

AD-A179 453

A Concept for the Tactical Employment
of Light Infantry in Central Europe

by

Major Gregory C. Gardner
Infantry

School of Advanced Military Studies
U.S. Army Command and General Staff College
Fort Leavenworth, Kansas

5 December 1986

DTIC
ELECTE
APR 20 1987
S E D

Approved for public release, distribution is unlimited.

AD-A179453

REPORT DOCUMENTATION PAGE

Form Approved
OMB No 0704-0188
Exp. Date Jun 30, 1986

1a. REPORT SECURITY CLASSIFICATION UNCLASSIFIED		1b. RESTRICTIVE MARKINGS	
2a. SECURITY CLASSIFICATION AUTHORITY		3. DISTRIBUTION/AVAILABILITY OF REPORT Approved for public release; distribution unlimited	
2b. DECLASSIFICATION/DOWNGRADING SCHEDULE		5. MONITORING ORGANIZATION REPORT NUMBER(S)	
4. PERFORMING ORGANIZATION REPORT NUMBER(S)		7a. NAME OF MONITORING ORGANIZATION	
6a. NAME OF PERFORMING ORGANIZATION School of Advanced Military Studies, USAC&GSC	6b. OFFICE SYMBOL (if applicable) ATZL-SWV	7b. ADDRESS (City, State, and ZIP Code)	
6c. ADDRESS (City, State, and ZIP Code) Fort Leavenworth, Kansas 66027-6900		9. PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER	
8a. NAME OF FUNDING/SPONSORING ORGANIZATION	8b. OFFICE SYMBOL (if applicable)	10. SOURCE OF FUNDING NUMBERS	
8c. ADDRESS (City, State, and ZIP Code)		PROGRAM ELEMENT NO.	PROJECT NO.
		TASK NO.	WORK UNIT ACCESSION NO.
11. TITLE (Include Security Classification) A Concept for the Tactical Employment of Light Infantry in Central Europe (U)			
12. PERSONAL AUTHOR(S) MAJ Gregory C. Gardner, USA			
13a. TYPE OF REPORT Monograph	13b. TIME COVERED FROM _____ TO _____	14. DATE OF REPORT (Year, Month, Day) 86/12/5	15. PAGE COUNT 52
16. SUPPLEMENTARY NOTATION			
17. COSATI CODES		18. SUBJECT TERMS (Continue on reverse if necessary and identify by block number)	
FIELD	GROUP	light infantry European defense	
	SUB-GROUP	infantry doctrine operational maneuver	
19. ABSTRACT (Continue on reverse if necessary and identify by block number)			
<p>There has recently been much discussion in western military journals concerning the use of light infantry forces in Central Europe. Many authors have indicated that defense of restricted terrain and urban areas are the most suitable missions for light infantry units in that theater. This monograph argues that those missions are not appropriate. In a high intensity conflict, light infantry must be employed offensively in accordance with a tactical style more suited to their training and organization.</p> <p>This paper initially describes the tactical style of light infantry forces in general. It then focuses on the Army's Light Infantry Divisions and examines how and why they have adopted that method of fighting. A critical study then details the use and misuse of light forces since the beginning of World War II. Lessons from that analysis are used to develop a concept for the employment of light infantry in Central Europe.</p> <p style="text-align: right;">(continued on other side of form)</p>			
20. DISTRIBUTION/AVAILABILITY OF ABSTRACT <input checked="" type="checkbox"/> UNCLASSIFIED/UNLIMITED <input type="checkbox"/> SAME AS RPT. <input type="checkbox"/> DTIC USERS		21. ABSTRACT SECURITY CLASSIFICATION UNCLASSIFIED	
22a. NAME OF RESPONSIBLE INDIVIDUAL MAJ Gregory C. Gardner		22b. TELEPHONE (Include Area Code) (913) 684-2138	22c. OFFICE SYMBOL ATZL-SWV

A

The primary conclusion of this monograph is that our Light Infantry Divisions must operate in Europe in the same way that they intend to fight in a low intensity conflict. That is, they must be offensively oriented and fight in an unconventional style that focuses on disrupting rather than destroying the enemy. Our doctrine must reflect that light infantry forces operate in this manner. A secondary conclusion concerns our lack of infantry in Europe. Since defensive missions in high intensity warfare require conventional dismounted infantry, the Army should bring more regular infantry divisions back into the force structure.

DISCLAIMER NOTICE

THIS DOCUMENT IS BEST QUALITY PRACTICABLE. THE COPY FURNISHED TO DTIC CONTAINED A SIGNIFICANT NUMBER OF PAGES WHICH DO NOT REPRODUCE LEGIBLY.

School of Advanced Military Studies
Monograph Approval

Name of Student: Major Gregory C. Gardner
Title of Monograph: A Concept for the Tactical Employment of
Light Infantry in Central Europe

Approved by:

James R. McDonough

Lieutenant Colonel James R. McDonough, M.S. Monograph Director

Richard Hart Sinnreich

Colonel Richard Hart Sinnreich, M.A. Director, School of
Advanced Military
Studies

Philip J. Brookes

Philip J. Brookes, Ph.D. Director, Graduate
Degree Programs

Accepted this 20th day of December 1986.

APPROVED FOR PUBLIC RELEASE:
DISTRIBUTION UNLIMITED.

Accession For	
NO. 6121	<input checked="" type="checkbox"/>
NO. 618	<input type="checkbox"/>
NO. 619	<input type="checkbox"/>
NO. 620	<input type="checkbox"/>
By _____	
Distribution/	
Availability Codes	
Dist	Avail and/or Special
A1	23 ll

Recently, authors

ABSTRACT

A CONCEPT FOR THE TACTICAL EMPLOYMENT OF LIGHT INFANTRY IN CENTRAL EUROPE by MAJ Gregory C. Gardner, USA, 52 pages.

There has recently been much discussion in western military journals concerning the use of light infantry forces in Central Europe. Many authors have indicated that defense of restricted terrain and urban areas are the most suitable missions for Light Infantry Divisions in ^{Central Europe} that theater. This monograph argues that those missions are not appropriate. In a high intensity conflict, light infantry units must be employed offensively in accordance with a tactical style more suited to their training and organization. *This paper includes a study of*

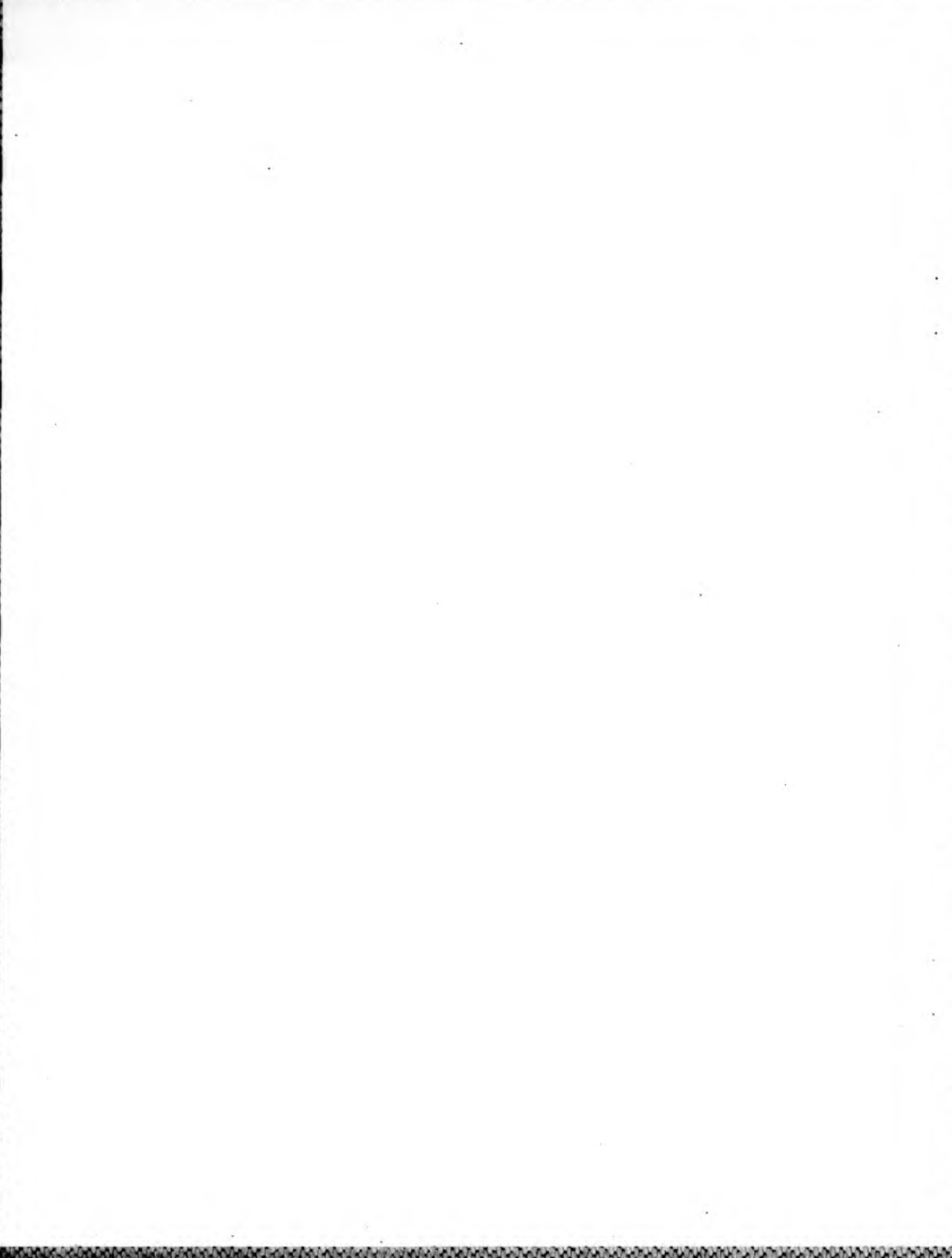
This paper initially describes the tactical style of light infantry forces in general. It then focuses on the Army's Light Infantry Divisions and examines how and why they have adopted that method of fighting. A critical study then details the use and misuse of light forces since the beginning of World War II. Lessons from that analysis are used to develop a concept for the employment of light infantry in Central Europe.

The primary conclusion of this monograph is that our Light Infantry Divisions must operate in Europe in the same way that they intend to fight in a low intensity conflict. That is, they must be offensively oriented and fight in an unconventional style that focuses on disrupting rather than destroying the enemy. Our *military* doctrine must reflect that light infantry forces operate in this manner. A secondary conclusion concerns our lack of infantry in Europe. Since defensive missions in high intensity warfare require conventional dismounted infantry, the Army should bring more regular infantry divisions back into the force structure.

-- 1,2.

C

Table of Contents	Page
I. Introduction	1
II. The Nature of Light Infantry	4
III. Employment Considerations for Light Infantry Units	12
IV. Historical Perspective	17
V. A Concept for Tactical Employment	28
VI. Doctrinal Implications	32
VII. Conclusion	36
Appendix: Comparative Characteristics of Infantry Forces	37
Endnotes	39
Bibliography	46



I. INTRODUCTION

The interested soldier need not look far today to find commentary on the organization and employment of some sort of 'light infantry' unit. It seems that hardly an issue of the leading military journals is published without at least one article on the subject. Unfortunately, the inconsistent and conflicting nature of these sources seems to have clouded the issue. Thus, two years after General Wickham published his 'White Paper' there is still much discussion on the employment of the 'new American Light Infantry Divisions'.

If we narrow the focus to Central Europe, however, we find a growing consensus that light forces have strategic utility in that theater. (1) Unfortunately, there is tremendous variation in proposed methods for the actual organization and employment of non-mechanized units in NATO. The options seem to range from assigning individual infantrymen as fillers for heavy units to committing a division to a non-critical defensive sector. Sadly, the Operational Concept for the light infantry divisions sheds no light on details of employment in mid to high intensity combat. (2) This paper will define the tactical missions suitable for a light infantry division in a Central European environment.

If we accept that there is strategic and operational utility for the light infantry division in Europe, we must then develop a clear concept for its tactical employment. Furthermore, this concept must be advantageous to the Theater and Corps Commander.

That is, the commander should not have to change his scheme of maneuver just to accommodate a light unit which has been thrust upon him. That means preserving the integrity of both heavy and light forces. The problem thus becomes, "How can an American Corps Commander in Europe use light infantry forces without augmenting them with direct fire support from his heavy units?" The premise of this paper is that there is a limited number of valid tactical missions for light infantry in Europe because light units must be employed in a manner for which they have been organized and trained. That implies a tactical style that is offensive in nature and does not include terrain holding or economy of force missions.

The methodology for defending this thesis must begin with a definition of light infantry and an examination of the nature of the Army's Light Infantry Divisions. This will be followed by a discussion of several limiting arguments which address not only the manner in which the unit is organized and supported but also the way in which the forces of the Warsaw Pact would attack Western Europe.

Once these points are established, the combat performance of light forces in selected operations since the beginning of World War II can be examined. This analysis includes not only offensive and defensive operations, but also operations in the 'tactical rear' of both enemy and friendly front line troops. The results show that light infantry has little utility at the forward edge of the battle area and that it is far more effective when it is employed to disrupt rather than destroy the enemy.

The results of this historical review will lead to the development of a concept for the use of the light infantry in a mid to high intensity war. This concept will consist of general principles which delineate appropriate missions for light forces. The key point is that light units must use tactics for which their organization and training have prepared them.

The analysis continues with an examination of the doctrinal implications of this concept for the employment of light forces. Finally, conclusions arising from this discussion are presented.

An important point must be made at this juncture. When developing a concept of light infantry missions, it is deceptively easy to become enamored with a vision of the light soldier as an elite fighter who can overcome the firepower of a well-equipped enemy with cunning and guile. We must not forget that many of the missions proposed in this paper are very difficult and require well-trained soldiers with a high resistance to the psychological pressures of war and an unusual tolerance for physical hardship. Light infantry units may be effective, but their loss rates could be high. Therefore, the key question may not be whether or not there are missions for the light infantry in Europe, but rather -Is the American Army prepared to pay the price in training or in combat casualties to commit a Light Infantry Division to high intensity combat? The reader should keep this in mind as he continues through this paper.

II. THE NATURE OF LIGHT INFANTRY

Before investigating missions for light infantry in Europe, it is important to establish that light infantry is more than just dismounted infantry with less equipment. It fights with a particular tactical style. To demonstrate this, we must first define exactly what is meant by light infantry. Then the tactical model for the Light Infantry Divisions can be identified. Finally, the difference between light and other kinds of dismounted or conventional infantry can be examined to determine the characteristics of light infantry forces.

Just what is light infantry? Historically, Americans have argued that light forces are light because they possess no organic heavy equipment. They fight on foot in close terrain using tactics which do not vary significantly from those employed by dismounted conventional (ie. motorized or mechanized) infantry. By this definition, all American infantry divisions in World War II were light. The value of light infantry, according to this argument, is its strategic mobility. A light unit's activities and capabilities once deployed are subordinate to its ability to respond quickly to a crisis. (3) This attitude is vividly reflected in FC 71-101, Light Infantry Division Operations, which describes the Light Infantry Division essentially as a general purpose force. (4)

Europeans, on the other hand, view light infantry quite differently. To them, classic light infantry is distinguished from conventional infantry on the basis of attitude and tactical style. It is characterized by a strong propensity for self-reliance, freedom from fixed lines of communications and a closeness with the

environment. Light infantry operates most effectively at night, it adapts well to unconventional operations, and has a strong offensive orientation. The great British strategist, B. H. Liddell-Hart, saw the light infantryman as a stalker, athlete, and marksman. He should be a soldier not only 'light of foot' but also 'quick of thought'. (5) Thus, in the European view, light infantry is first of all a state of mind and secondly a product of environment. Some examples of units which embodied this view of light infantry in World War II were the American Ranger Battalions and the Canadian-American First Special Service Force. (6)

The European view of light infantry is clearly the model for the Light Infantry Divisions. Several proponents, among them the Army's Chief of Staff, have urged the U.S. Army to depart from its traditional view of light infantry and develop a force light in tactical style as well as equipment. (7) While the Light Infantry Divisions General Wickham created are certainly strategically mobile, they train and operate in the classic European sense. The Chief of Staff has stated that the light infantry will be offensively oriented and will train along Ranger-Commando lines so that they become toughened physically, thoroughly grounded in all infantry skills, and prepared to fight aggressively at night. (8) The Command Guidance issued by the 9th Infantry Regiment of the 7th Infantry Division (Light) and comments from several of the Division's officers confirm that our light infantry is indeed being trained to operate in this manner. (9) We now must clarify how forces operating in this style differ from other types of dismounted infantry.

A useful model which functionally identifies types of infantry has been proposed by Colonel Huba Wass de Czege. (10) He points out that with the arrival of the Bradley Fighting Vehicle and the new light infantry organizations, we can more clearly see certain distinctions on the spectrum of infantry missions. Three types of infantry - armored, regular, and light - become evident. While it is obvious that all infantry units are physically capable of performing a wide variety of tasks, they will only do well those missions for which they have been organized and trained.

Armored infantry orients on the advance and protection of the main battle tank. This type of infantry is mounted in a 'fighting vehicle', such as the M2 Bradley, that has mobility equal to that of the tank. Armored infantry conducts mounted or dismounted operations to enhance the capabilities of armored units. Colonel Wass de Czege indicates that armored infantry supports offensive operations by accompanying tanks, suppressing infantry weapons, and dismounting to clear obstacles. In the defense, although armored infantry does dig in, it also provides close in support for tanks in static positions, complements the fires of tank guns and emplaces obstacles. While armored combat may be more fluid than Colonel Wass de Czege seems to suggest, his functional point that armored infantry supports tanks is valid. (11)

A historical example of armored infantry in action during World War II can be found in the Third Army's Lorraine Campaign. Patton used his infantry to force crossings of the Meuse and reduce obstacles thus facilitating the advance of his armored units. (12) Reports from the National Training Center show that our current

armored infantry is capable of a variety of dismounted missions to include infiltration attacks and counter reconnaissance. (13) The point remains, however, that armored infantry, especially with the Bradley's limited number of dismountable infantrymen, performs missions in tactical support of the armor. Its focus is obviously on mid to high intensity warfare.

Regular infantry, in contrast, is supported by tanks at the tactical level. When defending, regular infantry holds key terrain. In Europe, this might mean defending a town or holding a critical piece of ground. During offensive operations, regular infantry tasks might include reducing bypassed pockets of resistance, keeping open lines of communication, or holding the shoulders of a penetration. The November 1944 Battle of Schmidt, in which the 112th Infantry Regiment was supported by the tanks of Company A, 707 Tank Battalion, is an example of this type of infantry in action. (14) Regular infantry travels mounted, ideally in M113s, to increase its tactical mobility and to carry the heavy equipment it needs to do its job. But whatever the mission, regular infantry always fights dismounted. It is especially distinguished by its ability to quickly occupy a piece of ground and turn it into a fortress. (15)

Although Colonel Wass de Czege describes airborne and air assault infantry as light, (16) their tactical style once they get on the ground is more similar to that of the regular infantry. Of course, these divisions do have certain strategic and operational capabilities which set them apart from other types of regular infantry.

Regular infantry is also optimized for a mid to high intensity environment. It operates in much the same way that the 9th Infantry Division did before it became the High Technology Testbed. (17) It is important to note that with the exception of the 2d Infantry Division, which has a peculiar mission, there are no regular infantry divisions left in the active force structure. Accordingly, the Light Infantry Divisions may be called upon to perform missions for which regular infantry would be better suited. This may be especially true in high intensity combat. More on this later.

Light infantry is different. Colonel Wass de Czege describes it like this:

(Light infantry) is specialized for rapid air transportability, clandestine insertion, night operations, infiltration, raids, and ambushes; it gives off only small tactical signatures. Light infantry complements other forces at strategic, operational, and tactical levels. (18)

He goes on to say that light infantry is difficult to find on the battlefield but once detected it must complete its tasks quickly and violently or it will be defeated. The details of the infiltration and ambush style of the light infantry can be seen in the action fought by the Fifth Ranger Battalion at Zerf, Germany in February 1945. (19)

While light infantry is more adept than other types of infantry at infiltration and mobile operations at night in difficult terrain, it can not dig in, hold ground or assault as well as regular infantry. (20) Accordingly, light infantry must

focus on low intensity conflict or, at least, the low intensity portion of more lethal battlefields. (21) The similarity between this description of light infantry and the classic European view is obvious.

Although the Wass de Czege model gives us a fairly clear idea of the nature of light infantry, it is not complete. There are other aspects which must also be considered.

Edward Luttwak points out that the salient difference between light and what he calls regular infantry, lies in their respective modes of combat rather than their equipment. Regular infantry fights in a linear front mode as part of a wider array of forces. It cooperates with artillery and armor at the tactical level. Light infantry normally fights in a non-linear and tactically independent manner. Its actions are coordinated with other forces at the operational level. (22) This important distinction may be a key to the employment of light infantry units in high intensity warfare. Luttwak adds that if these units become involved in attrition warfare they will be destroyed. (23)

Steven Canby describes light infantry as an adjunct element to complement and supplement the combined arms team. He considers light infantry a separate arm. To him, it is an infantry qualitatively different from the 82d Airborne or the new High Technology 9th Division. Light infantry is a surprise and terrain dependent force. These factors protect it from tanks and artillery and mask its movements. (24)

In summary, light infantry is unlike other types of

infantry. It has its own tactical style. Appended to this paper is a table that highlights the distinctive differences between conventional dismounted infantry and light infantry. (25) The table is tailored, for the purposes of this paper, to mid and high intensity combat. The heading 'operations' describes considerations for the employment of light infantry units in conjunction with other combat arms units, while 'tactics' describes the way in which light units fight. Although some of the points may be open to debate, the comparison serves its purpose. It creates a general picture of the unique features of light infantry.

Let us now focus specifically on the U.S. Army's Light Infantry Divisions. We have seen that these units intend to fight in the tactical style of the light infantry. Critics might offer that this is wrong. They would say that the Light Infantry Divisions should be optimized for a more conventional style of warfare. This would allow the units to develop proficiency in traditional regular infantry missions, like defense, and thus increase their utility in a mid to high intensity environment. Such criticism fails to appreciate the Army's concept for the employment of these divisions.

The mission of the Light Infantry Divisions clearly requires them to train as light infantry. These units are intended primarily for employment in low intensity conflict. They have some utility in mid to high intensity warfare. (27) This unambiguous mission statement requires these units to train primarily for an unconventional style of warfare. Low intensity conflict is characterized by constraints on weapons, tactics, and

the level of violence. (28) More specifically, this type of warfare requires combat forces to fight using the type of decentralized tactics most often associated with Ranger operations - raids, ambushes, and patrols. (29) The Chief of Staff has noted that:

In low intensity conflict, they (light infantry units) will be able to search out and destroy the enemy on his terrain using initiative, stealth, and surprise. Attacks by infiltration, air assault, ambush, and raid will be the norm. (30)

This type of fighting fits the traditional tactical style of the light infantry that we discussed earlier.

Since American light infantry units are primarily oriented on low intensity conflict, commanders must use that mission to develop and prioritize the tasks for which they must train. This mission essential task list drives their training priorities. Limited resources allow units to train for only a limited number of tasks. To do this well, those tasks must fit with a certain style of fighting, and that is the light infantry style. Adding other tasks which do not fit the primary mission causes confusion and reduces training quality. (31) We must carefully avoid creating a hybrid unit that is theoretically capable of performing all dismounted infantry missions but actually capable of none. (32)

The point is, if the Light Infantry Divisions are deployed to Europe, they must fight in the same way in which they would fight a low intensity conflict. Therefore, we must develop a concept of employment in that theater that will capitalize on their unique capabilities.

III. EMPLOYMENT CONSIDERATIONS FOR LIGHT INFANTRY UNITS

There are a number of factors, besides unit capability, which influence the employment of light forces in Central Europe. Arguments have been made by other authors concerning the size, composition, and support of light forces in this theater. The purpose of the following paragraphs is to present this author's views on several of these subjects for the purpose of further limiting his argument concerning the missions for light infantry units in Europe.

The Light Infantry Battalion is the basic building block for light force deployment. While brigades of the Light Infantry Division may be employed separately if the mission requires, the integrity of the battalion must never be violated. There is little doubt that we are infantry poor in Europe, (33) but it seems wasteful to split up well trained light infantry units to provide fillers for heavy units as some have suggested. (34) On the other hand, recall that as Luttwak pointed out, light infantry does not work with armor and artillery at the tactical level. So, unlike the armored or regular infantry, the Light Infantry Battalion is not trained or equipped to cross attach units. Its main role is as the primary control headquarters for the decentralized operations that characterize light infantry tactics. (35)

The Light Infantry Brigade is the lowest level unit which can properly accept attachments from outside the Division. Although battalions will obviously have some combat support units, such as the FIST and an engineer platoon, the brigade is the first level with the command and control facilities to coordinate supporting

air and artillery assets and sequence their effects with ground maneuver forces. The Light Infantry Brigade can also maneuver armor, armored infantry, or regular infantry units although it is only able to provide them with limited logistic support. (36)

These capabilities make the Light Infantry Brigade the most appropriate unit for employment in the European theater. There is no doubt that in low intensity operations the division base must be present to coordinate intelligence and logistic support. (37) In NATO, however, those supporting systems are already established. The nature of the theater and the decentralized style of the light infantry limit the possibilities for the employment of the division as a whole. On the other hand, there are a number of uses for a Light Infantry Brigade or Brigade Task Force attached to either a Corps or Division. (38) The Light Infantry Division establishment must be retained since the primary mission for the unit is in low intensity conflict. Although much more study is warranted, there are some indications from war gaming that in a European scenario, the Division Headquarters can be a useful adjunct to the Corps for planning and controlling operations. (39)

While Light Infantry Divisions are strategically deployable, the time factor is very significant when considering their tactical employment. It takes a long time properly to prepare a dismounted infantry defense, especially if the unit has not regularly practiced that task. Offensive operations can be conducted with much less lead time. In Europe, therefore, time alone may prevent the defensive employment of light infantry units.

Light infantry units will not operate in isolation in Europe. They will always complement or supplement the actions of heavy forces. Much has been written on the subject of heavy/light operations. Many of these articles have recommended the cross attachment of heavy direct fire systems to light units. (40) There are three problems with that argument. First, it fails to appreciate the tactical style of light infantry units. Second, it does not consider the nature of the reinforcing mission in Europe. And finally, it ignores the fact that unless units train together and develop a mutual operating concept, their wartime performance is often poor. (41) Light infantry and heavy force operations are synchronized at the operational not at the tactical level. For example, a Light Infantry Brigade might infiltrate an enemy division to disrupt and confuse that unit so that a corps counterattack will be more successful. That is the correct concept. Since light units are a disrupting, not a destroying force, they must work in conjunction with heavy forces to defeat the enemy.

Light infantry units require indirect fire and air support to accomplish most missions. The experiences of the American Ranger battalions and the German mountain divisions in World War II clearly show that these units were most successful when they had the support of a significant amount of indirect fire. (42) An important point concerning artillery is that in appreciation of the limited logistical capabilities of the Light Division, the light force should control only the effects of the fires, not the firing unit. The TACFIRE and AFATADS systems should facilitate this type of support.

Logistic support for light infantry units in Europe is not a major problem. Transport to position light forces can be provided by the host nation. (43) Based on equipment and strength figures, the unit will consume far less fuel, ammunition and spare parts than an armored or regular infantry unit of the same size.

Finally, we must address the way we see the war being fought in Central Europe. A number of sources point out that light infantry units can defend in close terrain, such as the Hohe Rhon, or in built up areas. Others have suggested that this type of economy of force defense could free an armored unit for offensive action. (44) This presumes not only that the light unit has the same capabilities as the unit it replaces, which it does not, but also that the Soviets would not make their main effort in this area. We must be careful here. The Soviets may well choose to focus the brunt of their attack in what we consider restricted terrain. General Radzievsky, former Commandant of the Frunze Military Academy, has made the following comments about German and Japanese defenses during World War II:

The weakest spots are...also sectors defended by troops of low fighting capacity. We also regarded as weak spots in the enemy's defences those sectors which he considered to be difficult of access from a tactical point of view. An attack on such a sector was a complete surprise to the enemy;...our forces gained tremendous advantages despite the fact that they were attacking over difficult terrain. (45)

Colonel Glantz amplifies these comments when he details the 1945 Soviet attack into Manchuria across ground considered impassable by the Japanese. (46) The purpose of these comments is to emphasize that our concept for the use of light infantry in

Europe must include an accurate appreciation of the way in which the enemy will fight. This understanding must not be limited to the echelonment tactics of the Soviet attack but must also embrace operational considerations. Defense and economy of force missions in terrain that appears tactically restrictive could doom a light infantry force to destruction by a massive Soviet attack.

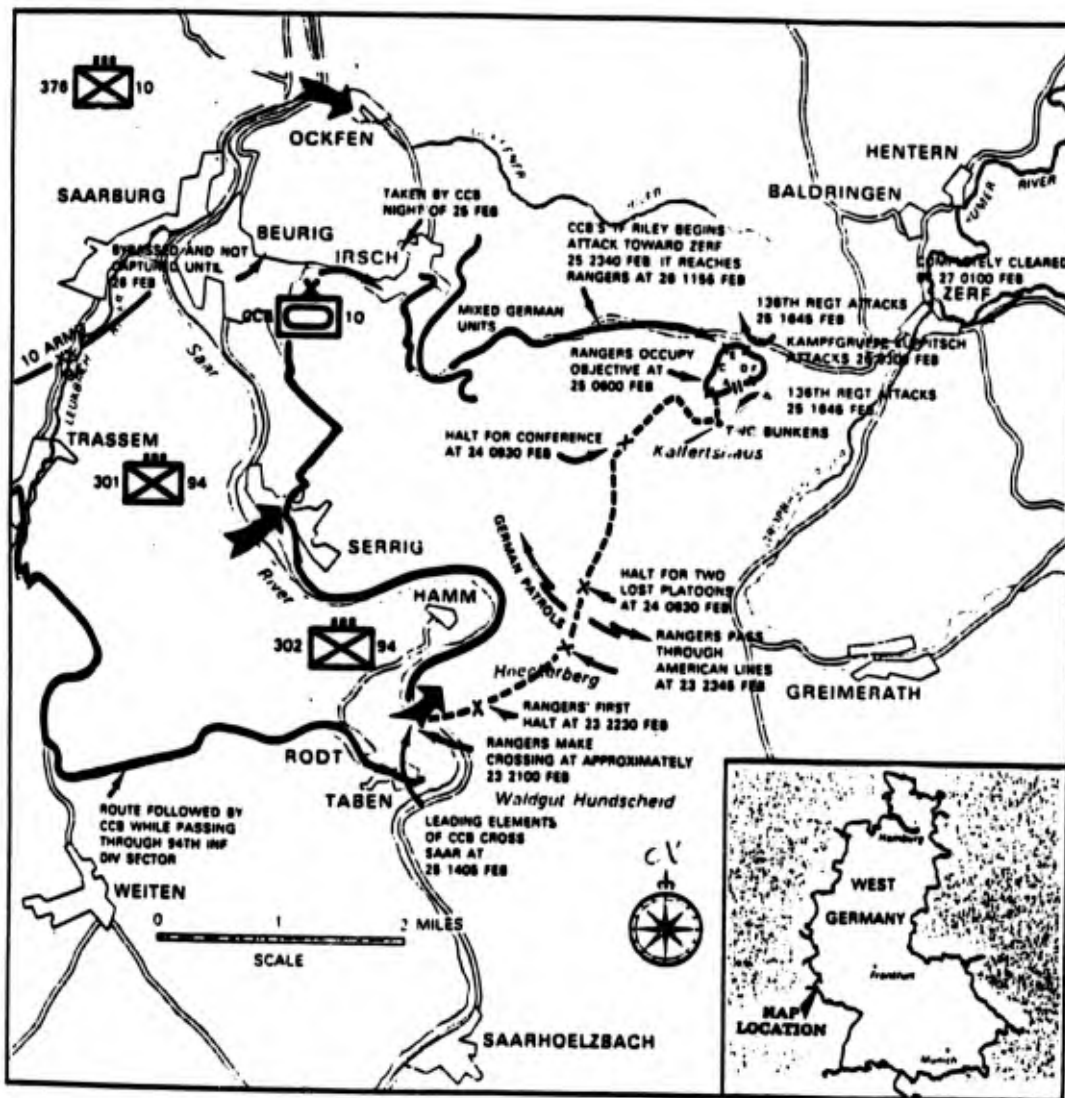
IV. HISTORICAL PERSPECTIVE

Now that we have examined the characteristics of the light infantry and the Light Infantry Divisions in particular, we can look at the combat performance of this type of unit since the start of World War II. The object will be to find consistent lessons in their performance. The examples used in this section have been chosen because they fit the type of high intensity environment we can expect to find in Europe. The specific geographic areas vary widely. Similarly, none of the subject units were specifically designated as 'light infantry'. Their tactical style, however, definitely fits the model we have developed. We will analyze offensive, defensive, and then rear operations. The section will conclude with comments on actions in which the light infantry was used improperly. This analysis will allow us to develop a valid concept for the employment of light infantry in Europe.

The action fought by the 5th Ranger Battalion above Zerf, Germany during 23-27 February 1945 was one of the most successful Ranger operations of World War II. It is also an excellent example of light infantry working in conjunction with a heavy force at the operational level.

The Rangers were attached to Major General Walton Walker's XX Corps of Patton's Third Army which was advancing on the Saar River. Once a bridgehead had been secured, the battalion was given the mission to infiltrate to the Irsch-Zerf road and establish a blocking position to disrupt the German withdrawal. (See Map 1)

The battalion began its infiltration at 2345 hours on the 23rd



(This map is taken from King, Rangers: Selected Combat Operations in World War II, p. 49.)

MAP 1

Fifth Ranger Battalion at Zerf

of February and reached its objective by 0600 on the 25th. At that time, the Germans were unaware of the Rangers location or mission. By the afternoon, however, they realized their predicament and made several strong attacks against the American perimeter. None were successful.

Meanwhile, XX Corps was continuing its attack to the east forcing the German defenders to withdraw toward the Rangers. Through the night of the 25th the Rangers directed artillery fire on the Irsch-Zerf road, denying its use to the enemy. The battalion was contacted by American units on the 26th and was finally relieved on the 27th after ambushing a party of 200 Germans in the morning mists and taking 145 prisoners. (47)

This action is an excellent example of the employment of a light infantry unit in conjunction with a heavy force in an operationally offensive but tactically defensive manner. The Rangers effectively infiltrated into position and disrupted the cohesion of the German defense by forcing the Germans to attack them. The Rangers made excellent use of their artillery support to interdict German movement and defeat counterattacks.

There are other historical examples of successful infiltrations by light infantry forces. During World War II, the Russians became expert at it. They would slip through the extended German lines in small units and then link up in the swamps or dense woods. In February 1942, for example, the Russians infiltrated the strong points of the German 269th Infantry Division. Once established in the rear of the Division, the Russians would lay low during the day and come to life at night to sow mines on lines of

communications, assault resupply columns and attack command posts. These disruptive activities were coordinated with conventional attacks along the front which eventually broke the German line.(48)

In September 1981, Iran employed night infiltration techniques to disrupt the Iraqi defense of Abadan. (49) While the details of this battle are unclear, it appears that Iran made good use of infiltration and night attacks by light infantry units over a broad area to find weak spots in the Iraqi defense and to pin down forces in more strongly held sectors. (50) Iran then rapidly exploited these successes with its armored units. At least in this instance, there were no human wave attacks. The Iranian infantry was skillfully employed and well led. In fact, throughout the war the Iranians have been repeatedly successful against a Soviet style echeloned defense in depth. Their accomplishments are due largely to their aggressive use of night attacks by infiltrating light infantry which is supported by artillery and followed by armor.(51)

These examples show that light infantry can be used in a tactically offensive fashion to disrupt enemy defenses and facilitate the attack of an armored force.

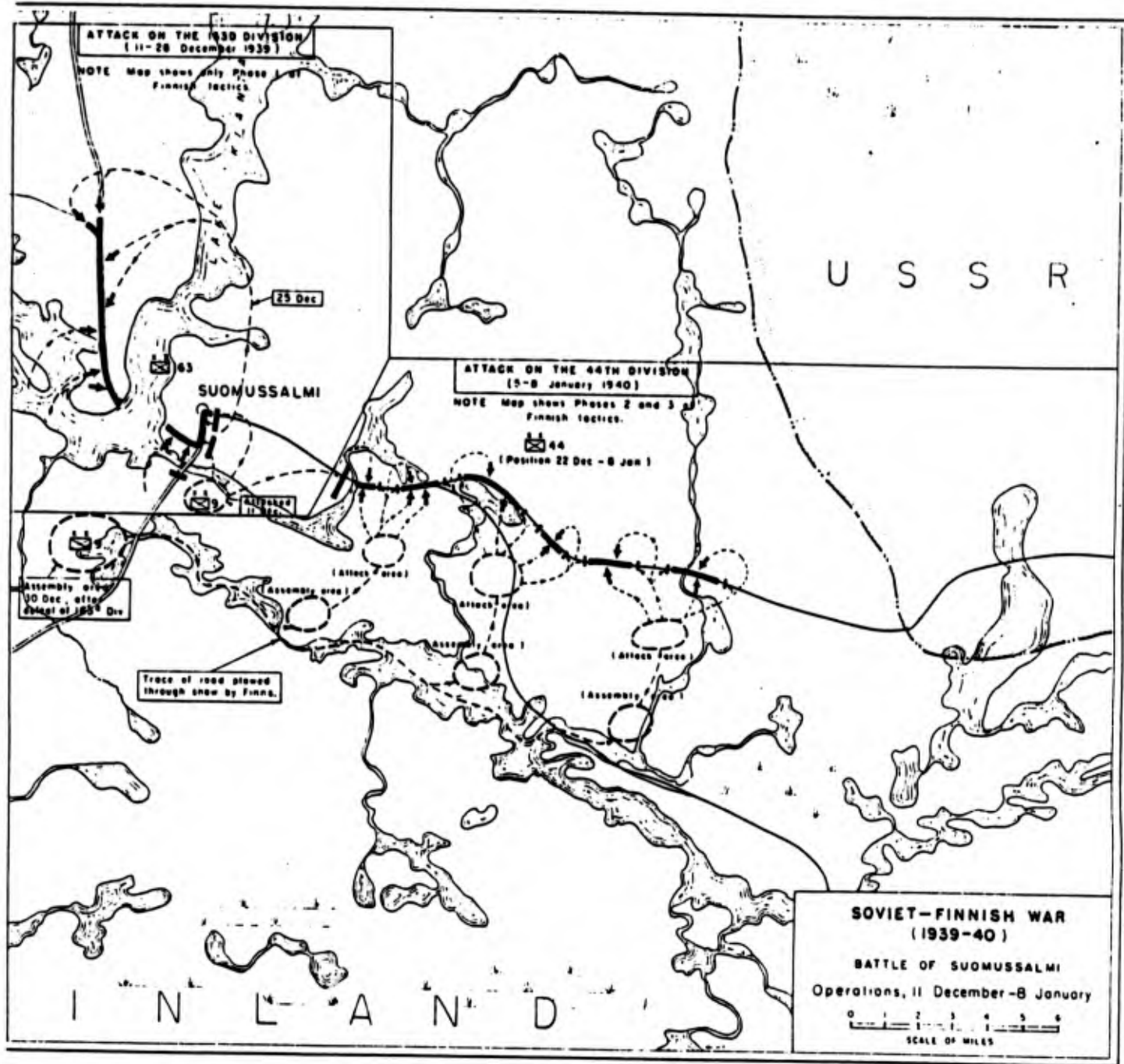
Let us now turn our attention to the defense. Certainly the most classic example of light infantry in a defense campaign is found in the Russo-Finnish War of 1939.

In December 1939 and January 1940, the Russian 163d and 44th Divisions pushed into Finland toward the town of Suomussalmi. (52) Once the Soviets had penetrated to a depth of 20 miles, the Finns

struck back using night attacks and 'motti' or envelopment tactics. (53) The defenders blocked the road in front of and between the two divisions and then began to systematically destroy them. (See Map 2) One way they did this was by separating the infantry from the tanks with surprise flank attacks and artillery fires. (54) But more notable was the manner in which the Finns avoided the enemy's strength and focused their unrelenting attacks on the Russian kitchens and warming fires. (55) By 9 January, the 163d Division had been broken and the 44th Division had ceased to exist as an organized unit.

This battle demonstrates the value of tactically offensive actions by light infantry units within the context of an operational defense. It also shows how light infantry can be very effective when it indirectly attacks the enemy's weakness, in this case, his ability to sustain his soldiers, and allowing other forces, like the Finnish winter, to complete the destruction of enemy's strength. A brigade of the 7th Infantry Division (Light) recently conducted a similar operation against an opposing armored column at Fort Hunter-Liggett. The unit's light infantry infiltrated to control a key choke point and eliminate supporting infantry while attack helicopters and artillery destroyed the armor vehicles that could not maneuver in the close terrain. (56) The success of this mission indicates that the concept remains valid.

Many authors have pointed out that with the increase in 'urban sprawl' in Western Europe, light infantry will be able to effectively defend urban areas. (57) A brief historical critique of this assertion is in order.



(This map is taken from Espisito, West Point Atlas of American Wars, Volume II, World War II, map 9.

MAP 2

Finnish 'Motti' Tactics at Suomussalmi

A good example of a successful infantry defense of a built up area is the Egyptian action in Suez City at the end of the 1973 war. The Israelis felt that they could take Suez by combining an armored break-in with a sustained artillery barrage. They did not know the situation in the town, but felt that the few demoralized Egyptians in Suez would put up only light resistance. The mission would be completed in short order. (58) The Israelis were wrong. Strong resistance by Egyptian infantry forces caught them by surprise, destroyed a significant portion of their armor and forced them to withdraw. General Wickham has cited this engagement as an example of the defensive capabilities of light infantry forces in built up areas. (59)

In this instance, the Chief of Staff is probably right. In Suez City the Egyptians fought in a light infantry style. They used roadblocks and coordinated tank ambushes to halt the Israelis. Once the defenders had executed their ambushes they were able to melt into the depth of the city and avoid detection. But what would have happened if the Israelis had expected the Egyptian defense and attacked more prudently?

In situations where the attacker knows that a town is defended, things are quite different. The attacker then has the initiative and can bypass the area, invest it, or simply back off and allow artillery to reduce the defense. The elements of the 112th Infantry that had taken Schmidt and Kommersheidt suffered that fate at the hands of the Germans. (60) On Exercise Gallant Knight, a battalion of the 7th Infantry Division (Light) defended a critical town. The unit had an abundance of barrier material and

several days to fortify the area. Although the battalion constructed an excellent defense and fought extremely well, it was eventually wiped out once the attacking armored unit was able to fix its position. (61)

The lesson is that urban defense is not a mission for the light infantry. Light forces are effective in built up areas only if they can retain their freedom of maneuver to surprise and ambush the enemy. But light units are severely handicapped if they are forced to abandon their tactical style and execute a conventional defense. A light unit that is known to hold a city or town can be fixed and destroyed by a more mobile and more heavily armed enemy. Light infantry is simply not trained or organized for urban defense; that is a job for regular infantry. (62)

The final area we will examine is rear operations. The most detailed analysis of this part of the battlefield is offered by Otto Heilbrunn, considered one of the foremost historians of partisan warfare. (63) He divides the depth of the defense into the immediate, near, and far rear areas. (64)

The actual depth of each of these areas will vary with terrain, enemy, and other factors. The immediate rear includes the rear of front line tactical units. The intensity of combat in this area ranges from medium to high. The near rear is occupied by the combat support and combat service support assets which back up the combat units. The battle's intensity there varies from low to medium. Finally, the far rear is the area in which military operations have operational or strategic implications. (65)

Offensively, light infantry forces - Rangers or Commandos to Heilbrunn - operate in the near rear to seize key points and reduce enemy defenses in conjunction with major offensive operations. (66) Heilbrunn envisions these forces following the tenets of Liddell-Hart's 'Indirect Approach' to disrupt and disorganize the enemy by separating his forces, endangering his supplies, or menacing his routes of retreat. (67) There is nothing new here. The offensive examples offered earlier in this section fit nicely into this construct.

Heilbrunn does break new ground, however, when he discusses the use of light forces to defend rear areas. He notes that in Russia the Germans effectively dealt with partisans by forming 'Jagdkommandos'. These company or platoon sized units fought in the tactical style of the light infantry. They were armed with automatic weapons and were expected to live for an extended period without additional supplies. The 'Jagdkommandos' used unconventional tactics to defeat the Russian partisans. Their mission was to see to it that the partisan bands never got any rest. 'Jagdkommandos' would march at night and hide and rest during the day. They would raid and ambush the partisans at every opportunity. (68)

The point here is that although light infantry would be relatively ineffective against Soviet mechanized forces operating in the rear because of their lack of antiarmor weapons and organic transport, they can be the best defense against the Spetznaz that will almost certainly operate in NATO's rear areas if war comes to Europe. (69)

The final historical examples will deal with two cases in which light infantry was misused. The first is the Ranger attack at Cisterna, Italy.

Ranger Force, composed of three Ranger battalions, was attached to 3d Infantry Division in the Anzio beachhead. The division commander, Major General Lucian Truscott, chose the Force to spearhead the Division's attack toward Cisterna. Their mission was to seize and hold the town until relieved. The Rangers crossed the line of departure at 0100 30 January 1944. The units, however, had a number of new replacements and the movement became disorganized. By dawn the Rangers were still not in Cisterna and the battalions were out of contact with each other. That was when the 'Hermann Goering' Panzer Division fell on the isolated units. All relief attempts failed and by nightfall two thirds of Ranger Force had been destroyed. Only 6 of the 767 men who had left for Cisterna made their way back to friendly lines. (70)

Three lessons emerge from this disaster. First, light infantry does not have the firepower to conduct conventional operations against an armored enemy. Second, light forces cannot operate independently in a high intensity environment. They must be committed in conjunction with heavy units. Finally, the decentralized nature of light infantry missions require individual soldiers and small unit leaders whose fieldcraft is excellent. Improperly trained light infantrymen will keep the unit from accomplishing its mission.

A second misuse of light infantry occurred at Nomonhan, Manchuria in July and August of 1939. During those months a very

well trained unit, the 2d Battalion, 28th Infantry Regiment, 7th Infantry Division of the Imperial Japanese Army, fought courageously using a light infantry tactical style against the tanks of the Red Army. This action also shows that individual bravery and leadership cannot overcome doctrinal and material deficiencies. The Japanese suffered 86% casualties and failed to stop the Soviets. (71)

The lesson from this set of engagements is that in high intensity conflict, light infantry cannot fight attrition battles with armored forces. Light infantry must avoid the most intense parts of the battlefield and focus on disrupting the enemy while heavy forces destroy him.

This section has reviewed a number of actions fought by light infantry forces since World War II. Let us take the lessons from this review and apply them to our Light Infantry Divisions.

V. A CONCEPT FOR TACTICAL EMPLOYMENT

We can now establish a concept for the tactical employment of light forces in Europe. This concept will be based on four interrelated principles. Light infantry must be used offensively, it disrupts but does not destroy, it does not engage the enemy's strength, and it fights at night using unconventional tactics. Let us examine each of these principles in detail.

Light infantry fights in an offensive manner. This means several things. Light units can conduct tactical offensive missions in support of an operational offensive. For example, a brigade might infiltrate and disrupt the enemy's forward positions so that an assault by a heavy unit will quickly rupture the defense. That is what the Iranians did at Abadan.

Light forces can also be used offensively in rear area operations to reduce pockets of resistance, fix bypassed forces, or destroy enemy light units. Their style would be similar to that of the German 'Jagdkommandos'. Light infantry is assisted in these missions by air and indirect fire assets.

Finally, light forces are effective in operationally offensive operations where they fight a tactically defensive battle. This tactical defense must allow the light force to retain its freedom of movement and ability to avoid enemy strength. It should be a form of ambush. An example of a unit operating in this mode would be a light infantry brigade that infiltrates or conducts stay behind operations to reach the depth of the enemy. (72) This unit would then hold one or more critical pieces of ground to facilitate

an armored counterattack. The Ranger mission at Zerf is the historical precedent for this type of operation.

What light infantry units cannot do is defend a static position in either a rural or urban environment. They do not have the equipment, antiarmor weapons, transport, or training to accomplish that mission. If light units can be fixed they will be destroyed like the Japanese were at Nomonhan.

Light infantry missions aim at the disruption of the enemy, not his destruction. As the Finns demonstrated, this is effectively a psychological focus, one intended to distract the enemy's attention from the main effort. This principle emphasizes the fact that light units always operate in conjunction with a heavy force. Disruption implies short, violent contacts with the opposition. Raids and ambushes fit the bill as do missions in which light infantry provides targeting data for supporting artillery. Disruption also implies that in a high intensity environment, light infantry missions are of short duration. Light forces simply do not have the firepower, protection or mobility to remain in contact for extended periods of time.

Light infantry units do not engage the enemy's strength. If light forces meet a mechanized enemy in daylight on open terrain they will almost certainly be destroyed as was the Ranger Force at Cisterna. Again, light units just do not have the combat power to slug it out with a heavy force. Light infantry must capitalize on its ability to remain hidden from the enemy until it is ready to strike.

Light infantry units fight unconventionally in a high intensity environment. Their training in low intensity warfare is applied to the European battlefield. Their unconventional style revolves around the decentralized execution of Ranger type missions, such as infiltration, patrolling, ambushes and raids, to disrupt and distract the enemy as Liddell-Hart advocated.

The nature of these operations dictates that most light infantry missions will be conducted in the hours of darkness. Night protects the force and increases its ability to surprise and confuse the enemy.

The effects of decentralized light infantry missions are synchronized by battalion and brigade headquarters to achieve the desired result. An example of a light infantry unit fighting unconventionally would be the brigade which infiltrated into the enemy's rear by platoon, hid during the day, and conducted night raids and ambushes against particular targets in accordance with a specific plan to disrupt the coherence of the enemy's defense.

The concept for the employment of light infantry in Europe, then, revolves around the force's capabilities and limitations. There is, however, an additional consideration. The light soldier must be psychologically prepared for combat in Europe. It is obvious that light infantrymen must be well trained. But as we have seen, light infantry forces optimized for low intensity conflict train for combat in which levels of violence are reduced. Accordingly, light infantry soldiers are mentally prepared for a different kind of war than we expect to find in Europe. The concept for the employment of light infantry in NATO must

appreciate this fact and focus the light infantry mission in a low to mid intensity portion of the combat zone. If light forces operate in an unconventional manner and are given missions which avoid the enemy's strength, they will find themselves on the parts of the battlefield where the intensity of combat is lowest. That is where they will be most at home and will operate most effectively.

This concept for the employment of light forces in Europe involves an offensively oriented, unconventional style of warfare. It is focused on disrupting the coherence of the enemy force, not on its destruction.

VI. DOCTRINAL IMPLICATIONS

Correct employment of the light infantry in Europe must maximize the capabilities of the unit while giving the commander freedom to gain the initiative. We must remember that the primary role of the light division is to respond to contingency missions in support of vital national interests. Additionally, the division's focus is on defeating light enemy forces in low intensity conflict. The European reinforcement mission is thus secondary and must receive secondary emphasis. Based on these considerations and other factors such as tactical style, limited training resources, and deployment time, light infantry is best employed in Europe without direct fire support at the tactical level.

Given that, let us review how light infantry will operate. The light division must train for low intensity conflict first. In doing so it will develop a tactical style with which it will fight in any theater. While a light division may appear capable of offensive or defensive action at the tactical level, it is only effective when used as an offensive force. Defensive activities tie the unit down, cause it to fight a battle of attrition, and increase the chances that the force will be fixed and destroyed. Offensive actions which incorporate raids, ambushes, patrolling and reconnaissance maximize the capabilities of the light division.

Light infantry operates as small units to disrupt the enemy. Light units do this in two ways, by acting as a strike force and by adding depth to the battlefield.

As a strike force, light units infiltrate or air assault to

objectives in the enemy's rear to facilitate the actions of heavy units.

Light forces add depth to the battlefield by infiltrating or acting as bypassed forces and attacking the command and supply functions of the enemy. Thus, the enemy is forced to divert his attention from the close battle. (73)

This method of employment leads to a number of specific missions for which the Light Infantry Division is suited. They are listed below in priority:

- infiltrate and attack enemy positions to assist the counterattack of a heavy force.

- deep attack to secure vital terrain which assists the attack of a heavy force.

- provide target acquisition and terminal guidance for artillery, multiple launch rocket systems, air, and other deep attack assets.

- fix and reduce bypassed pockets of resistance with artillery and air assets.

- conduct rear operations against light enemy forces.

Conversely, there are many other European missions for which the Light Divisions are quite clearly not suited. Specifically, they include:

- the conventional defense of front line positions in both open and restricted terrain.

- defense of urban areas.

- conventional day or night attack against an armored enemy.

- rear area defense against armored forces.

A detailed study of specific light infantry missions in a high intensity environment is required. The aim should be to clearly articulate both missions and planning considerations in FM 7-13, Light Infantry Battalion and Brigade Operations. The key point to remember, however, is that the European commander who receives a light infantry unit can increase his tactical flexibility by using it imaginatively within an offensive, unconventional concept of employment.

There are two other implications that accompany the adoption of this concept for light infantry employment in Europe. They involve both doctrinal literature and force structure.

Our doctrinal publications, especially, FC 71-101, The Light Infantry Division, must emphasize the offensive nature and unconventional tactics of the light divisions. Light infantry units are not general purpose forces. Additionally, these documents must stress that light and heavy forces interact at the operational not the tactical level. Finally, they must make it clear that light units cannot defend or perform economy of force missions in Europe.

On the force structure side, we absolutely must rectify our lack of regular infantry. We currently have no units in the active force which are designed to hold ground or conduct conventional dismounted infantry operations. As this paper has shown, the use of light infantry to do these missions frequently results in high casualties and often the destruction of the unit.

It is apparent that we need more infantry in Europe. But we

need regular infantry, not light infantry. The Army should accept a relative reduction in strategic mobility and maintain several regular infantry divisions in the force structure. These units should be organized and equipped to fight in the tactical style of the regular infantry.

The Light Infantry Division should remain our basic light infantry unit. While light brigades are the more appropriate structure for European employment, the primary mission for light forces is in low intensity operations. That requires a unit with significant logistical and intelligence gathering capabilities. Only a Division has the assets to perform those functions.

On a more specific note, although his style is to avoid attrition battles with heavy forces, the light infantryman will always need an effective light antiarmor weapon that will allow him to destroy both tanks and armored personnel carriers from ambush. Antiarmor technology must keep pace with armored vehicle development if the light infantryman is to have any utility on the mid to high intensity battlefield.

VII. CONCLUSION

The light infantry is a unique brand of infantry. It definitely has its own tactical style. There are missions for light divisions in Europe and they are best accomplished by light units operating without the support of heavy direct fire systems.

Light divisions have a number of capabilities. They provide the European theater and corps commanders with a flexibility they have never had before. But only if these light units are employed in accordance with an offensive concept will they be effective.

The purpose of this paper has not been to apologize ahead of time for the inability of light infantry to accomplish certain missions in Europe. On the contrary, the intent has been to clearly point out what these units can and cannot do.

Light infantry missions require a very high level of individual skill and confidence. Accordingly, the light soldier must be very well trained. But even the best light infantryman can only be effective in the right environment. He is not an elite fighter whose tactical acumen is such that he can be thoughtlessly employed against a well equipped foe. We must bring our doctrine in line with the capabilities of the light infantry. If we persist in our belief that the light divisions are just general purpose forces we may pay with the lives of our soldiers on the battlefields of the future.

APPENDIX - Comparative Characteristics of Infantry Forces

OPERATIONS

Conventional Infantry

General purpose force

Equally suited to the offense and defense

Operates in any terrain

Limited capability for unconventional operations

Views difficult terrain as an obstacle

Operates in large formations (eg. Brigade and above)

Habitually conducts daylight operations, but can operate at night.

Possesses built-in protection against small arms and indirect fires (armored infantry) or digs-in for protection (regular infantry)

Can reduce fortified positions

Operates as part of a large combined arms formation

Light Infantry

Utility is limited to specific conditions

Strong offensive orientation

Best suited for close terrain

Adapts well to unconventional operations

Dominates the terrain and uses it to its advantage

Most often operates at battalion level and lower

Operates most frequently at night

Achieves protection through camouflage and maneuver; rarely digs-in

Ill-suited for attacks against fortified positions

Usually operates in a pure or semi-pure infantry environment

TACTICS

Employs conventional tactics

Mass and firepower are the primary tactical principles

Employs unusual tactics, usually adapted to the environment

Surprise is the primary tactical principle

Achieves shock through mass

Follows the path of least resistance

Engages the enemy at maximum ranges

Defends from the forward slope (26)

Normally emphasises firepower over maneuver

Excellent mobility in open and mixed terrain

Low mobility in close terrain

Frequently conducts frontal assaults

Patrols to maintain contact

Tactics conform to a general pattern

Weapons and equipment oriented

Adjusts tactics to available technology

Achieves shock through surprise, speed, and violence

Chooses the path of least expectation

Engages the enemy at close range

Defends from the reverse slope

Emphasises maneuver over firepower

Can be outmaneuvered in open terrain

Excellent mobility in close terrain

Infiltrates in order to attack the enemy's flank and rear

Patrols relentlessly in all situations

Tactics unpredictable in form, time, and space

People and terrain oriented

Adjusts technology to available tactics

ENDNOTES

1. In addition to the Chief of Staff's White Paper 1984 : Light Infantry, (Office of the CSA, Washington, 16 April 1984), the most cogent argument for the strategic deterrent value of the Light Infantry Division is made by Major D.H. Petreaus. ("Light Infantry in Europe: Strategic Flexibility and Conventional Deterrence." Military Review, December 1984, pp. 35-55.) Edward Luttwak also lays out a strategic rationale for the Army's Light Infantry Divisions on pages 15 and 16 of his study, "Strategic Utility of U.S. Light Divisions, A Systematic Evaluation." (TRADOC Contract No. 60-84-C-0099, October 1985). Finally, Franz Uhle-Wettler argues that for political, military, and economic reasons, strong light infantry units would improve NATO's defense posture. (Gefechtsfeld Mitteleuropa : Gefahr der Ubertechnisierung von Streitkräften, Munich: Bernard und Graeff, 1980, pp.105-107. Translated and republished by CGSC.)
2. The Operational Concept for the Infantry Division (Light) (CGSC, March 1984) only mentions that employing the Light Infantry Division in a mid-high intensity environment carries with it a requirement for "augmentation in forces, weapons, and equipment to perform a full range of missions in mixed or open terrain against heavy forces." p. 2. The best single source which lays out the spectrum of possible light infantry missions in Europe is the set of "Heavy-Light Connection" articles in Infantry Magazine, July-August 1984, pp. 10-22.
3. The distinction between the American and European views of light infantry have been specifically noted by at least three authors. Major Scott McMichael, Historical Perspective on Light Infantry. 'Introduction', (Unpublished Manuscript), p.1; Edward Luttwak, A Historical Analysis and Projection for the Army 2000. 'Volume 2 : Analysis and Conclusions' (TRADOC Contract 58-82-C-0055), 15 May 1983, p.7. and Steven Canby, Classic Light Infantry and New Technology (TRADOC Contract MDA 903-81-C-0207), 1981, p. ii.
4. FC 71-101 w/cl . Light Infantry Division Operations. (CGSC, Fort Leavenworth, KS: 31 July 1984 and 29 April 1985), pp. 1-5 to 1-13.
5. B. H. Liddell-Hart. The Future of Infantry. (Military Service Publishing Company, Harrisburg, PA: 1936), pp. 37-39, 41, and 62-63. Quoted by J.A. English in On Infantry. (Praeger, NY:1984), p. 38.
6. McMichael, Historical Perspective on Light Infantry. 'Introduction', pp. 2-3.
7. Edward Luttwak concluded his TRADOC directed study of Army 2000 by urging the development of a multi-divisional body of versatile, easily deployable and context adaptable light infantry forces. A Historical Analysis..., p. 82. Steven Canby also recommended that the U.S. adopt European style light infantry tactics and organization. Classic Light Infantry... Forward. Both of these studies preceded the Chief of Staff's White Paper.

8. General J. A. Wickham, White Paper 1984, pp. 2,4 and 'Light Infantry in the Defense of Europe', NATO's 16 Nations. Special Edition, January 1985, p. 107.
9. Command Guidance For The 9th Regiment for 3d and 4th Qtr FY86. (HQ, 9th Infantry Regiment, 7th Infantry Division (Light), Fort Ord CA: 22 April 1986), pp. 19-23 and briefings to the School of Advanced Military Studies by Major E. Thurman and Colonel H. Wass de Czege of the 7th Division on 10 and 14 October 1986.
10. Colonel Huba Wass de Czege, "Three Kinds of Infantry", Infantry, (July-August 1985), pp. 11-13 and "More on Infantry", Infantry, (September-October 1986), pp. 13-15. Colonel Wass de Czege is currently the commander of the 1st Brigade of the 7th Infantry Division (Light). He is one of the authors of the 1982 and 1986 versions of FM 100-5 and a past director of the School of Advanced Military Studies (SAMS).
11. Ibid. "Three Kinds of Infantry". p. 11.
12. Hugh M. Cole, The Lorraine Campaign. (Office of the Chief of Military History Washington DC, 1981), p. 605.
13. Combined Arms Training Activity, NTC Lessons Learned. (Combined Arms Center, Fort Leavenworth, Kansas, 31 January 1986), pp. 2-3.
14. Charles B. MacDonald and Sidney T. Mathews, Three Battles: Arnaville, Altuzzo, and Schmidt. (Office of the Chief of Military History, Washington DC, 1952), p. 295.
15. Wass de Czege, "Three Kinds of Infantry". p. 12.
16. Ibid., p. 11.
17. Comment made by Colonel Wass de Czege to SAMS on 14 October 1986. The 9th Infantry Division, when it was commanded by General Cavazos, concentrated on quickly preparing strongpoints that included well constructed barriers and fighting positions with overhead protection. The Division felt that this type of defense could adequately defend against an armored enemy.
18. Wass de Czege, "Three Kinds of Infantry", p. 12.
19. Doctor Michael J. King, Rangers: Selected Combat Operations in World War II. Leavenworth Paper Number 11, (Combat Studies Institute, Fort Leavenworth, Kansas, June 1985), p. 43.
20. Wass de Czege, "More on Infantry", p. 13.
21. Major Edward Thurman, The Light Infantry Division: An Operational Force, (School of Advanced Military Studies, Fort Leavenworth, Kansas, June 1985), p. 37. Major Thurman develops the low intensity concept in detail. He concludes that light infantry must be employed in a low intensity portion of the battlefield regardless of the level of overall conflict.

22. Luttwak, Strategic Utility of U.S. Light Divisions, p. 1.
23. Luttwak, Analysis and Projection for the Army 2000-Volume 2, p. 38.
24. Canby, Classic Light Infantry and New Technology, pp. i and iv.
25. This table, with some modification, is taken from McMichael's, Historical Perspective on Light Infantry, Chapter 5.
26. FM 71-20, The Mechanized Infantry Task Force discusses the reverse slope defense on pages 4-85 thru 4-88. It clearly states, however, that mechanized forces do not usually defend on the reverse slope and that such defenses are appropriate only for small portions of the task force. Lieutenant Colonel Archie Galloway has discussed the importance of the reverse slope defense to light forces in his monograph, Light Infantry in the Defense: The Reverse Slope from Wellington to the Falklands and Beyond. (School of Advanced Military Studies, Fort Leavenworth, Kansas, December 1985).
27. Although General Wickham states in his White Paper that the Light Infantry Divisions must be able to fight anytime, anywhere, and against any opponent (p.1), in another article he specifically states that the Divisions are primarily designed for use in low intensity conflict. ('Light Infantry in the Defense of Europe', p. 100). The Chief of Staff also made this point in a letter to Light Infantry Division Commanders in April 1985. (Information received from Major Ben Harvey, Army Training Board, 24 October 1986). Additionally, FC 71-101, Light Infantry Division Operations, prescribes a low intensity focus for the Light Infantry Divisions. (p.1 and p. 1-2).
28. FC 100-20, Low Intensity Conflict, (CGSC, Fort Leavenworth, Kansas, 16 July 1986), p. v and p. Glossary-2)
29. Combined Arms Training Integration Directorate, Memorandum: Unconventional Fighting for the Light Infantry Division, (Combined Arms Center, Fort Leavenworth, Kansas, 9 January 1984). This memo indicates that in a low intensity environment, operations will be conducted by small light infantry units using unconventional, Range Style tactics. It was prepared in response to an inquiry from Major General David Palmer, then Deputy Commandant of the Combined Arms Center, concerning the employment of Light Divisions in low intensity conflict.
30. Wickham, White Paper, p. 1.
31. The efforts of the 7th Infantry Division (Light) to develop a Mission Essential Task List (METL) demonstrates the difficulty of clarifying the role of a unit that has a global orientation. (G3 Plans, 7th Infantry Division (Light), Information Paper: Likely Employment of the Light Division, (Fort Ord, CA, 2 June 1986) The three most likely missions identified by the Division are all in low intensity environments. With the exception of protecting

installations, they all have an offensive orientation, they all recognize the need to defeat a limited armor threat, and they all anticipate very restrictive rules of engagement. On a high intensity battlefield, however, the Division anticipates that it must fight defensively against a mobile, armor heavy threat with the help of a number of supporting forces. (pp. 1-2) The frustration inherent in planning for missions requiring divergent tactical styles is obvious. The paper states, "This Division was structured to fight in the low end of the conflict spectrum. The very nature of this type of conflict does not lend itself to the detailed OPLANs characteristic of mid-high intensity scenarios." (p.2) This author believes that the Division can rectify this conflict by planning to fight in a high intensity conflict the same type of decentralized, offensive operations that it plans to pursue in a low intensity environment.

32. Wass de Czege, comments to SAMS 14 October 1986.

33. Major General John W. Foss, "Light Infantry Has a Place on the Battlefield", Army Times, 24 October 1984, p. 21.

34. Major General Howard G. Crowell, Jr. and Lieutenant Colonel Jared Bates. "Heavy-Light Connection : Division", Infantry, (July-August 1984), p. 18.

35. Colonel Wass de Czege has emphasized that light infantry are not hybrids and must preserve their integrity. (SAMS discussion, 14 October 1986). Lieutenant General Saint has indicated that he feels Light Infantry Divisions should be fought at least as battalions, and possibly as brigades or divisions to preserve unit integrity and facilitate command and control. (Discussion with SAMS, 21 October 1986)

36. The point here is that operations with light infantry units require heavy forces to modify normal supporting relationships. For instance, cross attachments between armored and mechanized forces do not normally include Forward Support Battalions (FSB). If a heavy unit works for a light infantry brigade or division, however, it must not only bring its FSB but other fuel, ammunition and repair parts support as well.

37. This comment is based on a conversation with Colonel David Braalett, Commander, 3rd Brigade, 101st Air Assault Division. He pointed out that his brigade generally worked as a separate task force. 3rd Brigade deployed as part of the Division only into undeveloped theaters of operation. Light Infantry Divisions would probably operate in the same manner.

38. Brigadier General Wayne A. Downing, "Light Infantry Integration in Central Europe", Military Review, September 1986, p. 19.

39. During a SAMS Division Level wargame using First Battle BC, the brigades of a Light Infantry Division were attached to heavy units. The Division headquarters was then used to plan the defense of a river line and plan for the contingency employment of its brigades. While obviously frustrating to the Division Commander, this seemed

to be an effective role for the headquarters to play.

40. See for example Lieutenant General John R. Galvin, "Heavy-Light Forces and the NATO Mission", Infantry, July-August 1984, p.11.

41. An excellent example of what happens when heavy and light forces are thrown together at the tactical level can be seen in the Israeli action at Suez City in 1973. The lack of operational commonality in doctrine and training between General Adan's brigade and his attached paratroopers contributed significantly to the failure of the mission and the high number of casualties the unit received. The subject of light infantry in urban combat is developed in detail by Major Donald E. Kirkland in his monograph, Offensive Operations in Urban Europe: The need for a 'Heavy' Light Infantry Force, (SAMS, Fort Leavenworth, Kansas, 2 December 1985). Also see Avraham Adan, On the Banks of the Suez, Presidio Press, 1980), pp. 426-430.

42. The founder and commander of a number of Ranger units, Colonel Darby, was an advocate of indirect firepower in support of Ranger operations. He found as the war progressed that the Rangers were more successful when they had strong artillery support. (King, Leavenworth Paper No. 11, p. 41.) The German Mountain Divisions had a significant amount of organic and supporting artillery. The firepower of these batteries was extremely important to their style of fighting. The Germans also relied on their air forces for critical support during mountain operations. (MS P-034, Mountain Warfare, Volumes I and II, 24 February 1950, pp. 49, 50, 179, and 247.)

43. Crowell and Bates, "Heavy-Light Connection". p. 16.

44. For example, Galvin, p. 14. Additionally, Luttwak, in his Strategic Utility of U.S. Light Divisions... describes in detail a light infantry defense of the Hohe Rhon portion of the V Corps sector. (pp. 116-122)

45. Peter Vigor, Soviet Blitzkrieg Theory. (St Martins Press. NY: 1983), p. 148.

46. Colonel David Glantz, August Storm: Soviet Tactical and Operational Combat in Manchuria, 1945. Leavenworth Paper Number 8. (Combat Studies Institute, CGSC, Fort Leavenworth, Kansas: June 1983), forward.

47. King, Rangers: Selected Combat Operations pp.43-53.

48. DA Pam 20-236, Night Combat, (Department of the Army, Washington DC, June 1953), pp. 22-24. DA Pam 20-261a, Small Unit Actions, (Department of the Army, Washington, DC, March 1955), pp. 248-254. Major George D. Baxter, "Tactical Infiltration". Infantry, (March-April 1981), p. 20.

49. Anthony H. Cordesman, "Lessons of the Iran-Iraq War: Part Two". Armed Forces Journal, (June 1982), p. 70.

50. Ibid.
51. Ibid., p. 73. and Major Donald Zacherl, Strategic and Operational Implications of Iranian Military Operations in the Iran Iraq War, MNAS Thesis, (CGSC, Fort Leavenworth, Kansas, 1986), p. 61.
52. Encyclopaedia of World History, pp. 1054-1055.
53. Edgar O'Balance, The Red Army: A Short History, (Praeger, New York, 1964), p. 148. The Finnish term for an entrapped enemy force is a 'motti', which is their word for a stack of firewood piled up to be chopped. When the Finns lacked sufficient firepower to reduce strong 'mottis' they relied on cold and hunger to destroy their enemies. Doctor Allen F. Chew, Fighting the Russians in Winter: Three Case Studies, Leavenworth, Paper Number 5, (CSI, Fort Leavenworth, Kansas, December 1981), p. 25.
54. Malcolm Mackintosh, Juggernaut: A History of Soviet Armed Forces, (MacMillan, New York, 1967), p. 118.
55. Chew, Fighting the Russians in Winter, p. 30.
56. Wass de Czege, briefing to SAMS, 14 October 1986.
57. This is also one of the conclusions reached by the Army Science Board's Ad Hoc Group on urban warfare. Army Science Board, Final Report of the Ad Hoc Group on Military Operations in Built Up Areas (MOBA), (Office of the Assistant Secretary of the Army (RDA), Washington DC, January 1979), p. 11.
58. Avraham Adan, On the Banks of the Suez, (Presidio Press, 1980), pp. 426-430.
59. Wickham, "Light Infantry in the Defense of Europe", p. 101.
60. MacDonald and Mathews, Three Battles, pp. 372-373 and 392.
61. Wass de Czege, Discussion with SAMS, 14 October 1986.
62. Kirkland concludes that urban warfare calls for the establishment of a hybrid infantry force that would fill the gap between the heavy and light divisions. Offensive Operations in Urban Europe..., pp. 39-40. His ideas correspond exactly with Colonel Wass de Czege's model for the regular infantry.
63. Otto Heilbrunn, Partisan Warfare, (Praeger, New York, 1962), jacket notes.
64. Otto Heilbrunn, Warfare in the Enemy's Rear, (Praeger, New York, 1963), p. 145.
65. Thurman, pp. 22-23.
66. Heilbrunn, Warfare in the Enemy's Rear, pp. 114-115.

67. Ibid., p. 148.

68. Heilbrunn, Partisan Warfare, pp. 68-69.

69. David Gates, Western Light Forces and Defence Planning: 2. Barriers and Borders, Centerpiece Number 9, Autumn 1985, (Centre for Defence Studies, Aberdeen, Scotland), p. 24.

70. King, Rangers: Selected Combat Operations.... pp. 32-43.

71. Edward J. Drea, Nomonhan: Japanese-Soviet Tactical Combat, 1939, Leavenworth Paper Number 2, (CSI, Fort Leavenworth, Kansas, January 1981), pp. 86-90.

72. A detailed discussion of various types of infiltration can be found in Major Raymond Drummond's monograph, Light Infantry: A Tactical Deep Battle Asset for Central Europe, (SAMS, Fort Leavenworth, Kansas, December 1985) Major Drummond includes stay behind operations as a type of infiltration and indicates that these operations are the defensive counterpart to tactical infiltration. Stay behind forces gain access to the enemy's rear areas simply by allowing themselves to be bypassed. (p.9) On Exercise Team Spirit '85, elements of a battalion of the 7th Infantry Division (Light) reached the enemy's rear by this method. They were very successful at ambushing vehicles, raiding high value installations, and attacking helicopter laagers. The unit was never identified nor detected by the enemy. (pp. 22-24) The point here is that infiltration does not just mean passing through the enemy's lines on foot. There are other ways, including stay behinds and, perhaps, helicopter insertions, to accomplish the same mission.

73. Major William Godwin, The Operational Employment of the Light Infantry Division, MMAS Thesis, (CGSC, Fort Leavenworth, Kansas, 1986), pp. 162-163.

BIBLIOGRAPHY

BOOKS

- Adan, Avraham. On the Banks of the Suez. San Rafael, CA: Presidio Press, 1980.
- Beaumont, Roger A. Military Elites. New York: Bobbs-Merrill Company 1974.
- Cordesman, Anthony H. The Gulf and the Search for Strategic Stability. Boulder, CO: Westview Press, 1984.
- Dupuy, Richard and Trevor Dupuy. Encyclopaedia of Military History. New York: Harper and Row, 1977.
- English, John. On Infantry. New York: Praeger, 1984.
- Esposito, Brigadier General Vincent J. The West Point Atlas of American Wars, Volume II. New York: Praeger, 1972.
- Heilbrunn, Otto. Partisan Warfare. New York: Praeger, 1962.
- . Warfare in the Enemy's Rear. New York: Praeger, 1963.
- Liddell Hart, B.H. The Future of Infantry. Harrisburg, PA: Military Service Publishing Company, 1936.
- Lucas, Alan. Alpine Elite. New York: Janes, 1980.
- MacKintosh, Malcolm. Juggernaut. New York: MacMillan, 1967.
- O'Balance, Edgar. The Red Army. New York: Praeger, 1964.
- Schepe, Gerhard. Mountain Warfare in Europe. Ontario: Centre for International Relations, 1983.
- Uhle-Wettler, Franz. Battlefield Central Europe: Danger of Overreliance on Technology by the Armed Forces. Reprinted at Fort Leavenworth, Kansas.
- Vigor, Peter H. Soviet Blitzkrieg Theory. New York: Saint Martins Press, 1983.

GOVERNMENT DOCUMENTS

- U.S. Army. Army White Paper, Light Infantry. Washington D.C.: Office of the Chief of Staff of the Army, 16 April 1984.
- . DA Pamphlet 20-230, Russian Combat Methods in World War II. Washington, D.C.: Government Printing Office, 1953.

- . DA Pamphlet 20-231, Combat in Russian Forests and Swamps. Washington D.C.: Government Printing Office, July, 1951.
- . DA Pamphlet 20-236, Night Combat. Washington, D.C.: Government Printing Office, June 1953.
- . DA Pamphlet 20-240, Rear Area Security in Russia. Washington, D.C.: Government Printing Office, 1951.
- . DA Pamphlet 20-261a, The German Campaign in Russia: Planning and Operations. Washington, D.C.: Government Printing Office, March, 1955.
- . DA Pamphlet 20-269, Small Unit Actions During the German Campaign in Russia. Washington D.C.: Government Printing Office, July, 1953.
- . Field Manual 7-20, The Infantry Battalion (Infantry, Airborne, Air Assault, and Ranger). Washington D.C.: Government Printing Office, 1984.
- . Field Manual 7-30, Infantry, Airborne, Air Assault Brigade Operations. Washington D.C.: Government Printing Office, 1981.
- . Field Manual 100-5, Operations. Washington D.C.: Government Printing Office, 1986.
- . Combat Arms Concept Development Agency. U.S. Army Operational Concept: The Light Infantry Division. Fort Leavenworth, Kansas, 1984.
- . Combined Arms Training Activity. NIC Lessons Learned. Fort Leavenworth, Kansas, 31 January 1986.
- . Headquarters, Command and General Staff College. EC 71-100, Armored and Mechanized Infantry Division and Brigade Operations. Fort Leavenworth, Kansas, 1984.
- . Headquarters, Command and General Staff College. EC 71-101, Light Infantry Division Operations. Fort Leavenworth, Kansas, 1984.
- . Headquarters, Command and General Staff College. EC 71-101-B (Draft) Heavy/Light Operations. Fort Leavenworth, Kansas, 1986.
- . Headquarters, Command and General Staff College. EC 100-20, Low Intensity Conflict. Fort Leavenworth, Kansas, 1986.
- . Office of the Chief of Military History. Mountain Warfare, Volumes I and II (MS P-034). EUCCOM: Historical Division, 1950.
- . Office of the Chief of Military History. Lessons Learned From the Partisan War in Russia (MS P-055). Washington, D.C.: Chief of Military History, 1953.

- . Office of the Chief of Military History. Supply of Partisan Units During the War 1941-1945 (MS P-125). Washington, D.C.: Chief of Military History, 1953.
- . Office of the Chief of Military History. Combat in the Caucasus Woods and Mountains During Autumn 1942 (MS D-254). Washington D.C.: Chief of Military History, 1952.
- . U.S. Army Infantry School. EC 7-13, Light Infantry Battalion and Brigade Operations (Draft). Fort Benning, GA., 1985.
- War Department. Military Intelligence Division. German Mountain Warfare (Special Series Number 21). Washington D.C.: War Department, 1944.
- . Possible German Tactics in an Attack on Great Britain (Tentative Lessons Bulletin Number 98). Washington, D.C.: War Department, 1941.
- . German Infantry Battalion in the Attack in Belgium (Tentative Lessons Bulletin Number 115). Washington, D.C.: War Department, 1941.

ARTICLES AND PERIODICALS

- Baxter, George D. "Tactical Infiltration." Infantry. May-June 1981, 18-23.
- Besch, Edwin W. "Are Our Light Divisions Too Light?" Army. February 1985, 42-48.
- Bolte, Philip L. "LAW - Not Out of the Woods Yet." Defense Attache, Number 6, 1983, 6-11.
- Burba, Major General Edwin H. "Commandant's Note." Infantry, September-October 1986, 2-3.
- Canby, Steven L. "Light Infantry in Perspective." Infantry, July-August, 1984, 28-31.
- Cordesman, Anthony H. "Lessons of the Iran-Iraq War: The First Round." Armed Forces Journal, April 1982, 32-47.
- . "Lessons of the Iran-Iraq War Part Two: Tactics, Techniques and Training." Armed Forces Journal, June 1982, 68-85.
- Clarkson, Colonel J.M.E. "Spark at Yom Kippur: Many Surprises in an 18 Day War." Canadian Defence Quarterly, Spring 1974, 9-22.
- Crowell, Major General Howard G. and Lieutenant Colonel Jared L. Bates. "Heavy-Light Connection: Division." Infantry, July-August 1984, 15-18.

Downing, Brigadier General Wayne A. "Light Infantry Integration in Central Europe." Military Review, September 1986, 18-29.

Depuy, General William E. "One Up and Two Back." Army, January 1980, 20-25.

----- . "The Light Infantry: An Indispensable Element of a Balanced Force." Army, June 1985, 26-41.

English, John A. "Thinking About Light Infantry." Infantry, November-December 1984, 19-25.

Foss, Major General John W. "Light Infantry Has a Place on the Battlefield." Army Times, 21 October 1984, 21.

Galvin, Lieutenant General J.R. "Heavy Light Forces and the NATO Mission." Infantry, July-August 1984, 10-14.

Hollingsworth, Lieutenant General James F. "Light Divisions." Armed Forces Journal, October 1983, 84-89.

Huddleston, Major Louis D. "Light Infantry Division: Azimuth Check." Military Review, September 1985, 14-21.

Haupt, Colonel Jerome L. "Heavy/Light Operations-An Added Viewpoint." Armed Forces Journal, May 1983, 85.

Kennedy, Donald R. "The Infantryman vs. The MBT." National Defense, March 1985, 27-34.

Killebrew, Robert B. "Has Light Infantry Really Had Its Day?" Army, December 1979, 45-48.

----- . "NATO, Deterrence, and Light Divisions." Military Review, May 1985, 2-15.

Motley, James B. "Heavy/Light Forces: Assessing the Challenge." Infantry, January-February 1985, 13-14.

Munter, Otto. "Do We Need The Light Infantry?" Europaische Wehrkunde, February 1980, 68-73.

McMichael, Major Scott R. "Proverbs of the Light Infantry." Military Review, September 1985, 22-28.

Newell, Lieutenant Colonel Clayton R. "Heavy/Light Forces: Divisions or Brigades?" Infantry, January-February 1985, 12-13.

O'Balance, Edgar. "The Iran-Iraq War." Marine Corps Gazette, February 1982, 44-50.

Petraeus, Major David M. "Light Infantry In Europe: Strategic Flexibility and Conventional Deterrence." Military Review, December 1984, 35-55.

Von Sandart, Lieutenant General Hans-Henning. "Forward Defense - Mobility and the Use of Barriers." NATO's 16 Nations, Special Issue, 1-85 Volume 30, 38-43.

Wass de Czege, Colonel Huba. "Three Kinds of Infantry." Infantry, July-August 1985, 11-13.

----- . "More On Infantry." Infantry, September-October 1986, 13-15.

Wickham, General John A. "Light Infantry Divisions in the Defense of Europe." NATO's 16 Nations, Special Edition, 1-85 Volume 30, 100-107.

Wood, Lieutenant Colonel Jack B. "Heavy-Light Connection: Brigade." Infantry, July-August 1984, 19-22.

THESES, STUDIES, AND OTHER PAPERS

Army Science Board. Final Report of Ad Hoc Group on Military Operations in Built Up Areas (MOBA). Washington, D.C.: Office of the Assistant Secretary of the Army, January 1979.

Boeing Corporation. Boeing Light Infantry Conference Report. Seattle, WA: Boeing Corporation, September 1985.

C and L Associates. Mindset: National Styles in Warfare and the Operational Level of Planning, Conduct and Analysis. Headquarters, TRADOC Contract Number MDA 903-79-6-0273, 1979.

Canby, Steven L. Classic Light Infantry and New Technology. Headquarters, TRADOC Contract Number MDA 903-81-C-0207, 1981.

Chew, Doctor Allen F. Fighting the Russians in Winter: Three Case Studies. Leavenworth Paper Number 5. Fort Leavenworth, KS: Combat Studies Institute, December 1981.

Drea, Edward J. Nomonhan: Japanese-Soviet Tactical Combat, 1939. Leavenworth Paper Number 2. Fort Leavenworth, KS: Combat Studies Institute, January 1981.

Drummond, Major Raymond. Light Infantry: A Tactical Deep Battle Asset for Central Europe. Fort Leavenworth, KS: SAMS Monograph, December 1985.

Gates, David. Western Light Forces and Defence Planning: Some Parallels from the Past. Centrepiece Number 8. Aberdeen, Scotland: Centre for Defence Studies, Summer 1985.

----- . Western Light Forces and Defence Planning: Barriers and Borders. Centrepiece Number 9. Aberdeen, Scotland: Centre for Defence Studies, Autumn 1985.

- Galloway, Lieutenant Colonel Archie. Light Infantry in the Defense: The Reverse Slope from Wellington to the Falklands and Beyond. Fort Leavenworth, KS: SAMS Monograph, December 1985.
- Glantz, Colonel David M. August Storm: Soviet Tactical and Operational Combat in Manchuria, 1945. Leavenworth Paper Number 8. Fort Leavenworth, KS: Combat Studies Institute, June 1983.
- Godwin, Major William A. The Operational Employment of the Light Infantry Division. Fort Leavenworth, KS: MMAS Thesis, June 1986.
- King, Doctor Michael J. Rangers: Selected Combat Operations in World War II. Leavenworth Paper Number 11. Fort Leavenworth, KS: Combat Studies Institute, June 1985.
- Kirkland, Major D.E. Offensive Operations in Urban Europe: The Need for a 'Heavy' Light Infantry. Fort Leavenworth, KS: SAMS Monograph, December 1985.
- Luttwak, Edward N. Historical Analysis and Projection for the Army 2000. Headquarters, TRADOC Contract Number DABT-58-82-C-005, 1983. (Volumes I and II).
- . Strategic Utility of U.S. Light Divisions: A Systematic Evaluation-Final Report. Headquarters, TRADOC Contract Number DABT 60-84-C-0099, August 1984.
- McMichael, Major Scott R. Discussions on Training and Employing Light Infantry. Combat Studies Institute Report Number 8. Fort Leavenworth, Kansas: Combat Studies Institute, undated.
- Thurman, Major Edward. The Light Infantry Division: An Operational Force. Fort Leavenworth, KS: SAMS Monograph, June 1986.
- Zacherl, Major Donald. Strategic and Operational Implications of Iranian Military Operations in the Iran-Iraq War. Fort Leavenworth, Kansas: MMAS Thesis, June 1986.

UNPUBLISHED PAPERS

- McMichael, Major Scott R. Historical Perspective on Light Infantry. Unpublished Paper, May 1986
- Palmer, Major General David. Unconventional Fighting by 10X Light Division. Memorandum to the Combined Arms Training Integration Directorate, 27 December 1983.
- U.S. Army. Headquarters, Combined Arms Combat Development Activity. Infantry Division (Light) Tactical Missions. Memorandum for Deputy Commander, 2 March 1984.
- . Headquarters, Combined Arms Center. Unconventional Fighting For Light Divisions. Combined Arms Training Integration Directorate Memorandum, 9 January 1984.

- . Headquarters, Command and General Staff College.
Unconventional Fighting by Forces of the Infantry Division (Light) (IDL). Combined Arms Training Integration Directorate Fact Sheet, 13 February 1984.
- . Headquarters, 7th Infantry Division (Light). Likely Employment of the Light Division. G3 Plans Information Paper, 2 June 1986.
- . Headquarters, 7th Infantry Division (Light). The Light Infantry Division and Low Intensity Conflict. G3 Information Paper, 26 February 1986.
- . Headquarters, 9th Infantry Regiment, 7th Infantry Division (Light). Command Guidance for the 9th Regiment for 3rd and 4th Qtr FY86. Memorandum for Record, 22 April 1986.

LECTURES

- Saint, Lieutenant General Crosbie. Comments to SAMS, 21 October 1986.
- Thurman, Major Edward. Comments to SAMS, 10 October 1986.
- Wass de Czege, Colonel Huba. Comments to SAMS, 14 October 1986.