped into Falkland Sound. The deception was furthered by feints at Darwin and Port Stanley. The result was a landing virtually unopposed. San Carlos provided an excellent anchorage to build up supplies and a protected harbor rimmed by high hills which reduced the chance of successful air attack.[32] As events proved, the shelter of the bay, Harrier interdiction and a gun boat screen did not prevent the Argentines from attacking the landing fleet on 21 May. Obviously, the air campaign had not achieved its aim. As General Moore commented after the war, "... we were

lucky the pilots went for the escorts and not the amphibious ships." [33]

Once the elements of 3 Commando Brigade were ashore, the operation seemed to stall. The units did not move from their bridgehead until 27 May. Six days following the initial landings, the land campaign resumed. Brigadier Thompson decided to execute a pincher movement to seize Port Stanley. He sent 2 Para to capture Goose Green, Darwin and then, in conjunction with the remainder of the Brigade, to seize Port Stanley. 3 Para, 42 Commando, and 45 Commando went to the north through Douglas and Teal Inlet. This plan provided security for Thompson's flanks. The significant combat during the campaign occurred at Goose Green and in the mountains in front of Port Stanley. (Figure 2) [34]

The 2 Para began the movement to Darwin-Goose Green at 2000 on 27 May. The battalion covered the twenty mile distance by 0300. The battalion commander, Lieutenant Colonel Herbert Jones, halted the battalion four miles short of the objective at Camila Creek House. The battalion remained in this position until the next evening to prepare for the attack and issue final orders. The attack was originally envisioned as a raid but the mission was changed

Falkland Islands

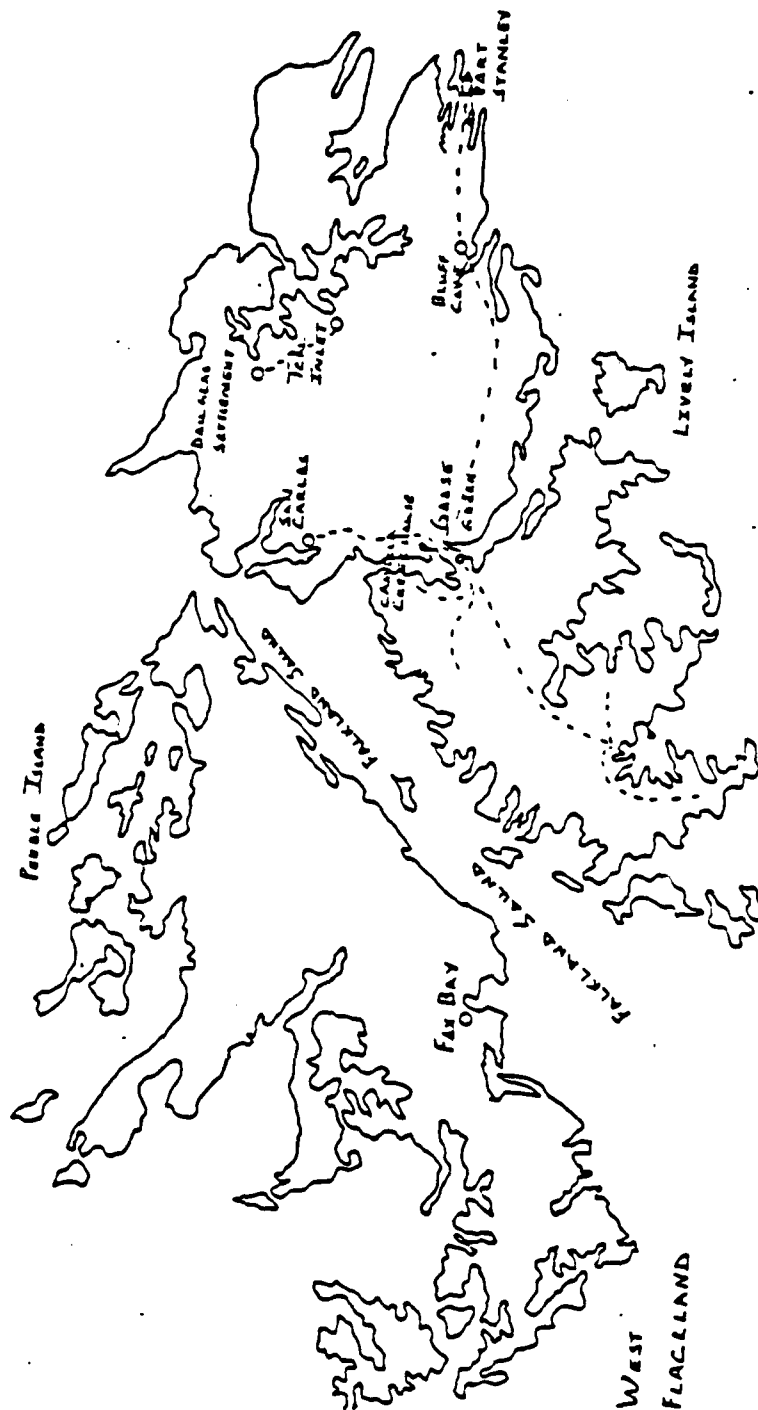


Figure 2-2 [34]

to seize Goose Green in order to secure the right flank of 3 Commando.[35] Intelligence reports from the SAS indicated that the Argentines had a five hundred man garrison on the objective and that their positions were ill-prepared. Even though the force ratios were one to one, the attack was still ordered based on the intelligence report.

Fire support assets for the attack consisted of one section of 105 mm howitzers (two guns) and one naval gun fire support ship (equivalent to one battery of 105 mm howitzers). However, the ship would leave station at dawn to avoid air attacks.[36] The battalion carried two of its organic 81 mm mortars for additional fire support.[37] The howitzers and their ammunition were airlifted into Camilla Creek House while the mortars and their ammunition were back packed over the tough, treacherous, single track peat bogs.

Colonel Jones' plan outlined a two phase attack. Phase one consisted of a silent night attack to secure Darwin Hill and Boca House. The second phase was the seizure of Goose Green and Darwin. Phase two would be executed during daylight to avoid civilian casualties. (Figure 3)[38] C Company departed Camilla Creek House at 1800, 27 May to clear the route to the battalion start line; the rest of the battalion followed at 0200. The attack represented a frontal assault on prepared positions because

The Battle for Goose Green

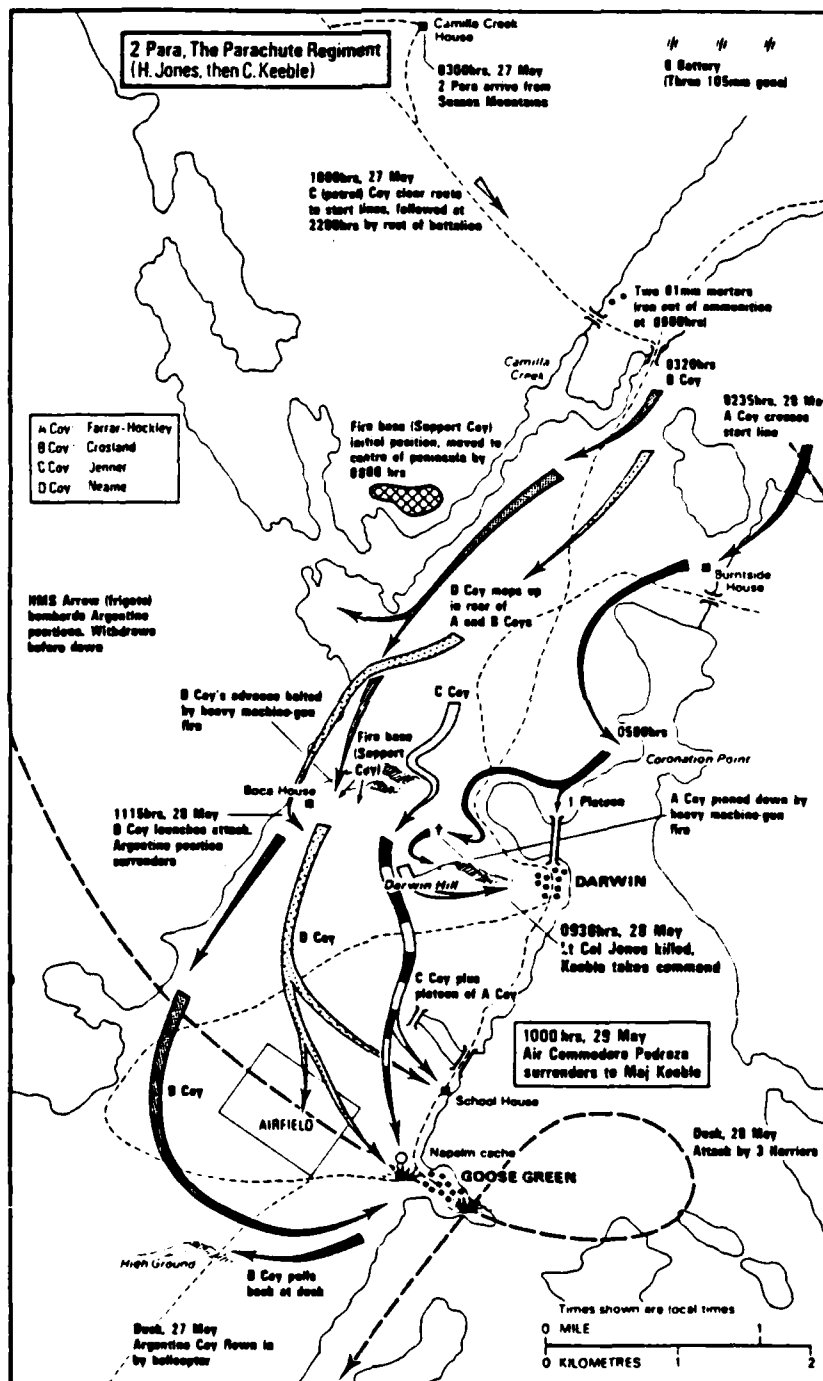


Figure 2-3 [38]

of a lack of maneuver space. Each objective had the ocean on its flank which reduced the attack options. The isthmus at the start line was only four hundred yards wide. Major Chris Keeble, the battalion second in command, remarked that the area reminded him of Salisbury Plain - no cover anywhere! [39]

The attack began when A Company crossed the start line at 0230 towards Darwin Hill, later followed by B Company to take Boca House. D Company moved on a central axis in order to assist the attack on Darwin Hill. The battalion commander led from the front along the central axis. [39] The night attack suddenly changed from one of stealth and silence to one of blinding flashes and burning tracers. B Company encountered enemy positions five hundred yards from the start line. Their attack now reverted to the painstakingly slow process of clearing position after position: a process requiring individual skill, initiative, and flexibility. The original plan was now permanently altered. In addition, the timetable for the rest of the battalion was skewed due to this unexpected contact. Actions went from bad to worse for 2 Para. The 4.5 inch gun on the Arrow, which was providing naval gun fire support jammed. This deprived the battalion of a significant portion of its fire support at a time when the commander was

already becoming alarmed at the expenditure of howitzer and mortar ammunition.

Meanwhile, A Company advanced relatively unopposed and by 0530 secured Burntside House and Coronation Point. After a short halt to confer with the battalion commander, the company commander, Major Farrar-Hockley, continued the advance. As the company continued they were caught by withering machine gun fire from well entrenched positions on Darwin Hill while crossing open ground at first light. None of the battalion's initial objectives were taken as scheduled. The momentum of the attack seems to have shifted to the Argentines. The attackers were exposed in the open ground of the isthmus as the Argentines pummeled them with accurate direct and indirect fire. For the moment the attack was blunted and the battalion lost its momentum. Survival became the paramount concern among the small group of paratroopers who dotted the terrain seeking cover in every little fold of the earth. The coming of first light held the promise of Harrier support to replace the lost naval gunfire, but fog at sea prevented their launching. While A and B Companies were halted, D Company was clearing bypassed positions to prevent an attack on the battalion rear.

Both A and B Company were faced with crossing open ground to reach their objectives. By 0830 the mortars were

out of ammunition and the howitzers were dangerously low. The British were outgunned and outranged by the Argentine direct fire weapons. The Argentine indirect fire from 105 howitzers was beginning to have its effect. The defenders fire was relentless as if they had an inexhaustible supply of ammunition. A crisis in the battle had been reached; if the British failed to resume the attack, they were doomed.

Colonel Jones collocated his command post with A Company in order to influence the action for Darwin Hill. Realizing the situation was desperate, he gathered a small group of volunteers to eliminate a machine gun position which was holding up the advance. In the process he and several other personnel were killed. Simultaneously, A Company began to make progress. Small teams of machine guns and light antitank weapons (66 mm rockets, LAWs) were used in conjunction to eliminate individual bunkers. The machine gun would suppress while the rocket was fired into the bunker. A shift in the battle had taken place, at least in the A Company sector. Although the attack would continue at an excruciatingly slow pace, the end was no longer in doubt.

Major Keeble moved forward when he learned that the commander was shot. As he advanced, he assessed the situation. He determined that Boca House was the critical objective. If the house could be taken, then Darwin Hill could be bypassed. That was the only possibility to regain

the momentum. Therefore, he decided to mass his available units on Boca House. Previously, Support Company had been ordered to position its Milan and machine gun teams to support B Company's attack. Major Keeble ordered D Company to assault the house from the beach. This flank attack was facilitated by an eighteen inch ridge running along the shore which enabled D Company to crawl over a thousand yards to its attack position. Once the company was in position, B Company and support Company engulfed the house with fire as D Company assaulted. The sudden and massive onslaught of fire produced the desired result and the position was taken. Enemy positions surrendered one after another. Major Keeble's change in plan had worked. Both Darwin Hill and Boca House were secure by eleven o'clock. The initial Argentine defenses were penetrated. C Company was ordered to assume D Company's mission and seize Goose Green schoolhouse. C Company received a platoon from A Company for its new mission. Darwin was being bypassed. Keeble's new plan envisioned the encirclement of Goose Green with C Company on the east, D Company on the west and B Company from the south. The battalion still had a mile and a half of open terrain to cover.[40]

The assault by C Company was fiercely resisted by a force of fifty Argentines. The attackers had to contend not only with small arms and artillery fire, but direct fire

from 35 millimeter anti-aircraft guns. The Argentine Air Force made several attacks with Pucara and Skyhawk aircraft. C Company destroyed the position using Karl Gustav missiles, light antitank rockets, and grenades. None of the estimated fifty Argentines in the position survived. It was late when the schoolhouse was taken, B Company and D Company were also on their objectives. The battle closed with the battalion finally receiving its first Harrier air support.

After fourteen hours of fighting only one objective remained to be taken - Goose Green. Major Keeble realized his battalion was exhausted and that an assault on Goose Green was hopeless at this time. The battalion needed rest and reinforcements and Keeble needed time to formulate a plan. Keeble requested an additional three howitzers, two thousand rounds of ammunition and additional troops. Thompson approved the request and ordered J Company, 42 Commando to Goose Green.

Major Keeble decided to besiege Goose Green and at the same time offered the encircled Argentines the opportunity to surrender. As a last resort he would destroy the town. At first light on 29 May, Major Keeble repeated his offer. At 0830 British and Argentine commanders met. The first topic was the release of civilian hostages to which the Argentines readily agreed. Next the fate of the garrison was discussed. After a lengthy discussion and coordination with General Menendez in Port Stanley, the garrison

capitulated. Major Keeble was astonished to find over one thousand soldiers still in Goose Green. The Paras had been out numbered at least three to one![41]

The British battalion had used individual skill and courage to overcome a numerically superior opponent. The attack was enhanced by using the cover of darkness to assault prepared positions. Major Keeble's flexibility enabled him to mass forces and firepower on the critical objective to regain the momentum of the attack. Blessed with a lack of enemy aggressiveness, 2 Para was able to fight the battle according to their own terms. The laurels of victory belong to the individual initiative displayed by the soldiers of 2 Para.

The capture of Goose Green had secured the right flank of the task force. Moreover, the British had established a psychological ascendancy over the Argentines. The night operations at San Carlos and Goose Green coupled with the loss of the latter established the British as a superior force with the determination and resolve to recapture the Falklands.[42]

The stage was now set for the destruction of the Argentine garrison at Port Stanley. The advance on the left flank by 3 Para and 45 Commando reached Teal Inlet on 28 May following thirty-six hours of marching through miserable weather.[43] All the pieces were coming together nicely for the British. General Moore arrived at San Carlos on 30 May.

The following day, 43rd Commando made a daring air assault onto Mount Kent, the Gateway to Port Stanley ten miles away.[44] This new position represented the first toe-hold for the upcoming attack. The British position was further strengthened by the arrival of 5 Infantry Brigade from South Georgia. General Moore decided to mass his forces for an attack on Port Stanley. First, he had to consolidate and resupply 3 Commando which was stretched along single track trails from San Carlos to Mount Kent, almost all the way across the island. This meant allocating all of the precious few lift helicopters to 3 Commando and delaying the forward movement of 5 Infantry Brigade. Moore returned the 2 Para to 5 Brigade to facilitate the brigade's advance along the southern route through Bluff Cove to Port Stanley.

Brigadier Wilson, 5 Brigade commander, quickly made his presence felt. While visiting 2 Para, he learned that Bluff Cove had been abandoned by the enemy.[45] Wilson immediately launched an air assault of about one hundred soldiers (including a "confiscated" helicopter) to secure the area. This audacious step placed the forward elements at risk but offered huge payoffs. Now with Bluff Cove in safe hands 5 Infantry could move up by sea instead of moving overland or waiting to be shuttled by the limited helicopters.[46] On 5 and 6 June, the Scots Guards and Welsh Guards battalions were brought forward. It was during this operation that the Welsh Guards lost thirty-six

soldiers when an assault craft was bombed by the Argentines. The British were conducting a day landing, a deviation from their previous practice of moving troops only at night. The change was a costly one.[47]

Major General Moore's plan to defeat General Menendez's forces outlined a two phase operation. Phase one consisted of 3 Para seizing Mount Longdon, 42 Commando seizing Mount Harriet and 45 Commando seizing Two Sisters Mountain. Subsequent to this operation, phase two would begin with 2 Para attacking to seize Wireless Ridge, the Welsh Guards to seize Sapper Hill, the Scots Guards to seize Tumbledown Mountain and the Gurkhas attacking Mount William.(Figure 4)[48] Both phases were planned as night attacks. The plan was further enhanced by the lack of aggressiveness shown by the Argentines. Their actions indicated the Port Stanley garrison was content to stay put and let fate take its course.[49]

The garrison at Port Stanley consisted of approximately eight thousand troops. Included in this figure were five infantry regiments and one marine regiment. The Argentines were supported by four 155 mm howitzers and no more than thirty 105s.[50]

The night attack began at 2100, 12 June. The attack was preceded by three days of artillery harrassing and interdiction fire to subdue the enemy and disrupt their defenses.[51] The attack was supported by naval gunfire

The Battle for Stanley

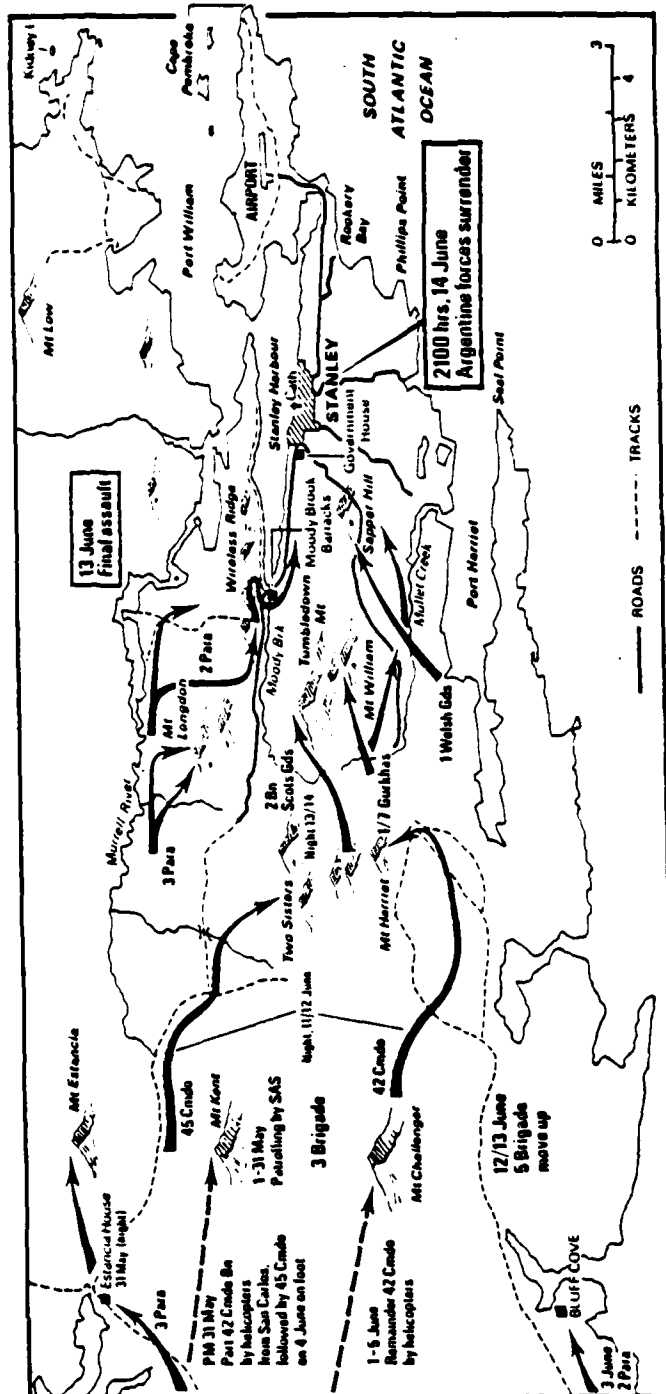


Figure 2-4 [48]

from the frigates Avenger, Yarmouth, and Glamorgan. [52] The first unit into the attack was 3 Para followed at thirty minute intervals by 45 Commando and 42 Commando.

The plan issued by 3 Para envisioned a silent night attack to within hand grenade range of the enemy. Although this may have seemed audacious, the battalion had reason to feel confident. Numerous patrols had spent the previous week reconnoitering routes and the objective area. The companies were familiar with the scheme of maneuver with A and B Companies attacking from the north and south respectively in a pincer movement to seize the objective. The battalion reserve would be C Company.

The lead companies reached the objective after a four hour approach march. Unfortunately for the battalion, a soldier stepped on a mine while crossing open ground seven hundred yards short of the objective. This set off a cacophony of Argentine machine gun, mortar, and artillery fire. The objective was occupied not by the anticipated enemy company but by almost an entire battalion. This was the prelude to the most costly land action of the war. The problems caused by minefields and accurate sniper fire (the snipers were using night vision devices) turned the battle into one of individuals and small sections. The lead companies were forced to fight for each inch of ground. At one point in the battle, due to converging attack routes, A Company was unable to use their machine guns for fear of

hitting B Company. As Support Company was positioning to support B Company they, in turn, were suppressed by devastating fire from machine guns and snipers. The fighting was so intense and close that naval gun fire was falling within the British positions, but no friendly casualties were suffered. The pinpoint accuracy of the supporting fire prevented the Argentines from forcing the British back down the hill. The final objective was reached only after hard fighting, which once again saw light antitank weapons and Karl Gustav missiles being used to knock out defensive positions. In the end the entire plan changed. When B Company was halted short of its final objective, A Company passed behind them; and in the first rays of the early morning dawn they were seen moving through the mist with bayonets affixed to take the summit. The objective was secured by early morning, the last positions being subdued by bayonet. A supreme effort was needed to drive the Argentines from their superior defensive positions. The battalion had taken a battering from the Argentine indirect fire especially the 155 mm howitzers.

The remainder of 3 Commando activities this night were tame in comparison to 3 Para's exploits. Two Sisters was taken by 45 Commando and Mount Harriet fell to 42 Commando. The attack on Two Sisters was well orchestrated and controlled by Lieutenant Colonel Andrew Whitehead. He insured that the units stayed under control

and did not take any unnecessary chances. He employed three companies forward. The initial objective of X Company was seized without difficulty. However, as the unit moved forward to seize a second objective, they were pinned down by machine gun and recoilless rifle fire. All three companies were taken under fire. The commander used naval gun fire and artillery to suppress the positions and rockets and missiles to destroy them. The summit was captured two and a half hours later as the enemy fled into the night in the face of the assaults.

Mount Harriet, 42 Commando's objective, was expected to be the most difficult to capture. It turned out to be the easiest. The result may be ascribed to a daring plan formulated by Lieutenant Colonel Nick Vaux, the battalion commander. He chose to do the unexpected. He eschewed the traditional frontal assault and probed for a weak flank, finding one with aggressive patrols. Although he had to pass his battalion through heavy minefields, he avoided the enemy strength. There was a risk. If his unit was discovered in the minefields, they might never get out. His plan was buttressed with heavy artillery support from four batteries plus naval gun fire. The battalion's route was deliberately long and circuitous to avoid detection. These efforts were rewarded as his battalion closed within one hundred yards of the summit before being detected. Then the assault became a simple process of clearing bunker after bunker with

grenades, light antitank rockets, and machine guns. Individual skills, stealth, and massive fire support yielded a stunningly easy victory and several hundred prisoners.

Although credit for the resounding success of 3 Commando Brigade belongs to the battalions and companies which fought their way up the steep slopes to reach their objectives, recognition is also due to Brigadier Thompson and his fire support planning. He had thirty howitzers (five batteries) and three frigates. His plan provided each battalion a minimum of two batteries of fire support at any one time and if need be, 3 Commando could mass all fires on a single objective. Clearly fire support played a key role in the success of the night attacks.

Phase one of General Moore's attack had succeeded. Phase two was scheduled to begin the evening of 13 June. Objectives scheduled for 5 Infantry were Mount William, Sapper Hill, and Tumbledown Mountain. The fourth objective for the evening was Wireless Ridge. However, the attack would be coordinated through 3 Commando using 2 Para. Brigadier Wilson requested a twenty-four hour delay when 5 Brigade's movement forward into attack positions went slower than anticipated and precluded any reconnaissance of routes or objectives.

Five Brigade's plan continued the British practice of attacking at night. Brigadier Wilson assigned the Scots Guards to take Tumbledown, the Welsh Guards to take Sapper

Hill, and the Gurkhas to take Mount William. Once the attack commenced the Welsh Guards and the Gurkhas discovered their objectives were unoccupied.

The attack on Tumbledown proceeded with greater difficulty. Three factors combined to make the Scots Guards attack especially arduous. First, the attack was executed in atrocious weather. The attackers advanced through sleet, snow, and thick fog. Secondly, the terrain was so demanding that the Guards were channelized up a narrow defile which precluded maneuver and dictated a bloody close quarter battle. The third factor making the attack so challenging was the defenders. An estimated company size unit from 5 Marines occupied the hill. These soldiers were vastly superior to the other Argentinian troops and they demonstrated that fact throughout the night.

The plan employed by the Scots Guards consisted of a diversionary and a main attack. The diversion was conducted at 2030 on an objective southeast of Mount Harriet. Although the effort was characterized by brutal, hand-to-hand, trench-to-trench fighting, the effect on the enemy is unknown. The main attack began at 2100 with G Company quickly gaining their first objective. Further advance became impossible as the company position was smothered by machine gun and sniper fire. The standard remedy of firing light antitank rockets and missiles supported by machine guns to restore the momentum of the attack was unsuccessful.

The marine positions were better prepared and situated than those encountered by other British units. Therefore, the rocket and missile fire produced a negligible effect. The British attack once again degenerated into a struggle for inches using heavy automatic weapon fire and hand grenades. The lack of maneuver space exacerbated the efforts of the attacking unit. At 0230 the Left Flank Company passed through G Company in a charge on the forward position. The Left Flank Company objectives were no easier to attain than the others. The third phase of the Scots Guard attack began at 0600, 14 June as Right Flank Company attacked towards objectives. The same fate awaited them which had confronted Left Flank Company. The objectives of the Right Flank were secured only after another six hours of hand to hand bunker fighting. The last hard fight for the British was over.

During the night of 13 June, 2 Para attacked Wireless Ridge at the northern end of the task force's sector. The attack went well. The Paras had learned from their experiences at Goose Green. Although the Argentine troops were of poor quality, they fought bravely from prepared positions. An intense artillery preparation was planned to destroy the defenders' will to resist. The preparation consisted of twelve thousand rounds fired within twelve hours. 2 Para also used a troop of Scimitars with their 76 mm cannon and night sights to support the advance. All resistance was met with overwhelming firepower. After the

massive artillery preparation, the Paras met little opposition. Yet Wireless Ridge was the only objective contested by the Argentines. At Wireless Ridge was the only Argentine attempt to counterattack throughout the entire war. It was conducted by a platoon of Argentine paratroopers from Moody Barracks. The effort was half-hearted, nonetheless, and it was disrupted and turned back by artillery fire.

Port Stanley was now completely isolated. The British controlled both the sea and land approaches to the city. From their commanding position in the mountains they could effectively disrupt any attempts to reinforce or rescue the citadel by air.[53] General Menendez surrendered the Argentine garrison on 14 June, thus returning the Falkland Islands to British rule.

The Falklands was a light infantry fight. It took place far from home, in a harsh climate, and at the end of a tenuous supply line. The joint venture was a success due to cooperation, initiative, and improvisation. The task force displayed the ability to react successfully to the unexpected.[54] The forces were employed in an "old fashion war for which they had not been trained, with sophisticated weaponry designed to be used against quite a different enemy." [55]

One must be careful in examining the "lessons" of the Falklands War. An engagement of such short duration can

lead to false interpretation if not considered within the total context of each nation's policies (for instance factors which affect these policies are politics, society, economics, technology, strategy, leadership, and doctrine). Notwithstanding, there are certain areas which can be examined in isolation. Three are critical to this study: the units, the training, and the equipment.

The choice of 3 Commando Brigade and 5 Infantry Brigade to recapture the Falkland Islands was no accident. These units represent the best general purpose forces in the British defense establishment, rivaling even the Special Air Service (SAS) and the Special Boat Squadron (SBS). The brigades are largely composed of special and elite units such as commandos, paras, and Gurkhas. These units focus their efforts on executing difficult forced-entry missions. They are designed to be called on in short notice-emergency operations. In fact, 5 Infantry Brigade is the British Army's general war reserve force and is the unit responsible for out of area contingencies such as the Falklands.[56] The soldiers in these units are quality soldiers who triumphed over the "difficulties of short notice, extreme range and appalling weather." [57]

The Argentine soldier was not of the same caliber. Although the Argentine units may have contained a core of well-trained soldiers, the bulk were conscripts, many of

whom were called up on short notice, poorly trained, and ill-equipped for the weather. [58]

Training made the difference in this war. The British were much more aggressive and confident while the Argentines were totally passive, almost defeatist. The British force was a well-trained and led army dedicated to its mission. Therefore, they were well-conditioned physically and mentally for the rigors of the terrain found in the objective area. This enabled them to cross the island on foot, live in the open, and transport their supplies and equipment on their backs. They had a kinship with the terrain and knew how to use the environment to their advantage. Tactically the land forces were able to offset Argentine numerical equipment superiority by attacking at night and by conducting aggressive combat patrols. As a result, they were able to mass units and firepower at the critical places and times. Flexibility and initiative were also keys to their success. The ability to reorient rapidly and change missions as demonstrated at Boca House and Bluff Cove are representative of these capabilities. Another example of British tactical superiority is the surprise landing at San Carlos. The British lacked the air supremacy of the Germans at Crete. However, they made up for this shortage by employing accurate naval gun fire to offset firepower disadvantages. The ability to incorporate successfully this support into a

ground tactical plan is demonstrative of the need for joint training and exercises. In spite of this, massive amounts of firepower were needed to overcome inherent deficiencies in light forces. One must also not lose sight of the fact that a well-executed plan usually produces large numbers of prisoners. The British re-learned this lesson in the Falklands and had to take expedient measures to handle this unexpected situation.

The British opponent was fairly well equipped in the Falklands. A few examples of the modern equipment they employed were night vision devices, 155 mm howitzers, and 120 mm mortars. The British, on the other hand, were limited in the number and types of weapons they could deploy. Transportation assets and resupply stocks were also at a premium. The British executed the operation on a shoestring, one which did not break.

Contingency operations require units which can deploy rapidly and fight if necessary upon arrival. Contingency forces require a spartan set of standards. They must be physically and mentally conditioned for the privations they will encounter. Units must learn to make do with assets at their disposal and augment these assets with captured equipment. Firepower is crucial to the success of a light infantry force as it was in the Falklands. Due consideration is required in organizing, training and sustaining the force. The British ability to supply the force was stressed

to the extreme. Howitzer ammunition was continually in short supply. Units were equipped with a larger complement of automatic weapons to offset other deficiencies. This created a corresponding shortage of machine gun ammunition as the weapons were used for suppression fire.

The British government in its analysis of the campaign following the war ascribed success to the flexibility of forces, equipment, and tactics, human ingenuity, and well trained officers and men.[59] If nothing else, the need for a force to react to a Falklands type crisis was highlighted. British light infantry was the only force available, designed, trained, and deployable to fight the battle *eight thousand miles from home* in an inhospitable climate. Brigadier Thompson accurately assessed the problem after the fighting was over:

"It is essential we do not legislate for limited options in the future, for one kind of war, in one theater, such as Europe." [60]

OBSERVATIONS

The employment of Light Infantry Divisions in contingency operations is not a unique aspect of force

application. The examples of Crete and the Falklands, represent this quite well, since both operations utilized forces which fought using limited organic assets. Although contingency operations are not formally defined in military publications, Webster's dictionary provides an excellent start point. A contingency is " a possible future event or condition or an unforeseen occurrence that may necessitate special measures." [61] The two operations described in this chapter meet this test. Field Circular 71-101 describes the contingency setting as one which may not have a United States or allied base. [62] Further, local air superiority and tactical air support are essential in any contingency operation. [63] The circular fails to identify the expected threat that a light division might encounter, whereas forces targeted to Europe orient on a Soviet threat.

An examination of the doctrine for light infantry divisions, organization, and the Army Chief of Staff's White Paper indicate that light infantry will be employed in low intensity warfare as a contingency means. The Falkland Islands War is an indicator of this premise. If nothing else, the initial focus for the light division will be low intensity combat; the conflict may, however, escalate to mid - or high intensity.

From the battle analyses in this chapter, several common factors are evident. All operations share a commonality concerning the type of forces used, the terrain,

the nature of the enemy, fire support, and operations in a joint environment. Additionally, both cut across the three levels of war (strategic, operational, and tactical).

First, the levels of war, as currently described in Field Manual 100-5, can be viewed as the context of these operations. Strategically, all these examples demonstrate the employment of a force over long distances to establish a presence, protect a vital interest and/or execute a portion of a global plan. The German action on Crete indelibly established the threat of a German rear area assault in the minds of the Allies. So impressed were the Allies with this capability that the First Allied Airborne Army was established and maintained for the liberation of Europe. The Falklands represents the employment of forces at the strategic level of war. Light Divisions represent instruments of action to be quickly inserted and removed.

The light division provides commanders greater flexibility at the operational level of war. Even though the division may plan a land campaign, the joint aspects of Crete and the Falklands point to the inevitable conclusion that light divisions are not an operational entity. The divisions in each of the battles were heavily augmented with external fire support, naval gun fire or close air support. In these examples, the control of the external assets rested with the joint force commander who allocated and prioritized these assets.

Tactically, the divisions operated in an offensive mode. This is as much a function of the contingency role as anything else. Neither of these cases began with the light division on the ground; they were employed from out of theater and then took overt action to secure their objective. Each case presented a situation in which the advantages of terrain and choice of positions were those of the defender. Without viewing the terrain as an ally and as an asset, these forces could not be successful and their success was due to offensive action.

The commonality of types of forces, nature of the enemy, the terrain, and joint operations posits some important tenets for the light infantry. Initially, rapidly executed force employment at great distances requires an organization which is well trained and flexible. The force must also be organized to move quickly within the strategic sphere. A United States armor division cannot execute a Crete type invasion; nor is it designed or expected to. The best choice in these situations is a light division. In each case discussed, these units had a common heritage. The units were all mentally and physically tough. Their training, conditioning, and abilities were finely honed. The units in question, Paras, Commandos, Mountain troops, and Airborne were all elite units, designed to be shock troops, close combat forces willing to meet the enemy with the bayonet if necessary. Additionally, these units

displayed an ability to adapt to situations and seize opportunities illustrated by the seizure of Boca House and the attack at Sphiros.

The terrain on which the operations took place was close and difficult which dictated a particular type force. It was either mountainous or jungle; tropical or arctic; devoid of cover or choked with vegetation. The climate was harsh and unforgiving, so much so that units not aware of such privations might have faltered. Units employed in this type environment must look at terrain as a friend and not as a foe. The terrain can be turned against the defender as was done by the Germans and British respectively. The perception of the advantages and disadvantages of terrain can spell the difference between success and failure.

The two examples involved an opponent unable to execute significant military operations. The defenders on Crete were poorly equipped, poorly supported, and many had recently suffered defeat in Greece. The Argentines defense was not aggressive. They failed to patrol, to attack and to hold critical terrain invaluable to defense. The soldiers were mainly conscripts, some just recently drafted, who had been hurriedly and poorly trained. These perceptions support the belief that this is the type opposition light infantry divisions might expect to encounter in contingency operations.

All case studies reveal a vivid picture of superior fire support. Usually, this is a result of air supremacy (Crete) or naval gun fire support (Falkland Islands). Although the Argentines possessed a numerical superiority in artillery tubes, the British were able to offset this disadvantage by massing their artillery on designated targets and using naval gun fire support. If the premise is that a contingency operation will be targetted against an irregular foe, then some form of fire superiority is attainable, either air, helicopter, or naval gun fire. If the opponent is a Soviet surrogate force, then fire superiority may not be so readily available.

As a world power with global responsibilities and vital interests, the U.S. has the requirement to be able to project a credible force for deterrence or protection and to execute joint operations. The crux of this subject is that different services operate according to their own doctrine, tactics, and techniques. The Navy, Army, and Air Force must work in a common environment with an understanding of how the other service functions. This implies that staffs work efficiently together, joint procedures for support exist and are practiced, command and control lines are clear and allow pertinent information to flow, and that the components can talk to each other. These factors are required if any force, light infantry division or other, is to execute national policy. United States Army light divisions must

work and train with Navy, Marine, and Air Force elements to recognize the full potential of each service. Any deployment of a light division will be by Air Force or Navy assets. The employment may also include land operations with Marine units.

The employment of a light division in a contingency role is a very viable option. The division must pay careful attention to the joint aspects of such operations, consider the nature of the enemy, and have an appreciation for the terrain. Contingency operations appear to be the most likely type of employment for this force in the future given a secure entry point into the theater.

ENDNOTES

1. FC 71-101, pp.1-1, 1-14, 1-17. This reference offers a discussion of what is expected of the Division, the concepts of contingency operations and the need for a worldwide perspective.

2. Numerous sources are available on the German campaign in Crete. Most of the literature written during the war and immediately following are not as accurate as later versions. An example is F. O. Mikshe's, Paratroops (London: 1943). His usually percipient observations as to the impact of the operation are faulty. The best accounts are Roger Edwards, German Airborne Troops (Garden City: 1974), James Lucas, Alpine Elite (London: 1980), Christopher Buckley, Greece and Crete 1941 (London: 1952) and Donald Detweiler, Charles Burdick and Jurgen Rohwin, German World War II Military Studies Volume XIII (New York: 1979).

3. FM 100-5, p. 2-3.

4. The Germans' grand scheme was based on total control of the Mediterranean from the Straits of Gibraltar to the eastern choke points of the Suez Canal and the Dardenelles. Prominent in these plans were the islands of Malta, Crete, and Cyprus. The islands did not guarantee total control of the basin, but in conjunction with control of the land bordering the Mediterranean the Germans could strangle the remnant of the British empire into submission.

5. Edwards, p. 81.

6. War Maps: World War II From September 1939 to August 1945, Air, Sea and Land, Battle by Battle. (New York: 1982), p. 247.

7. Buckley, p. 153.

8. War Department, Airborne Operations, A German Appraisal. (Washington: 29 April 1950), p. 23. Brigadier General Helmuth Reinhardt, a Wehrmacht officer, conducted an appraisal of the German airborne effort during World War II. In his comments on Crete, he describes the "oil drop

technique" as the preferred method of employment when the enemy situation is not known. This method of employment facilitates breaking up enemy counter-measures and reinforcing success.

9. Edwards, p. 89.

10. W. Victor Madej, German Operations in the Balkans. (New Martinsville: 1979), p. 115.

11. There are countless sources on the Falklands War. Over twenty books, reports and articles were reviewed for this section. The key sources are Mary Cawkell, The Falklands Story (Shropshire: 1983); Christopher Dobson, John Miller, and Ronald Payne, The Falklands Conflict (Kent: 1982); Paul Eddy and the Sunday Times Insight Team, War in the Falklands (Cambridge: 1982); Robert Fox, Eyewitness Falklands (London: 1982); and Max Hastings and Simon Jenkins, The Battle of the Falklands (London: 1983). The last four volumes represent the best accounts of the operation. Gaps in information exist in all the volumes because they represent the observations of reporters assigned to the ground units. Since each reporter could not be in all places at once, all four need to be read to get an accurate picture of the action. The British government has not published an official history. The observations of these reporters constitutes the primary sources of information.

12. Encyclopaedia Britannica. "The Falkland Islands", 7, (Chicago: 1978), pp. 153-154.

13. Fox, p.105.

14. Ibid., p. 108.

15. Ibid., p. xi. This quote is from Charles Darwin's log when he sailed on the Beagle and anchored in Berkely Sound, East Falklands on 1 March 1833 and again on 16 March 1834.

16. Eddy, p. 66.

17. Dobson, p. 196. A Royal Marine Commando term meaning marching or humping up to two hundred and twenty pounds of equipment and all ammunition needed for the attack at the far end of the trek.

18. Ministry of Defence, British Army in the Falklands. (London: 1983) p. 1. Operation Corporate is the plan name given to the Army's land operation.

19. Dobson, pp. II-III. Actual figures are difficult to determine but estimates between ten and twelve thousand are considered accurate.

20. Ibid.

21. Eddy, p.205.

22. Dobson, p. II.

23. Hastings, p. 285.

24. Dobson, p. 178.

25. Ministry of Defence, p.3. The two brigades were 3 Commando Brigade and 5 Infantry Brigade. Brigadier Julian Thompson commanded 3 Commando consisting of 40,42 and 45 Royal Marine Commando Battalions. Thompson's brigade was reinforced with 2 and 3 Para from 5 Infantry Brigade. Brigadier Tony Wilson commanded 5 Infantry Brigade. The First Welsh Guards and Second Scots Guards were added to 5 Brigade to replace the loss of the two parachute battalions. These two new battalions combined with 1/7 Gurkhas to make up 5 Infantry Brigade for the Falkland Islands War.

26. Hastings, p. 149.

27. Ibid., p. 151.

28. Ibid., p. 176.

29. Eddy, p. 199.
30. Ibid., p. 197.
31. Ibid., p.200.
32. Fox, p. 78.
33. Eddy, p. 191.
34. Ministry of Defence, p.19.
35. Fox, p. 145.
36. Dobson, p. 188. Discrepancies exist as to how many howitzers supported 2 Para; however, it was never more than three at Goose Green. Hastings (p.237) reports that Brigadier Thompson authorized three guns to be taken.
37. Hastings, p. 238. The battalion deployed with eight mortars but only two were taken to Goose Green. The terrain and lack of transportation assets influenced this regrettable decision. The remaining gun crews assisted by carrying mortar ammunition forward. The battalion also carried fifty-six machine guns, double the normal compliment.
38. Hastings, pp. 234-240. This passage describes Colonel Jones' concept of attack. Jones' plan outlined a six phase night-day attack. For simplicity, the plan has been reduced to the two major phases.
39. Eddy, p.237.
40. Hastings, pp. 232-252.
41. Ibid.

42. Eddy, pp. 232-247.
43. Ibid., p. 246.
44. Dobson, p. 190.
45. Ibid., p. 194.
46. Hastings, p.272. This is the celebrated telephone call incident. The British used the local telephone system to call from Goose Green to Fitzroy and determine whether the enemy was still occupying the town. On learning that the town was unoccupied, Wilson immediately put a security force into Bluff Cove and reinforced the element the next day.
47. Ibid., pp.271-274.
48. Ibid., p. 302.
49. Ibid., pp.275-281.
50. Eddy, pp.259-274.
51. Hastings, p. 178.
52. Eddy, p. 265.
53. The accounts of the attack on Port Stanley are a composite of the events from three different sources already cited Hastings, pp. 283-314; Eddy, pp. 259-274; and Fox, pp. 243-276. Hastings account is the most comprehensive, but all three are necessary to understand the battle.
54. Ministry of Defence, p. 1.
55. Dobson, p. 131.

56. Defence Attache, "Rounding Off the Falklands". (London: 1982), p. 53.

57. T. D. Bridge, "Official Reports on the Falklands Campaign: An Appraisal". (Devon: January 1982), p. 34.

58. Peter Calvert, "The Falklands Crisis: The Rights and The Wrongs". (New York: 1982), p. 154.

59. Defence Attache, pp. 53, 154.

60. Hanrahan, p. 126.

61. Phillip Babcock Gove, et al., Webster's Third New International Dictionary. (Springfield: 1978), p. 493.

62. FC 71-101, p. 1-14.

63. Ibid., p. 1-15.

CHAPTER 3

REINFORCEMENT OPERATIONS

Light Infantry Divisions add a new dimension to the strategic mobility of the Army forces. These divisions can rapidly deploy from U. S. bases to reinforce forward deployed U. S. or Allied forces in NATO or the Far East.[1]

The reinforcement of forward deployed forces is a designated role for the light division. Army planners anticipate reinforcement to occur in a mid-to high-intensity environment.[2] As noted above, reinforcement is principally oriented toward NATO and the Far East where the Army maintains forward deployed divisions. Since the bulk of these forces are in western Europe, the study of the fighting around Bastogne during the German Ardennes counteroffensive in December 1944 is germane to the issue of the operational employment of light divisions.

The key period for this analysis is the initial eight days of the campaign from 18 - 26 December. This period involves the movement of forces to meet the German breakthrough, the fighting around Bastogne, and encirclement of the American units. The story of the fighting at Bastogne is pertinent because one of the major American units involved was the 101st Airborne Division.[3]

In addition to the 101st Airborne, other units which made a significant contribution to the defense of Bastogne are Combat Command B, 10th Armored Division, 333d Field Artillery Group, and the 705th Tank Destroyer Battalion.[4] These forces increased their considerable combat power by absorbing combat personnel withdrawing from forward positions overrun by the Germans. These soldiers were primarily from the 28th Infantry Division and Combat Command R, 9th Armored Division.

The German forces attacking through Bastogne to the Meuse were elements of General Hasso van Manteuffel's Fifth Panzer Army. The responsibility for Bastogne's capture was entrusted to XXXXVII Panzer Corps commanded by Lieutenant General Heinrich von Leutwitz. Leutwitz's Corps consisted of three divisions: 26 Volksgrenadier Division, 2 Panzer Division, and the elite Panzer Lehr Division.[5] These units and their activities at Bastogne are significant from the perspective of how the United States Army expects light infantry divisions to fight heavy forces.

Bastogne: 18 - 26 December 1944

The saga of Bastogne began on 16 September 1944 at the Wolf's Lair, Adolf Hitler's East Prussian headquarters.[6] Hitler's plan was designed to reverse the losses of the previous summer, split the Allied alliance,

and then turn the full fury of the Third Reich on the invading Russians. The plan envisioned another lightning strike by German forces through the thinly occupied Ardennes region, crossing of the Meuse, and the capture of Antwerp. The actions were designed to split the tenuous American - British coalition and surrounding the 21st Army Group which would be exposed to piecemeal destruction. This bold stroke, similar to the glorious rush of German Panzers to the English Channel in 1940, was Hitler's dream to restore sagging German morale.[7] Hitler expected the attack to be successful. First, the German Army successfully executed a similar operation in 1940. Second, the attack would rupture the thinly occupied lines of the United States VIII Corps. Finally, speed coupled with surprise was expected to produce a quick victory.

The brunt of the German counteroffensive struck Lieutenant General Omar Bradley's 12th Army Group. The Army Group was deployed along the Siegfried Line and the Roer River during December 1944.[8] The Ninth Army was preparing to drive through the Roer River valley to deny the Roer dams to the Germans; meanwhile, George Patton was planning to secure crossings over the Saar River with the Third Army. In the middle, occupying an eighty-eight mile front of the Ardennes, was Major General Troy Middleton's VIII Corps. His sector, often called the "ghost front", was a quiet sector for forces to refit and rest (the 28th Division) and

for new units to gain combat experience (the 106th Infantry Division).[9] This was the zone of Fifth Panzer Army's attack to secure the key communication hub of Bastogne.(Figure 3-1) The German attack relied on speed and surprise for success. Hitler depended on the renowned striking ability of his Panzers to capture Antwerp and on surprise to prevent the Allies from reacting to blunt the attack.

Terrain and weather played a significant role in Hitler's gamble. The Germans, as aforementioned, were no strangers to the Ardennes, having conquered France in 1940 by attacking with mechanized forces through the Ardennes "under conditions of good weather and little or no enemy resistance".[11] Terrain and weather were destined to play a much more critical role in 1944.

Bastogne is located in the high Ardennes or true Ardennes. The surrounding area is characterized by a wide plateau and a high plain, not heavily mountainous or forested. Regardless, the terrain dominates and dictates military maneuver. The countryside is dotted with small villages consisting of stone houses and narrow, serpentine streets. The terrain channelizes units and impedes rapid movement. As a result, traffic management is critical to maneuver. Therefore, Bastogne assumed preeminence in the XXXXVII Corps plan; not only was the village located in an area of rolling hills and pasture lands, but it was the hub

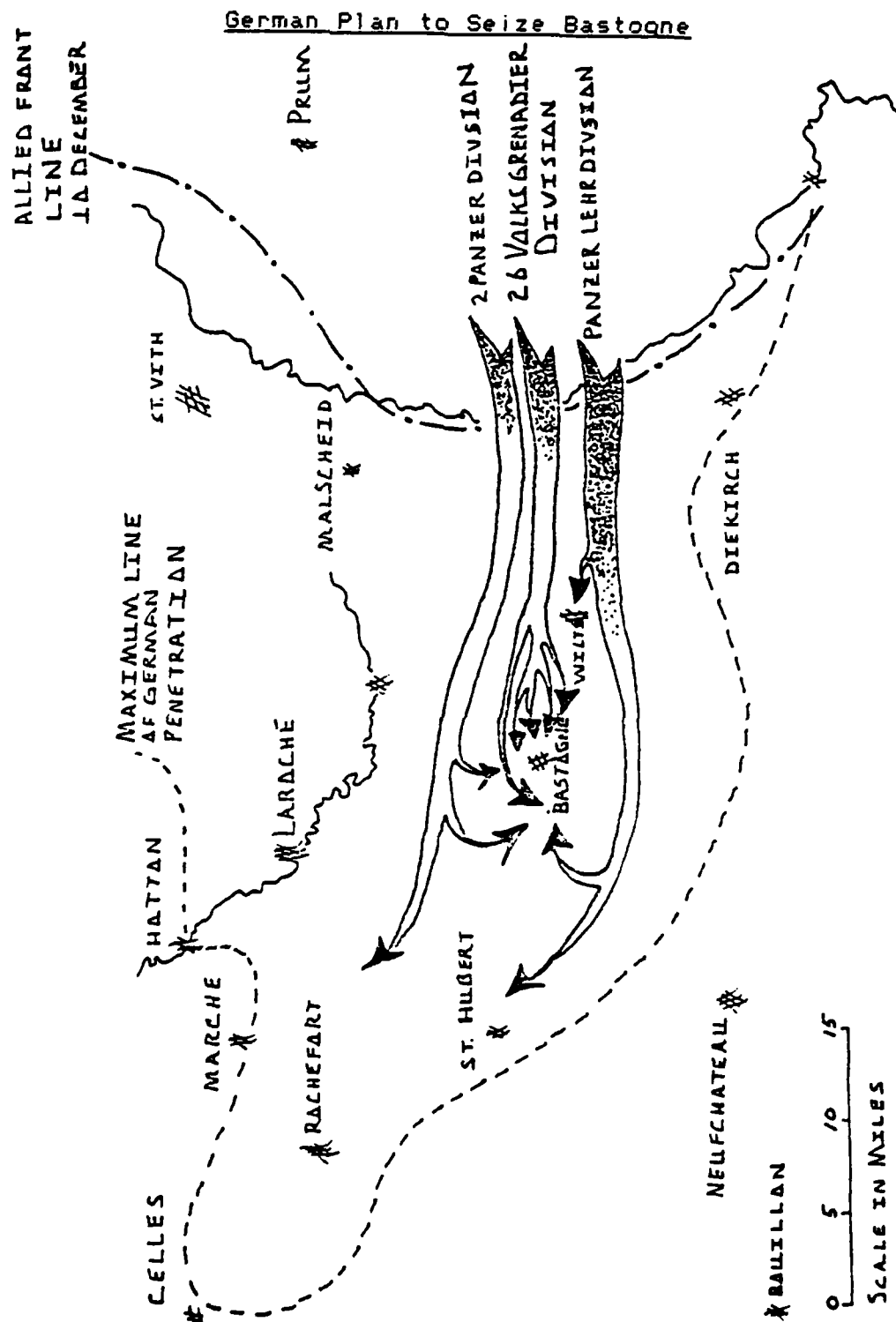


Figure 3-1 [10]

of five major and three secondary roads.[12]

Weather was another critical element in the German plan. The attack required a period of reduced visibility - "Hitler weather" - consisting of mist, fog, drizzle, and low lying clouds.[13] During December, normal Ardennes weather is characterized by heavy rainfall, deep snow, frequent mists, and raw, harsh winds. The soil, if frozen, will support off road armor movement. If the ground is not frozen, armor vehicles grind the clay soil into a soupy mire which immobilizes vehicles.[14] Hitler's attack was blessed with the needed clouds, mist, and fog. Unfortunately, the ground was not frozen during the initial phases of the attack, thus restricting armor to the roads.

Bastogne's significance was not lost on German commanders. General Leutwitz provided the following guidance to his commanders prior to the operation.

Bastogne must be captured, if necessary from the rear. Otherwise it will be an abcess in the route of advance and tie up too many forces. Bastogne is to be mopped up first, then the bulk of the Corps continues its advance.[15]

Once the attack began, the Ardennes campaign became a struggle between Corps and Divisions, between small sections and individuals. The resulting battle was destined to tilt on decisions and contingencies unforeseen during planning.

Descriptions of the Ardennes conjure up visions of great infantry battles. Yet the fight around Bastogne suffers from a misperception. Granted the 101st succeeded, and the division's history is indelibly linked with the heroic deeds in defense of this Belgian hamlet; but the fight involved more than just infantrymen, it included artillerymen and tankers as well. In fact, the first unit to arrive in Bastogne to reinforce General Middleton was Combat Command B, 10th Armored Division commanded by Colonel William Roberts. The initial actions of his unit (Teams Cherry, O'Hara, and Desobry) provided the 101st the necessary time to assemble and organize a coherent defense.

The German counteroffensive began at 0530, 16 December. The magnitude and true meaning of the attack were not easily discernible. There was, however, one thing which General Middleton was sure of and that was that his Corps was being torn apart --- and rapidly. Initial steps by General Bradley to restore the situation and stem the tide of the German offensive resulted in the movement of Combat Command B from Remeling, France to Bastogne during the early afternoon of 17 December. Similarly, the 101st, part of the SHAEF reserve, was alerted to move from their refitting camp at Mourmelon, France to an undetermined destination in Belgium, probably Werbomont, located about one hundred and thirty miles away.[16]

Colonel Roberts learned his true destination on the morning of the 18th and was able to get two teams into Bastogne before late afternoon. The 101st, on the other hand, was unable to begin the one hundred mile journey to Bastogne before 1400 hours on the 18th.[17] An advance element consisting of General McAuliffe, the acting Division commander, and Lieutenant Colonel Kinard, the G-3, preceded the column to ascertain the situation.

As mentioned earlier, a third maneuver element was instrumental in the Bastogne defense --- the 705th Tank Destroyer Battalion. Colonel Clifford Templeton was alerted that his unit was attached to VIII Corps at 1800, 18 December. At the time, Templeton's battalion was sixty miles north of Bastogne in Kohlschied, Germany. He reported to VIII Corps headquarters at Neufchateau and was told his battalion was further attached to the 101st Division in Bastogne. The 705th arrived in Bastogne at 2030, 19 December.[18]

General Middleton remained in Bastogne through the 18th to insure the mechanisms for a solid defense were established. During that time he developed an appreciation for what was required to deny Bastogne to the Germans. Upon the arrival of Colonel Roberts, General Middleton ordered Combat Command B to occupy three roadblocks and deny the enemy quick access to the town. One roadblock, Team Cherry, was at Longvilly, five miles to the east. Team Desobry's

roadblock was located at Noville, five miles north of Bastogne. Team O'Hara established the third roadblock near Wardlin, southeast of Bastogne. (Figure 3-2) Roberts received these orders with some dispute. In Roberts' opinion, Middleton's employment of armor was not doctrinally correct. This was further aggravated by the fact that Middleton was an infantryman. Even so, Middleton's initial assessment led to the survival of Bastogne. Roberts continued his distrust of infantry officers' ability to employ his tanks and was dismayed at the prospect of working for the commander of the 101st Airborne Division, a light infantryman who obviously knew nothing about the employment of armor.[19]

The Germans were not unaware of the American activities. Manteuffel's headquarters acquired radio intercepts directing the move of American Airborne Divisions to the Bastogne area.[20] The Germans calculated the American units would arrive in Bastogne late on the 18th or early 19 December. The race for Bastogne was on. The German Army commander exhorted Leutwitz and his division commanders to secure the vital crossroads as soon as possible. Manteuffel and Leutwitz were optimistic about their prospects.

The spearhead of Panzer Lehr arrived in the village of Mageret at 0200, 19 December.[21] Mageret is three miles

Combat Command B Roadblocks, 18-19 December 1944

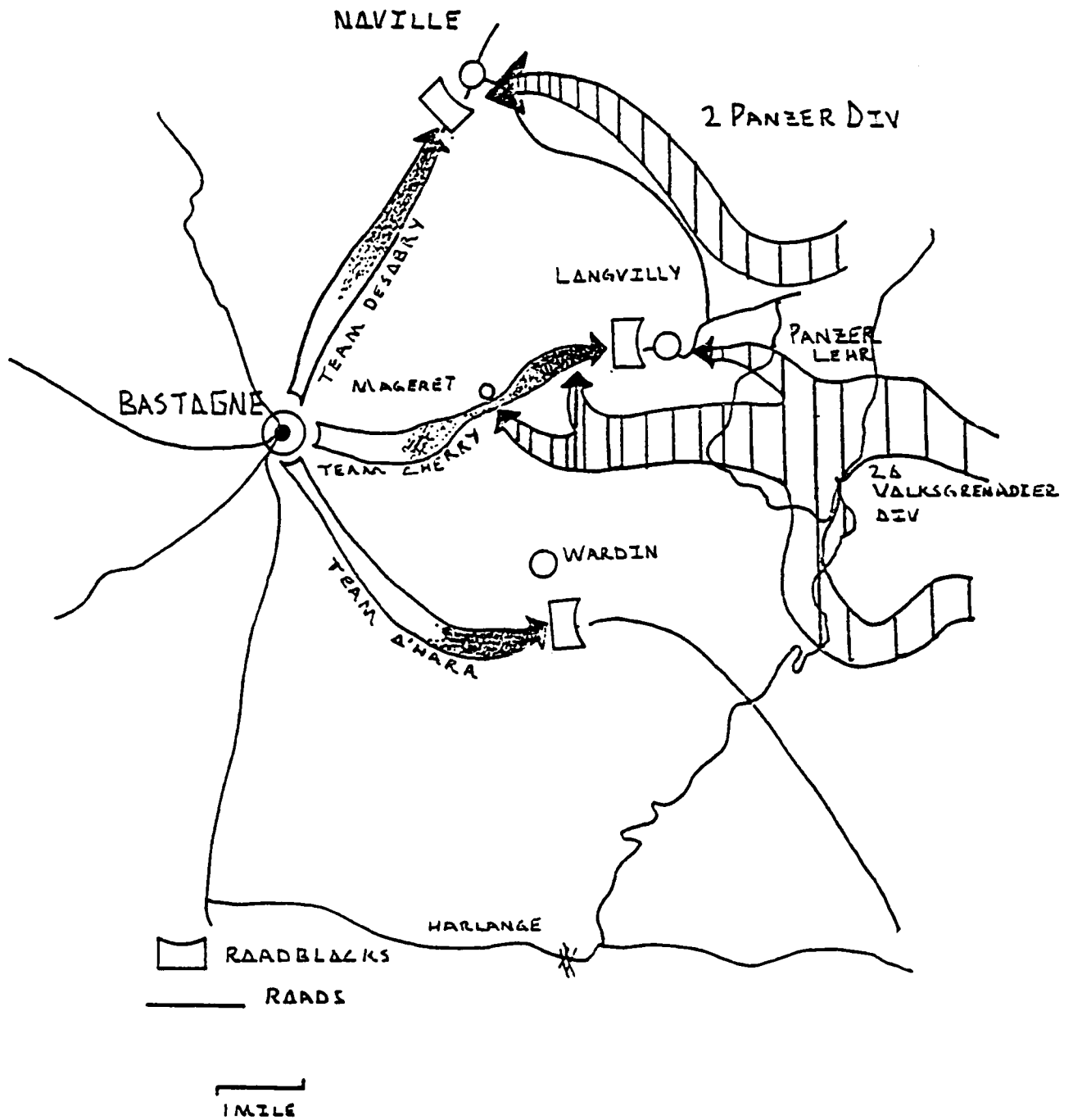


Figure 3-2 [22]

east of Bastogne, between Bastogne and Longvilly. The advance element was directed by General Bayerlein. Bayerlein learned from questioning local inhabitants that a large American armor column passed through the village earlier in the evening. Bayerlein's advance element stopped for three hours before striking west for Bastogne.

Leutwitz's 2 Panzer Division was also making steady progress. According to plan, they reached the crossroads short of Longvilly late on the evening of 18 December. From this location, the division would turn north, pass through Noville and around Bastogne to reach the Meuse. It appeared to the Germans that Bastogne might fall by a coup de main.(Figure 3-3)

The participants for the critical battles around Bastogne were now poised to execute their plans. Each opponent was unaware of the danger posed by the other force, as the murk caused by the fog and mist deceived the antagonists as to the other's strength and disposition.

Leutwitz proposed to take Bastogne in a quick thrust on 19 December. Although all the German commanders were cognizant of the need to secure Bastogne as quickly as possible, the real objective was to cross the Meuse and continue to Antwerp. Manteuffel refused to allow Leutwitz to delay the westward movement of the Corps in order to

XXXXVII Panzer Corps Positions 2200, 18 December

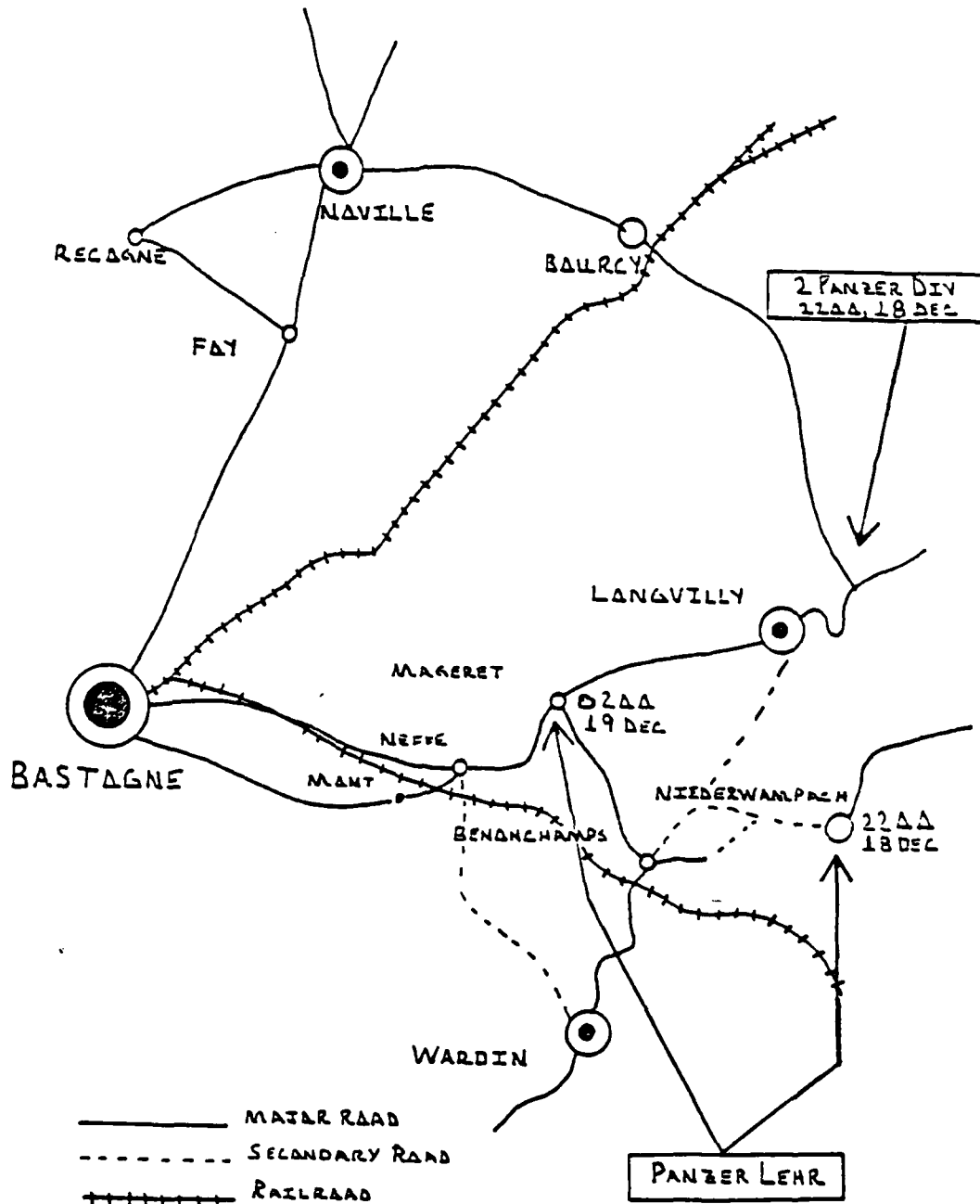


Figure 3-3 [23]

consolidate his divisions and conduct a coordinated attack on Bastogne.[24] Therefore, Leutwitz proposed to seize Bastogne by attacking from the north, east and south.(Figure 3-4) He would employ two regiments of Panzer Lehr in a two pronged attack with one regiment along the Mageret axis and a second striking through Wardlin. The 26 Volksgrenadier Division would pass behind Panzer Lehr and attack from the north along the Longvilly and Bizory roads.[25]

Initial contact between German and American forces occurred in Noville at 0400, 19 December.(Figure 3-5) Elements of 2 Panzer bypassing Bastogne to the north were engaged by Team Desobry. This surprise encounter delayed 2 Panzer until daylight. An attempt by 2 Panzer to infiltrate a small force of Panzers and Panzergrenadiers through the intersection was repulsed by a hail of machine gun, bazooka, and tank fire which separated the infantry and the tanks which were crossing open ground. The German vehicles were destroyed in the open. Team Desobry's plight was revealed when the fog lifted and fifty to sixty tanks were visible on the high ground to the north and east. The German tanks in these locations were able to fire on the Americans from defilade positions. Team Desobry was reinforced with a battalion from the 506th Infantry Regiment. In order to retain Noville, the Americans planned

XXXXVII Panzer Corps Plan of Attack, 19 December

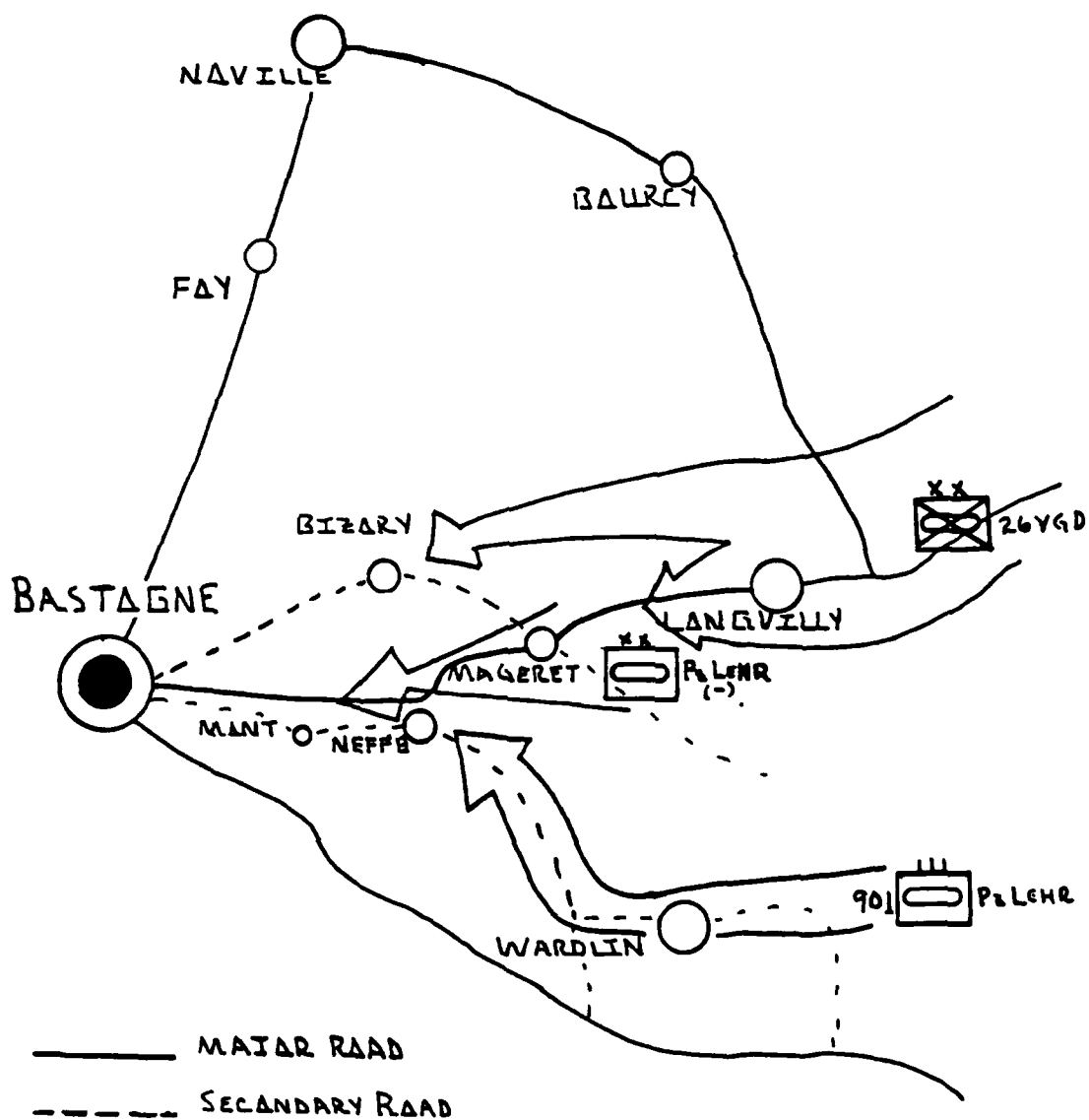


Figure 3-4 [26]

2 Panzer at Noville, 0400, 19 December

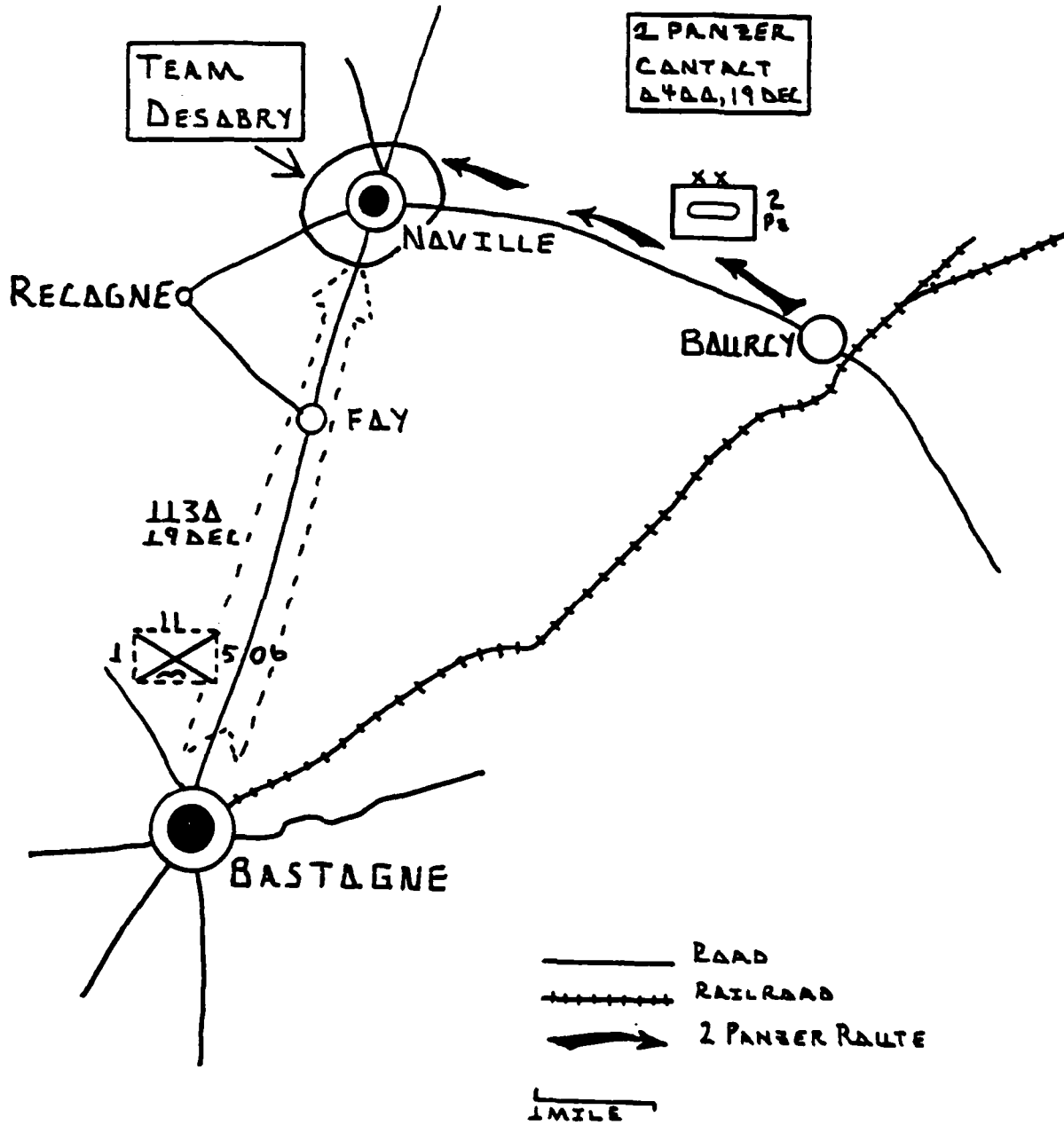


Figure 3-5 [27]

a coordinated attack on the German positions.(Figure 3-6) The attack, initiated at approximately 1430, made little progress, gaining at best five hundred yards, because the Americans attacked into a German formation conducting their own attack. Just as in the morning, American artillery and machine gun fire caused the German infantry to abandon the tanks in the open where the American fire could destroy them.[28] Noville remained in American hands.

At 0600 two events took place which had a lasting impact on the battle raging around Bastogne. First, Bayerlein started his attack west from Mageret through Neffe where the headquarters of Team Cherry was established. Simultaneously, General McAuliffe directed the 501st Infantry Regiment to "move out, make contact, attack and clear up the situation" along the Longvilly road.[29] These two forces met in the fog at 0800. The German armor was in Neffe and caught the lead battalion approaching along the road. Although no casualties were suffered, the advance of both units was stopped. Colonel Julian J. Ewell, the Regimental commander, then dispatched another battalion to Bizory to attack Mageret and get behind the Germans. A little after noon, the 2d Battalion, 501st attacked towards Mageret and ran headlong into entrenched elements of the 26 Volksgrenadier Division.[30] Supporting the attack of the

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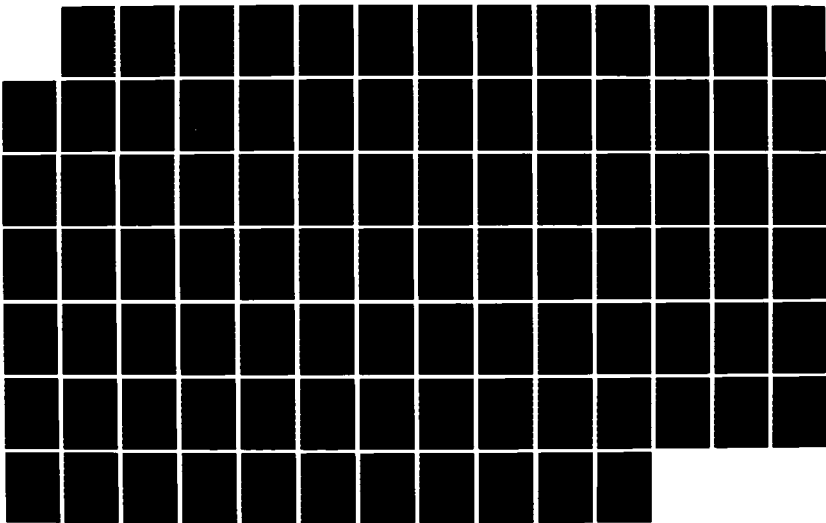
THE OPERATIONAL EMPLOYMENT OF THE LIGHT INFANTRY
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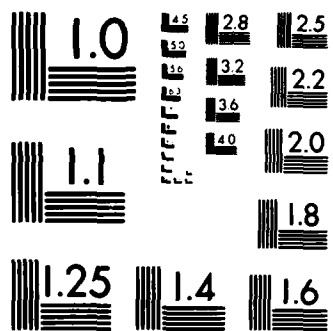
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American Attack at Noville, 1430, 19 December

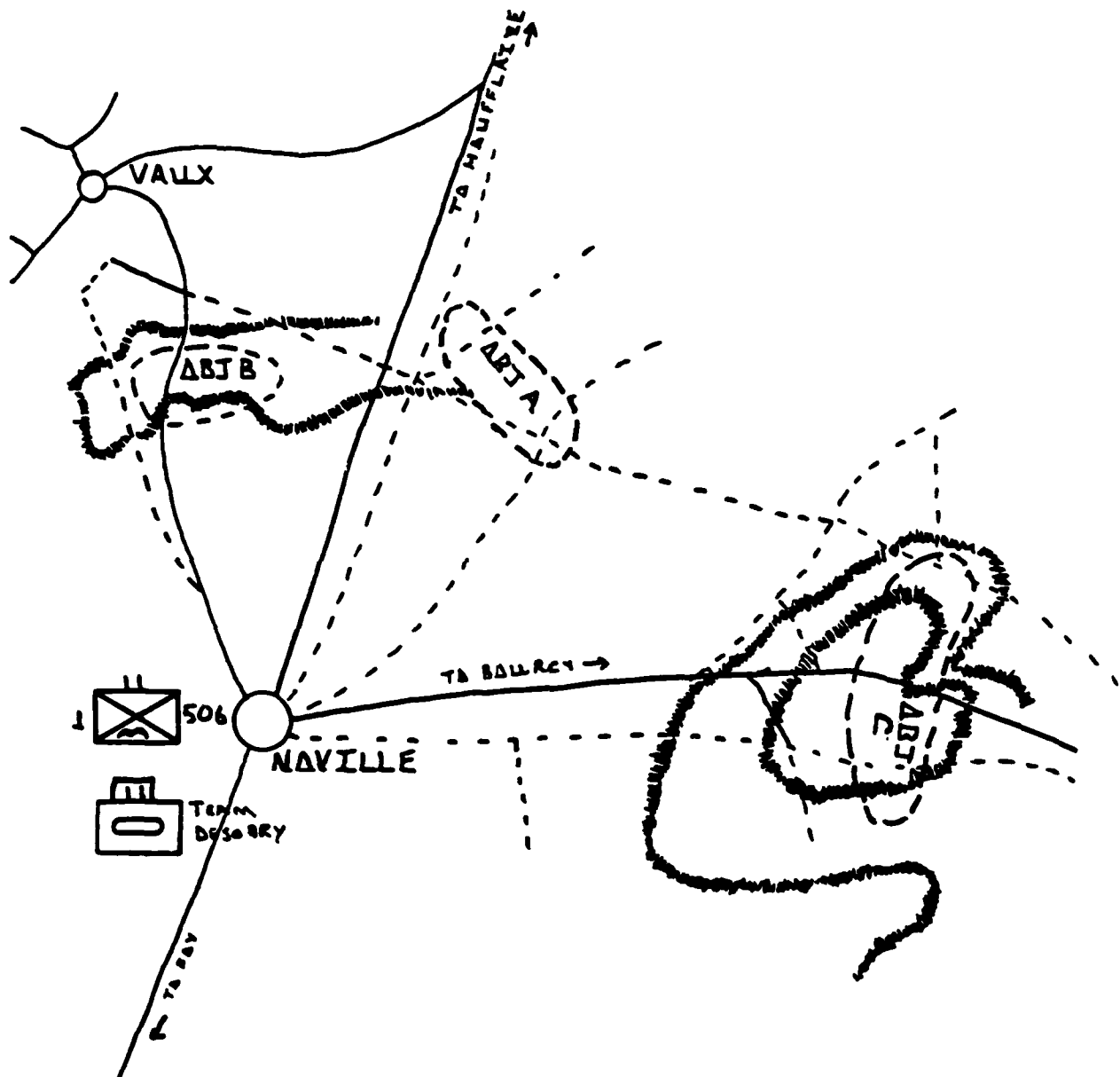


Figure 3-6 [31]

501st were M-3 pack howitzers from the Division Artillery. Bayerlein, still forward with the lead elements, mistook the muffled firing of the howitzers for American tanks.[32] Perceiving that he was caught between American armor in Neffe and Longvilly and fearing for his exposed flanks, Bayerlein stopped his attack. He turned to strike the real or imagined force in Longvilly prior to continuing his assault on Bastogne.

Team Cherry was in a precarious situation, the bulk of the force at Longvilly now cut off from the headquarters by the Germans in Mageret. Complicating the situation was the occupation of Longvilly by Combat Command R, 9th Armored Division. The convergence of such a large number of vehicles in one area led to chaos. Efforts to effect a coordinated defense of the village were futile. In fact, Combat Command R began withdrawing toward Bastogne at 0800 and encountered an ambush at Mageret. Undoubtedly, this movement adversely affected Bayerlein. Elements of Panzer Lehr concentrated on Team Cherry at 1400. Independently, elements of 2 Panzer and 26 Volksgrenadier struck at the exposed column. Maneuver room was so limited that vehicles jammed on the road could not strike back. In the end, Team Cherry all but ceased to exist. The Germans destroyed or captured over two hundred vehicles by 1530.[33] German losses were unknown, except they lost precious time.

A last incident on the 19th fueled Bayerlein's fears. Ewell was still trying to move his regiment forward. Repulsed at Neffe and stymied at Bizory, he decided to probe southeast toward Wardlin with his third battalion. (Figure 3-7) Getting around Neffe was difficult for this battalion, and I Company was the only unit to reach the town. The airborne unit entered Wardlin at 1230, while from the opposite direction, the southern prong of Bayerlein's force entered the town. The paratroopers were no match for the panzers. The fighting quickly degenerated into house to house fighting with a large portion of I Company being killed or wounded. The action stopped the approach of Bayerlein's Division and gave rise to additional fears that the Americans were trying to attack Panzer Lehr's flank. (Figure 3-8)

At the end of the day the Americans retained Noville and occupied a defensive line Noville - Bizory - Mont - Marvie. Teams Desobry and O'Hara were still intact and paratroopers were digging in. The situation was totally confused as the antagonists tried to reorient for the next day's attacks.

The next day was critical to the defense of Bastogne. Three isolated actions solidified the defense. The actions, separate and distinct, portrayed the difficulties of the

501st Infantry Regiment Attack, 19 December

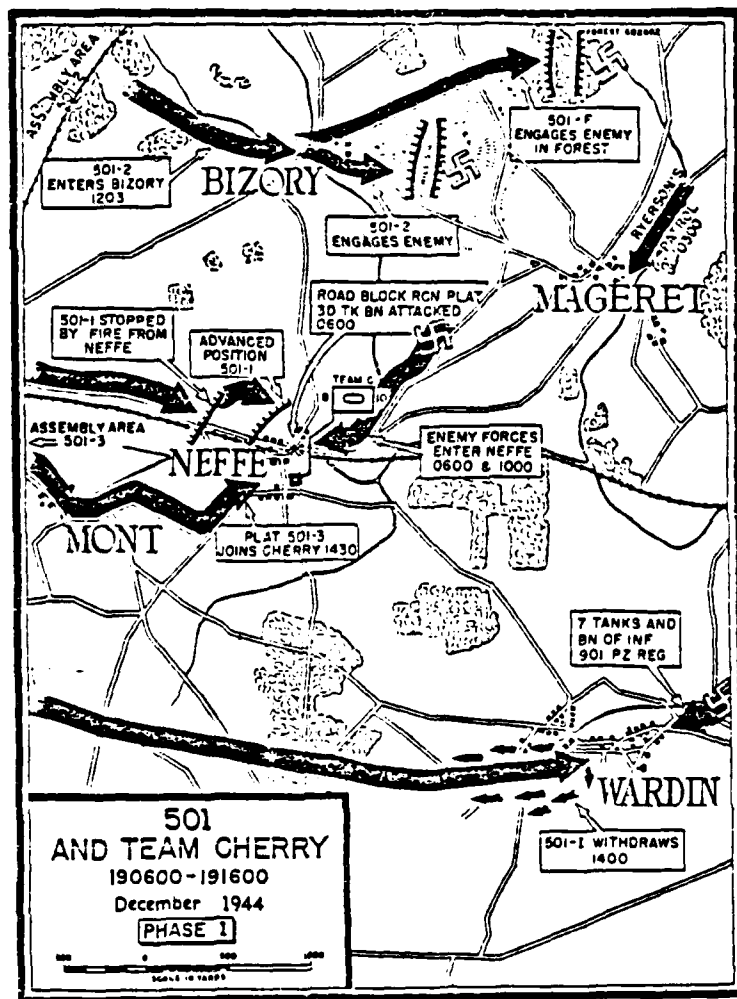


Figure 3-7 [34]

I-501st Infantry at Wardlin, 19 December

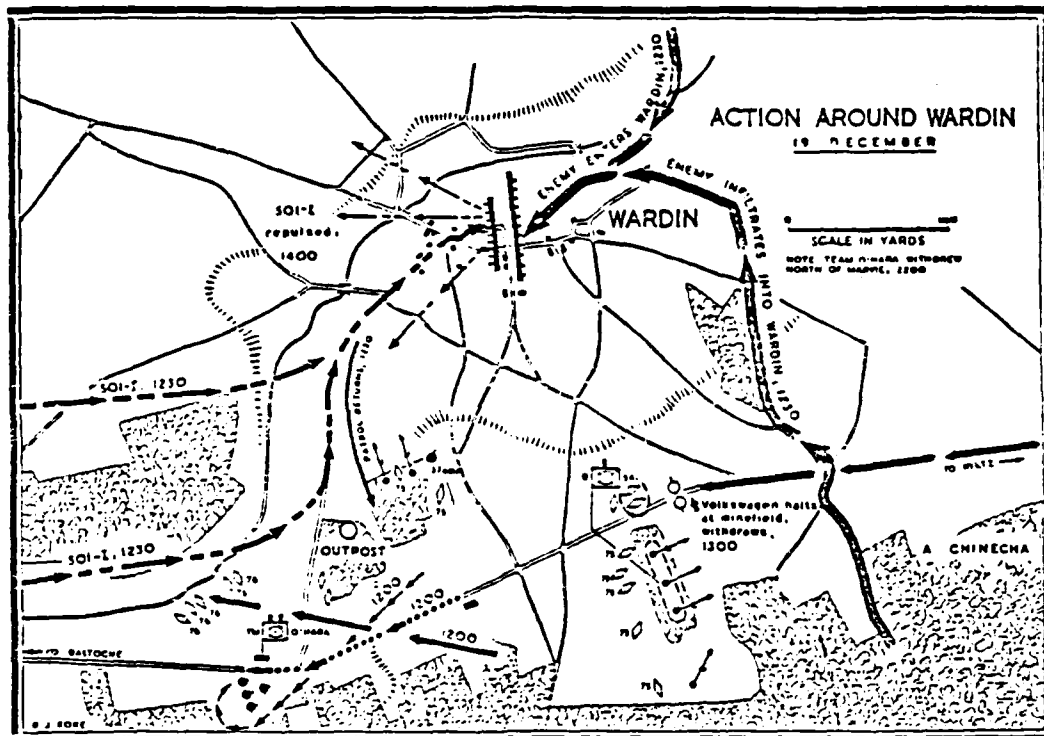


Figure 3-8 [35]

German effort. Uncoordinated attacks were launched at Noville, Halt Station, and Mont. Individually, success was possible. Given that a penetration occurred at Halt Station, success was even probable if the attacks were coordinated. Aside from these three battles, two other events shaped the course of the defense on 20 December. First, Bastogne was encircled and secondly, General Middleton attached Combat Command B to the 101st Airborne Division.[36] Thus the command lines were clarified, enabling General McAuliffe to execute his defense with unity of effort.

Throughout the night of 19-20 December, small patrols probed Team Desobry's position. The Germans also cut the road between Noville and Foy, thereby isolating the units in Noville. At 0530 the German attack began in earnest to free up the Noville intersection. Hitler weather still persisted. Although it kept the American Air Force from attacking the Germans, it also provided concealment to the defenders. The combined fires of artillery, tanks, tank destroyers, and entrenched infantry kept the enemy at bay. Nonetheless, the situation was deteriorating, the force could not withstand many more onslaughts.

General McAuliffe gave the order to Team Desobry to withdraw at 1430.(Figure 3-9) To support the withdrawal, a battalion from the 506th Infantry (3-506) would attack to

Action at Foy, 20 December

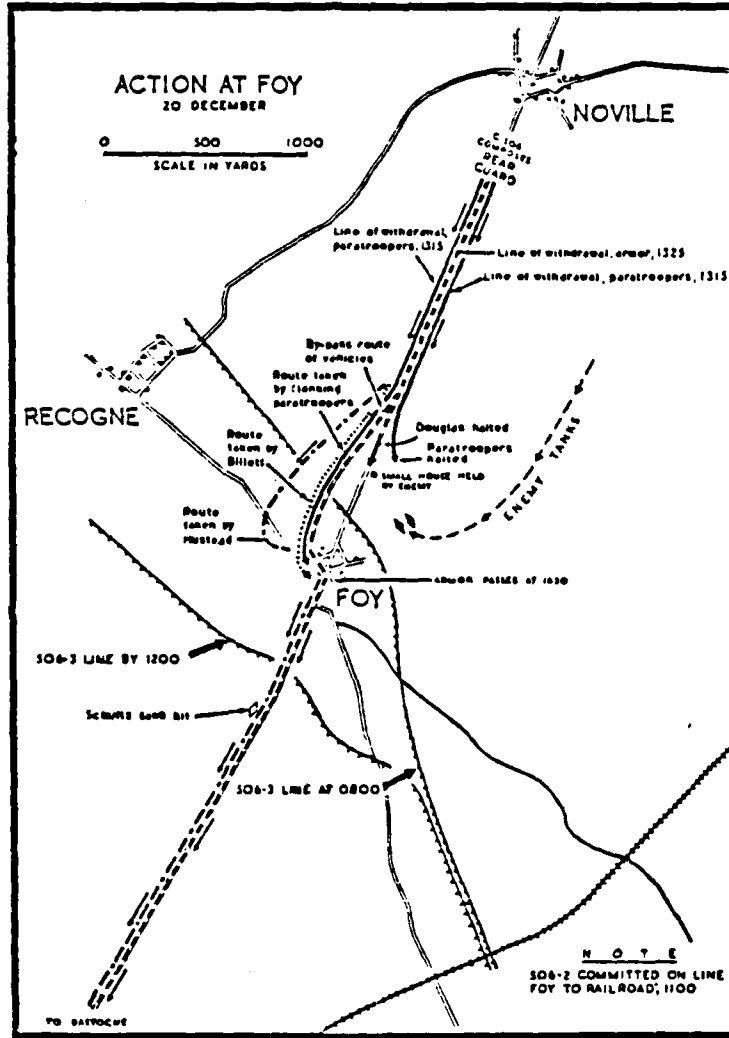


Figure 3-9 [40]

re-take Foy.[37] Once the counterattack began Team Desobry commenced its withdrawal with an advance guard of infantry and a section of tanks. A rear guard was similarly composed. All the remaining forces rode on tanks and half tracks. Not until dusk was the column able to pass into friendly lines.[38] Team Desobry and 1-506 Infantry were hard hit. Team Desobry was combat ineffective (only four vehicles remained) and 1-506 Infantry had lost almost half the battalion. Regardless, this task force delayed 2 Panzer for forty-eight hours and inflicted serious damage to the division.[39]

The attacks at Halt Station and Mont were night attacks. Fortunately for the defenders, aggressive patrolling foiled German attempts at surprise. Once again the lack of coordinated attacks worked to the defenders' advantage. German piecemeal attacks allowed General McAuliffe to mass the fires of all eleven artillery battalions in support of a threatened sector, resulting in the separation of the infantry from the armor.

The Bourcy - Bastogne railroad constituted the boundary between the 501st and 506th Infantry Regiments. A gap existed between the two units as a result of the assistance given by the 501st to the withdrawal of Team Desobry. In fact the gap was a thousand yards wide and unoccupied.[41] Again luck was on the American side. An advance element of seven vehicles and almost a battalion of

infantry from 26 Volksgrenadier Division was sighted moving towards Halt Station by a patrol from the 501st Infantry.(Figure 3-10) Both American regiments reacted quickly. Forces were moved in to plug the gap; however, the action to restore the perimeter, which began at 1700, required twenty-four hours to complete. Had the Germans made a concerted effort down the rail line, they could have entered Bastogne.[42]

The last action took place near Mont at 1900.(Figure 3-11) A German infantry attack was conducted to pierce the perimeter and open a corridor to Bastogne. The attack was carried over open ground. The Germans were opposed by the 3-501 Infantry supported by a platoon of tank destroyers. German armor, leery of American artillery fire, supported the attack from the woodline. Due to converging fire, the American forward positions withdrew into Mont. The Germans continued to press their advantage. As they advanced, the Germans were caught in the combined machine gun fire from the infantry and tank destroyers on the high ground around the village. By 2300 the attack stopped, much to the surprise of the defenders who expected the attackers to storm the village. In the morning the reason for the German failure became apparent. The dramatic effect of the machine gun fire was portrayed by the bodies hanging on the barbed

Engagement at Halt Station, 20 December

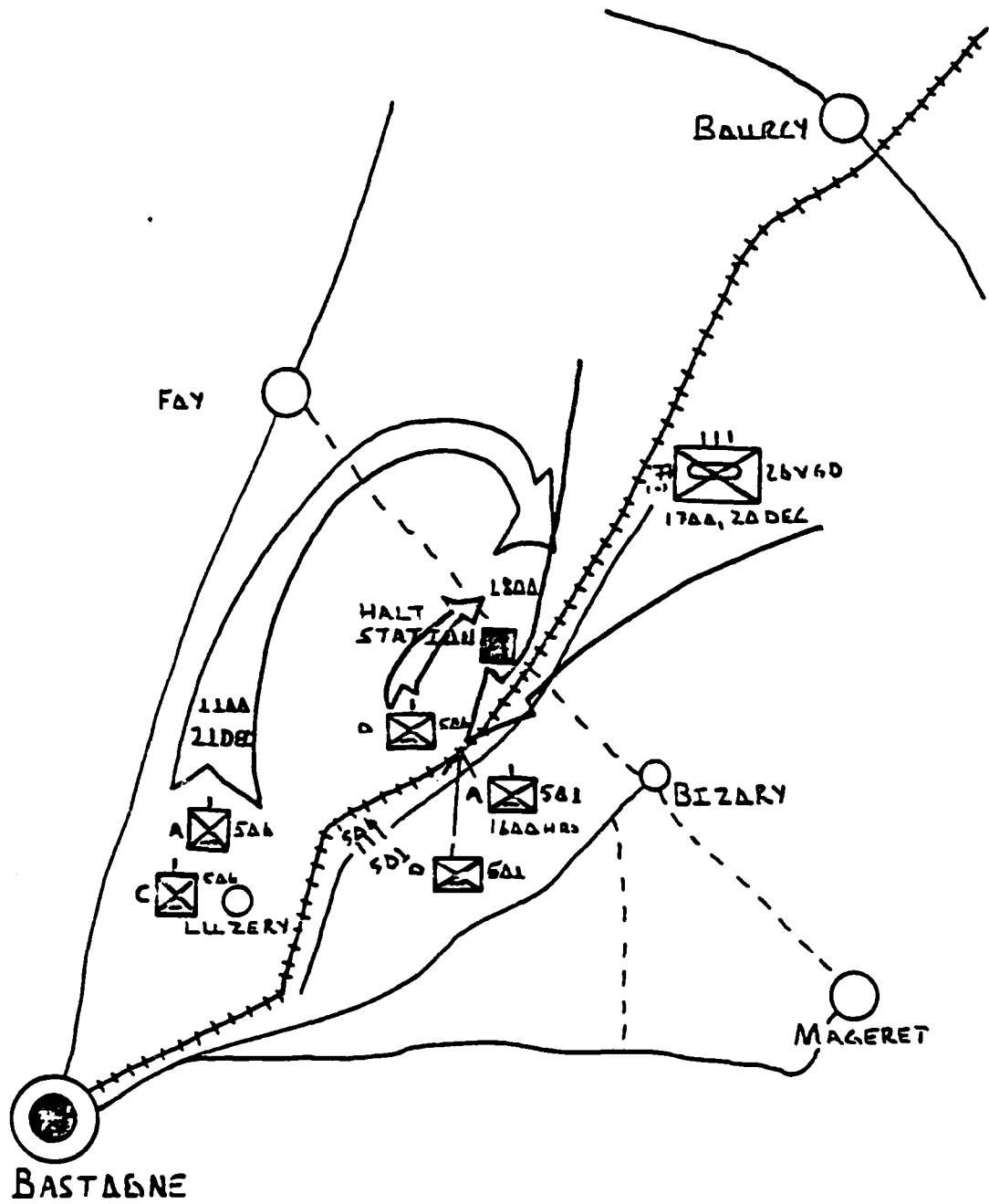


Figure 3-10 [43]

Engagement at Mont, 20 December

← TO BASTAGNE

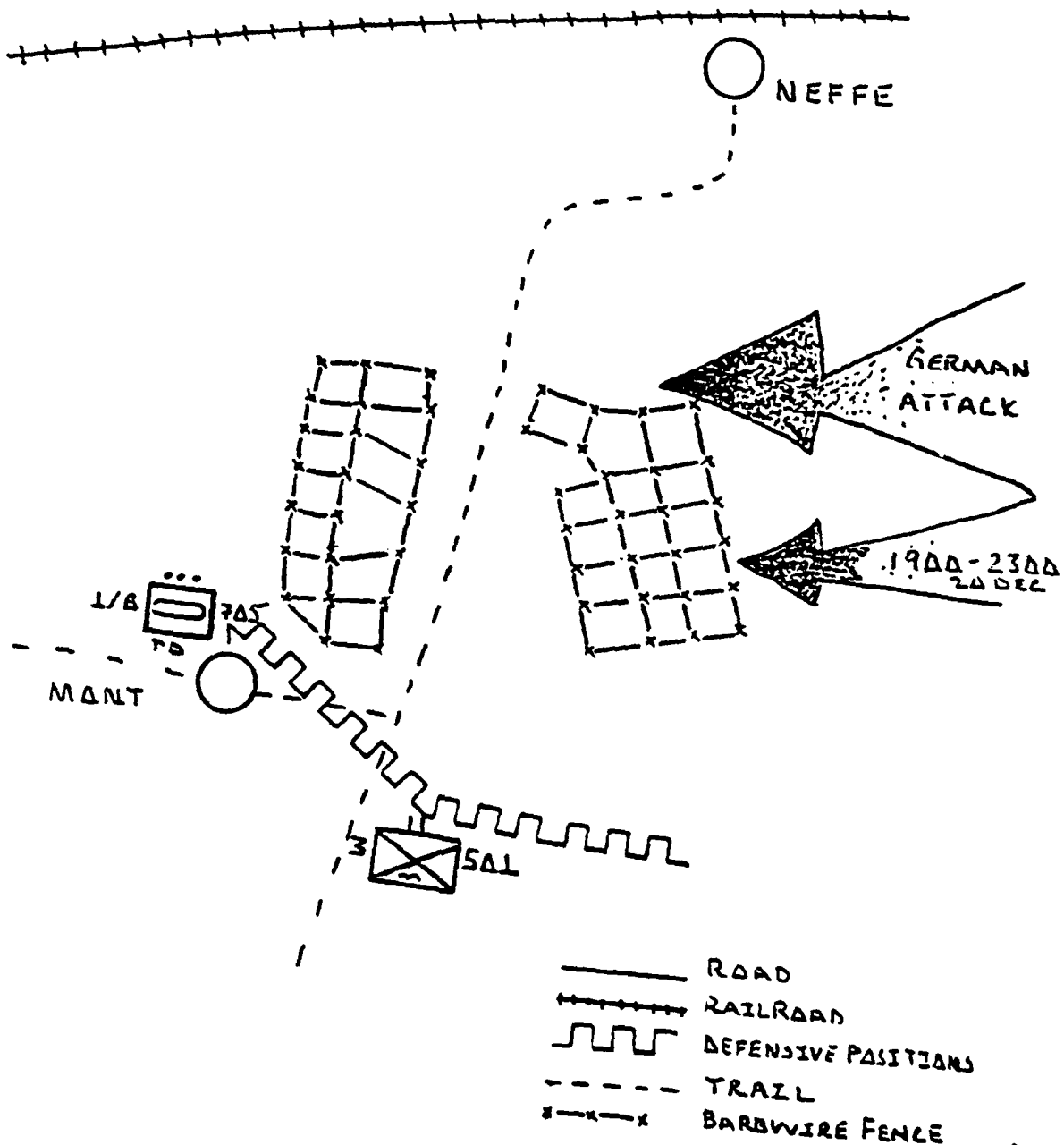


Figure 3-11 [44]

wire. The Germans had unknowingly assaulted across an area crisscrossed with six strand barbed wire fences. They were caught on the feeder pen wire as they tried to close and were butchered.[45]

The intensity of the German advance decreased on 21 December. Manteuffel ordered 2 Panzer and Panzer Lehr to continue advancing to the Meuse. Bastogne became the responsibility of 26 Volksgrenadier Division supported by 901 Regiment from Panzer Lehr. The Americans were afforded an opportunity to reorient and strengthen the perimeter during a two day respite (21 and 22 December) as the Germans developed new plans. The most significant event during this period was the German request for surrender and the American response (NUTS!) which probably did more for American resolve within Bastogne than anything else.

Another imperceptible change occurred in the American defense. Colonel Roberts advocated a strong mobile reserve, but his experience in Bastogne convinced him that "some tanks must be up with the infantry." [46] In fact his tanks were operating as tank destroyers ninety-eight per cent of the time.[47] Thus the defense of Bastogne became one of regimental combined arms teams. Each task force was organized with its own armor, artillery, engineers, infantry, and tank destroyers.[48] A mobile tank reserve was maintained to react to threats along the perimeter.

Attack at Champs, 25 December

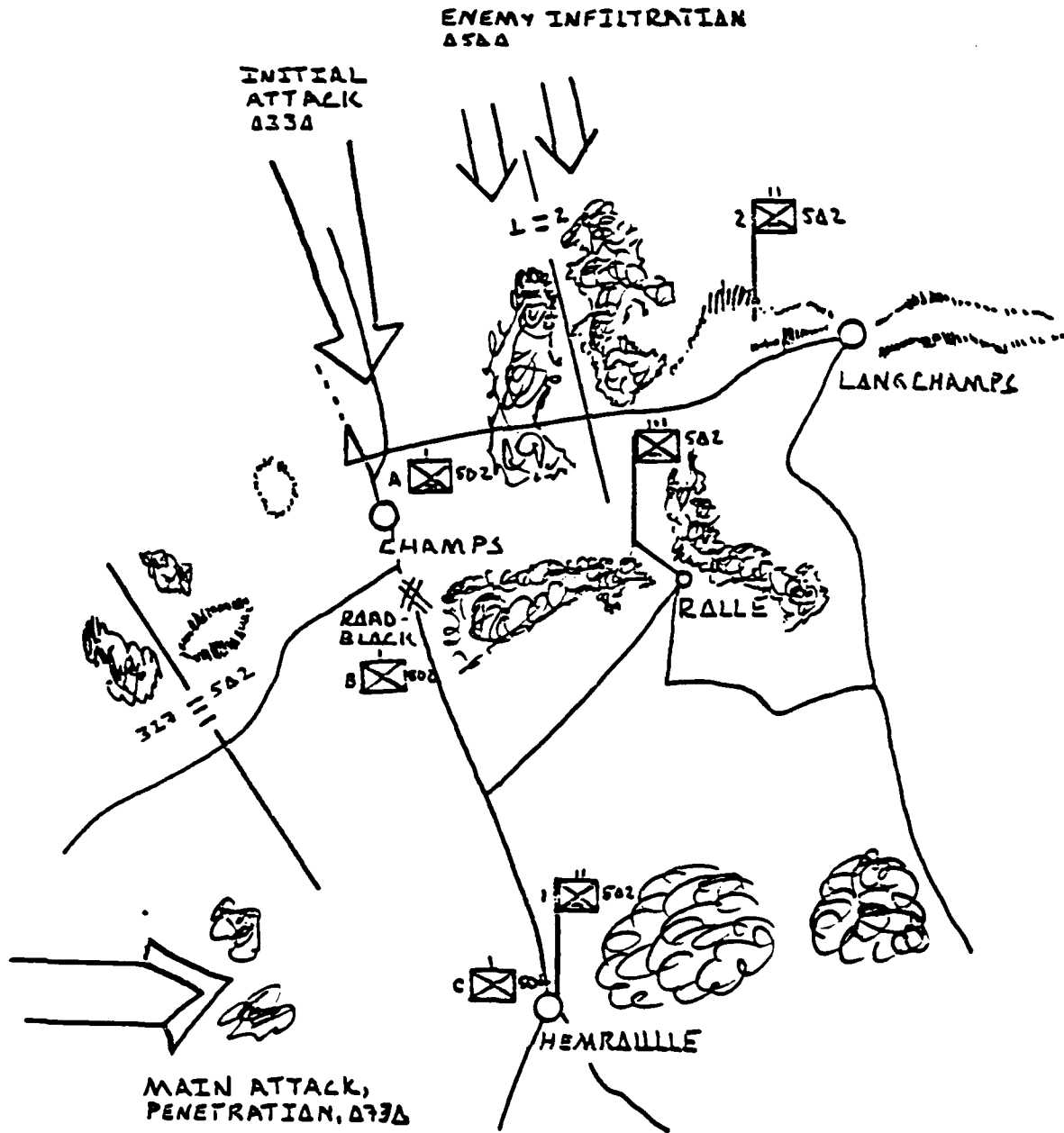


Figure 3-12 [52]

German attacks continued throughout the remainder of the siege. Although Leutwitz had Bastogne encircled, his forces were not sufficient to strangle the position. In fact, the American strength was almost equivalent to the Germans. Any advantages accrued by the Germans disappeared on 23 December. Even though snow and a hard freeze enabled the German armor to move off the roads and across country, this was offset by clear skies which allowed the American Air Force to enter the battle. The Air Force delivered food, fuel, medical supplies, and ammunition to the beleaguered forces. Additionally, the Air Force subjected the Germans to the power of their close air support. The battle had imperceptibly shifted in favor of the defenders.

The last serious threat to the Bastogne perimeter developed early on Christmas morning. An enemy artillery preparation hit the 1-502d Infantry at Champs about 0245, followed at 0330 by an infantry attack.(Figure 3-12) The fighting quickly became house to house and hand to hand. By 0545 the fighting was so intense that reserve forces were unable to enter the village for fear of killing friendly soldiers.[49] More infiltrations and pressure occurred on the left flank near the boundary with the 327th Infantry Regiment. The German's main attack struck the 327th at 0500.[50]

An armored thrust followed the infantry attacks at 0730. Eighteen tanks and infantry from 77 Panzergrenadier Regiment penetrated the 3-327, literally rolling over the Americans in their foxholes. So suddenly did the armor appear that the infantry was unable to withdraw. Although the tanks penetrated the outer perimeter, the defense in depth precluded a total rupture of the position. The infantry quickly sealed the initial gap and stopped the German infantry trailing the armor.[51]

The eighteen tanks were now loose behind the forward defenses of the 327th and heading for Champs and Rolle.(Figure 3-13) Each vehicle carried as many as twenty infantrymen. As the armor spearhead crossed into the 502d sector the force was beset by a tremendous hail of fire. All efforts were focused on eliminating this tank threat. Tanks and tank destroyers firing from covered and concealed positions took their toll. However, pack howitzers, anti-aircraft weapons, bazookas, and 37 mm guns firing cannister rounds were also instrumental in blunting the assault. The German infantry was helpless in their exposed positions on top of the tanks and was decimated by artillery, machine gun, and small arms fire. All of the tanks destroyed and the infantrymen either killed or captured, the attack ceased by 0900. The perimeter was restored by 1500.[54]

German Penetration at Champs, 25 December

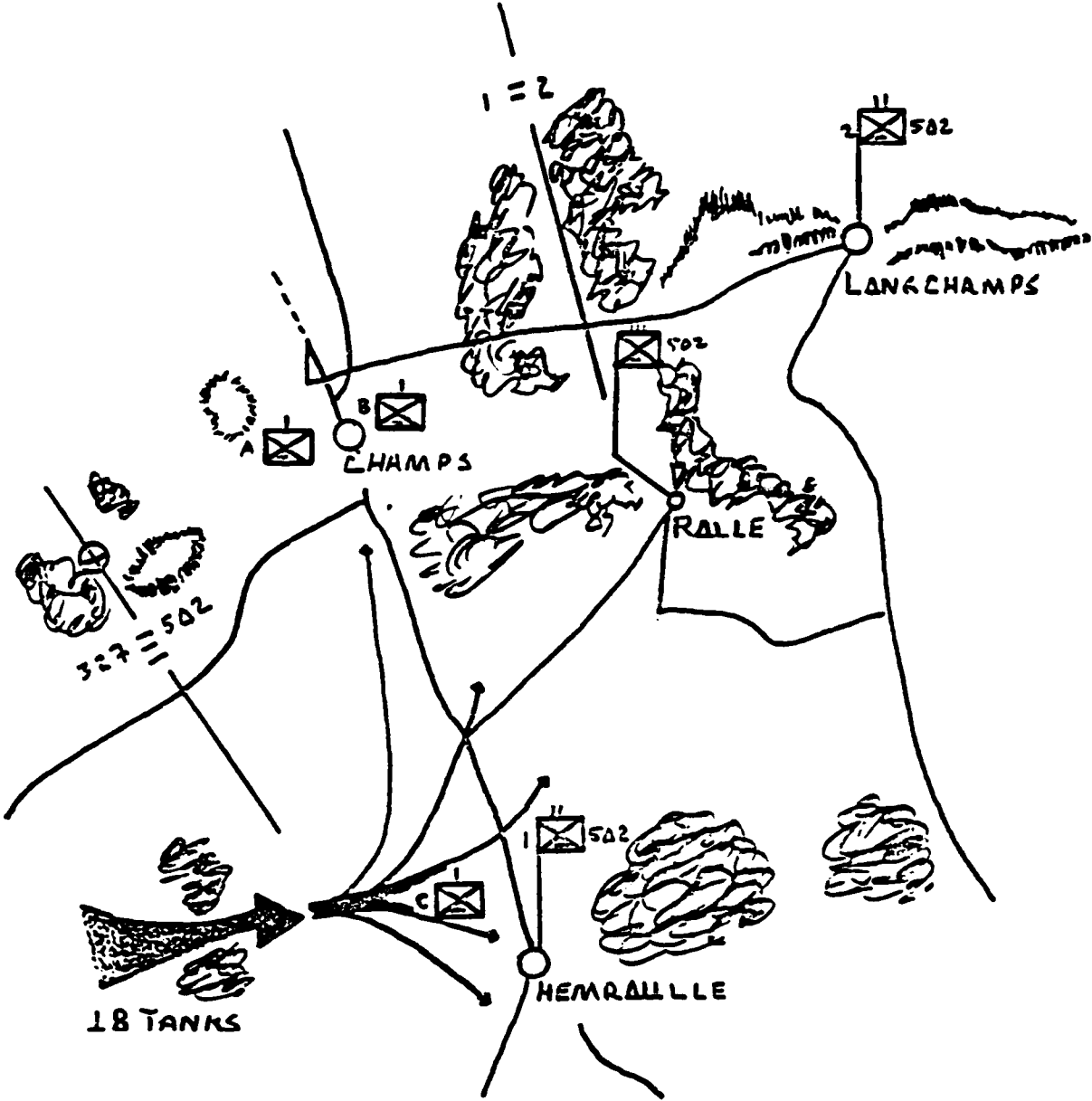


Figure 3-13 [53]

For all practical purposes, the last serious threat to Bastogne had passed. The next day, at 1650, Lieutenant Colonel Creighton Abrams' 37th Tank Battalion of the 4th Armored Division broke through to Bastogne and established a relief corridor. Even though the fighting waged for another month, the "initiative had passed from the Germans to the Americans." [55]

Observations

The commitment of the 101st Airborne Division to Bastogne is an excellent example for analyzing the employment of a light division in Europe, especially since this division was augmented with armor, artillery, and anti-tank units. This reinforced light division entered the battle against the heavier, superior forces of XXXXVII Panzer Corps. On the surface, what was expected of this division is unclear. The only order McAuliffe received was "Hold Bastogne" on 20 December, the same day the town was encircled.[56] To analyze the battle several factors are pertinent. Terrain and weather are obviously significant. Yet no less so are the way the two opponents fought and how General McAuliffe organized his command.

Terrain and weather may be neutral factors in war; but, if commanders do not have an appreciation for how each

impacts on operations, then an advantage is forfeited to the opponent. The fighting around Bastogne is a case in point. The terrain limited vehicular approaches to the road hub of Bastogne. Not only that, but the entire Ardennes campaign was conducted on narrow roads that restricted and blocked traffic. The German success was based on speed and surprise. Although surprise was attained, speed was sacrificed in several instances. Most notable are Leutwitz's decision to place both Panzer Lehr and 26 Volksgrenadier Divisions on the same approach road to Bastogne and Bayerlein's decision to use a narrow cart path to Mageret rather than the main road. Each of these decisions resulted in lost time and momentum. Further, these decisions produced confusion and wasted effort.

Weather was a second factor which caused the Germans untold difficulties. Fog, mist, and low hanging clouds were the order of the day. These conditions favored the attackers because the Allied air and reconnaissance aircraft were grounded. However, German commanders did not take advantage of the concealment to bypass pockets of resistance. The weather added to the confusion of the battle and induced a paralysis of action within the German leadership. Bayerlein's decision at Neffe is an example of how the fog played tricks on the German command. The Germans were unable to exploit the advantages weather provided to the attacker!

German commanders acknowledged the need for a speedy capture of Bastogne but Leutwitz was prevented from massing his entire corps to eliminate the defenders in Bastogne.[57] The weight of numbers was in Leutwitz's favor since he had three heavy divisions. Even when the option to attack with a full corps was overruled, the Germans continued to attack in a piecemeal, uncoordinated fashion. Initiative seemed to be lacking in their efforts. Perhaps six years of war was taking its toll on the combat leaders.

The American effort is not to be denigrated by the German failures. The American forces entered a situation filled with ambiguity and defeatism as elements from the forward lines streamed through Bastogne with tales of awesome German might. Eisenhower's commitment of his elite airborne divisions was a gamble, but he had no other option.

The American defense was one of small unit engagements. The Division commander influenced the action by allocating artillery, committing the mobile reserve, and by moral suasion. Success depended on the qualities and skills of small unit leaders and their soldiers.

General McAuliffe organized his defense in depth. He task organized the division into combined arms teams composed of infantry, armor, tank destroyer and artillery assets. The Division maintained a mobile reserve which was judiciously employed. Combined arms teams proved their worth. Only on rare occasions did an unsupported infantry

unit stop the German armor. The Americans countered the German efforts with active patrolling and the employment of obstacles, such as minefields, abatis, and tank barriers. The dividends were apparent at Noville, Mont, and Champs. Indicative of these efforts were the actions of the 327th and 502d Infantry on Christmas day.

Finally, the role of air support was critical. Not only was close air support crucial but so was aerial delivery. After 23 December, while the combat aircraft battered the German formations and supply lines, the Americans received vital infusions of food, fuel, medical supplies, and ammunition. Clear skies meant air support, in all its varied forms, as the Air Force maintained air superiority over the battlefield.

None of the factors influencing the outcome of this battle are unique to combat. Nor is this battle a universal application of the light infantry in a mid to high-intensity war. Bastogne does represent an ideal. Light infantry divisions, using terrain and weather to their advantage and bolstered by artillery and armor units, can be expected to influence a European campaign. By their very nature these forces must be judiciously employed. The battle at Bastogne embodies General Eisenhower's guidance during the height of the German counteroffensive.

The present situation is to be regarded as one of opportunity for us and not disaster.[58]

ENDNOTES

1. United States Army Field Circular 71 - 101, Light Infantry Division Operations. (Fort Leavenworth: 31 July 1984), p. i.
2. Ibid, p. 1-13.
3. Kent Roberts Greenfield and Robert R. Palmer. The Organization of Ground Combat Troops, U. S. Army in World War II. (Washington: 1947), pp. 339-350. The airborne division represented a miniature infantry division from 1942 - 1944. The division numbered approximately 8,500 personnel and had all the normal division components. The fighting power of the division consisted of one parachute regiment (1,958 personnel) and two glider regiments (1,605 personnel) supported by a division artillery of thirty-six 75 mm pack howitzers. The 101st Airborne Division at Bastogne closely resembled a new organization promoted by the European Theater. The new organization consisted of two parachute regiments (1,958 personnel) and a glider regiment similar to the standard infantry regiment (3,000 personnel). Firepower was enhanced by adding a battalion of 105 mm howitzers. The new organization had a strength of 12,979 personnel, thus giving it greater redundancy, robustness, and firepower. The 101st Airborne deployed to Bastogne with approximately 12,000 personnel.
4. 101st Airborne Division. After Action Report, April 45, January 45, December 44. (European Theater: 1 January 1945), p. 1. The Division deployed with 805 officers and 11,035 enlisted. At the time of notification the division was refitting from the ill-fated operation Market Garden. The Division moved from Mourmelon to Bastogne without sufficient helmets, rifles, blankets, boots, and ammunition.
5. Colonel Samuel Lyman Atwood Marshall. Bastogne: The First Eight Days. (Washington: 1979), pp. 174 - 175.
6. Hugh M. Cole. The Ardennes: Battle of the Bulge. (Washington, 1965), p. 1.

7. The story of the fighting at Bastogne and the German Ardennes counteroffensive is well documented. The primary sources are Hugh M. Cole's excellent historical overview (opus cited), Charles B. MacDonald's A Time For Trumpets (New York, 1985), Robert E. Merriam's Dark December (Chicago, 1947), The Bitter Woods by John S. D. Eisenhower (New York, 1969), and Colonel S. L. A. Marshall's Bastogne: The First Eight Days (opus cited). These sources provide excellent insights into the tactics and strategy involved. Marshall's narrative is solely devoted to Bastogne while the remaining authors address the entire Ardennes campaign.

8. Light Infantry Operations in Europe, 1944: The 101st Airborne Division's Defense of Bastogne. (n.p., n.p.d.), p. 1.

9. MacDonald, p. 97.

10. Merriam, p. 175.

11. Cole, p. 40.

12. Ibid, pp. 39 - 47.

13. MacDonald, p. 417.

14. Cole, pp. 39 - 47.

15. General Heinrich von Leutwitz. The Commitment of XXXVII Panzer Corps in the Ardennes 1944 - 1945. (n.p., n.p.d.), p.4.

16. Marshall, p. 9.

17. 101st Airborne Division, p. 86.

18. Marshall, pp. 20 - 21.

19. John Toland. Battle, Story of the Bulge. (New York, 1959), p.118. An excellent discussion of Roberts' anxieties of being commanded by other than an armor officer is presented by Eisenhower in The Bitter Woods, (opus cited, pp. 308 - 311). Initially Roberts objected to Middleton's order but acquiesced. Later, at learning he might be attached to the 101st Airborne, he again objected. Friction between the armor commander and McAuliffe surfaced immediately. Middleton's initial guidance to both commanders was to cooperate, an unusual command relationship to be sure. Subsequently, on 20 December, Middleton consolidated the split-command relationship by attaching Roberts' command to McAuliffe's. (Eisenhower, p. 320) To the credit of each, they worked well together. Roberts shifted his command post into McAuliffe's headquarters and constantly advised the Airborne commander on the employment of armor. Roberts also ensured that a mobile reserve was always constituted and in so doing was able to eliminate numerous threats of penetration to the perimeter.

20. MacDonald, p. 280.

21. Marshall, p. 182.

22. Toland, p. 117.

23. Marshall, p. 180.

24. Merriam, p. 178.

25. MacDonald, pp. 281, 294. MacDonald relates that the advance was slowed considerably when Leutwitz placed both Panzer Lehr and 26 Volksgrenadier Division on the same road. The combination of tanks, armored personnel carriers, foot soldiers, and horse drawn equipment was too much. The different movement rates produced turmoil and road jams.

26. Marshall, p. 13.

27. Ibid, pp. 51 - 66.

28. MacDonald, p. 491.

29. Marshall, p. 40. At the time, Ewell was unaware of the size of the forces he was opposing. By happenstance Team Cherry and the 501st stopped both Division attacks on 19 December.

30. Toland, p. 139.

31. Marshall, p. 63.

32. Toland, p. 141.

33. Ibid.

34. Marshall, p. 35.

35. Ibid, p. 44.

36. Cole, pp. 458 - 460.

37. MacDonald, p. 498.

38. Marshall, pp. 86 - 98.

39. Ibid, p. 98.

40. Ibid, p. 91.

41. MacDonald, p. 501.

42. Marshall, pp. 78 - 83.

43. Ibid.

44. Ibid, pp. 76 - 78.

45. Ibid.
46. Ibid, p. 144.
47. Ibid.
48. Light Infantry Operations in Europe, 1944, p. 10.
49. MacDonald, p. 527.
50. Marshall, pp. 155 - 161.
51. Ibid, pp. 161 - 162. These two companies (A and B) captured ninety-two prisoners from the infantry units following the armor attack.
52. Marshall, p.159.
53. Ibid, p. 163.
54. Ibid, pp. 161 - 169.
55. Cole, p. 672.
56. Ibid, p. 451.
57. Major D. A. Jurden. Bastogne, Its Significance in the Ardennes Campaign. (n.p., 8 January 1961) p. 16.
58. MacDonald, p. 420. This was General Eisenhower's remark to his senior commanders who gathered at Verdun on 19 December to discuss how to counter the German attack.

CHAPTER 4

CONTEMPORARY LIGHT INFANTRY THOUGHT

Efforts to modernize Army forces to meet the Soviet threat in the armor dominated central European region have produced sound fighting organizations that can fight and win outnumbered. The magnitude of the threat to NATO, however, has not lessened the Army's requirement to respond to worldwide contingencies...To improve the Army's capability to meet security demands within the dynamic and volatile international environment, a requirement exists for a strategically responsive and flexible infantry division. The division... focuses on defeating light enemy forces while retaining utility for employment in other scenarios.[1]

The previous two chapters analyzed the light infantry division in either a contingency or reinforcement role. This chapter reviews current pertinent discussions on the utility of the division. Significant debate has accompanied the formation of the light division and legitimate concerns have surfaced in analyzing the operational employment of the force. These concerns center on sustainment, intelligence, firepower, mobility, and protection.

This chapter analyses the employment of the light division as outlined in Field Circular 71-101, Light Infantry Division Operations. The organization, capabilities, and limitations are discussed along with employment options. The chapter also considers a cross section of thought on the utility of light divisions.

The nexus of the question concerning the employment of light divisions is their viability in a high-intensity war in central Europe. British and German insights into this perplexing issue are considered. Additionally, the views of American theorists, researchers, and military professionals are included.

The Light Division.

The design of the light division is based upon the need for a rapidly deployable, flexible force with a higher percentage of fighters than other divisions. It reflects the commitment of the United States to respond rapidly to threats to American vital interests. Further, the American commitment to NATO may be enhanced by developing the capability to employ a greater number of divisions to Europe faster than before. The light division provides more flexible options to our National Command Authority and increases the ability to respond to a variety of situations without denigrating the commitment to NATO.

The division is a foot mobile fighting force designed to be employed in rugged, difficult terrain, such as Crete and the Falkland Islands. As will be demonstrated, the tactical capability of a force drives the employment considerations at the operational and strategic levels of

war. In this instance, the division, because it lacks large quantities of heavy equipment, represents a force which is strategically deployable on short notice to deter aggressors or take military action if necessary.

The division is structured so that the major units are composed of the equivalent combat, combat support, and combat service support elements found in heavy divisions.(Figure 4-1)[2] The difference is in reduced personnel and equipment densities which impacts on the ability to augment, supplement, and replace these components from within the organization. The ten thousand soldiers of the division are organized into nine infantry battalions, three artillery battalions (18 - 105 mm howitzers per battalion), a combat aviation brigade, separate battalions for air defense and engineers, and a division support command.[3] The organization is designed to provide a higher percentage of infantrymen than in other divisions.[4] Division assets to move personnel and equipment are few. The division can move simultaneously the combat echelons of two infantry battalions using the two helicopter lift companies and the truck company.[5]

The austerity in personnel and equipment provides other challenges. The high percentage of infantry

Infantry Division (Light)
(10,000+)

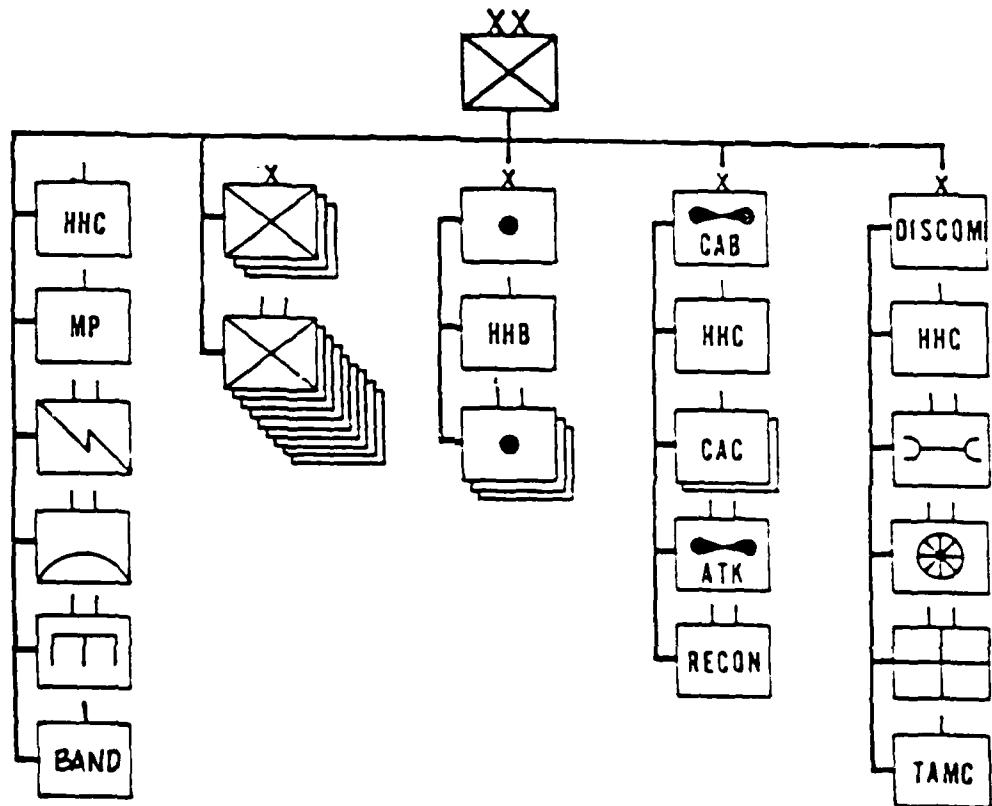


Figure 4-1[2]

fighters is counterbalanced by the austerity in support and ancillary capabilities such as nuclear, biological, and chemical operations. The division is designed to accept packages or "plugs" to upgrade its capabilities in various and differing combat environments. The plug options include maneuver, combat support, and combat service support elements as determined by an analysis of the mission, enemy, troops, terrain, and time (METT-T).

The division's design foretells its primary function: to fight light enemy forces, day or night, under all types of terrain and weather conditions.[6] The force is primarily designed for employment against light forces in a contingency role.[7] This organization yields a force with the following attributes.

- strategically and rapidly deployable resulting in deterrent value.
- flexible and easily adaptable to a variety of missions, augmentations, and terrain.
- greater percentage of fighters who capitalize on initiative, physical conditioning, and suitability to the physical environment.

Naturally the strengths of the division mandate weaknesses; a light division cannot be strong in all possible roles. The significant weakness is the ability of the force to sustain itself. The design of the division sacrifices ground mobility and firepower normally associated with mechanized divisions, air assault, and airborne formations. Finally, the division is not self-sustainable.

The unit is unable to support itself in excess of forty-eight hours, compared to three to five days for other divisions. Army leadership deems this risk acceptable.

Doctrine.

The method of employment of the light division is of paramount importance. To appreciate the potential and criticism of the force, a rigorous examination of current thought is required. The United States is not alone in considering these questions as both the German and the British Armies are in the throes of a debate on the utility of light forces.

Field Circular 71-101 provides the backdrop for further analysis of the possible threats the division might face. The writings of various analysts in the field will be examined, such as those of General Franz Uhle-Wettler, Lieutenant Colonel John English, Steven Canby, Edward Luttwak, and Lieutenant General John Galvin. The views of these authors provide a perspective on the use of light infantry.

The theoretical underpinnings of the employment of such a force are contained in Field Manual 100-5, Operations as well as Field Circular 71-101. The latter prescribes how the light division fights. It considers the tenets of

synchronization, agility, initiative, and depth promulgated in Field Manual 100-5 and describes the role of the division in contingency and reinforcement operations. Also analyzed are employment options, strengths, limitations, and vulnerabilities. For a better understanding of the division, it is important to address these issues.

The strength of the division is "soldier power", a higher percentage of fighters --- infantrymen than other divisions.[8] This power is tapped only if the soldiers and leaders are high quality professionals with the physical and mental toughness needed to execute missions in rugged terrain and isolation, even when encircled. These soldiers are trained in the skills necessary to be "at home in the field". Field skills include map reading, navigation, stealth, stalking, and survival techniques. The light soldier and his leader are craftsmen with many of the abilities of the American pioneer.[9] These attributes are necessary for a unit to execute the missions planned for light infantry. These characteristics are closely aligned with the capabilities of elite and specialized units such as the World War II Mountain Divisions, Rangers, Commandos, and Airborne units. Through a discriminating personnel selection system, the light division will be a force with an elite character and a specialized purpose.

This distinctive purpose is the ability to fight in the most difficult terrain and the most arduous climates.

The anticipated opponent in contingency roles is similar light infantry; for reinforcement operations the light infantry combats either light infantry, motorized infantry, or heavy forces. This specialization goes beyond the ability to operate in difficult terrain and climate. Also included are the capabilities of rapid strategic, operational, and tactical deployment, night operations, infiltration, and independent small unit operations.[10] Light divisions are expert in these areas. Thus, they possess a utility unique to the Army force structure.

The cornerstones of the division's employment potential are flexibility, initiative, offensive spirit, and aggressiveness. Considering the structure of the division, the force's capability is optimized in active missions. Due to its inherent fragility, the division loses some potential when not employed in an offensive context. Passive missions rob the division of its inherent flexibility and initiative while forfeiting the potential for surprise and psychological shock. The division's structural limitations argue against passive employment.

Limitations and vulnerabilities of the division are enumerated in Field Circular 71-101. The two are inseparable because limitations lead to vulnerabilities.[11] Key limitations are the lack of tactical mobility, scarcity of military intelligence assets, lack of redundancy and the absence of a forced entry capability. Concomitant

vulnerabilities are attack by enemy heavy artillery; nuclear, biological, and chemical attack; attack by heavy forces in open terrain; and the need for external combat service support for operations exceeding forty-eight hours.

Further discussion is required to understand fully the impact of some of these liabilities. Even though the mobility of a light division is restrained by lack of organic vehicles, this is not the problem it first appears. Remembering that the preferred employment option is in rugged terrain, a light infantry division strives to attain a relative mobility advantage versus its opponents. If the opposition is light forces, then mobility is approximately equal. If the opposition is a mechanized or motorized force, action is taken to gain relative mobility. This is achieved by denying the enemy his superior mobility through ambush, raids, barriers, and terrain denial operations. Once the enemy is forced to slow and dismount, a balancing of tactical mobility occurs.[12] Therefore, the true limitation on tactical mobility occurs only when the light division is mal-employed.

A paucity of military intelligence assets is more critical than the mobility issue. This is also part of the redundancy problem. The division must possess the capability to evaluate the enemy and the terrain. A need also exists for the ability to link the light division with national intelligence assets, collect information, and

rapidly interpret the data. There is no easy solution. Certainly a higher commander can allot assets to the division but this is not a panacea. The intelligence shortcomings of forces on Crete, Grenada, and the Falkland Islands are all too apparent. These operations were potentially greater risks than first realized. In fact, the German operation bordered on failure. Nevertheless, military intelligence assets must be able to support the needs of the division.

According to Field Circular 71-101, the light division does not possess a forced entry capability. The light forces used in a contingency role in Crete and the Falklands were organized for a forced entry if necessary. The lack of a forced entry capability reduces the employment options of the force. Unfortunately, what the requirements are for a forced entry capability are never defined.[13] If this limitation actually exists, it forces decision makers to act earlier if the force is going to be used as a deterrent to defuse a crisis.

All United States Army combat formations are vulnerable to enemy heavy artillery attack. However, mechanized/motorized forces are capable of rapidly displacing, whereas light infantry does not have this ability. Overcoming this vulnerability is difficult. Possible options are to avoid static positioning and thus preclude offering a large target or to employ independent

and separate unit movements which would produce discrete targets. Another option is to entrench well, or to defend from reverse slopes or reinforced bunkers, a difficult undertaking. The light division requires significant augmentation in engineer and truck assets. These additions to the force are necessary to enhance the capability to withstand heavy artillery attack when in a static position by providing equipment to excavate or haul construction material, munitions, barrier material, and earth .

The light infantry division, by necessity, and like other Army units, must operate comfortably in a joint and combined environment. Any deployment or employment will be within a joint context. Necessary tactics, techniques, and procedures are essential to success. This includes, but is not limited to, air movement, close air support, amphibious operations, naval gun fire support, and resupply. Ample evidence of this need emerges from the analysis of contingency operations presented in Chapter Two.

A critical section in Field Circular 71-101 covers the use of the force in the strategic, operational, and tactical levels of war. The functions of the division in each level of war are not easily discernible. The strategic capabilities of the division focus on rapid deployment, ability to express a commitment of national will/intent, and deterrence. All of these are supplementary at the strategic

level when the government desires to signal intent and commitment or to defuse a possible crisis.

Several limitations argue against this deterrent capability. First, the division's lack of a forced entry capability. This dictates that the force must arrive early or follow another force with such capacity. If the latter is true, then the light division becomes a force used in a situation which already includes combat action. Secondly, the force cannot sustain itself for periods in excess of forty-eight hours. This liability imposes a need to schedule resupply into the airflow as the division deploys. A third consideration is the need to augment the division with combat and combat support assets. From the viewpoint of the enemy, this buildup in American presence may defuse the issue or cause escalation. Thus the enemy is forced into overt action to achieve his goals prior to the completion of the buildup. Consequently, in an effort to deter a situation the employment of a light division may cause just the opposite.

Operationally the light division can gain a positional advantage. To do so, the force must be accustomed to operating on a non-linear battlefield. When employed in a reinforcement role in Europe, the division is capable of complementing or supplementing the heavy force. As such, the division, properly employed, helps set the preconditions for the operational success of heavy forces.

Light divisions serve to augment the heavier force and compensate for deficiencies of mechanized formations in difficult terrain. For example, the division can infiltrate brigades at night to strike at logistics or headquarters elements in conjunction with an attack by heavy forces. A second use is to seize key choke points to facilitate heavy force exploitation. A third option is for the force to penetrate the forward enemy positions and develop a gap in the lines allowing exploitation by mobile forces. In each example the light division complements and supplements the activities of heavy forces.

The tactical capabilities of the division dictate its operational potential. The initial premise for the use of the division is as an offensive entity.[14] Thus, the force is best employed in missions which allow the division to maximize its soldierly qualities and its capacity to effectively use close terrain. Even though the corps to which a light division is assigned is in a defensive posture, the division can be employed in a tactical offensive against the enemy.

Field Circular 71-101 is a facsimile of Field Manual 71-100, Armored and Mechanized Division Operations. Instead of promoting the distinct character and abilities of a light division, general nonspecific operations are promulgated which skew the perception of how to employ the force. Although operations such as movements to contact, hasty

attacks, frontal attacks, rear area combat operations, and terrain retention missions are presented, the circular fails to provide a balanced appraisal based upon the best uses of the force. The impression is conveyed that the division is equally capable in all operations. Yet as will be shown, this is not so.

The Field Circular expounds the principles for offensive action in adequate detail. The concepts of attacking in close terrain, striking suddenly from an unexpected direction, seizing the initiative, and acquiring surprise are articulated. Maneuver options are discussed but the operations that are emphasized fail to focus on the light division's specialized capability to conduct offensive combat operations at night and in restrictive terrain. The light division provides the Army with a formation expert in conducting hasty attacks, penetrations, raids, ambushes, and reconnaissance in force missions. Instead of the broad tapestry of capabilities offered in the Field Circular, the focus should be on specialized operations.

Defensively, the modern battlefield presents an ever-changing face. As a result, forces involved in defensive activities can anticipate a non-linear battlefield. Two elements are necessary for a light force to operate in a static role due to the lack of robustness. First, the division requires augmentation. Secondly, rugged terrain is required to avoid unnecessary risks. Field Circular

71-101 specifies that the prime defensive employments of light infantry are economy of force operations, defense in urban terrain, rear area combat operations, and defense of key installations. These missions are predominately passive and static. Therefore, advantages inherent to light infantry are forfeited. The lack of robustness and redundancy associated with this unit creates greater risks for the commander when it occupies static positions than are created by similar deficiencies in other divisions. The Corps commander must choose how the light division best enhances the corps campaign plan.

Employing light forces in economy of force operations in terrain too rugged to support the enemy's main attack frees maneuver forces for other missions. Rear area combat operations are another passive activity which might be viable. However, units with significant disruption abilities are wasted in a passive role. The light division provides a capability to extend the battlefield, operating in the covering force zone (not as the covering force) or beyond. It utilizes its flexibility and independent operating strengths to disrupt the logistics or command and control of advancing opponents. Additionally, light forces can strip infantry forces from the armor element breaking up the components of the enemy combined arms team. These actions induce uncertainty into the enemy advance and

deprive the threat of initiative, mass, speed, tempo, and surprise.

An analysis of Field Circular 71-101 reveals a strong emphasis on reinforcement missions. This is contrary to the primary focus and potential employment options for the force. The circular needs to stress the contingency role of the light division. In so doing, the emphasis will be on the strengths of the light force. These cornerstone strengths are initiative, flexibility, aggressiveness, and offensive spirit. The ability of the unit to conduct reinforcement missions to supplement and reinforce forward deployed units can then be put in perspective. The key doctrinal implications of the light division are its ability to operate in rugged terrain and use terrain to advantage, to fight effectively at night, to infiltrate enemy positions, and to disrupt threat operations. By taking advantage of these attributes, a commander enhances his ability to get inside the enemy's decision cycle and influence actions.

Contemporary Thought.

The light division constitutes a force which adds flexibility to Army employment options worldwide. Further, the light division represents a shift in emphasis on our

force structure from heavy, NATO oriented units to light forces directed at defeating enemy light forces in low intensity warfare.[15] Military analysts' perception of a shift in force composition produced significant comment on the utility of light infantry in Europe. Their fear is that, although this is not the most likely use of the force, the division lacks the ability to influence combat in Europe. The issue of light infantry use in NATO is a sensitive one. Although reinforcement is a secondary role, possible employment in Europe is one of the most contentious options. Difficulties arise from the mechanized threat, terrain, the immediate need for heavy forces (drawing POMCUS equipment) and the dynamics of the battle (speed, firepower, tempo, and mass). Lost in the discussion is the fact that the light division is designed to enhance the United States' capability to protect its other vital global interests as well as central Europe.[16]

Interestingly enough, the United States is not the only NATO member interested in light forces. Both Britain and West Germany see a need for light forces in their NATO contingents. Paramount among the champions of this issue are British General Sir William Scotter and Major General Franz Uhle-Wettler of West Germany. An examination of their thoughts provides additional insights into how to employ a light division in central Europe.

Britain.

British views on light infantry are influenced by a long historical association with the concepts and employment of light infantry. Many units of the British Army trace their lineage to light infantry origins even though today these units are not organized as light infantry. The British strategic reserve is 5 Infantry Brigade which participated in the Falkland Islands. The brigade is organized with three light infantry battalions and a reconnaissance battalion.[17]

General Sir William Scotter advocates the addition of more light forces to the British Army of the Rhine in West Germany.[18] His reasoning is based on

...ways in which non-mechanized forces could be used to advantage in the main defence and help to give the defence enough elasticity and depth consistent with the spirit of forward defence: to ensure that the momentum and depth of a Warsaw Pact thrust could be absorbed and disrupted whilst powerful armored forces sufficient to destroy the penetration were redeployed against it.[19]

A wargame of his concepts employing light forces in terrain found in north-west Europe, where villages, woods, and urban areas are plentiful, provided several lessons.

First, the units are engaged in combat in small independent actions across a broad area. Secondly, the tactics employed required skill and imagination to avoid predictable actions which lead to destruction by the enemy. Third, part or all of the force requires additional mobility assets. Finally, the fragile nature of the force demands that armored or mechanized augmentation be provided for additional firepower and quick response.[20]

General Scotter believes non-mechanized or light forces have a place on the European battlefield. He sees success against the Warsaw Pact being a combination of tank, mechanized, and non-mechanized forces. Tanks and mechanized forces carry the main action. However, the contribution of non-mechanized forces

...lies in the uncertainty implicit in being engaged in the rear (enemy forces); the frustration of not being able to locate a firm target, and the deliberate destruction of key mobility and command vehicles, and consequent loss of balance.[21]

The views of General Scotter are supported by others such as Major R. P. Cousens and Lieutenant Colonel John English. Cousens likens the role of light infantry in modern warfare to that of the skirmisher in previous wars. These soldiers formed specialized units which operated independently and were blessed with a high tank killing

capability, specialist reconnaissance means, specialization to operate in urban or forested terrain, flexibility, rapid mobility, and they were economically affordable.[22]

Lieutenant Colonel English takes the utility of the force further. Espousing that "the appeal of light infantry lies as much in its psychical as in its physical dimensions".[23] He agrees in principle with both Scotter and Cousens, citing a need for infantry which is other than mechanized to compliment these highly mobile forces. These forces are preferred to operate in terrain less than ideal for mechanized forces such as urban areas and dense forests. Light infantry provides specialized skills in patrolling, sniping, stalking, night fighting, and demolition.[24] These forces complement and supplement the heavy forces. The requirement to survive in a hostile environment using only learned skills mandates light infantrymen and units be imaginative and offensively oriented.[25]

West Germany.

The leading advocate for light infantry in the West German Army is Major General Franz Uhle-Wettler.[26] General Uhle-Wettler fought in Germany during World War II as a Naval infantry officer. He is intimately familiar with the terrain and its impact on armored formations. The type

force he espouses is similar to the light division in the United States Army.

General Uhle-Wettler states the German Army is not organized to fight on central European terrain. The armament and organization of the forces is overly reliant on technology and not compatible with the terrain on which a war is expected to be fought.[27] Motorized and mechanized forces are not suitable for fighting in restrictive terrain. The terrain prevents the formations from massing their firepower and dictates movement along predetermined avenues. The mobile forces then become nonmobile. Mobility and firepower are not "absolute values" regardless of terrain and time.[28] Mechanized, heavy forces are just as dependent on useable terrain for maximum effect as light units. "The hypothesis that mechanized divisions are highly mobile and non-mechanized divisions are denied any mobility" is a fable.[29] Terrain is the key factor in whether mobility is relative or not. The West German Army, or any army for that matter, requires a force designed with the organization, weapons, and equipment to carry out missions in the probable areas of employment.[30] Dense rugged terrain does not in itself guarantee protection. As Moltke said

The less chance for success held by the frontal attack, the more certain the enemy will turn against

the flank ... supporting the wing on terrain only generally covered and difficult no longer corresponds to the conditions for it is just that which the enemy must seek out.[31]

The West German terrain Uhle-Wettler referred to is thirty per cent forest and eleven per cent large urban area.[32] Graphic examples of rugged, dense terrain abound, such as Frankfurt, Bonn, the Ruhr Valley, the Kinzig River Valley, the Hessian Hills, and the Hartz Mountains. These are areas which are difficult to bypass. This restrictive terrain tends to fracture firepower and reduce its cumulative effects.[33] Terrain is not the only degradation to firepower and unit capability. Given fog, snow, rain, and long periods of darkness, freedom of maneuver and massing of firepower is greatly reduced. Uhle-Wettler cites an analysis of German terrain and weather factors which concludes that fifty-five per cent of all line of sight distances are less than five hundred meters.[34] This situation gives the defender additional advantages, especially in urban areas and rugged, forested areas. However, forces skilled in working in these environments are necessary to exploit fully the advantages of terrain.

The best defensive scheme strives to match force capabilities to terrain, or, where possible, to employ a force with terrain specific capabilities. This specialized force augments the efforts of heavy forces. The goal of the

light force is to cause the enemy infantry to leave their carriers, slow their advance, gain time for the friendly mobile reserves to determine the best killing ground, and deny the enemy the use of his long range fires and mechanized mobility.[35] Such capability is the result of a force adapted to the terrain and environment. In central Europe, this equates to infantry forces complementary to mechanized and tank formations. These units supplement heavy forces, not by decisive engagements, but by injecting insecurity into the enemy's advance, requiring him to secure his rear areas, and interrupting his mass, momentum, speed, and shock.[36]

Again and again proponents of light infantry point out that this force does not degrade war fighting capabilities but seeks to take advantage of the terrain. Light divisions are not designed to dominate a Warsaw Pact force, but, to provide an augmentation with unique capability.

United States.

The formation of light divisions in the United States Army has not been universally accepted. Doubters and opponents raise serious questions which need to be addressed. Many writers, both military and civilian, have

articulated methods of employing the force.[37] Discussion centers on the utility of the force, how to employ it, and the benefits derived.

Michael Duffy summarizes the concerns of doubters who question the utility of the light infantry division in a Defense Week article entitled "Where's the Beef?"[38] He asserts that the force designed to compensate for inadequate airlift is superfluous when we already have the Rangers, 82d Airborne Division, and 101st Air Assault Division; and that it is inadequate to oppose heavy forces. These are serious concerns. Certainly the light division is no panacea. The lack of firepower and combat mobility are serious problems which cannot be ignored.[39]

Some writers view the light division as a building block. In difficult terrain such as mountains or jungles, the force provides a core unit. Conversely, in open terrain the force is an adjunct to heavy forces.[40] Steven Canby sees light infantry units as a break with the American character of designing "all-purpose generalized combat forces." [41] Light infantry require "classic infantry skills" such as stalking, stealth, marksmanship, survival techniques, and navigation. This force provides an elusive, ambiguous element ideal for capitalizing on deception and surprise.[42] Canby is without reservation concerning the potential of light infantry in Europe. Light forces have operated in Europe amid an environment of changing

technology since the early 1700s. Light infantry divisions operate on the European battlefield by shielding heavier forces, by harrassing and protection operations designed to stip threat reconnaissance elements, by harrassing lead and flank guard elements, and by threatening the attacker's rear areas.[43] Thus, light infantry divisions control the close terrain and provide secure flanks for tank units.

"The start point of the light infantry concept is the need to prevail operationally against materially superior forces." [44] Few authors address the light divisions with the view that if the enemy thinks, plans, and executes operationally, then plans to defeat the Soviet threat must be operationally oriented. Edward Luttwak addresses the use of light forces at the operational level of war in the conclusions to his study.[45] The nature of the light force is such as to preclude decisive engagement with a heavy force. Likewise, the force expects to receive counter strokes from opposing light infantry or dismounted elements. Luttwak visualizes a battlefield, non-linear in nature, where light forces operate in the unprotected spaces and gaps created by contrasting terrain to induce insecurity in the enemy. In this type terrain, conditions of relative mobility between light and heavy forces can be created.

Light forces, using terrain for movement and protection can interrupt lines of communication and supply to gain a temporary operational advantage for heavy forces

to exploit. Timing is critical since this advantage is not decisive.[46] The purpose of these efforts is to divide the enemy effort and prevent the threat from massing his forces on a single objective. These operational missions produce an environment whereby the division operates in a dispersed fashion. The forces may operate out of range of artillery support, thus increasing their fragility. The effectiveness of light infantry is inherently in an offensive context. The force cannot stand toe to toe with Warsaw Pact forces, and fight linearly, but must evade the material strength of the threat.[47]

Military leaders are unanimous in their view that light infantry is a supplementary player in the armor battle in Europe. Light divisions provide an opportunity to maximize combat strength without increasing total personnel strengths.[48] Military leaders such as General Richardson and General Kroesen see the multi-faceted utility of such forces as a means for the Army to increase its deterrent capability. The employment of the force is situational and terrain dependent. In Europe, the force conducts broad persistent offensive operations to find weaknesses which armor can exploit.[49] The tactics and techniques of these operations serve to enhance surprise and deception by allowing the armor to remain dispersed in hide positions until the infantry identifies the critical point for attack. Then the armor rapidly masses and exploits the opportunity.

The mechanized/armor division is thereby saved until its critical mobility advantage can be optimized.[50]

Light divisions operating in Europe must work "hand in glove" with mechanized forces. This light-heavy connection addresses the employment of the light force as a supplement to heavy organizations.[51] General Galvin's premise is that light divisions are viable as reinforcement units to NATO, perhaps early in the war.[52] The force provides geo-strategic advantages that can be capitalized on to reinforce NATO.[53] Rapid reinforcement is necessary due to force modernization actions which produced heavier forces and degraded strategic deployability.[54] Given the criticality of the early stages of a general war in Europe, the light division's employment in rugged terrain and the freeing of mechanized forces may develop the critical margin required to prevent a quick Soviet victory.

Galvin states the major differences between light and heavy forces are tactical mobility and armor protection. Mobility differentials can be overcome by placing the force in terrain where it can achieve relative mobility. Another deficiency is firepower which is overcome by supporting the division with artillery and air support.[55] General Galvin's vision incorporates the division in the close-in battle and rear battle. He foresees the light division as an excellent force for Rear Area Combat Operations.[56] Although this posture is static and reactive, it capitalizes

on the force's ability to deploy using a variety of means such as helicopters, trucks, or personnel carriers. This approach does not expose the division's frail structure to a Soviet armor thrust. Additionally, by executing near area missions, other forces more adept at defense and counterattack become available to the corps commander.

The close battle gives the corps commander several options. The force adds depth to the battlefield, detects and denies infiltration, or acts as a hinge around which to launch a counterattack.[57] The hinge or pivot is a static position (usually defined in terrain terms) around which mobile strikes are planned. This adds to the unpredictability of the corps defense.[58]

The light division can also provide a secure and unexpected avenue for an attacking force to pass through to regain the initiative. Imagine the surprise of the enemy when an armored spearhead is projected through close terrain held by light infantry. Operations employing a heavy-light mix require the commander to make a decision on how to cross-level his force to achieve harmony. A commander needs to weigh the costs and benefits of how he task organizes his light-heavy forces.

Returning to the questions raised by Duffy et al, the force is a target for destruction if mal-utilized, especially in Europe. The airlift issue is not clear cut. However, it is more than a coincidence that the division is

able to deploy within the constraints of existing Air Force aircraft. Accordingly, Duffy's premise may be accurate. The light division, 101st Air Assault Division, and the 82d Airborne Division possess similar capabilities. Their are differences in forced entry capability, equipment and personnel strength, and deployment requirements. Clearly, the light division provides an option other than the Army's strategic reserve, the 82d Airborne Division.

Light divisions provide a multiplicity of options to respond to a crisis. If a forced entry capability is required then the Rangers can be used to secure a lodgement for the division. Light Divisions are not designed to defeat heavy divisions. However, the light division employed in non-mechanized terrain, reinforced with artillery, air, and maneuver assets might, indeed, defeat heavy forces. But the division is not designed for this function and Army planners and operators understand the limitation!

Conclusions.

This chapter considers the utility of light divisions and how best to employ them. The discussion addresses the areas of doctrine, organization, roles and functions, and contemporary thought. The expected outcome derived when

light infantry is used is key to the employment issue. The chapter describes how the United States Army expects to utilize the force and includes thoughts from contemporary writers.

As long as the United States has vital interests around the world, a capability to protect these interests without significantly degrading capabilities to influence other areas is mandatory. Therefore, in a world environment of emerging nation-states, communist expansion, religious fundamentalism, and terrorism, the United States needs more than the current force of Marines and Army elements available for rapid deployment. The light division provides Army and National Command Authority leaders a variety of options to committing the 82d Airborne Division. This flexibility is inherent in the light division organization and allows a tailored force to deploy rapidly in Air Force aircraft to demonstrate the resolve of the government and to defuse a possible crisis situation.

Contingency and reinforcement are the possible missions. The light division must be prepared to do both. Yet by design, the division is a contingency division first and must train and orient primarily towards contingency employment. The force is best employed against forces which do not have a sophisticated armor and mechanized capability. Thus NATO and similar areas are relegated to secondary importance for employment. The opposing force in a

contingency operation is expected to be either militia, loosely organized guerrillas, para-military organizations, light enemy forces, or small motorized units. The division must be able to defeat these forces.

The greatest natural environment for light infantry success is rugged terrain which light infantry must use to its advantage. The division must orient on using the terrain as a combat multiplier to enhance operations. This ability derives from constant work on field, pioneer, and survival skills. The individual soldier and leader must be comfortable in the natural environment and be able to "live off the land". Additional skills that must be fostered are independence of action, initiative, marksmanship, self-discipline and control, engineering/demolition techniques, and navigation. The units of the division can expect to operate in a dispersed manner, possibly in isolation. These qualities must be nurtured by selecting quality soldiers and leaders. The division's bedrock strength is its individual infantry skills. Soldiers are welded together to produce infantry units with a specialized nature.

A light division cannot operate the same as a heavy division and vice versa. Therefore, the impression should not be created in our doctrinal literature that they can do everything well. The light division operates best on the offensive. Dispersion, movement, and terrain provide

additional protection for the force. Offensive action adds to the corps, or joint task force commander's campaign plan by capitalizing on the strengths of the division. By taking advantage of surprise, terrain, deception, and infiltration, the commander can disrupt and destroy light infantry with tactical surprise, psychological shock, and uncertainty. Light divisions are effective operating offensively, in an active mode, and avoiding the passivity of defense as much as possible. The division can conduct defensive operations. But, becoming static increases the risk to the force and reduces its contribution to the corps campaign.

Imagination is necessary to employ the division at the tactical, operational, and strategic levels of war. The use of the force depends upon capitalizing on the unit's built in flexibility. The division can operate as an entity or in smaller increments. The capacity to execute independent brigade and battalion operations adds to the employment value of the division. As Generals Galvin and Crowell articulated, the division provides additional capability to the corps commander in rear area combat, economy of force, deep strike, and urban operations.

The veil of controversy hanging over this division is its utility in central Europe. Can the unit reinforce NATO? General Sir Scotter and Major General Uhle-Wettler both agree that light infantry is useful in Europe. Within the

NATO area there are large sectors of terrain which are better for light non-mechanized infantry than for armor or mechanized forces. Judicious use of various types of units provides a greater capability to defeat the numerically superior threat. Defensive actions are not decisive engagements which lead to victory. The best way to defeat a Soviet thrust is with offensive action by mechanized strike forces. The light division can execute a variety of missions freeing up mechanized forces for use to gain the initiative. The issue of using light infantry divisions to reinforce NATO is central to the understanding of the roles and functions of light forces. Obviously, defending along the main attack axis in open terrain, against a Soviet Tank Army is not the forte of the light division, and the division is not designed to do this.

Correct employment which maximizes capabilities is the way corps commanders develop some operational freedom to gain the initiative. A light division can provide that flexibility. Let us not relearn the lessons learned by the Japanese against the Russians in Manchuria during World War II --- individual bravery and leadership cannot overcome doctrinal and material deficiencies.[59]

ENDNOTES

1. United States Army Field Circular 71-101, Light Infantry Division Operations. (Fort Leavenworth: 31 July 1984), pp. 1-1, 1-2.

2. Ibid. p. 1-4.

3. Ibid.

4. United States Army TRADOC. Force Structure and Design Initiative. (Fort Leavenworth, 1984), n.p. This study compared the percentage of infantry in different divisions. The breakout is as follows:

<u>Type Division</u>	<u>Infantry</u> /	<u>Percentage</u>
Light Division	3402	33
Air Assault Division	4833	25
Airborne Division	4068	25
C Series	2974	16

5. United States Army Field Circular 71-101, pp. A-12, 30.

6. Ibid., p. 1-5.

7. General John A. Wickham, Jr. Chief of Staff's White Paper on the Light Infantry Division, Army of Excellence. (Washington, 16 April, 1984), p. 3.

8. Wickham, p. 1.

9. Steven L Canby. Classic Light Infantry and New Technology. (Chevy Chase, December 1982), p. 70. Fieldcraft is the dominant subject of instruction given to light infantry in order to teach soldiers how to behave in different types of close terrain.

10. Colonel Huba Wass De Czege. Three Kinds of Infantry. (Unpublished paper, 1984), p. 3.

11. United States Army Field Circular 71-101, pp. 1-6, 1-7.

12. The analysis of Bastogne in Chapter Three is a good example. Another is Dr. Allen F. Chews's Fighting the Russians in Winter: Three Case Studies. (Fort Leavenworth, December 1981), pp. 17-30. This paper describes the tactics and techniques used by the Finns to defeat the Russians during January 1940.

13. Forced entry does not have official recognition. Therefore an analysis of the components might be helpful. Forced entry requires a mental attitude, delivery means, and fire support. Training develops the mindset in soldiers necessary to conduct the entry. The training imparts to them the rigors they will face and the teamwork essential to success. Delivery into an objective area takes the form of airborne, air assault, airland, or amphibious landing. Light infantry is capable of conducting three of these, the airborne is the only exception. Once on the ground, forces must receive support from artillery, CAS, or naval gunfire to offset the organizational adjustments inherent with many forced entry operations. Using these components, light infantry has a forced entry capability which may be strategic, operational, or tactical.

14. Wickham, p. 3.

15. United States Army TRADOC, p. 2.

16. Wickham, p. 1.

17. Major Scott R. McMichael. Light Infantry Forces, Historical Bibliography Number 2. (Fort Leavenworth: 29 February 1984), Part two, Contemporary Light Forces. The reconnaissance battalion is equipped with the Spartan series of armored vehicles.

18. General Sir William Scotter was Vice Chief of the General Staff, British Army at the time.

19. General Sir William Scotter. "A Role for Non-Mechanized Infantry". (London: 4 December 1980), p. 59.

20. Scotter, p. 61.

21. Scotter, p. 62. A counter to the views of General Scotter is presented by Charles J. Dick, "The Goodwood Concept - Situating the Appreciation", (London: 1 March 1982) pp. 22-28. The major argument focuses on the historical example, Operation Goodwood, used by Scotter. Key points in this rebuttal are that coordination between mobile and static forces is difficult and non-mechanized forces can make a contribution in central Europe in very broken or heavily forested terrain. However, non-mechanized forces cannot stem a Soviet main attack and employment of this type force in the forward area requires appropriate restrictive terrain. Dick's viewpoint is not that non-mechanized forces are not useful, but that we must not be too zealous in creating forces with limited capabilities.

22. Major R. P. Cousens. "Light Infantry - A Renaissance?". (London, December 1982), p. 29. A major difference between the British and United States approaches to light infantry is the British emphasis on vehicular mobility. There can be several reasons the British emphasize vehicles. First is flexibility. The force can be tailored with or without the vehicle package. Secondly, the British Army's orientation is focused on the central region. Third, the British Army is smaller and sees a need to have a force capable of quick mobile response.

23. Lieutenant Colonel John A. English. "Thinking About Light Infantry". (Fort Benning: November-December 1984), p. 19. Lieutenant Colonel English also authored A Perspective On Infantry. (New York: 1981).

24. English, p. 25.

25. Ibid.

26. Major General Uhle-Wettler is a member of the West German Army. He spent his entire career as an armor officer serving as a company commander, operations officer, commander of the German Armor School and commander 5 Panzer Division. His thesis is that the German Army should be reorganized with forces designed to fight on the varied terrain of Germany. He visualizes an increase in light infantry to compliment their armor and mechanized forces to defeat Warsaw Pact forces.

27. Major General Franz Uhle-Wettler. Battlefield Central Europe. Danger of Overreliance on Technology by the Armed Forces. (Gutersloh: 1980), pp. 3 - 4. An unpublished translation.

28. Uhle-Wettler, p. 11.

29. Ibid., p. 29.

30. Ibid., p. 13.

31. H. Graf von Moltke. Ausgewaehlte Werke (Selected Works). (Berlin, 1925), p. 330.

32. Uhle-Wettler, p. 14.

33. Ibid., p. 30.

34. Ibid., p. 31.

35. Ibid., p. 64.

36. Ibid., pp. 72-79.

37. The views are universally positive. Two civilian proponents of light infantry are government consultants Steven Canby and Edward Luttwak. Both have done contract work on the usefulness of this type force. Obviously they are biased, However, their views cannot be discounted. The military perspective is presented by General William R. Richardson, the TRADOC commander; General (Retired) Frederick J. Kroesen, former commander of USAREUR; Lieutenant General(P) Jack Galvin, currently the U. S. VII Corps commander in Europe and nominated to command SOUTHCOM; Major General Howard G. Crowell, Jr., commander 3d Infantry Division (Mech) USAREUR; and Captain David H. Petraeus, an Army graduate student at Princeton.

38. Michael Duffy. "Where's The Beef?" (Washington: 19 March 1984), pp.4, 5.

39. Allan Dodds Frank. "Travelling Light". (New York: 21 May 1984), pp. 30-32.

40. Steven L. Canby. Classic Light Infantry and New Technology. (Chevy Chase: December 1982), pp. I, IV.

41. Ibid., p. I.

42. Ibid.

43. Ibid., n.p.

44. Luttwak, p.82.

45. Ibid., p. 5.

46. Ibid., pp. 5, 6, 17.

47. Ibid., p. 54.

48. Captain David H. Petraeus. "Light Infantry in Europe: Strategic Flexibility and Conventional Deterrence". (Fort Leavenworth: December 1984), p. 36.

49. General Frederick J. Kroesen. "The Ultimate Weapon of War". (London: 1980), pp.63 - 64.

50. Lieutenant General William R. Richardson. "Light Infantry". (London: December 1980), p. 65.

51. "The Light - Heavy Connection" is a series of articles published in the July-August 1984 issue of Infantry Magazine. The articles deal with the considerations of employing a light force as a part of a heavy Corps, (Lieutenant General Jack Galvin, pp. 10-14), a division (Major General Howard G. Crowell, pp. 15-18), and the brigade (Lieutenant Colonel Jack B. Wood, pp. 19-22).

52. Galvin, pp. 10, 11, 14.

53. Ibid., p. 14.

54. Ibid., p. 10.

55. Ibid., p. 11.

56. Ibid., p. 12.

57. Ibid., p. 13.

58. Ibid.

59. Edward J. Drea. Nomonhan: Japanese - Soviet Tactical Combat, 1939. (Fort Leavenworth, January 1981), p. 89.

CHAPTER 5

CONCLUSIONS

"With every new war the business of creating light troops starts all over again".[1]

The light division represents the continuing evolution of the United States Army. The Army recognizes a need for more light forces, just as previous armies have. In World War I there were "stormtroopers"; World War II saw the use of rangers, airborne, and mountain formations; and now, the United States Army is reintroducing light infantry divisions following conflicts in the Falkland Islands. The legacy of this type of combat operation is the requirement for a light, flexible force with a rapid response capability.

The light division is a natural evolution given the factors of a deterrence policy, European commitments, and the need to protect vital interests. Following its experiences in Southeast Asia, the U. S. Army force structure was in dire need of modernization. This modernization focused on sophisticated weapons systems and technological advances. The result was a powerful force which sacrificed deployability for firepower and mobility. The modernization effort oriented on a European battlefield and a Soviet threat. The deterrent value of this

modernization may have eased the threat of a European war; but at the same time degraded U. S. capability to respond to other contingencies such as the growing spread of communism, political unrest, and evangelical radicalism which affects our vital interests. An army with a fixed size must use its assets judiciously. As the United States Army increases its heavy equipment density, it must streamline its personnel structure to create additional fighters. Therefore, a reduction in the size of divisions to develop a rapid response division makes good sense.

As the likelihood of global war lessens, the need for a strike force to respond to threats to vital interests increases. The light division answers this demand. The force must be flexible, rapidly deployable, and capable of accomplishing a variety of missions world wide. However, it cannot detract from U. S. force capability to deter the Warsaw Pact along the inter German border.

The use of the force is tied to its roles and functions. The possibilities of how the light division will be operationally employed is a function of several factors. The division performs two roles, contingency or reinforcement, and is expected to execute both well. This is confusing, not only to force designers and planners, but also to commanders who are responsible for ensuring the force is prepared to respond when called.

The primary role of the light division is to respond to contingency missions in support of national vital interests. The design of the force dictates this employment. The assumption is that the threat is a light force and/or the terrain dictates employment of a light division. The light division responds in a timely manner to either defuse a crisis or protect vital interests, with combat action if necessary. Contingency operations habitually orient towards low intensity warfare. General William R. Richardson, TRADOC commander, clarified the issue of the utility of a light division.

...The division's primary focus will be on defeating light enemy forces in a low intensity conflict, ... the division can operate in virtually all types of weather and terrain and is ideally suited to fight at night.[2]

The light division must first and foremost be capable of success in the contingency role.

The requirement to operate in a contingency atmosphere results in several observations. In Chapter Two, each of the examples illustrated that the assaulting forces were prepared to execute a forced entry. Even the German mountain troops on Crete were required to enter the fray while the battle was going on around the landing zones. The British realized the need to prepare for this requirement

during their invasion of the Falkland Islands. These examples indicate that light, rapidly deployable infantry will be used for hostile entry.

Drawing on the examples in Chapter Two, the requirement for a strong intelligence structure is obvious. Intelligence is a critical factor for achieving success. A single company cannot handle the military intelligence tasks of an entire division. Not only does the structure need the assets to conduct a thorough analysis of enemy capabilities and intentions; but, given the criticality of terrain on division operations, the assets must be in place to conduct a detailed analysis of the terrain in the immediate area and in the enemy's rear. Also, a contingency mission mandates the capability to acquire and interpret intelligence from national sources. Without this ability, light divisions are susceptible to the surprises encountered by the Germans on Crete and the British on the Falkland Islands.

Within the context of a contingency operation, austerity can work against the success of the force. A light division instead of deescalating a crisis may escalate it. As the force is deployed it signals one thing. However, as the need to support grows and, along with it an American presence, then an entirely different signal is presented. The opposition may decide to escalate to combat with the light division before its augmentation packages arrive. In this case, the division has not defused a crisis

but escalated it. Light may not necessarily be better, especially when the need for additional logistic support packages, artillery, air support, and a corps headquarters are included. As seen in Chapter Four, emerging nations and proxy states can have a significant combat force with a wealth of motorization and mechanization.

The United States Army does not have the luxury of developing single purpose infantry forces. Contingency roles form the primary focus of the light division, but it is not the only role. Light forces must have multiple capabilities. To support the overall force structure the light division must be capable of reinforcing forward deployed forces. The light division reinforcement mission is secondary. Even though this role is the center of great doubt and debate, it needs to be placed in the proper perspective. Reinforcement missions require the judicious use of the division to capitalize on its capabilities.

The light division is not a decisive force in a tank/mechanized war environment. Light divisions complement and supplement the efforts of heavy forces. Light forces give the corps commander a degree of flexibility not previously available. The force can be injected to influence the campaign plan and create tactical opportunities for heavy forces to gain the initiative or exploit success. This opportunity is available only if the force's capabilities are maximized.

Success for the light division is contingent upon the satisfaction of several preconditions. The capability and flexibility of the division results from three factors: the mission, organization, and environment. As in any operation, the preconditions are not fixed; they combine to form a synergistic effect. These conditions enable the division to operate across the different levels of war. These conditions are subdivided into two types --- physical and mental.

Physical requirements include the environment and the equipment assets provided the light division. Critical areas are weather, terrain, firepower, and mobility. "Weather and terrain have more impact on battle than any other physical factor, including weapons, equipment, or supplies." [3] The light division can operate in the difficult and dense terrain and adverse weather which degrades the effectiveness of mechanized divisions. This is apparent in historical case studies. Weather or terrain, and in some cases both, played a pivotal role in deciding success or failure. In each one, light infantry was key to success.

A light division requires the capability to achieve firepower superiority at the time and place of the commander's choosing. Firepower superiority is not analogous to a finite number of tanks and artillery, but is frequently considered as such. In dense terrain with

constricted vehicular mobility corridors, light infantry with engineers and close support weapons can achieve a tactical advantage. The division is a fragile organization requiring additional firepower in the form of close air support, naval gun fire, artillery, or tanks. Therefore, supporting commanders are required to reallocate scarce resources when receiving a light unit. The results of close air support on Crete, naval gun fire support in the Falkland Islands, and artillery and armor at Bastogne are graphic examples of why and how to augment the force.

The last factor in the physical realm is mobility. Light infantry has a variety of mobility options - airplane, helicopter, truck, or foot. The division focus is on tactical mobility. Naturally, against a light opponent, foot mobility is not a liability. Foot mobile units in a highly mechanized theater possess tactical liabilities. If the opponent is mechanized/motorized then the light division is at a decided disadvantage. However, in rugged terrain, mobility can be equalized if light infantry uses the terrain as a combat multiplier. Not only is the mobility differential reduced, but so also is the difference in firepower. Dense terrain prevents the massing of multiple units of fire on specific targets. It stands to reason that light infantry divisions must use terrain skillfully to survive.

Complementing the physical aspects are the mental attitudes of light infantry divisions. These divisions must think and train differently than others. A change in mindset is critical because the division is employed differently, has different assets, and is required to accomplish different tasks. The mental attitudes are influenced by soldier quality and training. The light division follows the guidance of the elder Moltke who counseled Prussian staff officers that ... "you must be more than you appear to be". These units are expected to do more with less. Frequently the unit can expect to operate independently and even encircled. This requires a different type of individual and leader. Soldiers must be mentally toughened to the isolation of the battlefield, the extremes of the environment, and night operations. As a result, the division will take on an elite character. The soldiers and leaders will combine to form a qualitatively superior division.

Light soldiers need the capability of emulating the pioneer ethos --- living off of the land, at home in the environment, an acquired mental and physical toughness, and able to use natural assets to survive and fight. This fieldcraft is an essential ingredient of training, but not the single dominant element. Training provides units the skills to execute dispersed operations, operate foreign equipment and vehicles, and execute pioneer/sapper tasks.

Training is always rigorous and demanding for a light division.

As long as the Army operates with restricted personnel assets, divisional combat forces require the capability to fight in all levels of war as outlined in FM 100-5. The light division is no exception. The division can operate at the tactical, operational, and strategic levels. The tactical level represents the base line for the employment of the division. At this level division capabilities translate into tactical missions which dictate how the force can be employed at the operational level. Light infantry divisions operate differently than heavy divisions at the operational level. Whereas heavy divisions tend to capitalize on mass, momentum, and exploitation, light divisions tend to operate dispersed, over large areas, against logistics or command targets, or seizing critical areas to facilitate heavy force maneuver. The light division is not a candidate for employment with heavy divisions at the operational level. However, sub-units of the light force are likely to support or complement the actions of heavy forces.

A light division is capable of offensive or defensive action at the tactical level. These active or passive actions reflect the force capabilities and the degree of risk the commander is willing to take. In the passive mode greater risks are taken in order to produce decisive

results. Unfortunately, passive activities such as defending a river line, economy of force operations, urban defense, rear area combat, and securing key installations rob the division of its offensive capability. The risks are compounded due to the division organization. The division is unable to destroy an enemy heavy division but can disrupt his actions. The greatest risk occurs in the economy of force role. This mission is terrain dependent and provides the opportunity to free up more maneuverable formations for employment elsewhere. Security of key installations is the least effective mission for the division since the force is tied to a fixed defensive position and unable to capitalize on its strengths. The degree of risk taken by the commander is based upon the mission and the intent of the higher commander.

The best employment option for a light infantry division is offensive action. These activities may be large or small unit actions and incorporate patrolling, reconnaissance, raids, ambushes, night operations, and infiltration. These activities, in conjunction with heavy division operations, contribute to the enemy's disruption or defeat. Active missions prevent the division from becoming a static target, one which is easily ruptured. At the tactical level, one drawback with either option, active or passive, is the lack of control the division commander can exert on his dispersed operationing formations. Once the

Army. The light soldier cannot be a pack mule, especially in a defensive operation requiring large quantities of barrier material, mines, explosives, and ammunition.

A more sensitive issue is whether the division will be employed as a fighting force in a reinforcement role or become a source of infantry replacements? World War II demonstrated the need for large numbers of infantry replacements due to the intensity of the combat. The initial stages of a war in central Europe may create the same situation. In an effort to keep maximum firepower in the front lines, light infantrymen may become replacements for mechanized infantry losses. The division headquarters may revert to a planning cell or a rear area combat control headquarters.

The division is chartered to work in dense, rugged terrain. It needs an antitank weapon which is not wire guided. A fire and forget weapon is necessary for the force to maximize its terrain using capability. The TOW and DRAGON are not designed for employment in dense terrain.

Finally, doctrinal publications need to stress the offensive nature of the force, instead of the generalist concept of Army forces. The light division cannot be a general purpose force, ideal for all environments. The division structure and its reduced personnel and equipment levels argues against defensive employment such as economy of force operations, urban defense, and security of critical

installations. The light division is an active, offensively oriented force for employment in close terrain. Doctrinal literature needs to express the theory of force employment, not doctrinal generalities.

This leaves one last question concerning how the light infantry division will be operationally employed? The light division is a light infantry force designed to fight in close terrain and take advantage of night fighting capabilities, terrain using skills, small unit skills, and initiative. The most advantageous employment of a light division is in executing offensive action in a contingency role.

...given that war continues to be a primitive endeavor in which there is always a "friction" that militates against complexity, it is highly likely that the traditional infantry fighting skills applied with cunning and flexibility will still be applicable in the next one... Chances are these would be [applied by] light infantrymen [Division].[4]

ENDNOTES

1. Ward, Stephen, George Peregrin. Faithful: The Story of the Durham Light Infantry. (Durham, n.p.), p. 91.
2. Richardson, William R. General. Kermit Roosevelt Lecture to the Royal College of Defence Studies. (Camberly: 23 May 1984), p. 18.
3. United States Army Field Manual 100-5, Operations. (Washington: 20 August 1982), p. 3-1.
4. English, John A. Lieutenant Colonel. "Thinking About Light Infantry". (Fort Benning: November-December 1984), p. 84.

BIBLIOGRAPHY

BOOKS

- Beaumont, Roger A. Military Elites. Indianapolis: Bobbs-Merrill, 1974.
- Bradley, Omar N. A Soldier's Story. New York: Henry Holt, 1951.
- _____, and Clay Blair. A General's Life. New York: Simon and Schuster. 1983.
- Buckley, Christopher. Greece and Crete 1941. London: Her Majesty's Stationery Office, 1952.
- Calvert, Peter. The Falklands Crisis. New York: St. Martin's Press, 1982.
- Cawkell, Mary. The Falkland Story, 1592-1982. Shropshire: Anthony Nelson, 1983.
- Clinger, Fred, Arthur Johnston and Vincent Masel. The History of the 71st Infantry Division. N.p.: 71st Infantry Division, 1946.
- Copley, Gregory R., et. al. Defense and Foreign Affairs Handbook 1984. Washington: Defense and Foreign Affairs, 1984.
- Dalyell, Tam. One Man's Falklands. London: Cecil Woolf, 1982.
- Detweiler, Donald S. and Charles B. Burdick. World War II German Military Studies, Vol. 13. New York: Garland Publishing, 1979.

- Diamond, Maynard L., Maj, et al. The 89th Infantry Division, 1942 - 1945. Washington, D.C.: Infantry Journal Press, 1947.
- Dobson, Christopher, John Miller, and Ronald Payne. The Falklands Conflict. Kent: Hodder and Stoughton, 1982.
- Doughty, Robert A. Maj. The Evolution of U.S. Army Tactical Doctrine, 1946 - 76. Fort Leavenworth: Leavenworth Papers #1, August 1979.
- Duffy, Christopher. The Army of Frederick the Great. New York: Hippocrene Books, 1974.
- Edwards, Roger. German Airborne Troops, 1936 -1945. Garden City: Doubleday, 1974.
- Eddy, Paul, et al. War in the Falklands. Cambridge: Harper & Row, 1982.
- Eisenhower, John, S. D., The Bitter Woods. New York: G. P. Putnam, 1969.
- Elstob, Peter, Hitler's Last Offensive. New York: The MacMillan Company, 1971.
- English, John Alan, LTC. A Perspective on Infantry. New York: Praeger Publishers, 1984.
- Fellers, Bonner F. Maj. Airborne Invasion of Crete. Cairo: War Department, 15 October 1941.
- Fox, Robert. Eyewitness Falklands. London: Methuen London, 1982.
- Fuller, J. F. C. MG. British Light Infantry in the Eighteenth Century. London: Hutchinson Npd.

Goodenough, Simon. War Maps, World War II, From September 1939 to August 1945, Air, Sea, and Land, Battle by Battle. New York: St. Martin's Press, 1982.

Hanrahan, Brian and Robert Fox. I Counted Them All Out and I Counted Them All Back, The Battle For The Falklands. London: British Broadcasting Corporation, 1982.

Hastings, Max and Simon Jenkins. The Battle for the Falklands. London: W. W. Norton, 1983.

Hickey, Michael. Out of the Sky. New York: Charles Scribner, 1979.

Huston, James A. Out of the Blue. West Lafayette: Purdue University Studies, 1972.

Jurden, D. A., Major. Bastogne: It's Significance in the Ardennes Campaign. n.p. 8 January, 1961.

Keegan, John. World Armies. Detroit: Gale Research Company, 1979.

Liddell Hart, Basil H. The German Generals Talk. New York: William Morrow, 1948.

Lucas, James Sidney. Alpine Elite. London: Jane's, 1980.

McMichael, Scott R. Major. Light Infantry Forces, Historical Bibliography Number 2. Fort Leavenworth: 29 February, 1984.

MacDonald, Charles B. European Theater of Operations, The Siegfried Campaign. Washington: Government Printing Office, 1963.

MacDonald, Charles B. A Time For Trumpets. New York: William Morrow, 1985.

MacKenzie, Fred. The Men of Bastogne. New York: David McKay Company, 1968.

Marshall, Samuel Lyman Atwood, Colonel. BASTOGNE, The Story of the First Eight Days. Washington: Zenger Publishing, 1946.

Merriam, Robert, E. Dark December. New York: Ziff-Davis, 1947.

Military Balance 1984 - 1985. London: International Institute for Strategic Studies, 1984.

Mission Accomplished, The Story of the Fighting Corps. Schwerin: XVIII Airborne Corps, 1945.

Moore, John Cpt. Jane's Naval Review. London: Jane's Publishing, 1983-84.

Nash, D. B. Imperial German Army Handbook 1914-1918. London: Ian Allan, 1980.

Rapport, Leonard, Arthur Northwood, Jr. and Major Judson J. Conner. Rendezvous With Destiny. Greenville: 101st Airborne Division Association, 1948.

Rommel, Erwin. Infantry Attacks. Washington, D.C.: The Infantry Journal, 1944.

Savkin, V. Ye. The Basic Principles of Operational Art and Tactics. Moscow: Military Publishing House, 1972.

Simpkin, Richard. Red Armor. Oxford: Brassey's Defence Publishers, 1984.

Toland, John. Battle, The Story of the Bulge. New York: Random House, 1959.

van Creveld, Martin. Fighting Power. Westport: Greenwood Press, 1974.

Weigley, Russell, F. Eisenhower's Lieutenants.
Bloomington: Indiana University Press, 1970.

XVIII Corps (Airborne). Mission Accomplished. n.p., 1945.

GOVERNMENT DOCUMENTS

Cole, Hugh, M, et al. European Theater of Operations, The Ardennes Battle of the Bulge. Washington: Government Printing Office, 1965.

Defense Technical Information Center. The Falklands Campaign: The Lessons. London: Ministry of Defence, December 1982.

Department of the Army. Field Manual 100-5, Operations.
Washington, D.C.: Government Printing Office, 1982.

_____, Memorandum: Comments on 14 January LID Workshop. Fort Leavenworth: United States Army Command and General Staff College (ATZL-SWV), 16 January 1984.

Greenfield, Kent Roberts, et al. The Organization of Ground Combat Troops, U.S. Army in World War II. Washington, D.C.: GPO, 1947

Ministry of Defence (Army). The British Army in the Falklands, 1982. London: Her Majesty's Stationery Office, 1983.

United States Army. Field Manual 100 - 5, Operations.
Washington: 20 August, 1982.

_____. Field Circular 71 - 101, Light Infantry Division Operations. Fort Leavenworth: 31 July, 1984.

United States Army. 101st Airborne Division. After Action Report, June, December 44, January, February, April 45. n.p. May 1945.

United States Army Europe, Historical Division, Foreign Military Studies Branch. Role of Panzer Lehr Division in the Ardennes Offensive (18 December - 27 January 1944-45), Related by General Fritz Bayerlein (English Translation). n.p., September, 1945.

_____. Commitment of Panzer Lehr in the First Days of Ardennes Offensive (16 - 21 December 1944), *ibid.* n.p. 1 March, 1946.

_____. Additional Questions, Ardennes Offensive, *ibid.* n.p. 22 February, 1946.

_____. Questions and Answers on the Ardennes Campaign and Later Operations of 19th Army, Related by General Erich Brandenberger (English Translation). n.p. 22 December, 1945.

_____. The Commitment of the XXXXVII Panzer Corps in the Ardennes, 1944 - 1945, Related by General Heinrich von Leutwitz (English Translation). n.p. 19 October 1945.

_____. The Commitment of XLVIII Panzer Corps in the Ardennes, 1944 - 1945, *ibid.* n.p. 10 May 1945.

United States Army Training and Doctrine Command. Operational Concept for the Infantry Division (Light). Fort Leavenworth: Combined Arms Center Development Activity, 15 March, 1984.

War Department. Airborne Operations, A German Appraisal. Washington: Government Printing Office, 29 April 1950.

_____. Handbook on German Military Forces. Washington: Government Printing Office, 1945.

War Department. Practical Experience in Carrying Out and Opposing Airborne Landings in World War II. Stuttgart: Historical Division, European Command, 12 June 1950.

PERIODICALS AND ARTICLES

Beri, H. M. L. "The Falklands Crisis - An Assessment". New Delhi: Institute for Defense Studies and Analysis Journal, April-June 1982.

Besch, Edwin, W., "Are Our Light Divisions Too Light". Arlington: ARMY, February 1985.

Bramall, Edwin, General Sir. "British Land Forces: The Future". London: Journal for the Royal United Services Institute for Defense Studies, June 1982.

Bridge, T. D. "Official Reports on the Falklands Campaign: An Appraisal". Devon: Army Quarterly and Defense Journal, January 1982.

Brudvig, Dale, K., COL. "Light Divisions- Can They Fight". Springfield: Army Times, 10 September 1984.

Canby, Steven L. "Classic Light Infantry and New Technology". Potomac: C&L Associates, 1982.

_____. "Light Infantry in Perspective". Fort Benning: Infantry Magazine, July-August 1984.

Clarke, A. M. Maj. "The Crete Campaign". Fort Leavenworth: Military Review, April 1948.

Cope, John A. Jr., Maj. "Doctrinal Credibility: A Problem of Focus with FM 100-5". Fort Leavenworth: Military Review, August 1984.

- Cousens, R. P., Maj. "Light Infantry - A Renaissance?". London: British Army Review, December 1982.
- Crowell, Howard G. Jr., MG. and Jared L. Bates, Col. "Heavy - Light Connection: Division". Fort Benning: Infantry Magazine, July - August 1984.
- Dar, E. H. MG. "Strategy in the Falklands War". Annapolis: Proceedings, U.S. Naval Institute, March 1983.
- Dick, Charles J. "The Goodwood Concept - Situating the Appreciation". London: Journal of the Royal United Services Institute for Defense Studies, March 1982.
- Duffy, Michael. "Light Divisions - Where's the Beef". Defense Weekly, 19 March 1984.
- _____. "Thinking About Light Infantry". Fort Benning: Infantry Magazine, November - December 1984.
- Ford, Harvey S. Lieutenant. "Crete". The Field Artillery Journal, November 1941.
- Foss, John W. Major General. "Light Infantry Has a Place On the Battlefield". Army Times,
- Frank, Allan Dodds. "Travelling Light". Forbes, 21 May 1984.
- "From Bad to Worse for U.S. in Grenada". United States Naval Review, 31 October 1983.
- Galvin, John R., LTG. "Heavy - Light Forces and the NATO Mission". Fort Benning: Infantry Magazine, July - August 1984.

- Galvin, John R., LTG. "The Heavy/Light Concept".
Washington, D.C.: Armed Forces Journal International,
July 1982.
- Gueritz, E. F., et al. "The Employment of Non-Mechanized
Infantry". London: Journal of the Royal Services
Institute for Defense Studies, December 1980.
- Haupt, Jerome L., Col. "Heavy/Light Operations - An Added
Viewpoint". Washington, D.C.: Armed Forces Journal
International, May 1983.
- House, Jonathan M. "Designing the Light Division,
1935-1944". Fort Leavenworth: Military Review, May
1984.
- Jeschanek, Friedrich, 1LT. "Jaeger". Fort Benning:
Infantry Magazine, May - June 1975.
- Kerr, Nick, Commander. "The Falklands Campaign". Newport:
Naval War College Review, Nov-Dec 1982.
- Lopez, Ramon. "The U.S. Army's Future Light Division: A
Key Element of the RDF". Geneva: International Defense
Review, 15, No. 2, 1982.
- Luttwak, Edward N., et al. "Historical Projection and
Analysis for Army 2000, Part 2, Analysis and
Conclusions." Chevy Chase: Edward N. Luttwak, 1983.
- Mikshe, F. O. Paratroops. London: Faber & Faber, 1943.
- Nailor, Peter. "Lessons of the Falklands Crisis?". London:
International Relations: Nov. 1982.
- Northridge, F. S. "The Falkland Islands: Origins of the
British Involvement". London: International Relations:
Nov. 1982.

Petraeus, David H. Cpt. "Light Infantry in Europe: Strategic Flexibility and Conventional Deterrence". Fort Leavenworth: Military Review, December 1984.

Posner, Michael. "Operation Fury, Inside Grenada". Toronto: MacLeans, 7 November 1983.

R & D Associates. "Light Infantry Mission Area Analysis". Marina Del Ray: R & D Associates, February 1980.

Romjue, John L. "A History of Army 86, Volume 2. The Development of the Light Division, the Corps and Echelons Above Corps". Fort Monroe: U.S. Army Training and Doctrine Command, June 1982.

"Rounding Off the Falklands". London: Defence Attache: 1982.

"Spice Island Power Play". Los Angeles: Time, 31 October 1983.

Turner, Stansfield Admiral. "The Unobvious Lessons of the Falklands War". Annapolis: Proceedings, U.S. Naval Institute. April 1983.

Uberoy, Virinder Brigadier. "Falkland War - A Macro View". New Dehli: Journal of the United Service Institute of India: January-March 1983.

Vego, Milan, Dr. "The Falklands, A Soviet View". Surrey: Naval International: September 1983.

UNPUBLISHED PAPERS

Mitchell, Ralph, LTC(P). Light Infantry Operations in Europe, 1944: The 101st Airborne Division's Defense of Bastogne. Carlisle: United States Army War College Study Project, 1984.

Richardson, William, R. Gen. Kermit Roosevelt Lecture to the Royal College of Defence Studies. An unpublished speech, 23 May 1984.

Uhle-Wettler, Franz, MG. Gejachtsfeld Mitteleuropa (Battlefield Central Europe), An unpublished translation, 1983

Wass de Czege, Huba, Colonel. Three Kinds of Infantry. An unpublished paper, 1984.

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10. Commander
29th Infantry Division (Light)
ATTN: G-3 Plans
Fort Belvoir, Virginia 22060

11. Commander
82nd Airborne Division
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Fort Bragg, North Carolina 28307

12. Commander
101st Airborne Division (AASLT)
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13. Commander
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14. LTC Douglas V. Johnson II
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15. Defense Technical Information Center
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16. Donovan Technical Library
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17. COL Richard Hart Sinnreich
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