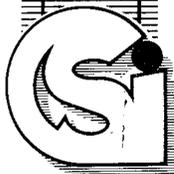


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2. Prepare and present instruction in military history at CGSC and assist other CGSC departments in integrating applicable military history materials into their resident and nonresident instruction.
3. Act as the TRADOC proponent for the development and coordination of an integrated, progressive program of military history instruction in the TRADOC service school system.

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No. 10

Night Combat Operations

by

Major Andrew N. Morris

Combat Studies Institute
U.S. Army Command and General Staff College

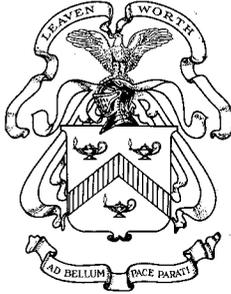
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Introduction

The U.S. Army has always recognized that combat operations of any nature (offensive or defensive) will usually continue during the hours of darkness. Not since the Civil War and Indian Wars has the luxury of discontinuing actions at sunset and picking up again at sunrise been available, and even these conflicts provide numerous instances of movement and preparation of positions at night. Yet, despite the historical record, the U.S. Army has always emphasized daylight operations and has frequently forfeited the night to the enemy. Sometimes this has been done deliberately,¹ but more often it has been a result of a massive American preponderance in indirect fires, total air superiority, and being untrained and uncomfortable with night operations. The firepower superiority made day operations preferable for American units, who could force the enemy to keep his head down while the attacking units closed on his positions. When one attack failed in the face of enemy firepower, the typical American solution has been to back off and pound the enemy with indirect fires, then try again. With large numbers of nonprofessional soldiers, units consisting of large numbers of new replacements, inexperienced junior officers and NCOs, a lack of night training, control problems in daylight, and firepower superiority, these techniques were deemed necessary and, by and large, effective.

This relationship between daylight operations and fire superiority is not unique to the U.S. Army. The offensive operations of the German Army in the early years of World War II show a similar pattern. When the Wehrmacht had control of the skies and artillery superiority, they used daylight almost exclusively for their attacks. Only as they came under attack by increasingly superior air and artillery did they turn to night, making most attacks, movements, and resupply actions after dark when facing American and British forces in the west.²

Initially, the Soviets were also forced by their combat inferiority and desperate defensive posture to turn to night operations.³ They learned their lessons so well that even when they had gained air and fire superiority over their German enemy, they still continued to use night to protect attacking forces from the still not inconsiderable German fires.

The Japanese always made extensive use of night combat against their western foes, initially with great success. As American and British forces became familiar with their tactics, however, these night actions became less and less successful. That night was not the only time the Japanese used for attacks is shown by their actions against the Chinese. Possessing air and artillery superiority, they made use of the daylight and forced the Chinese to use the cover of darkness. So successful were they at teaching the Chinese to use the night that the Chinese Communists were to become masters at night attacks, a skill they later demonstrated against American forces in Korea numerous times. But because the Japanese did not possess this superiority versus their American and British enemies, they turned to the cover of darkness to hide their movements and attacks.

As the U.S. Army prepares to fight potential enemies around the world, across the scale of conflict intensity, it has to come to grips with operations after dark; it must recognize the fact that many potential adversaries will possess equal or greater firepower than the committed American forces, especially in any European conflict. We will be forced to use the dark properly, or we may very well fail. If day operations are denied because of enemy fire superiority, then most likely the typically American solution to maintaining control in a night attack--the "illuminated night attack"--will also fail. All that is left will be a choice between true night operations or defeat. Additionally, in any low or medium intensity conflict where we retain our accustomed fire superiority, the enemy will undoubtedly turn to the night for his movements and attacks. If American forces are to stop these acts, the cover of the night has to be denied to the enemy. U.S. forces must be able to operate more proficiently than their foes to deny them the advantages of the dark. With that in mind, this study proposes to look at six examples of night combat. They are selected from World War II and Korea and depict a typical cross section of good and bad experiences by American units of varying competency. The fifth example is an exception to the others in that it is both a British action, and dates from the First World War. However, it so clearly demonstrates what can be done that it deserves inclusion in any study of night combat.

The focus of this paper is at the level of battalion or higher; the study looks at three types of combat actions: attacks, defenses, and raids. The most common night action is probably the reconnaissance, but as the American experience (unlike the Soviets)⁴ does not include reconnaissance actions by larger units, they will not be addressed.

Repeatedly throughout a study of night operations, certain key influences surface:

Leadership
Training
Planning
Surprise

These are self-evident and, with the possible exception of surprise, are as true for daylight operations as for those at night. Superior firepower can compensate for a lack of surprise in a daylight action; it usually can not make up for a loss of surprise at night. The first three elements are the factors which build cohesive units and provide success in combat.

Leadership is undoubtedly the single most critical element in the success or failure of night operations. This is no surprise, as it is likewise decisive in every other endeavor a military force undertakes. However, it becomes even more important at night. According to the Chief of the G3 Training Section of Headquarters, Fifth U.S. Army, in Italy during

1943, "the nature of night operations are such that they become a series of small unit operations, dependent largely for success on the ability of leadership at the small unit (squad) level."⁵ Two regimental commanders quoted in the same report felt that the critical level was the platoon.⁶ Similar importance can be traced to the highest leadership levels. World War II examples include Major General Terry Allen, commander of the 1st Infantry Division in North Africa and Sicily and the 104th Infantry Division in Western Europe, two divisions renowned for their successful use of night attacks, and Field Marshall Sir Bernard Montgomery, who attacked with his entire 8th Army at El Alamein at night.

Training stems directly from leadership. When the leaders of a combat unit realize the critical necessity of operations after dark, they will usually train their soldiers to conduct those operations. When the leadership, for whatever reason (lack of time, opportunity or desire), fails to train for operations at night, their units will have to acquire experience the hard way, under fire, which is always less satisfactory and causes unnecessary casualties. Training for night involves more than just changing the hours on the training schedule to do more of the same after dark. Proper night training begins with an understanding of the human differences, physiologically and mentally, between day and night. Soldiers must learn and master new techniques, from off center vision and conserving visual purple⁷ to the use of night observation devices. They have to realize that their minds will play tricks on them as they become more fatigued and recognize what these tricks are and how to overcome them. Most important, each soldier must learn to maintain contact with the other members of his unit, whether moving or stationary. When contact is lost, control is gone, and the advantage passes to the enemy. All these skills are acquired through training.

The third key factor is planning. Military history abounds with examples of improperly planned night operations, especially attacks, that failed for lack of detailed planning by the leaders. The most successful examples of night attacks are those in which the leaders had adequate time to conduct a thorough reconnaissance of their objectives and develop detailed, but simple, plans. The importance of this was noted by an Army Ground Force observer in 1945. Speaking about the advance from southern France to meet the forces advancing from Normandy, it was reported that "This period (D+24 to D+35)...was characterized by numerous night attacks and advances without prior reconnaissance and with distance objectives. Such violations of Field Service Regulations were foredoomed to failure."⁸

The key to success in night operations is to control one's own forces while forcing the enemy to lose control. Control derives from the first three key elements. At night, the psychological factors of increased isolation and lack of knowledge about what is going on,⁹ combined with deficiencies in any of these key elements, leads to defeat.

OFFENSIVE EXAMPLES

General: The success of an attack at night depends on many factors, of which one of the most important is surprise. Surprise frequently allows an otherwise doomed attack to succeed because it denies the enemy the control over his soldiers necessary to victory. It also allows attacking units to get close to the enemy's positions without taking excessive casualties. In open areas, darkness substitutes for cover and concealment.

Besides surprise, another reason for night attacks is a desire to continue to pressure the enemy after a successful daylight assault. Discrete night attacks, in which the attack begins and ends during the hours of darkness, are rare in Western military history. Such operations usually turn out to be raids. Night attacks are often ordered as part of a continuation of a daylight offensive action, or are followed by a daylight exploitation of the success achieved by the night attack.

Example 1: 1st Battalion: 415th Infantry, 104th Infantry Division, attacking the fortified town of Merken, Germany, 11-13 December 1944.

General Situation: The 104th Infantry had been forcing its way to the fortified west bank of the Roer River as part of VII Corps' attack towards Cologne, which began on 16 November 1944 (Map 1). This advance had been characterized by frequent night attacks to take advantage of surprise and to allow attacking units to get closer to the well-fortified German positions without taking debilitating casualties. By 9 December the division had two regiments forward, the 415th on the right and the 414th on the left, and was closing on the Roer River. The final objective for the 415th Infantry was the fortified town of Merken. The original division plan was to seize the town of Pier, then advance on Merken. This, however, was impossible as the attack on Pier by the 414th Infantry stalled on the edge of the town for over two days. Merken was believed to be held by a battalion of the German 3d Parachute Division supported by tanks and/or self-propelled 88mm guns.¹⁰ Because of the flat open ground, containing a minefield of unknown size, that had to be crossed to reach the objective, the American forces decided to attack at night.

Special Situation: The mission was given to the 1st Battalion, which had been in reserve for several days and was relatively well rested and at full strength. Merken itself was composed of approximately 100 stone or brick houses surrounded by open, slightly rolling ground. There were extensive entrenchments on the west of the town. A minefield had been reported by the 9th Infantry Division on the right of the 415th Infantry, but reconnaissance patrols had failed to find any trace of it. The high ground around Lucherberg allowed excellent observation of the objective, and the delay incurred waiting for the capture of Pier gave the attacking force ample opportunity to conduct a detailed reconnaissance, which included aerial photographs. Based on these observations, the plan was to seize Vilvenich, a small village of 10 buildings and establish a roadblock there to protect the battalion's rear from the enemy in Pier, then attack Merken from the flank down the Pier-Merken road. The attack would be made by a reinforced platoon of "A" Company on Vilvenich, with "B" and "C" Companies assaulting Merken itself. The order of march was "B" Company, Battalion Headquarters, "C" Company, the platoon of "A" Company. Crossing the Line of Departure (LD), which was held by the 3d Battalion, the attacking force would proceed to the outskirts of Merken on two sequential compass azimuths. The artillery fire support plan was "unique and inspiring."¹¹ Based on experience and the large amounts of American artillery fires delivered even during relatively quiet periods, the commander decided to use his artillery to force the defenders out of their prepared defense positions and to seek shelter in basements. In order to accomplish this, four field artillery battalions, the Regimental Cannon Company, unit mortars, and a platoon of 155mm self-propelled guns were used. All these units would establish a fire lane of parallel barrages 400 yards to each flank of the battalion's route commencing H-hour, with frequent concentrations on known enemy positions.

At set intervals, white phosphorus would be fired for the battalion to guide on along both legs of its route (Map 2). These types of fires were apparently common enough that the 1st Battalion commander believed (correctly) that they would not compromise his chances of achieving surprise.

The Operation: The 1st Battalion crossed the LD at 0430 on 11 December.¹² The wire laying teams were unable to keep up with the fast moving infantry, but radio communications were substituted and proved reliable. Although prepared to follow a preset compass azimuth, the white phosphorus shells gave everyone a target to march towards, and the compasses were not needed. When the pace counter announced the point where a change in azimuth was to be made (Map 2), artillery fires were shifted to cover the second leg, and the column moved to the edge of Merken where "B" and "C" Companies deployed for their attack. The artillery continued to fire on the objectives until they were seized by the infantry, then shifted west to block reinforcement/retreat routes. Fires were controlled by the battalion commander using radio to talk to his Fire Support Officer in Lucherberg.

By 0700 nineteen buildings had been seized and 65 prisoners had been captured with no resistance. Following a short pause to reorganize, the battalion continued its attack in daylight (assisted by tanks in the afternoon), methodically clearing each house, moving only through holes blown through the walls and avoiding the streets. By 1700, over half the town and 166 German prisoners were in American hands. The following day the remainder of the town was cleared and all enemy forces were captured, killed, or forced back across the Roer River.

The platoon from "A" Company had simultaneously overrun an enemy outpost outside Vilvenich. During a brief reorganization it was discovered that seventeen men, to include both medics and an attached machine gun, were missing. Despite this, the village was immediately assaulted, six of its ten buildings were seized, and 78 Germans were captured in their beds without a shot being fired. The remainder of "A" Company was eventually committed and the rest of the village was captured by 1700, with a total of 87 enemy prisoners.

The last element in this night attack concerns the missing "A" Company personnel, one rifle squad and a machine gun squad. They had broken contact from the remainder of the platoon when a squad leader paused to help a man who fell into a water filled ditch. Everyone behind him also stopped, and thus lost sight of the platoon. Heading for a burning building in what was believed to be Vilvenich, they attempted to rejoin their platoon. To their surprise, after capturing eighteen sleeping Germans, they realized they were in Pier. They withdrew after dark and later guided "G" Company, 2d Battalion, 414th Infantry, along their route. This company captured in a few hours the town where all previous direct attacks by the 414th Infantry had been repulsed for three days.

Summary: This battalion crossed 3,200 yards of open ground, captured a well-fortified position guarded by strong enemy forces, and suffered a total of one killed, 27 wounded and two missing. In the course of this action it inflicted over one hundred casualties, captured 186 prisoners, and destroyed four anti-tank guns, two self-propelled guns, and fifteen machine guns.¹³ The attack was also directly responsible for the subsequent capture of Pier and Schophoven.¹⁴ This success was due to surprise, which in turn led to a loss of control by the German leaders. Once control was lost by the defenders, they were essentially helpless against the well organized and led American units.

Analysis: This attack would seem to violate many of the recognized principles of night attacks, i.e., use of radio and massive artillery fires that would presumably alert the enemy; yet it achieved complete surprise, which enabled it to achieve all objectives with minimal cost. The attack, however, was successful not just because it was conducted at night and achieved surprise. Success is also attributable to the planning, leadership, and training of the American forces. Ample time was available to plan and brief all key personnel. This included a thorough reconnaissance of the route and objectives. A simple plan was developed and thoroughly disseminated, with redundancy in critical elements (i.e., both compass azimuth and white phosphorus shells to guide the moving units). The objective was limited to seizing a foothold in the town, not trying to seize the entire village at night. Thus, the soldiers could focus initially on one or two buildings for their squad or platoon. "The troops knew they were going and exactly where they were to be at daylight."¹⁵ The direction of the attack, coming from the northwest (towards Pier and vilvenich), was obviously not expected. The defenders presumably expected to receive prior warning of any U.S. movement from the defenders of those two villages. When it failed, the defense failed. That the Germans had elements (i.e., outposts) out to provide early warning of an attack from the south or west was shown by an incident wherein the Ammunition and Pioneer (Support) platoon leader with a carrying party bringing ammunition to the companies in Merken was captured about mid-day on the 12th by five Germans as he attempted to go from Lucherberg to Merken along the most direct route. Blocked by U.S. artillery fire (adjusted by forward observers who watched the whole affair) from going to Pier as his captors wished, the platoon leader convinced the German party to go instead to Vilvenich. Not realizing that Vilvenich was in American hands, the Germans marched their prisoners into the waiting arms of "A" Company, who quickly disarmed them. This was obviously an enemy outpost that completely failed to provide any early warning. Had the defenders in the towns been at any level of security (one-third or fifty percent awake) this attack would not have been so easy. Of interest is that Lieutenant Arbogast's platoon ("A" Company) overran an outpost in front of Vilvenich, then captured its garrison asleep. Every unit must provide for its own security.

Another of the principal reasons for this success was that the defender's positions were easily detected from both the air and ground. Camouflage was apparently nonexistent. This allowed the attacking forces to maneuver in such a way as to avoid the majority of enemy defenses while simultaneously suppressing any defenders with smoke and air burst artillery to such an extent that most Germans were captured in cellars.

Finally, the battalion commander understood his enemy. He was able to use large amounts of artillery to cover the sounds of movement and protect his flanks because the Germans were accustomed to heavy American indirect fires and spent most of their time in basements in an attempt to avoid casualties. To have not fired artillery would have broken the expected pattern of American activity and would have cost surprise. Likewise, the use of radio to control artillery was not unknown, and its substitution for wire communications to control the supporting fires did not compromise the attack.

Example 2: Regimental attack by the 47th Infantry Regiment, 9th Infantry Division, near El Guettar, Tunisia, 28-29 March 1943.

General Situation: The 9th Infantry Division, a part of II Corps, was directed to attack on 28 March 1943 in order to seize the hill mass known as the Djebel Berda, a rough, tangled series of barren hills that overlooked and controlled the El Guettar-Gabes road (Map 3). This road led directly into the rear of Axis forces who were defending Tunisia against American and British forces attacking from the west and the British 8th Army coming up from the south. The purpose of the attack was primarily to distract and tie down German and Italian forces and prevent them from reinforcing the units facing the 8th Army. The final objective for the 9th Infantry Division and II Corps was Gabes. The corps' attack was to be conducted in three phases. In phase one, the 1st Infantry and 9th Infantry Divisions were to seize the pass between the Djebel el Mcheltat (Hill 482) and Djebel el Kheroua (Hill 369); in phase two, they were to take a subsequent pass through El Hafay. Finally in phase three, they were to pass the 1st Armored Division through to the western flank of the enemy's so-called "Chott Position," a defensive line to be occupied once he was forced out of the well-fortified "Mareth Line" by the 8th Army. This was the first division sized attack for the 9th Division. It had participated in the initial amphibious landing at Safi in Morocco, and combat operations against the French garrison of Morocco, but this was the first combat operation against German and Italian forces. The division had acquitted itself well to this point, but had little experience in operating after dark. Most pre-invasion training had been devoted to amphibious operations, and little had been attempted in the way of night operations prior to being committed in the II Corps sector.¹⁶

The enemy facing the 9th Infantry Division was composed of Italian veterans of the Centauro Division, in part led by German officers and NCO's, and the 10th Motorcycle Battalion, with German units on the high ground north of the El Guettar-Gabes road.¹⁷ These veterans had been in their defenses long enough to have blasted positions into the solid rock that was nearly impervious to most incoming fire.

Specific Situation: The objective for the 47th Infantry was Hill 369, the eastern extremity of the larger hill mass known as the Djebel el Kheroua. The regiment had come by rail and truck from their positions in Morocco to occupy positions around Kasserine Pass on 2 and 3 March. They were subsequently moved to Gafsa and El Guettar on 25-26 March, where they relieved elements of the 1st Infantry Division. The maps issued were found to be inadequate, and prior to attacking, there was time for reconnaissance only by battalion commanders.¹⁸ The terrain consisted of flat open plains, followed by very steep, barren hills connected by sharp, twisting ridges. Trails were rare. Vegetation was nonexistent. The position was described as "a natural fortress capable of being defended by minimum forces for an indefinite period."¹⁹ The problem for the commanders was compounded by the fact that after they had conducted their planning,

division headquarters issued a change which modified the plan. The change came out too late to allow necessary adaptations and preparations by all units involved. The new plan called for the 47th Infantry to attack with two battalions (first and second) moving up parallel ridges to seize the division objective, Hill 369 (part of the Djebel el Kheroua). The 3d Battalion was to follow the 1st in reserve, with the 1st Battalion 39th Infantry (Division reserve) following on order (Map 4).

The Operation: The planned attack miscarried almost as soon as it began. The 1st Infantry Division units previously occupying the positions had told the 47th Infantry that the enemy in the Division area consisted of no more than one battalion and two or three batteries of artillery. As noted earlier, this was incorrect. Furthermore, the general lack of reconnaissance and detailed preparation by the leaders guaranteed that what little information was available about the enemy and terrain was not known by all the soldiers. Objectives and routes were unclear. Despite these problems, the regiment moved out in the attack at 0330 on the 28th of March, with battalions in column.

1st and 3d Battalions were to advance along the Djebel el Kheroua to Hill 369. The commanders misidentified a smaller ridge lying between them and the objective, the Draa Saada el Hamra ridge leading to Hill 290 for their objective, and captured the majority of it. They did not succeed in capturing Hill 290 or Hill 369 due to the intense machine gun and artillery fire delivered by an unsurprised enemy. Not only was the enemy well dug in on the objectives, but he also occupied unthreatened observation posts on Hill 772 on the flank of the moving battalions.

2d Battalion was to move along the Djebel el Lettouchi. They were detected about 0535 and pinned down by enemy fire in the confused ground south of the rest of the regiment. During the next 36 hours, during which they were out of touch with any higher command, the battalion lost as prisoners most of "E" company, its battalion commander, S2, communications officer, the commander, and 30 men of the "G" company, the commander, executive officer and five men of "F" company, and the commander of "H" company. What was left of the battalion had to pull back, reorganize, and (eventually) reestablish contact with regiment. The 1st Battalion, 39th Infantry, got lost trying to follow the 47th Regiment and wound up accomplishing nothing. Some of its units were eventually formed into a provisional battalion with what was left of the 2d Battalion, 47th Infantry, and attempted to accomplish the original mission, but to no avail.

This same pattern of ineptitude in night operations in the 9th Division continued the following night. The 47th Infantry was to attack from its positions on the Draa Saada el Hamra towards Hill 369. The 2d Battalion, 39th Infantry was to move around Hill 290 and attack Hill 369 from the north. This plan also foundered on the twin obstacles of poor planning and inadequate reconnaissance. The 2d Battalion, 39th Infantry, moved too close

MAP 4

Night Attacks Near El Guettar

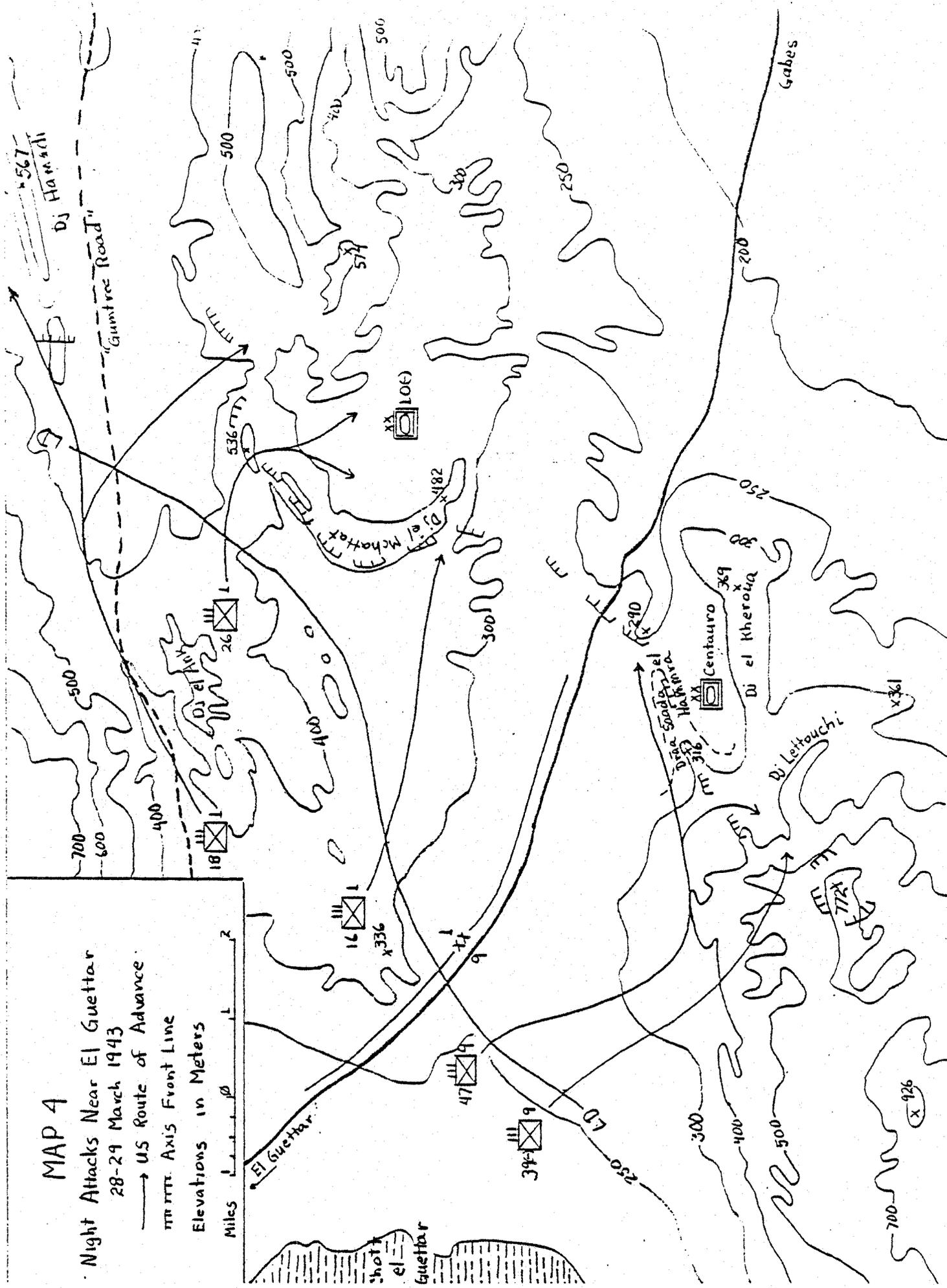
28-29 March 1943

→ US Route of Advance

----- Axis Front Line

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Shott el Guettar

926 X

to Hill 290, mounted in trucks, and was demoralized and took severe casualties from the fires of the defenders on Hill 290. The last stragglers were unable to return to their initial assembly areas until the following night, having spent the day pinned down by intense direct and indirect enemy fire. The attacks by the 47th Infantry were never launched.

The enemy positions were finally taken on 7 April, due more to 8th Army successes along the Mareth Line and the Chott Position than to the attacks of II Corps. On 8 April elements of 1st Armored Division linked up with the 8th Army and this phase of the battle for Tunisia was over.

Summary: In eleven days of intense fighting the 47th Infantry lost 733 casualties. Of these, 242²⁰ were prisoners (33 % of casualties), lost to the enemy mostly on the first night. The Regiment did not succeed in taking its initial objective until ten days after it began its attack, and then primarily because the enemy withdrew as a result of events elsewhere.

Analysis: Nearly everything that could go wrong with a night operation went wrong in this example. The leaders had made no special effort to prepare or train their soldiers for large-scale night operations. They were thus unprepared for this action, and this, coupled with inexperience, proved their undoing. In contrast to the first example, where adequate time allowed detailed planning, proper fire plans, and reconnaissance by all leaders, the 47th Infantry was receiving changes to the 9th Division's plans with no time to react. Maps were poor, though other II Corps units had better maps that showed the terrain accurately.²¹ Fire planning was not arranged to cover the sounds of movement, nor was it properly employed to neutralize enemy observers and suppress enemy fires. Reconnaissance was faulty and hurried and combined with the poor maps to lead units astray, or leave them totally lost. Enemy positions were not pinpointed, with the result that moving units virtually stumbled into contact with a fully alert and prepared enemy who used his fires to stop all American attacks. A subsequent analysis by the 9th Division determined that the best way to have accomplished this mission would have been to have seized Hill 772, the observation post directly on the south flank of the moving units, then attack to the east down the three ridges (Draa Saada el Hamra, Djebel el Kheroua, and Djebel Lettouche) to seize Hills 290, 369, and 361 respectively.²² This would have lessened the enemy's observation of U.S. units and negated the effectiveness of most of his prepared positions, since they were oriented towards the open plain. Even so, the attacking forces failed to gain surprise, and subsequently, their commanders lost control of their own units rather than forcing the enemy to lose control. The result was a bloody repulse followed by extremely costly uphill battles against a well-prepared foe.

DEFENSE EXAMPLES

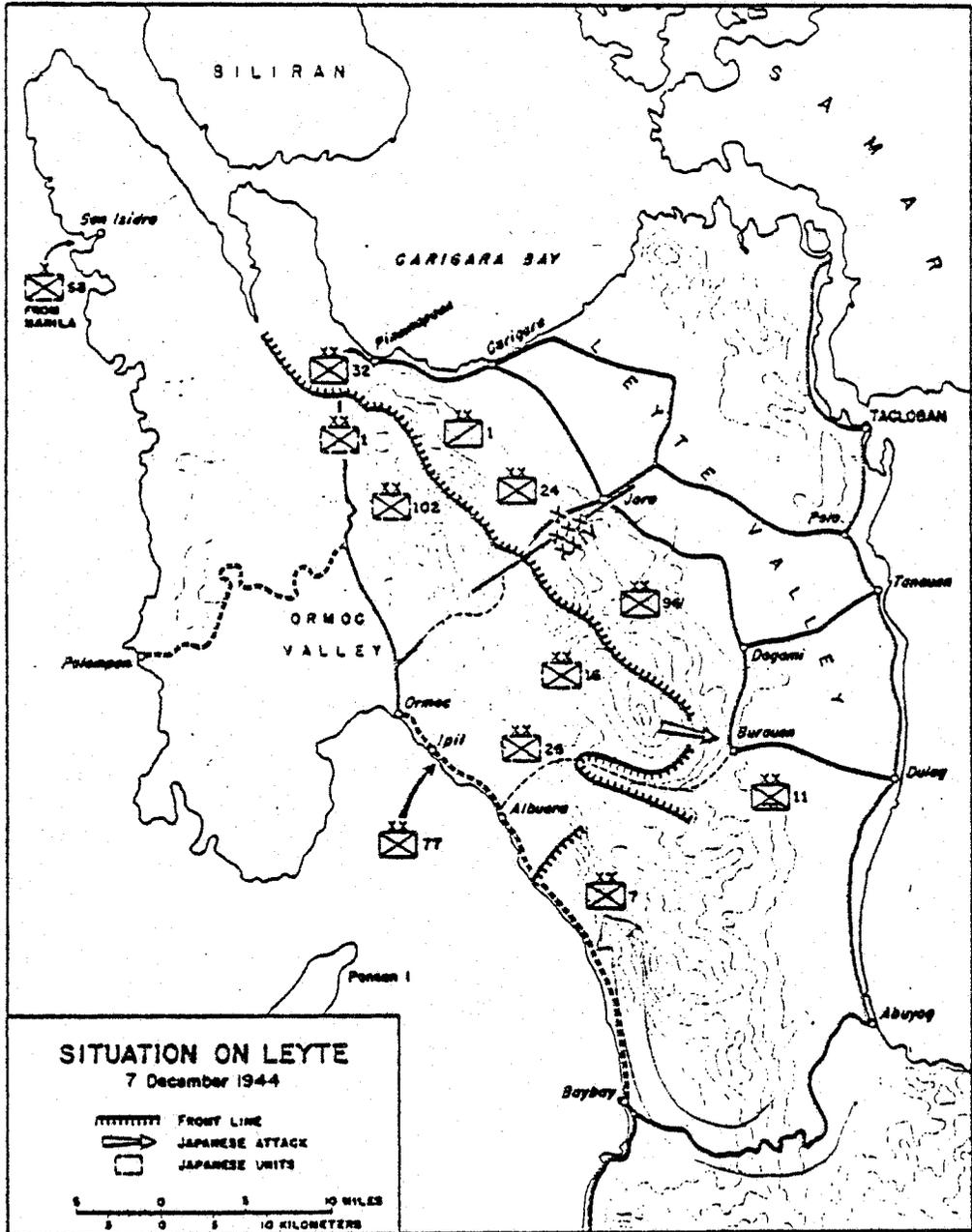
General: The firepower available to American units in its wars this century has usually left its enemies in a position where they had to use night attacks to succeed. Daylight attacks were usually suicidal against American troops with their normal supporting fires in any type of a coherent defensive position. As a result, night defense by American units against attacking enemies has been more the rule than the exception against the Germans, the Japanese, the North Koreans and their Chinese communist allies, and most recently, the Viet Cong and North Vietnamese. These attacks usually failed when the American units occupied positions with proper security and redundant communications. When American units failed to ensure these preconditions for success, the enemy frequently succeeded. These elements are a direct reflection, once again, of the elements of leadership, training, and planning. A knowledge of the enemy and his probable tactics is also a key element in success. In the successful defense example which follows, the tactics of the Japanese attackers were well understood, and the defense triumphed. In the ensuing unsuccessful example, the Chinese were an unknown factor, and the defense paid the cost of ignoring the three key elements, even though the tactics in use had been successful against the North Korean units up to that point.

Example 3: The 32d Infantry Regiment, 7th Division, defending Shoestring Ridge, Leyte, the Philippines, 23-28 November 1944.

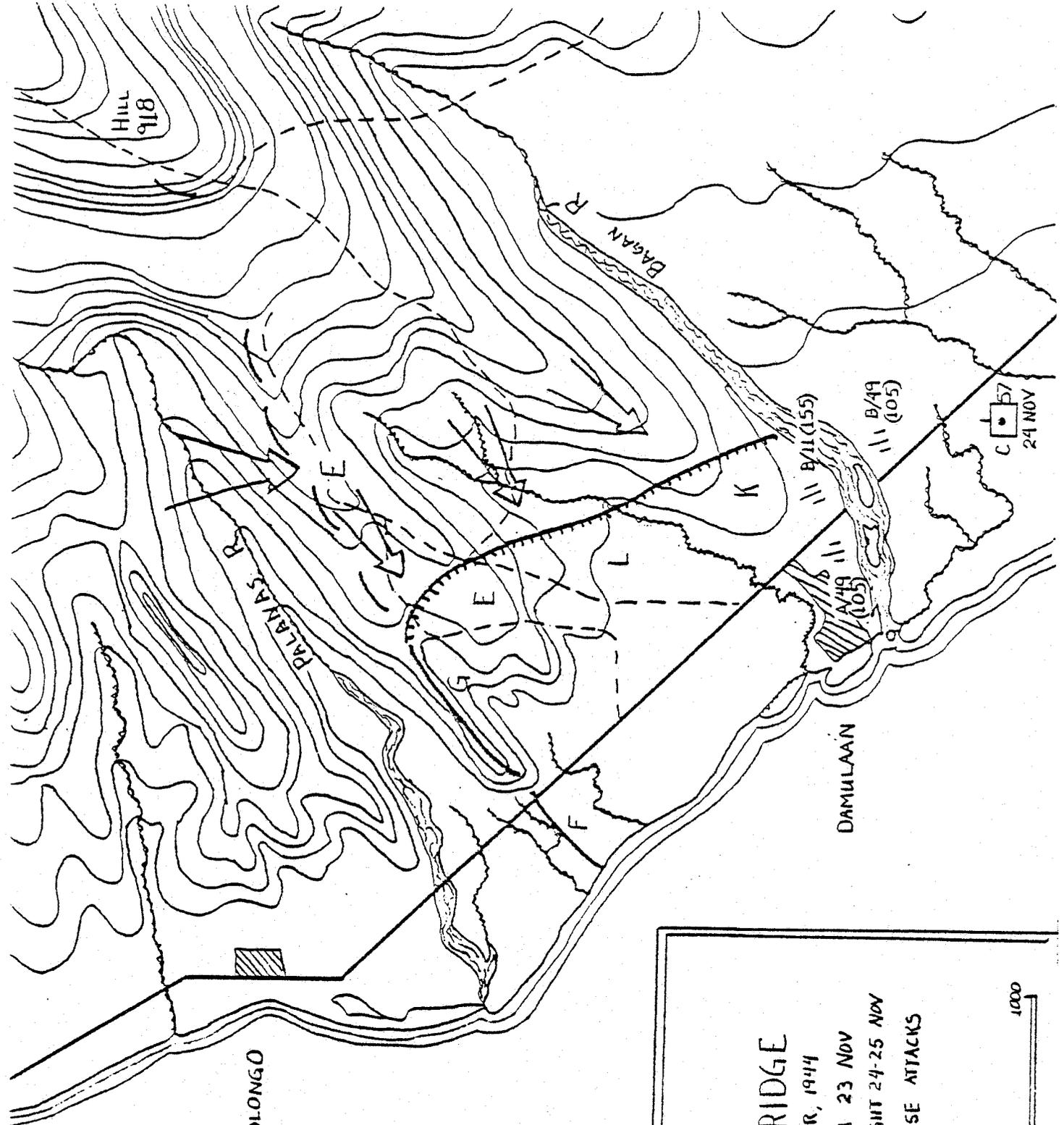
General Situation: U.S. forces returned to the Philippines on 20 October 1944, landing on the island of Leyte as a preliminary move to establish air bases that could support further invasions, especially of Luzon. By mid-November the majority of the east side of the island, where the most desirable land and the majority of the population lived, was in American hands. The 32d Infantry, minus its 1st Battalion, led the way towards the last Japanese stronghold at Ormoc, in northwestern Leyte. The 1st Battalion was left guarding installations in the corps rear. The 32d Infantry, led by the 2d Battalion, started crossing to the west side of Leyte on 30 October 1944 (Map 5). The Japanese dispatched a reinforced company to delay any American movement north, pending the arrival of substantial reinforcements from Luzon, but lost most of it to an ambush by E Company, 32d Infantry. The 32d then moved slowly forward, held back by requirements to guard a long supply route and rebuild numerous destroyed bridges. It was also traveling over very poor roads, which washed out almost daily. Finally, the Army Commander, General Krueger, did not want to put it out on a limb while he was waiting for reinforcements to allow him to release the entire 7th Infantry Division. As a result the 32d Infantry stopped along the Palanas River near Damulaan and established defensive positions along what came to be called Shoestring Ridge.²³ Across the river to the north the Japanese 26th Division, just arrived from Luzon, also assembled, with the mission of stopping any American advance.

Specific Situation: The 32d Infantry initially occupied Shoestring Ridge with its 2d Battalion, reinforced with two companies of Philippine guerrillas ("F" & "G", 94th Philippine Infantry). The 3d Battalion occupied positions farther south, with the 2d Battalion, 184 Infantry, even further south. This last unit was attached to the 32d Infantry, but the division commander kept it from being used without his permission. The reason for this lengthy deployment was primarily to prevent the Japanese from surrounding and isolating the forward units by moving either inland, or by sea. Both were a possibility. This left a rather inadequate force to defend the forward positions, even when reinforced by Batteries "A" & "B", 49th Field Artillery (105mm), and Battery "B", 11th 155mm Marine Gun Battalion, for a total of 14 artillery pieces in the vicinity of Damulaan. The artillery units were placed close to the 2d Battalion because of anticipated offensive operations, and because it consolidated the defense on the best ground. The defenses were concentrated (two companies "F" and "G") along the flat ground, astride the road and along the adjacent ridge where it dominated the artillery and CP's on the low ground. Further inland "E" Company and the guerrillas were spread out on the ridge in platoon positions. "F" and "G" Companies were thinly spread across 1,500 yards of open, marshy ground. They established fighting positions of dirt and sandbags every 75 yards, with minefields to the front. "E" Company was essentially in outposts. (Map 6)

MAP 5



From: "Leyte, The Return To The Philippines"
 M Hamlin Cannon - The United States Army
 in World War II



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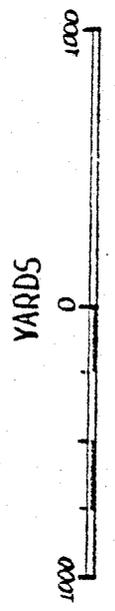
DAMULAAN

MAP 6

SHOESTRING RIDGE

23-25 NOVEMBER, 1944

- (---) FRONT LINE - PM 23 NOV
- (---) FRONT LINE - NIGHT 24-25 NOV
- (↑) AXIS OF JAPANESE ATTACKS



C 57
24 NOV

B/11 (155)

B/49 (105)

A/8 (105)

HILL
918

PALANAS R.

BAGAN R.

A
B
C
D
E
F
G
H
I
J
K

About 1830 on November 23, the expected Japanese assault began with artillery that put smoke on "A" Battery, 49th Artillery. The next 40 rounds were mixed HE and smoke, but their impact was so scattered it was impossible to determine what their target was. Counterbattery fire silenced the Japanese artillery temporarily, but at 2000 heavy mortar and artillery barrages fell on the entire front of the 2d Battalion. Wire communication between battalion and regimental headquarters at Baybay was cut early in the attack, and radio also failed. Though radio contact was eventually reestablished by a relay through 3d Battalion, regimental headquarters remained out of contact for much of the night.

Utilizing covering mortar and machine gun fire, and by making excellent use of the ground, two Japanese companies were able, starting about 2100, to penetrate "E" Company's line on the ridge and force it to withdraw. "G" Company reoriented its two right squads to protect its flank and held in place against probes and small attacks.

After daylight, the 2d Battalion retook the ground it had lost the previous night, forcing a strong enemy force back to the north. By nightfall most of the ground had been regained, and a defensive perimeter was established as shown on Map 6. By the evening of 24 November the 2d Battalion, now reinforced by both "L" and "K" Companies of the 3d Battalion ("L" had arrived late the previous day) was ready to withstand another attack. Artillery and small arms ammunition had been replaced by herculean efforts on the part of the service troops, who succeeded in building up stockpiles of 1,400 105mm howitzer and 1,600 81mm mortar rounds by dark. The 1st Battalion 184th Infantry was also attached to the 32d Infantry, but had to be moved across the central mountains. It also had a requirement to have division permission before it could be committed.

The Japanese had completed massing their forces and regarded this night as the time for annihilating the American position. They attacked Companies "G," "K" and "L" with the entire 13th Independent Infantry Regiment following a thirty minute artillery and mortar barrage. Combat patrols simultaneously attacked "F" and "G" Companies from the north, but were easily repulsed. The assaulting forces were heard massing in front of the American positions, enabling the defending fire support units to deliver maximum fires. Artillery and mortar final protective fires wreaked havoc on the attacking enemy, the artillery disrupting command elements and reserves and preventing the assault units from moving to the rear, while the mortar shells "fell like rain and inflicted great casualties"²⁴ on the attackers. At this critical point the 2d Battalion commander put his Ammunition and Pioneer Platoon (i.e., Support Platoon) and an engineer squad into previously prepared positions next to "G" Company, which allowed them to repel all assaults relatively easily.

The Japanese attacked "L" Company's right platoon with mortars and the fire of at least twelve stationary machine guns, plus more with the attacking infantry. Utilizing all available weapons, "L" defeated this attempt with heavy losses to the attacking forces.

"K" Company was operating at about 50% strength, and the platoon guarding the draw between "L" and "K" companies had only 19 men. The Japanese succeeded in placing machine gun fire on all sides of this platoon, which prevented it from moving, then started closing to bayonet range. At this desperate moment, a Marine .50 caliber machine gunner from the supporting 11th 155mm Gun Battalion managed to silence the two guns delivering flanking fire on the platoon; he then proceeded to knock out most of the machine guns in the Japanese base of fire. This allowed the platoon to withdraw to an alternate position it had previously prepared.

The Japanese then attacked the center of "K" Company across open corn fields. They took so many casualties that they never attacked in that area again.²⁵

As these assaults were bogging down in front of "K" Company, a new attack against the right flank of "L" Company was being prepared. Three separate attempts were made to move down the ravine, but all were stopped by artillery fire adjusted by an infantry lieutenant in an outpost 50 yards in front of "L" Company's barbed wire. Unable to even close with the American's on this flank, the Japanese then tried the left flank of "L" Company, but were stopped by 60mm mortars and two 37mm antitank guns firing cannister.

The U.S. artillery was as busy as the infantry. Besides firing nearly every round that had been stockpiled, it was subjected to an intense Japanese artillery barrage that broke all wire communications and disabled all four guns in "B" Battery, 49th Artillery. Radio communications with the infantry fortunately survived, and by cannibalization "B" Battery got one gun operating by sunrise. At one point about 25 enemy managed to infiltrate to within 50 yards of the regimental CP's perimeter with two machine guns, but were driven off by the defenders, principally medics.

During daylight on the 25th all American companies put patrols out 2,000 yards to keep the enemy from getting too close during the day, and reinforced, resupplied, and dug even deeper. Company "I" moved into the draw between "K" and "L" companies, and the 3d Battalion commander resumed control of his now reunited battalion. The "I" Company positions were in a rice paddy, so were prepared but only occupied at night, the day being used to dry the soldiers out. Japanese artillery fire fell sporadically, but prompt counterbattery fire prevented it from becoming more than a nuisance. All CP's were moved because their location was known to the enemy. Headquarters and "B" Battery of the 57th Field Artillery moved into positions near Damulaan. That night approximately a battalion of Japanese attacked "G," "E" and "I" companies, but were easily repulsed. One group of nine Japanese did manage to crawl down the Bucan River to the vicinity of

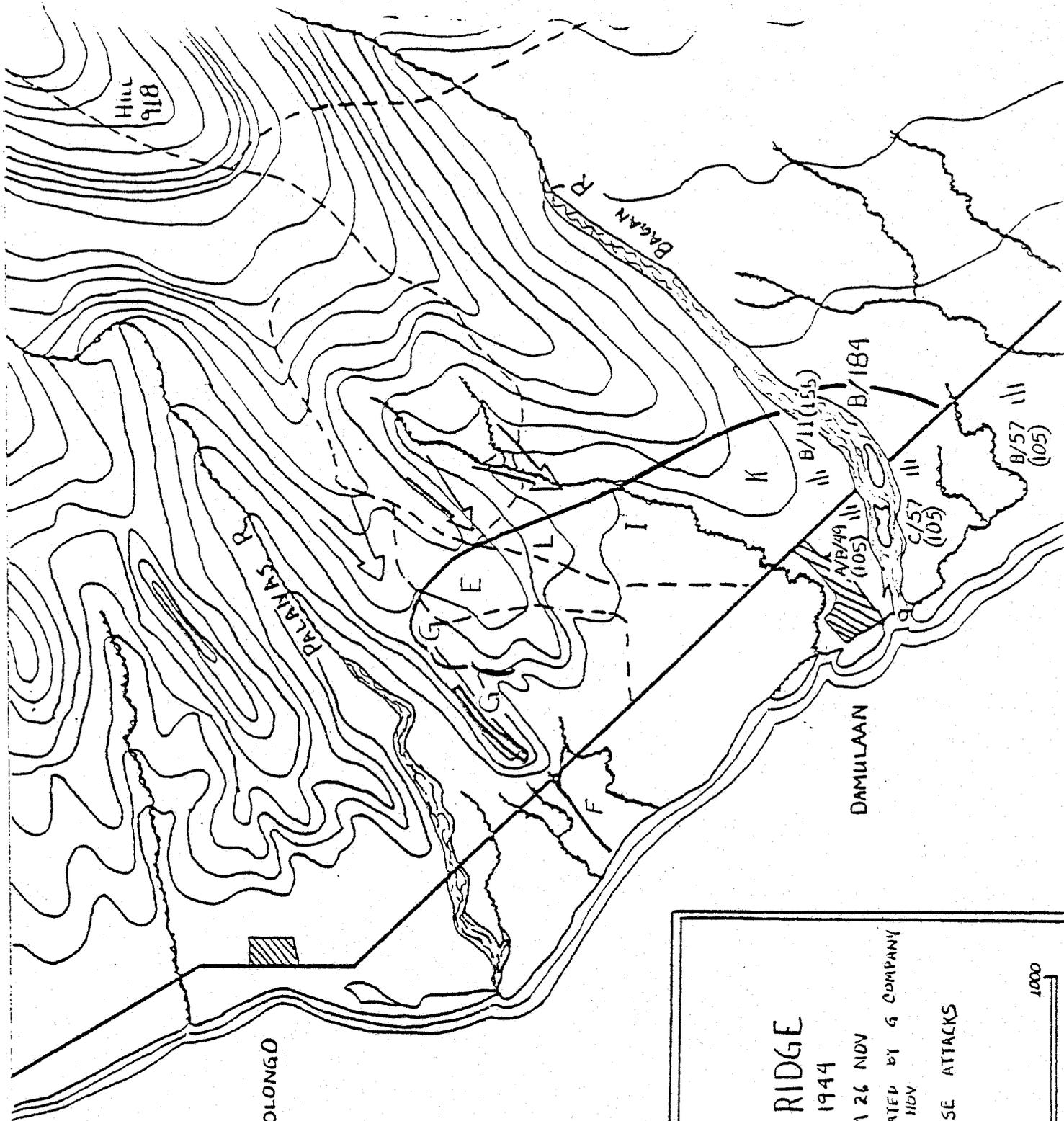
"B" Battery, 49th Artillery, where they succeeded in putting one gun out of action before they were all killed by the defending artillerymen.

During the day on the 26th, the 32d Infantry again rested, changed automatic weapon positions, and replenished ammunition supplies. "B" Company, 184th Infantry, occupied positions on the right flank (Map 7), and "B" Battery was merged with "A" Battery, 49th Artillery. That night, at 2100 the Japanese came back again. Elements of all three regiments of the enemy's 26th Division were now involved (11th, 12th, and 13th Independent Infantry regiments). This night was considered the most desperate of all.²⁶

At 2100 an intense artillery and mortar barrage fell on "G" Company and "A" Battery. Up to 50 machine guns provided supporting fires as one battalion of Japanese attacked "G" Company and another hit between "E" and "L" companies. Another force estimated at battalion strength was held in reserve to exploit any penetration. The attack on "G" Company continued to close despite intense American fire and the attackers moving into their own artillery fire. Just as it appeared that the pinned down American soldiers were about to be overrun, the Japanese withdrew, apparently because of their casualties, allowing the U.S. commanders the opportunity to reorganize. As all the platoon leaders in the area under attack had become casualties, a heavy machine gun section sergeant took command and prepared the position for the next attack, which was not long in coming.

This second attack was as strong as the first, however this time the enemy did not withdraw, but tried to infiltrate after they had been stopped. The most serious fighting occurred in and around a bamboo thicket in front of the center platoon of "G" Company. One gauge of the intensity of this combat is shown by the fact that at one point the 81mm mortar platoon of "H" Company fired 650 rounds in five minutes. The action continued for about an hour, after which it died down as the Japanese finally pulled back.

One curious, and potentially fatal incident occurred on the left flank of "G" Company as the battle raged. Not actually engaged because of the terrain, these troops were very aware of what was happening on their right. A three man outpost was about 75 yards to the front, and hearing the battle moving towards them and the enemy forming to their front, one man was sent back to request permission to withdraw. When permission was received, he shouted the order to the outpost from about 50 yards behind it. The left platoon and two squads of the center platoon of "G" Company joined the outpost as it withdrew, and within 45 minutes both platoons and a section of heavy machine guns were on the road headed south. "There was no thought in their minds that the withdrawal was not authorized."²⁷ The executive officer of "H" Company met them after they had gone about 250 yards and sent them back. The left platoon regained its position, but the two squads of the right platoon found their positions occupied by about 200 Japanese with 20 machine guns. The regimental commander, Colonel Finn, contained them by



MAP 7

SHOESTRING RIDGE

26-27 November 1944

FRONT LINE - PM 26 NOV

FRONT LINE VACATED BY G COMPANY NIGHT 26-27 NOV

AXIS OF JAPANESE ATTACKS

YARDS

0 1000

ORMOG

BAY

BOLONGO

DAMULAN

SHOESTRING RIDGE

26-27 November 1944

FRONT LINE - PM 26 NOV

FRONT LINE VACATED BY G COMPANY NIGHT 26-27 NOV

AXIS OF JAPANESE ATTACKS

YARDS



moving a reserve platoon from "I" Company up behind "E" Company, facing north, and bending the flanks of "G" and "F" Companies so as to present no flank to the enemy. Fortunately the enemy failed to realize what had happened and never advanced out of the bamboo thicket.

Pressure continued against "E," "L" and "I" companies all night, though never as heavy as that against "G" Company. No ground was yielded as the Americans used effective supporting and organic fires to kill over 400 enemy.

By 0515 on the 27th of November the Americans were preparing to evict the Japanese from their bamboo thicket in "G" Company's sector. Available was the 1st Battalion, 184th Infantry, which attacked at 0855. Stopped initially by heavy Japanese fire, a total of three attacks were launched, each preceded by increasingly intensive artillery and mortar fires. The last assault cleared out the enemy at 1600, revealing 109 enemy killed and 29 machine guns in the position vacated by "G" Company the night before.

Other than this counterattack, the daylight hours were devoted to reestablishing and reinforcing positions. The 1st Battalion, 184 Infantry, was added to the perimeter. That night minor attempts at infiltration were made by the Japanese, but these were easily stopped. On the 28th, the 32d Infantry was relieved by the 184th Infantry and moved to the rear to rest and refit.

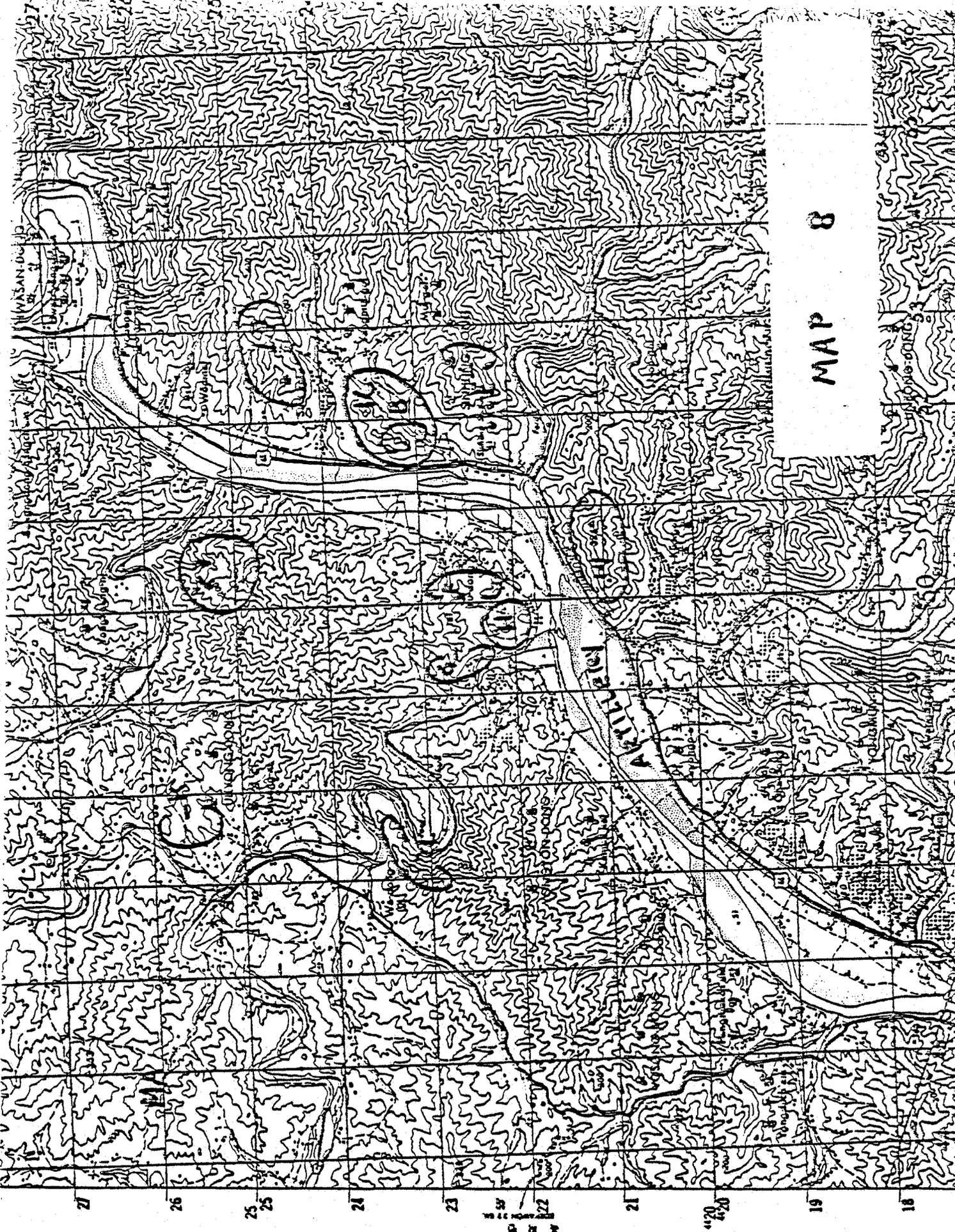
Summary: The 32d Infantry suffered just over one hundred casualties during this series of actions. In the process, they inflicted 1,400 dead and an unknown but large number of wounded on the Japanese 26th Division.

Analysis: This is a classic example of intelligent defense holding up against a numerically superior enemy with good support, who made excellent use of the ground. Despite the successful efforts of the Japanese to concentrate large forces against small sections of the defensive perimeter, the defense was never broken. The defenders used the terrain to their best advantage and combined the ground with artificial obstacles and well coordinated supporting fires to decimate the enemy. Outposts and alert soldiers prevented the Japanese from ever gaining surprise, and without surprise the well supported and coordinated assaults were doomed. Communications were never a problem thanks to the use of both radio and wire and a determination not to lose contact. Units were placed where they could support each other with overlapping fires and a continuous foxhole line, and thanks to extensive digging, were relatively immune to the enemy's artillery and mortar fire. Finally, despite problems resupplying the defense, there was never a crippling shortage of any type of ammunition. On the contrary, enough ammunition was available that Colonel Finn, Regimental Commander, commented about arms getting tired from throwing so many grenades, and specifically credited one 60mm mortar in "L" Company with developing a technique to get 18 rounds in the air before the first hit the ground, then resetting and firing an illumination round to observe the results.²⁸ The result was a conclusive success for the well-trained, well-led U.S. troops.

Example 4: 9th Infantry Regiment, 2d Infantry Division, defending along the Chongchon River, North Korea, 25-26 November 1950.

General Situation: The U.S. Eighth Army had been attacking into North Korea following the successful breakouts from the Pusan Perimeter and the landing at Inchon in September 1950. The North Korean Army had quickly become demoralized as it retreated north, and by late October only scattered guerrilla bands faced the U.S. troops. By 26 October General Walker, Eighth Army commander, knew the Chinese Communists (CCF) had decided to intervene and had begun to concentrate his divisions along the line of the Chongchon River.²⁹ There had been some contact with CCF units, and he wished to reassemble his scattered divisions before continuing his drive towards the Yalu River. The U.S. units were composed mostly of recent draftees who had little combat experience and who expected the war to end shortly. This belief had been especially reinforced by General MacArthur's Thanksgiving message which told the soldiers to expect the war to end by Christmas. The lack of experienced leadership and combat veterans, together with the impending end to the conflict, caused discipline to be lax. To use "B" Company, 9th Infantry, as an example, on 25 November 1950, as it moved out in an attack, the company fielded 129 men. There were only 12 helmets in the company, as the cold weather made pile caps desirable, and they could not be worn comfortably under a helmet. Two bayonets were carried (by new replacements), and there was less than one grenade per man. Weaponry consisted of a mix of M1 rifles, carbines, Browning Automatic Weapons (BARs), light machine guns, and 60mm mortars. Some infantrymen carried as few as 16 to 30 rounds. One-half had no entrenching tools. An average of only 400 rounds per machine gun was available. Radios were carried, but usually didn't work because of the distance between units, or because of intervening mountains that blocked radio transmissions.³⁰ The ostensible reason given for this lack of equipment was that the precipitous terrain required a minimum load.³¹ In reality it was because the soldiers did not believe they needed to carry any more, despite advice to the contrary from older soldiers, and because the leaders were unable or unwilling to enforce discipline.

Specific Situation: On November 25th, the 9th Infantry moved forward to continue the attack along the Chongchon River. "B" Company led the attack to take Hill 219 (OBJ 16) (Map 8). Against unexpectedly stiff opposition (they had faced only small guerrilla bands of 6-10 men during the recent advance), the company managed to seize about two-thirds of the hill before dark, the men settling into a defensive posture wherever they happened to be as day ended. The other companies moved to occupy the positions shown. There was no coherent defensive plan at any level above company, nor was communications ensured between all units. In "K" Company,³² for example, the terrain prohibited radio contact, and a wire team sent out by the 3d Battalion headquarters ran out of wire when only two-thirds of the way to the company, whereupon the wire team leader simply returned to his headquarters. No one took any further positive steps to gain communications. It was in these precarious circumstances that the regiment was attacked after dark by CCF units of divisional strength.



MAP 8

WASAN-DG-10

WONGKONG

STONKONG

WONGKONG

The Operation: The CCF attack began on "B" Company, which had been engaged all day. It was pressured all night, though never in particularly great strength. By sunrise the enemy attacks had gradually pushed the company back from its extended positions and eventually forced it off Hill 219. When daylight on the 26th ended the action, "B" Company completed its withdrawal and broke contact with the Chinese. Of its 129 men, it could muster 34 who were able to fight.

The next contact occurred with "K" Company. It had seized its designated objective (35) late in the afternoon. The commander decided to forgo local reconnaissance patrols and to occupy immediately and start preparing defensive positions with his understrength company. As noted above, there was neither radio nor wire communications to higher headquarters, so the company fought this night on its own, with no help, unable even to tell its higher headquarters when it was assailed. The platoons were deployed with 2d and 3d on low ground, facing a dry creek, and 1st on the high ground to their rear. A three man outpost with a light machine gun was positioned to watch the stream bed on the extreme western flank of the position. About 1900 the outpost saw enemy soldiers start to go by. The only American on the outpost (the other two were Korean soldiers assigned to the company), refrained from firing because he was afraid that if he fired he would alert the enemy to his unit's location, and as he realized he was viewing at least a regiment, he was afraid they would destroy the company. However, other soldiers, initially in the 2d Platoon, opened fire. At this, the two rear CCF companies left their column and attacked "K" Company. After careful scouting to locate the actual American positions, the CCF forces attacked from three directions and, after severe fighting at close range, forced the remnants of "K" Company to withdraw to the north, the only open direction.

The CCF regiment continued its advance down the stream bed towards "L" Company. Although the commanders of both "L" and "K" companies had been told they were in supporting range of each other, neither made any effort to determine where the other was, or to coordinate their defenses and supporting fires. In fact, they were over 2,500 yards apart, with a large hill between them that precluded radio communications.

Having dropped off two companies to deal the "K" Company, the CCF regiment proceeded to attack "L" with two more companies. One significant CCF feature of the attack on "K" Company was the use of bugles and whistles by the scouting elements who determined the U.S. troop's exact positions before attacking. These signals allowed the CCF leaders to relay sufficient information to each other without radio or wire to coordinate their attack. This scouting was unnecessary at "L" Company as its commander had authorized squad warming fires that perfectly outlined its positions to the approaching Chinese. These fires were still burning even after the company was attacked, as no immediate efforts were taken to put them out. The company

initially held its position well, but when its commander was wounded and the word went out that he was hit, the heart went out of the company and it began a gradual, unorganized withdrawal that the remaining officers and NCO's were powerless to stop.

The remainder of the CCF regiment continued on down the stream bed until reaching the main valley of the Chongchon River. Here it overran the 1st Battalion's Command Post, almost capturing the commander and his staff, and its adjacent Aid Station. The Chinese then established a blocking position astride the main highway. Shortly thereafter, another Chinese regiment attacked one of the two artillery positions of the 2d Division, a relatively flat position along the Chongchon River next to a hill (329) known as the Chinaman's Hat. Wading the river in seven company columns simultaneously, they were within 75 yards of the defending artillery and infantry before being sighted.³³ They caught the 61st Artillery totally by surprise and the gunners panicked and fled, some heading for higher ground, most running through "B" Company, 23d Infantry, a few of whose soldiers joined the flight. Most of the infantry stayed in their positions, however, and stopped, then threw the enemy out of the area with a counterattack. This fight eventually cost the CCF over 400 dead and 111 prisoners.

Meanwhile, Colonel Sloane, 9th Infantry commander, was still unaware that his unit was in any difficulty and had even loaned his attached tank company (B-72d Armor) to the 23d Infantry for its counterattack. He began to realize the extent of his own problems when the 1st Battalion commander and his staff straggled into his headquarters about 0300. He still knew nothing about the fate of "K" or "L" companies.

The 2d Battalion had "F," "G," and "H" companies grouped together on OBJ 26 (Map 8). "E" Company was on OBJ 15. The battalion commander was with "E" Company. He became concerned when a patrol he had dispatched just prior to dark had failed to find "K" Company. He knew nothing about the location or status of 1st and 3d battalions, but felt something was happening and was alarmed. The Chinese attacked "E" Company about midnight and forced it off its hill. It immediately counterattacked and recaptured its position.

"G" Company was the last unit attacked. Its turn came about 0630, when a company-sized force approached down a streambed in a column. They were in full view of the defenders and were quickly destroyed by small arms fire and a tank led counterattack.

The remainder of the regiment was untouched through the night. As the commanders determined the status of their units during the 26th, it was evident that the main strength left was in the 2d Battalion, concentrated near OBJ 26. The regimental commander shifted boundaries and positions and consolidated his companies for the expected attacks that night. Since most of this movement had to be conducted under enemy fire, it took most of the

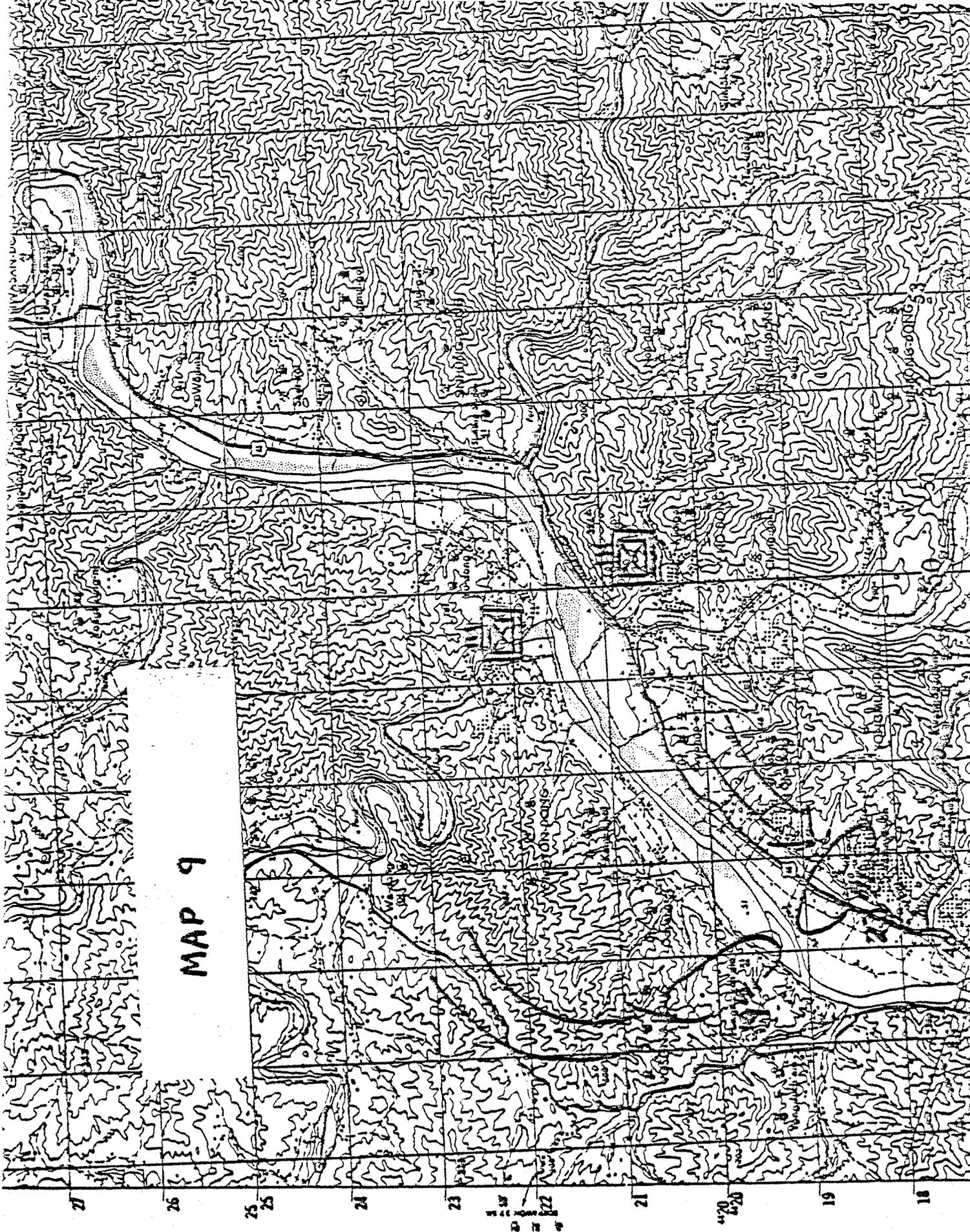
day. By nightfall the regiment had reassembled about two miles south of its previous positions. The Chinese formed on the old U.S. locations to stage their attacks the 26th (Map 9).

The CCF started by breaking through the 23d Infantry's positions on the east side of the Chongchon River. They were able, about 2100, to capture the Regimental CP and force both 1st and 2d battalions to withdraw about 600 yards. This prompted Colonel Sloane to order his 2d Battalion to attack south into the 23d Infantry's sector to preclude an attack from the newly vacated American positions. Just as the battalion began to move, it was hit from the north. CCF forces had infiltrated to within 40 yards of the defensive position (no outposts) of "G" and "F" companies. Attacking initially a platoon of "E" Company attached to "G" Company, the Chinese used mortars to knock out the two machine guns which were holding up their advance, then overran the platoon and the neighboring platoon (1st Platoon, "G" Company). (Map 10) They quickly set up their own machine guns and opened fire on the positions held by 2d and 3d platoons. Simultaneously 3d Platoon was attacked across its front and moved, according to plan, back to join 2d Platoon. Soon another Chinese machine gun occupied their old position and made further defense impossible. Permission was obtained to withdraw, and the company moved down the hill, crossing the river using tanks and half tracks, or wading. Those who got wet were immediate casualties in the +10 degree cold and required immediate evacuation to warming facilities in the division rear. The rest of "G" Company joined what was left of "F" Company, which had been attacked at the same time, and rejoined American lines in the perimeter of the 23d Infantry.³⁴

Summary: By sunrise on the 27th the CCF were on the advance everywhere. They had forced the 9th Infantry back, inflicting severe losses, and had gained the initiative that they were to keep until January 1951, when they were forced to halt to resupply.

Analysis: This operation shows the dangers involved in poorly disciplined soldiers encountering the enemy under conditions of the latter's choosing. The 9th Infantry was a typical American unit at this stage of the war. It had come, poorly trained and understrength, from the U.S. to play a key role in the defense of the Pusan Perimeter. It fought its way up through Korea to its positions on the Chongchon River, but forgot most of the lessons it learned as its men perceived the war to be nearing an end.³⁵ Their defeat was caused by poor communications, little coordination between companies or with their headquarters, inadequate local security, and soldiers and leaders who did not know how to use the terrain properly to organize a defense, and were not equipped to sustain a defense. The men lacked the ammunition and personal equipment necessary to hold a defensive position. There were multiple documented instances of weapons failing because of the cold, of counterattacks and defenses failing because the soldiers ran out of bullets and grenades, and of soldiers abandoning or destroying their weapons either

MAP 9

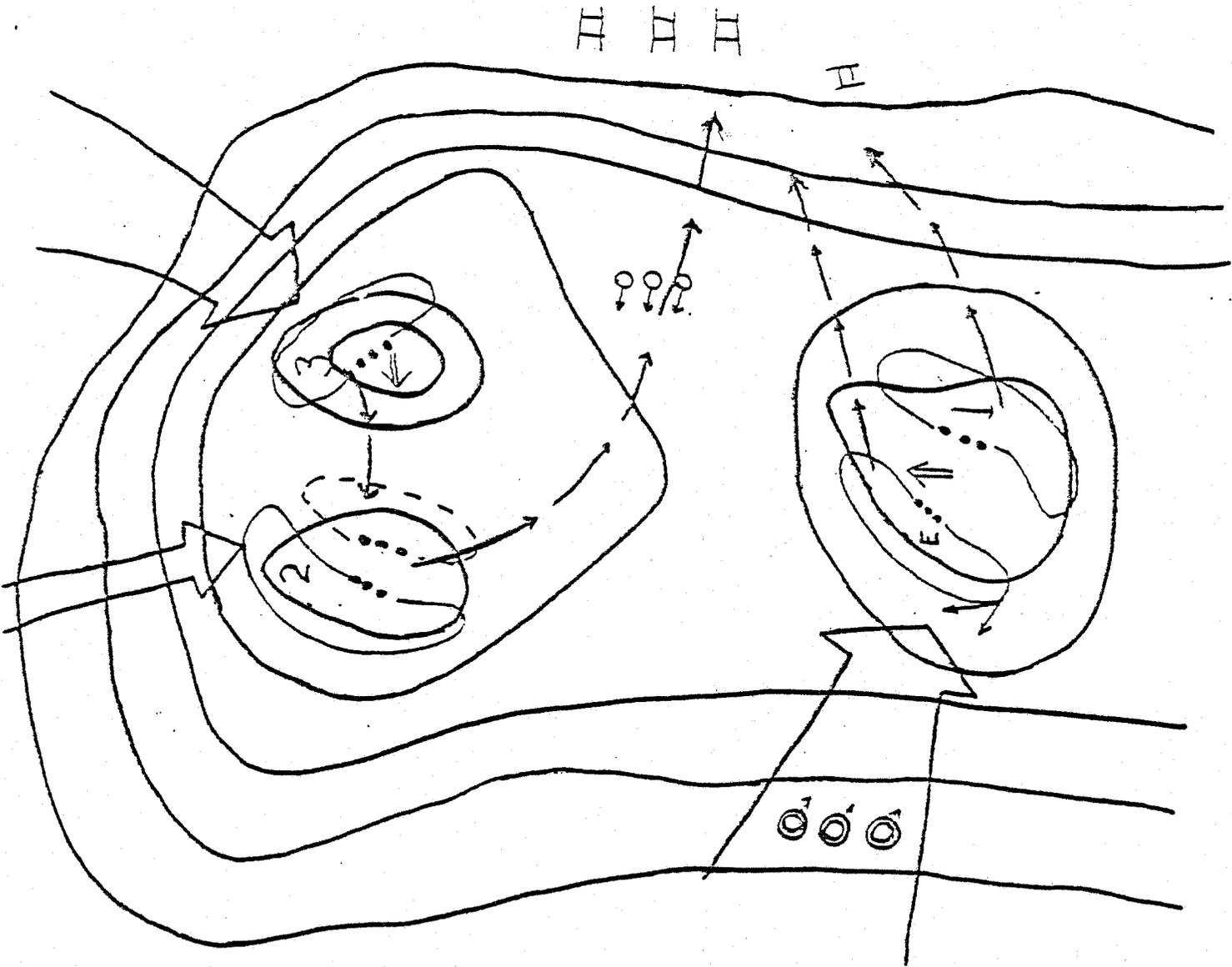


MAP 10

G Company Positions
and Withdrawal

26 November 1950

- U.S. Position
- U.S. Machine Gun
- U.S. Mortar
- Withdrawal Route
- II U.S. Tank
- CCF attack
- CCF mortar
- CCF Machine Gun



because the enemy was close or because the weapons wouldn't work. These weapons were frequently turned against the Americans shortly thereafter. The major lesson is that, no matter what the enemy situation has been, the leaders must set and enforce high standards. They must ensure that the proper equipment is carried and is in condition to be used. Each position where a unit may spend any time must be properly sited and prepared for defense. Finally, all ranks have to understand that communications remains decisive. With proper communication, these units could have received the fire support that might have precluded the necessity of withdrawing at all, despite their unpreparedness. With proper communications flanking units could have tied their defenses together so that isolated companies could not be attacked and overwhelmed in detail. With good personal communication, the trust and confidence so essential to cohesion could have been maintained, preventing many withdrawals and unnecessary casualties.

RAID EXAMPLES

General: The last type of night operation that deserves consideration is the Raid. Raids are offensive operations designed to harass, hurt, and demoralize the enemy, without the requirement to seize and hold ground--"the raiding force always withdraws after it accomplishes its mission."³⁶ Typically raids are carried out by forces smaller than a battalion, however, numerous instances can be found of units up to brigade size conducting raiding operations. The first example falls in this category. It is also the only non-U.S. example used in this study.

Example 5: Raid by the 29th Brigade, 10th (Irish) Division, British Army, on the El Burj-Ghurabeh Ridge, Palestine, 12-13 August 1918.

General Situation: British forces based in Egypt had been fighting Turkish forces in Palestine since 1914. This campaign, though peripheral to the main theaters in Europe, was of special significance to the British as any Turkish success endangered the Suez Canal and traffic with the Indian and Pacific Ocean areas. The fighting had been mostly inconclusive; however, the assignment of General Sir Edmund Allenby as Commander in Chief in June 1917 breathed new air into operations. His early plans for a general offensive to complete the capture of Palestine in March 1918 were stymied by German successes in France that caused most of his British units to be withdrawn from his command and rushed to help stem the German advances in the west. They were replaced by inexperienced Indian Army units, some of which had only recently been formed.³⁷ The purpose of operations before the resumption of a general offensive was therefore to train these new replacements, to give them experience, to build their self-confidence, and to acclimatize them to the terrain and weather of the area. The largest in a continuing series of raids was by the 29th Brigade of the 10th (Irish) Division of the XX British Corps. There was another goal besides testing and training the new troops: it was to reinforce the enemy commander's belief that the main British attack would come up the road going beside the objective (Map 11), whereas the XX Corps commander's actual scheme of maneuver was to attack on the flanks and envelop the concentrated Turkish defenders opposite his center. In line with this goal, two other brigades, the 179th and the 181st of the 60th Division, simultaneously carried out raids east of the Nablus Road. The cumulative effect of these night operations was to make the enemy, both the Turks and their German advisors, believe that a major attack had been beaten off, to reinforce their belief that the main attack would be in the center, and to raise the morale and effectiveness of the new British units while lowering the Turks to the point that whole units were deserting.³⁸

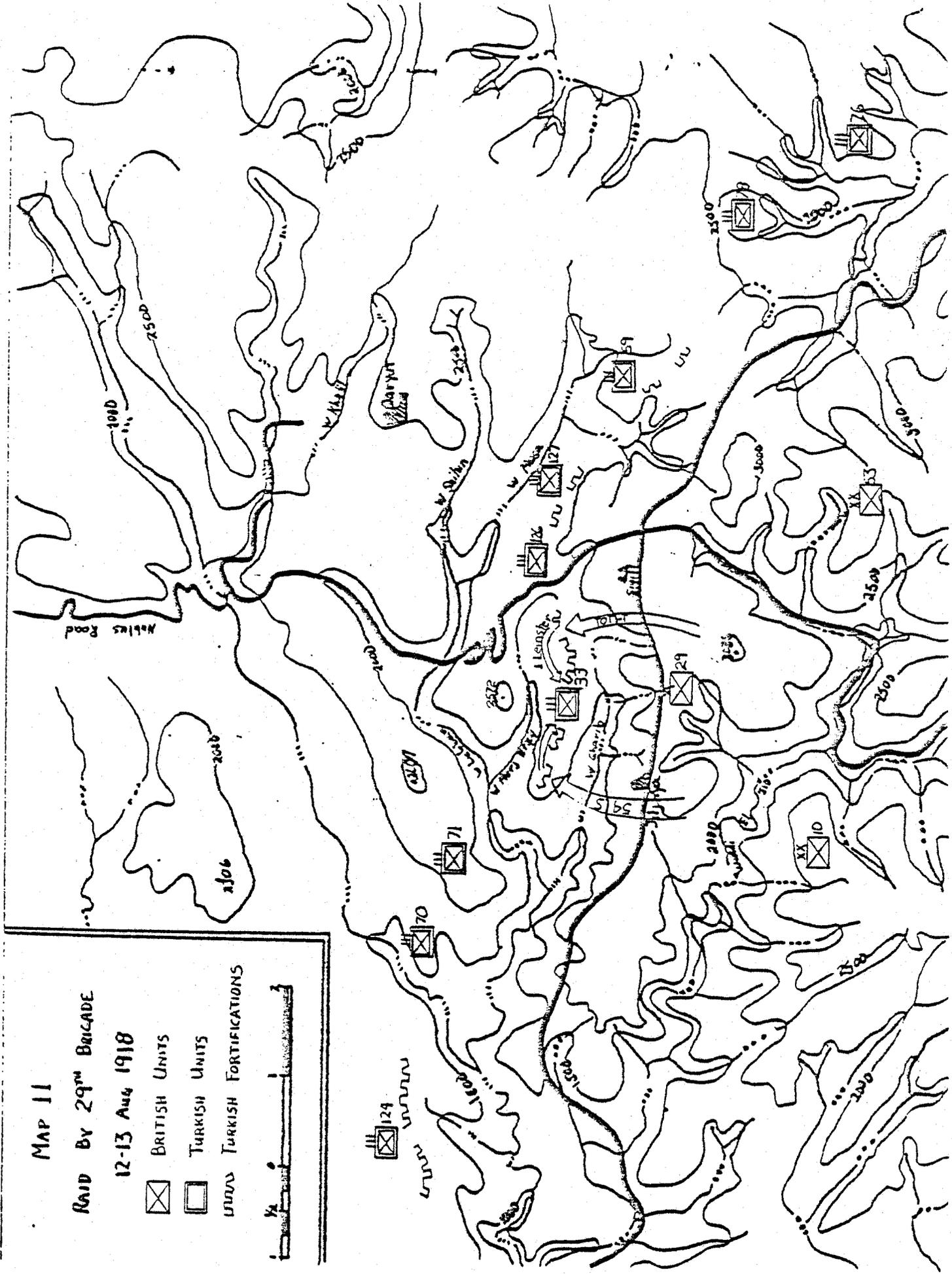
Specific Situation: The objective of the raid was a steep-sided ridge approximately 4,500 yards long, lying 2,000 yards from the British lines across a deep wadi, or ravine. The defenders, here the 33d Regiment of the 11th Division, about 800 strong, occupied one of the few continuous defensive positions the Turks had in this theater, elsewhere being forced to use relatively separated strong points. His defense included 36 machine guns and barbed wire. The 33d was one of the best Turkish formations on the front, having few deserters. The general outline of the raid was provided by the corps commander, General Sir Philip Chetwode, with the specifics and training provided by 10th Division. Since the desired goal was "An unmistakable and inspiring success,"³⁹ the 29th Brigade was pulled out of the line and provided three weeks of special training. The enemies defenses were thoroughly reconnoitered and reproduced as closely as possible on a hill, 20 miles behind British lines, which closely resembled

MAP 11

RAID BY 29th BRIGADE

12-13 Aug 1918

-  BRITISH UNITS
-  TURKISH UNITS
-  TURKISH FORTIFICATIONS



the objective. This was then attacked repeatedly starting in daylight, with further night rehearsals, until every soldier was completely familiar with his role. A plaster model was made of the actual objective for further familiarization. Training included wire cutting and crossing on special ladders designed for this operation. Further reconnaissance patrols determined locations of Turkish headquarters and preplanned artillery fires. On the night of 12 August 1918, the attack was launched.

The Operation: The plan called for two Indian battalions, the 54th Sikhs and the 17101st Grenadiers to cross the wadi and seize the opposite ends of the ridge. They would each be followed by two companies from the only British battalion in the brigade, the 1st Leinster, who would then turn inward and fight their way towards each other. Ideally, they would meet in the center of the objective, but a withdrawal time of 2400 was established whether the objective was overrun or not. The other Indian battalion in the brigade was assigned to guard prisoners, carry wounded, and cover the withdrawal as necessary.

At 2155, the units having moved single file from their defensive positions across steep, rocky hillsides to the assault position, a twenty minute preparation was fired. The deployment is of interest in that white tape, splashes of lime, and boards painted with luminous paint were implaced by patrols to mark the lines of advance. The night and time were chosen so that a moon would aid the advance, but the actual attack would start in total darkness. Special felt soles were fastened to the bottoms of the boots to muffle movement, and bundles of dried grass were used as necessary to further quiet any sounds. As a further precaution, a large caliber artillery round was fired on the Turk's flank positions every 15 seconds to cover any unavoidable noises. Any suspicion this might have raised in the defenders minds was anticipated by commencing these fires several days prior to the raid. Finally, the time required to move to the attack positions was actually determined by patrols moving along the routes followed, prior to the raid.

Once the artillery preparation was complete, the Indian battalions captured their objectives on the flanks as scheduled. The two companies of 1st Leinsters on each flank followed a moving barrage towards the center, which those on the right reached before withdrawal time. The two companies on the left, with more difficult ground and stiff close-quarters fighting to overcome, failed to reach their final objective, but turned back at the designated time for the return. The attack by soldiers well rehearsed for this operation was a total success, coming as it did from the flank and rear as the Turks fired wildly to the front. The withdrawal was completed uneventfully. Bonfires were provided to give the returning troops a goal to guide on, and relays of stretcher bearers moved the wounded to the rear. Final evidence of the thought that went into the planning for this operation is provided by the fact that a shellproof shelter was constructed in an

abandoned village between the lines to protect any wounded who were not behind friendly lines by dawn, and a deception plan of phony gun flashes and flares to attract Turkish fires was initiated during the withdrawal.

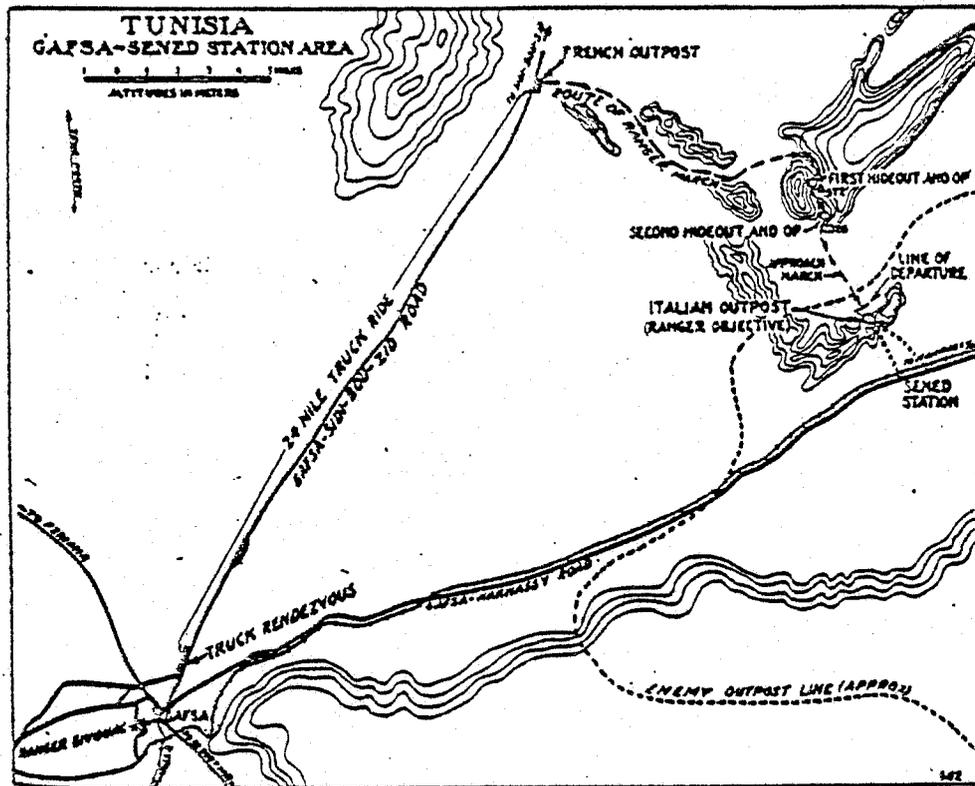
Summary: At a cost of 107 casualties, the 29th Brigade accomplished every mission given it. 239 Turks were captured, along with 14 machine guns and 10 mules. Enemy killed and wounded were estimated at 450. The morale of the Indian troops and the confidence established between them and their leaders was firmed. Five weeks later these same units assaulted the shaken defenders in a great offensive that ended Turkish domination over Palestine forever.

Analysis: This is a classic example of a night operation planned in depth, rehearsed properly, and achieving total success. Although it violated the principle of simplicity, it did so after sufficient training and preparation to allow the rather complex plan to succeed. From the beginning one of the goals of the operation was to foster trust and faith within new units. This was, in essence, a graduation exercise in a cohesion building program. The leaders made no demands the troops were unprepared to give thanks to foresight and common sense. The exercise demonstrated the essential elements of successful night operations: leadership, planning, and training.

MAP 12

RAID BY 1st RANGER BATTALION

12-13 FEBRUARY 1943



Example 6: 1st Ranger Battalion raiding an Italian defensive perimeter at Sened Station, Tunisia, 11-12-13 February 1943.

General Situation: The situation for American forces in central Tunisia was somewhat desperate in early February 1943. The advance into Tunis and the rear of Field Marshal Rommel's Afrika Korps had been stalled by strong German and Italian forces under General von Arnin. The 1st Ranger Battalion under Lieutenant Colonel William O. Darby was assigned to the U.S. II Corps to accomplish several diverse missions. The first was to find out information about the disposition and strength of Axis forces in central Tunisia. The second was to create the impression that strong U.S. forces were present in central Tunisia, although in fact many of these units were being moved to block German thrusts from Tunis and Bizerte to the north. These dual missions were to be accomplished by fast moving night actions to simulate large troop strengths and to capture prisoners to confirm or identify the Axis units present in the area. The Ranger Battalion was uniquely qualified for those actions. For the previous two months it had trained extensively in night operations in anticipation of this eventuality. To this end three raids were proposed by Lieutenant Colonel Darby, of which the first, against an enemy outpost near Sened Station, was the only one to actually be accomplished before events altered plans.

Specific Situation: Following a reconnaissance by the battalion commander, his executive officer, and the three company commanders who would be involved, the plans for the Sened Station raid were tentatively finalized and orders issued. The objective was a cluster of five small hills occupied by an Italian unit of company size, acting as an outpost in front of the principle defensive positions around Sened Station. (Map 12) At least four 47-mm anti-tank guns and twelve machine guns armed the veteran Afrika Korps soldiers who were well dug in. After a thorough briefing, the battalion departed by blacked out truck at 2300 on 11 February from their bivouac at Gafsa to a Free French outpost where they began their foot movement. They were traveling light, only one canteen, one c-ration, one shelter half, and ammunition was carried by each man.

The Operation: Departing the outpost at approximately 0400 on 12 February,⁴⁰ the 200-man force moved quickly across eight miles of flat desert and barren rugged mountains under daylight enemy observation and artillery fire to a camouflaged bivouac about six miles from the Italian outpost. There the raiders were dispersed into hiding places among the rocks below a saddle where an outpost was established to watch the enemy position through the day. Based on this observation and a closer reconnaissance by Lieutenant Colonel Darby, plans were finalized for the attack that night. The force moved after dark to a position on the edge of the plain leading to the enemy and waited for the moon to set, which it did at midnight. As soon as the darkness was complete, the rangers moved out in column to close with their objective. The three companies deployed

silently, using a system of red and green pinpointed flashlights to indicate unit locations to each other in the dark and to assist the assault line in maintaining its alignment.

Since all key leaders had conducted a thorough visual reconnaissance of the objective from their daylight bivouac, everyone was aware of their particular platoon and company boundaries and objectives (Map 13). Moving slowly and silently, the raiders were actually able to reach the Italian position in the center, while the flank companies were about 30 to 50 yards from the enemies initial positions before they were discovered.⁴² Crawling under the excited and aimless fire of the surprised defenders, the assaulting units were able to overrun the entire position, destroy all weapons, and capture 11 enemy soldiers.⁴³ The assault was completed in twenty minutes, followed by a quick reorganization, at which time it was determined that the force would be split. A fast group of the unwounded in each company moved out under the control of the battalion executive officer. They were able to cross the twelve miles to the French outpost in the two hours before the waiting trucks would have to depart without them as dawn approached. The slow group, composed of the wounded and prisoners, with escorts was able to reach the French outpost an hour after daybreak, where it remained until dark. The most seriously wounded and their protecting section hid in the mountains until jeeps could be dispatched to evacuate them, about 1130. That night another darkened convoy brought these rangers back to Gafsa.

Summary: The number of enemy casualties varies with the source, but amounted to about 85 dead, 25 wounded, and 11 prisoners out of an estimated 130 defenders. Ranger casualties amounted to one killed, one seriously wounded, and 14 walking wounded. Most of the casualties were from grenades thrown indiscriminately by the few Italian soldiers who were awake when the attack began, or who managed to wake up in enough time to participate in the defense. The rangers were known among the Italians after this affair as "Black Death"⁴⁴ and their reputation preceded them in subsequent conflicts, making otherwise difficult missions easier as the defending Italians learned who they were facing.

Analysis: In the Ranger's own after-action discussion, they determined that "(1) control, (2) contact, (3) confidence, and (4) invisibility" were the vital elements in the success of a night raid. "Troops trained to maintain contact on the darkest night in all types of terrain will keep together during an operation, and with contact control is simple. Confidence in themselves as individual fighters and in their unit as an unbeatable fighting teams is instilled in combat soldiers by long hours of training and maneuvers more difficult than any situation in actual battle. Invisibility to both the eyes and ears of the enemy is the key to surprise, which demoralizes the enemy and leads to panic in his ranks."⁴⁵ It goes without saying that none of this is possible without strong positive leadership, which shines out in every account of this operation.

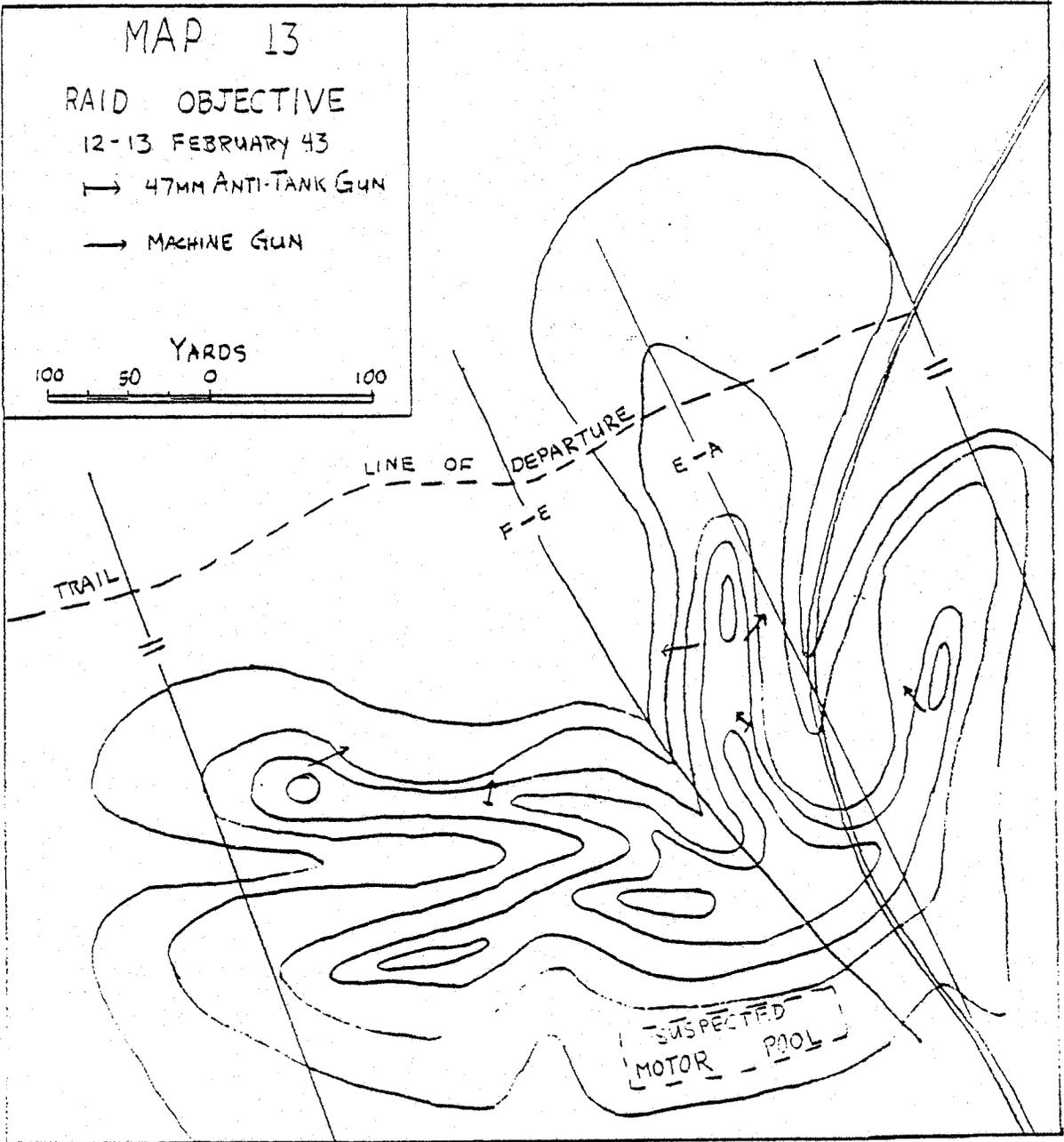
MAP 13

RAID OBJECTIVE

12-13 FEBRUARY 43

→ 47MM ANTI-TANK GUN

→ MACHINE GUN



CONCLUSION

This study has shown that the U.S. Army has not always been a master of the art of fighting at night. It has not had to be because it has entered its wars this century with a superiority in supporting fires (to include airpower) that could substitute for efficiency at night. Operations in the dark (especially offensive ones) are risky, and the penalty for failure is frequently found to be greater in terms of casualties than daylight operations. This is due to the fact that control is more difficult, and units are more likely to break into fragments and lose their combat power at night. As a hasty substitute for true night proficiency, the U.S. Army has tended to substitute technology, in the form of searchlights or artillery illumination, to turn the night into day and allow it to move back to a combat environment more familiar, however fleeting the light might be.

This is not to say that there have not been numerous exceptions. But, they have all been units with strong leaders who understood the risks and advantages of night combat, and who trained their soldiers to minimize the risks and optimize the advantages. The 104th Infantry division is one of the most outstanding examples of a unit using the night to best advantage. It entered combat on 23 October 1944 and fought nearly continuously until the end of the war in Europe. During this period it launched 45 separate major attacks, eleven at night. It also continued the attack 28 times, eleven of these being after dark. This is less than 30% of all its major actions, yet this unit had an enviable reputation for night attacks. The key point is that it was just as capable of daylight operations and used that skill to become expert at operating in the dark. Further, the commanders knew when to use a night attack, and when not to use one.

Another division that early established a reputation for night expertise was the 45th Infantry Division. In his review of the Sicilian Campaign, the division commander said:

This Division employed night attacks to the fullest extent possible. They were universally successful. It was found that whenever the enemy could be kept on the move continually, they were unable to execute demolitions to the fullest extent and emplace mines. It is believed that whenever the enemy employs inferior forces in delaying action a continuous pressure must be exerted. Without question the employment of successive night attacks reduced casualties of this Division to a considerable extent. In many cases the Axis forces had very well prepared positions which if attacked during daytime would have caused considerable delay. It is recommended that troops be trained to operate at night at least 50% of the time, and this method of warfare will obtain dividends commensurate with the effort expended...⁴⁶

Enemies of the United States and other armies facing similar problems (i.e., the Soviets) have always turned to the cover of darkness to give them, if not an advantage, at least a more equal chance against superior firepower. As we look at potential enemies in the world--who range from the Warsaw Pact, who could deprive us of the use of daylight by achieving air superiority and a simultaneous advantage in artillery, to potential low intensity conflicts where the enemy will once again have to use the night because of our firepower superiority--it becomes more evident that night operations will be one major key to success. The U.S. Army must be prepared to match or better its enemy's ability. One way will be through technology, but this is still a fragile support, with dangerous consequences for those who are overly reliant, especially in a high- or mid-intensity conflict where supply lines and the flow of repair parts are subject to interruption. The U.S. Army must train and retain the ability to steal the night from the enemy.

The ingredients for success at night were given in the introduction. The most important of these is unquestionably leadership. To succeed in night operations the senior leadership must be aware of the risks and benefits inherent in them. They must know when to attack at night, and when it is inappropriate. They have to enforce noise and light discipline not only in the front line infantry, but also in the brigade and division rear areas. The junior leadership must be confident in their own ability as well after dark as they are in the daylight, a skill that comes from training.

Even the best combat leaders cannot succeed with soldiers who are unaccustomed to the dark and who lack confidence in themselves and their leaders. The cure for this is training, a commodity in short supply in a combat unit that has been in battle for any extended period. As replacements enter combat units the experience and confidence levels go down, and without a major break in combat to retrain, any unit will become less proficient, especially at complicated actions such as night fighting. The best U.S. night fighting units have been those that had extended periods to train at night. The 1st Ranger Battalion is an example of an American unit that truly became a master at night operations. Most units do not have the time and opportunity available to Lieutenant Colonel Darby. When you reach the other extreme, you have units like the 9th Infantry (Example 4) or the 47th Infantry (Example 2) with no training and no ability. The World War II commander of the 2d Battalion, 179th Infantry, said in his comments about training:

There should be much greater amount of night training of all kinds. Particularly training in night attack problems, and preparation and organization of position at night. Unit commanders and leaders must learn to be able to maintain control over their organizations at night in widely dispersed positions. Proficiency in the organization and plans for alert and assembly for action at night are of great importance. Commanders must organize and teach their men to avoid firing on each other in the darkness. That has happened several times over here. Units must be trained in the technique and tactics of limited objective attacks at night. We actually had one limited objective attack operation involving an advance of 9 miles. This distance was unusual, of course, but we carried it through well because we had had good prior training. I would say the greatest difficulty in night attack is reorganizing in the darkness. I would stress this as the most important part of training for night action. In all operational night exercises, harp on reforming and reorganization after an attack or other action...⁴⁷

Unfortunately, too often in current training only lip service is paid to the necessity of night operations. As Vietnam combat experience becomes less prevalent in the American army, the lessons learned in previous wars becomes of increasing importance. This means that commanders have to give serious attention to learning the lessons of past night combat and realize that, as Major Gorman Smith stated, "An examination of both the theory and the experience of night attacks discloses that by far the largest single factor in the division's ability to attack at night is the state of training of its small units--company, platoon, and squad." The better trained these units are the less they are hampered by the difficulties of control encountered at night and the more readily they can exploit the advantage of night concealment."⁴⁸

Planning is the third leg of successful night combat. U.S. Army doctrine calls for night attacks to be shallow in depth, against well-defined objectives. As noted in the examples of night attacks, this doctrine has an excellent basis in experience. Time must be available for the leaders to reconnoiter their objective, plan their scheme of maneuver, and develop fire-support plans. Where time is not available, planning suffers, and inevitably, the execution of the mission suffers. Only well-trained units can overcome inadequate planning.

Likewise, the plan must be kept simple. Complicated plans allow more room for Clausewitz's friction, or "Murphy's Law" to interfere with success. The 1st Ranger Battalion's plan at Sened Station is an outstanding example of simplicity.

Finally, if all these critical elements are met, the result will be a unit that can achieve surprise vis-a-vis its foes. To quote Smith again, "...it is the surprise which darkness helps achieve, and not the darkness itself which is so large an element of the favorable...shift (in combat power) in favor of the attacker. This surprise usually comes from being able to approach close to the enemy position unobserved, especially if his security measures are lax."⁴⁹ As noted before, surprise leads to the enemy losing control of his forces and, in rapid succession, to his defeat. The U.S. Army can either learn the lesson, pay the cost and train, or accept a self-imposed disadvantage at night. Unfortunately, the next war may not allow the luxury of recovering and relearning these lessons the hard way.

ENDNOTES

1. "Prior to the Leyte and Luzon Campaigns, night operations (in the Pacific Theater of Operations) became practically non-existent because in the dense jungle growth on little known islands, together with the unprecedented lack of maps of any value, night operations, large or small, not only availed nothing of value but resulted in senseless expenditure of trained personnel. On the other hand, the Japanese policy of uncoordinated night attacks by small units against organized positions offered continuous opportunities for the annihilation of such units at little cost to ourselves. Since the Japanese persisted in this policy, our forces abandoned normal night operations for all practical purposes and adopted the policy of waiting for the enemy to expend himself against us." U.S. War Department, United States Army Forces in the Far East, "Night Operations in Pacific Ocean Areas," USAFFE Report Number 279, May 1945, p. 1.

2. This conclusion is supported by the comments of the Germans themselves, who indicated that night came to be regarded as their ally. "During the two world wars, night and other periods of poor visibility, such as fog and snowstorms or rainstorms, gradually came to be considered the ideal time for action. Interference from the air reduced fighting and paralyzed movements in daylight hours, with the result that the space between the front and the most remote corner of the rear areas was often empty and deserted. During the hours of darkness combat and movements resumed with new intensity. After a while the German soldier considered this mole-like existence as normal, but the conclusions that should have been drawn from these undeniable facts in setting up training schedules were completely inadequate." U.S. Department of the Army, Night Combat, Department of the Army Pamphlet Number 20-236 (Washington: June 1953), p. 1.

3. See MAJ Claude R. Sasso, "Soviet Night Operations in World War II," Leavenworth Paper Number 6, Combat Studies Institute, U.S. Army Command and General Staff College, Fort Leavenworth, Kansas 66027.

4. Ibid.

5. U.S. War Department, Army Ground Forces, "Board Report A-114, MTO," Headquarters Army Ground Forces, 3 December 1943, p. 5.

6. Ibid.

7. The eye has six major components. Three of these, the cornea, lens, and iris control the amount of light which enter the eye, and focus it on the retina, which receives the light in its rod and cone cells and converts it to a signal which is collected at the optic disk, then sent along the optic nerve to the brain. The cone cells are used principally for high intensity light, such as daylight. Rod cells are used for low intensity light. Cones are found exclusively at the center of focus of the lens, the fovea. The

peripheral retina farthest from the fovea is almost purely rod cells. At night the rod cells, which receive only shades of gray, produce a chemical called rhodopsin, or visual purple, which enables them to receive low light levels. Cone cells are incapable of producing visual purple, and are therefore blind at low light intensities. The loss of these cells at the focus point of the eye means that the eye must scan, or look to the side of objects in order for them to be seen. This is called off-center vision. Any white light brighter than a full moon immediately destroys the visual purple, which requires 15 to 30 minutes to regenerate itself. Conserving visual purple by closing one or both eyes or wearing red filtered goggles when exposed to a bright light is necessary to avoid temporary blindness.

8. U.S. War Department, Army Ground Forces, "Extracts from Observer's Reports," Headquarters Army Ground Forces, 17 February 1945, p. 3.
9. MAJ Gorman C. Smith, "Division Night Attack Doctrine," MMAS thesis, U.S. Army Command and General Staff College, Fort Leavenworth, Kansas, 1964, p. 53.
10. CPT Royce L. Eaves, "The Operations of the 1st Battalion, 415th Infantry in the Attack on Merken," personal experience of the 81mm Mortar Platoon Leader, staff paper for the Advanced Infantry Officers Class, 1949-50 - on microfilm, AGO Microfilm, Item No. 3540, Reel 3101, Infantry School, Staff Department, Fort Benning, Georgia.
11. Ibid, p. 7.
12. Ibid, p. 8. There is some question as to the actual LD time. Leo A. Hoegh and Howard T. Doyle in their book "Timberwolf Tracks, The History of the 104th Infantry Division, 1942-45," Infantry Journal Press, Washington, 1947, say LD time was 0400. I tend to believe Eaves' account as it is by a participant, and his knowledge of other events is detailed and in agreement with other sources.
13. Hoegh and Doyle, "Timberwolf Tracks," pp. 183-4.
14. Charles B. MacDonald, "The Siegfried Line Campaign," Office of the Chief of Military History, Department of the Army, Washington, DC, 1963, p. 584.
15. Eaves, Operations of the 1st Battalion, p. 18.
16. David E. Gillespie, editor, "History of the 47th Infantry Regiment," no publication location listed, but dated 1946 while the regiment was in Germany, no page numbers.
17. George F. Howe, "Northwest Africa: Seizing the Initiative in the West," Office of the Chief of Military History, Department of the Army, Washington, DC, 1957, pp. 565-6.

18. Gillespie, "History of the 47th Infantry Regiment," Section on El Guettar.
19. Howe, "Northwest Africa," p. 567.
20. Ibid, p. 568.
21. Ibid, p. 567.
22. 9th Infantry Division AAR, 26 Mar-8 Apr 43, dated 25 Aug 43, Annex B (Terrain Study).
23. COL John M. Finn, "Shoestring Ridge," Infantry Journal, September and October 1945. This information derives from Volume LVII, number 3 (September), p. 47. It was called Shoestring Ridge because of the supply situation, not because of any peculiarity of the terrain.
24. Ibid, p. 51.
25. Ibid, p. 52.
26. Finn, "Shoestring Ridge," Volume LVII, number 5, p. 50.
27. 32d Infantry Operations Report, Leyte, p. 22, as quoted in M. Hamlin Cannon, "Leyte: The Return to the Philippines," Office of the Chief of Military History, Department of the Army, Washington, DC, 1954, p. 262.
28. Finn, "Shoestring Ridge," Volume LVII, number 5, pp. 51-52.
29. Eighth Army operated in the western part of Korea and consisted of the 1st Cavalry Division, 2d Infantry Division, 24th Infantry Division, 25th Infantry Division, and the ROK II Corps, operating on the right of the U.S. units. The U.S. X Corps, with the 1st Marine Division and elements of the 7th Infantry Division were operating along the eastern portion of Korea, but were not subordinate to Eighth Army.
30. S.L.A. Marshall, "The River and the Gauntlet," William Morrow & Company, New York, 1953, pp. 19-20.
31. T. R. Fehrenbach, "This Kind of War," The Macmillan Company, New York, 1963, p. 305.
32. An infantry regiment in 1950 consisted of nine rifle companies and three weapons companies lettered sequentially "A" through "L". They were grouped in three battalions, so that 1st Battalion was rifle companies "A", "B", and "C", with weapon Company "D", and a headquarters company. 2d Battalion had "E" through "H", and 3d Battalion, "I" through "L". There was also a

headquarters and a service company (M). Due to a shortage of American soldiers, a proportion of the rifle strength of each company were Korean soldiers known as KATUSA's.

33. The flat area was on the flood plain and barely large enough to hold the two artillery battalions (61st and 503d), and the regimental headquarters and 1st Battalion of the 23d Infantry. The position included six M4 tanks of the 23d Tank Company, attached to the 23d Regiment.

34. The 2d Battalion mustered 28 officers and 750 men on 25 November. By 28 November it was only able to assemble nine officers and 250 men.

35. Fehrenbach, "This Kind of War," pp. 304-308.

36. FM 100-5, "Operations," Headquarters Department of the Army, Washington, DC, 20 August 1982, p. 93.

37. Field Marshal Earl Wavell, "Soldiers and Soldiering," Jonathan Cape, London, 1954, p. 166.

38. CPT Cyril Falls, "Military Operations Egypt and Palestine," part of the official "History of the Great War," His Majesty's Stationary Office, London, 1930, pp. 426-429.

39. Wavell, "Soldiers and Soldiering," p. 167.

40. CPT Leilyn M. Young, "Rangers in a Night Operation," Military Review, July 1944, Volume XXIV, Number 4, p. 64.

41. James A. Altieri, "The Spearheaders," Bobbs-Merrill, Indianapolis, 1960, p. 206.

42. Young, "Rangers in a Night Operation," p. 67.

43. COL William O. Darby, with William H. Baumer, "We Led the Way," Presidio Press, San Rafael, California, 1980, p. 58.

44. Darby and Baumer, "We Led the Way," p. 58.

45. Young, "Rangers in a Night Operation," p. 69.

46. Allied Force Headquarters, Mediterranean Theatre of Operations, Training Memorandum Number 50, "Lessons From the Sicilian Campaign," 20 November 1943, p. 13.

47. Allied Force Headquarters, Mediterranean Theatre of Operations, G-3 Training Section, "Training Notes From the Sicilian Campaign," 25 October 1943, p. 12.

48. Smith, "Division Night Attack Doctrine," pp. 149-150, emphasis in the original.

49. Ibid, p. 110.