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Military Monograph

Advanced officers class, Section A

TITLE: AFTER DARK

SCOPE: Encompasses the following aspects of night operations:

1. Psychological and physical factors of training for operation at night.
2. Reasons to attack at night.
3. Basic principles of attack at night.
4. Combat example edifying the three main points listed above.

41-120

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AFTER DARK

The military of all nations for centuries have studied lessons of past wars as one of the criteria for planning future conflicts. The evolution of scientific, aeronautical, and medical phenomenae has altered the techniques and the complexion of waging wars, but the principle of destroying the enemy's field armies is yet to be refuted. In this paper After Dark, I will treat one of the methods of destruction that can be employed to defeat an enemy. This method, night attack, has not been fully exploited by our army in the past. Now the balance of world manpower demands it. Consideration of the following main points will be the vehicle to guide over discussion:

1. focusing of the psychological and physical aspects of night training.
2. reasons for night attack.
3. principles of night attack.

Initially let's focus our attention on these two quotations.

(1) "The fear of the unknown is always more pernicious than the fear of the known."¹ (2) "The human eye is one of the most important military instruments that the armed forces possess."² The first, fear, is a mental condition, the second, vision, a physical condition. How can the successful analysis of these two statements effect the outcome of battle?

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1. Psychology and The Soldiers, Norman Copeland, p. 95
 2. Psychology for The Fighting Man, National Research Council, p 104

If the mind and the eye are trained together will the outcome of the battle be altered? Man's actions are dictated by the power of his instincts, being controlled or patterned. The basic instincts of security and herd are often powerful in unusual circumstances. The average American citizen soldier who fights our wars is a young man dependent on normalcy, for example light. To deny him the condition of light creates an abnormal condition both mentally and physically. When the unknown surrounds him his actions will reflect the pattered course of his teaching. Consequently, if we are to pursue diligently and thoughtfully our duty to pattern the soldiers training to attain maximum success in battle, we must teach him to fight after dark. In a future conflict we must overcome inferiority in numbers by superiority in the execution of the battle.

An imposing feature of training for night operations evolves from the physical and mental restrictions incumbent with darkness. An examination of several psychological factors influencing a soldier's actions at night will assist in training procedure that will act as an antidote to night fear. The citizen soldier has been reared in an environment that provides vision at night. An electric light removes the unknown from a dark room, the street light the unknown from a dark street, the automobile head lights the unknown from a dark highway. Without this normal light and with the stress of battle night noises, and partially visual objects, fears grow to monumental and distorted proportions. Also lost in the darkness is the feeling of security derived from act-

ually seeing your fellow soldier. The unpatterned and untrained mind under these circumstances is vulnerable to attacks as effective as enemy gun fire. The resulting apprehension, doubt and uncertainty can, in the extreme, cause such mental agitation and excitement, that an act committed by the individual causes failure of the unit mission. Outgrowths of mental illusions and fears reflect themselves in acceptance of imaginary objects as objects of reality, accompanied by foolish mistakes and false reports. Such mistakes and false reports in the presence of the enemy are dangerously expensive. By progressive and intelligent training in night work we increase mental conditioning and decrease mental apprehension.

These psychological factors are greatly exaggerated if the individual is sent out on a patrol outpost alone. The weak points in a soldier's training and makeup are accentuated at night, especially when alone at night. Normally a single soldier should not be dispatched on a night patrol or established as a night outpost.

All psychological factors resulting from night operations, however, are not unfavorable to military operations. The impetus from the natural excitement of a night operation often results in a burst of aggressiveness and spirit not found in an individual at other times. This is especially true of the individual soldier who has been thoroughly briefed and made to realize his advantage over an enemy. This advantage can best be gained in the attack, when physical action and knowledge of the situation become the remedy for fear. We must stress in training the

reduction of the will to resist by an enemy who is suddenly attacked violently. Surprise unbalances the scales of judgment and tips the equilibrium toward fear.

The detailed knowledge of what the soldier is to do is vital to him in a psychological way. The detailed knowledge of how to see how to do it is vital in a physical way. If the eye cannot be focused with the mind, the carefully rehearsed plans of an operation go askew. Night vision employs a distinctly different set of cells and utilizes a different section of the retina than that used in day or light vision. A person may see excellently in the daytime and poorly at night, and conversely. Furthermore night vision is not a constant, but fluctuates with the mental and physical changes resulting from such physiological and psychological mechanisms as fatigue and fear. Natural aptitude combined with thorough training can do much in limiting this fluctuation. Another important factor for small units is the selection of well-trained personnel with a high degree of dark adaptation for special night duties. Night vision test, ANVTT-1, or the standard test used by the Air Force Medical Service are excellent and simple guides for selecting individuals with good night visual acuity. However, all service personnel should be given night vision training as practice greatly improves the capacity and the "know-how" of seeing after dark.

No discussion of the subject of night vision would be complete without mention of the administrative and tactical application of infra-red radiation. This field if assiduously explored holds great possibilities

for the future. At present, any predictions would be of a speculative nature but this author is confident that future developments will prove highly useful to our operations at night.

To separate the link that exists between the mind and the eye at night is impossible. The soldier well trained in night operations is by all odds an improved psychological risk. To separate the link between successful operations at night and success in battle is also impossible. The unit or army well trained in night operations is by all odds an improved military risk. The Russian army is exceptionally well trained and seasoned in night operations. The book, Days and Nights, by Konstantine Simonov depicts repeatedly the successful use of small night attacks to restore battle positions during the seige of Stalingrad. The lack of statements indicating abnormalcy is indictive of the consistency of the use of night attacks in the Russian army. Not only is the small infantry night attack utilized but large scale combined arms assaults at night are made. As a matter of fact, the large scale counter offensive that dislodged the Germans from Stalingrad and ultimately all of Russia started several hours prior to dawn. General George S. Patton, Jr. in War As I Knew It says, "Soldiers must be taught to move and fight at night. This is becoming more and more imperative, and it does not mean to make an approach march at night. It means to conduct lethal operations in the dark."¹ With the liklihood that the American forces of the next

1. War As I Knew It - General George S. Patton Jr. p. 352.

war will be inferior in manpower, this reflection of General Patton's demands more extensive development in training procedures and the categorical adoption of night attack by all ground arms. The margin of difference between success and failure at night is often immeasurably small. The difference lies in the training of the soldier and his leader in bringing about the focusing of the mind and the eye at night, coupled with application of sound tactical principles. This generality is stated to constantly emphasize the necessary coalition between the psychological and the physical, prior to the listing of several recommendations.

Recommendations to improve training for night operations:

A. Testing

1. Selection of personnel by testing.
 - a. Standard Air Force tests, ANVTT-1, others in process of development.
 - b. Outdoor tests.

B. Training

1. Training is establishment of dark adaptation.
 - a. Avoid light or bright flash 30-45 minutes prior to night operation.
2. Training in preservation of dark adaptation.
3. Techniques in observing at night.
 - a. Practice in observing in off-center vision.
 - b. Avoid staring, practice scanning.

- c. Know that closing of one eye prevents loss of night vision in that eye if exposed to light.

C. Application Training

1. Practice in field of contrast and silhouette study of objects.
2. Practice in field of identification by motion.
3. Practice in field of association of objects by sound and partial visibility.
4. Further development of instruments and aids for night work and adequate training for troops in their use.
5. Training and practice in techniques of night silence, night dress, night walking, night movements and formations.

D. Psychological Conditioning

1. Psychologically conditioning personnel by constant training and discipline in night work, and by the acceptance of night operations as an expected method of accomplishing unit missions.

With these psychological and physical considerations that are the inherent characteristics necessary to correlate the focusing of the mind and the eyes, as a background, an understanding of the principles involved in tactical application is in order. What are the reasons for attacking at night?

1. To complete or exploit a success
2. To gain important terrain for further operations

3. To avoid heavy losses which would be incurred by daylight attacks over open terrain.
4. To attract enemy reserves.

Major General William H. H. Morris, Jr. had the following comment to make regarding night attacks after a visit to the Mediterranean Theater in September, 1943: "The outstanding advantages gained from such tactics (night attacks) are

1. Exerts continuous pressure on the enemy.
2. Prevents enemy from laying extensive mine fields in retreat.
3. Enemy evacuates his position much more readily at night than he does during the day, which greatly reduces our casualties.
4. Lends continuity to the attack.

The Germans intensely dislike these night operations. It is most important that our troops receive extensive training for them."¹

As the war progressed other observers and reports verified these comments. The following report from the 33rd Division, dated 24 July 1945 adds credence to our doctrine: "In several instances we have found it practicable and relatively simple to occupy key terrain features at night with small groups, this permitting the remainder of the force to follow during daylight hours covered by the fires of the first group. Such limited attacks at night have paid tremendous dividends."²

1. F1 32 Observer Nato-9-16 September 1943

2. C3-9-Hq. Arm'd School 24 July 1945 U.S.A. 1648-33rd Div.

Again I would like to reiterate that the next war is likely to find the allied forces fighting with a numerical disadvantage. Our most likely enemy has a far greater man power pool than we. It behooves us to reweigh the reasons for night attack in light of this condition and to estimate anew the frequency of its tactical necessity.

Assuming a commander has arrived at the decision that a night attack can best accomplish the assigned task, what are the basic principles established in our Army governing its execution?

A. Simplicity of plan

1. Lack of maneuver or changes in direction
2. Close and simple formations
3. Limited objective

B. Careful preparation

1. Detailed daylight reconnaissance
2. Thorough information to troops of enemy, ground, and plan
3. Methods to maintain direction
4. Clearly distinguishable boundaries and objective.
5. Clear instructions of what to do on objective.
6. Designated meaning of pyrotechnic signals.

C. Secrecy

1. Precise and detailed instructions for maintenance of secrecy prescribed and constantly supervised.

D. Control and cohesion in execution.

1. Identification markings, luminous buttons, white markings,

etc.

2. Detailed directional aids as compass bearing, firing tracers, colored lights, infra-red beams.
3. Definite instructions on opening fire.

E. Surprise

1. Most essential feature of night attack
2. By stealth or shock action
3. Use of patrol preceding main body
4. Avoid giving indication to enemy.

Major General A. C. Gillam, Jr. wrote the following regarding night attack:

"General Patton emphasized the following additional points reference night attacks in general.

1. Night attacks to be simple in plan with detailed methods of timing.
2. Platoon, Company and Battatalon Commanders to control their units by use of different colored flashlights.
3. The use of trace ammunition to indicate flanks and direction line."¹ Again General Patton expressed himself on this subject in his book War As I Knew It. "To do this, (attack at night) previous and very accurate daylight reconnaissance is desirable and limited objective attacks are essential. In addition to the usual reserve following such

1. R4-16 Observer Report by Major General A. C. Gillam Jr.
ETO and Nato 1 August 1943

an attack, a second reserve should be at hand to move up after daylight in case the enemy counter-attacks. "1

To further edify these principles of the night attack, I would like to use as an example the attack of elements of the 20th Armored Infantry Battalion(Reinforced) of the 10th Armored Division on the night 29-30 November 1944 on the western border of Germany.

General Situation November had been a month of mud, rain and sleet. The 10th Armored Division part of General Patton's XX corps, had taken part in it's first major operation, the attack on Metz. All along the line the main German forces had taken refuge behind the Siegfried Line.

Special Situation-The 20th Armored Infantry Battalion, Reinforced, part of CCB, 10th Armored Division in late November was attacking east to reach the Saar River in the vicinity of Merzig. The security outpost line of the Seigfrid had just been reached. In the zone of the 20th Armored Infantry Battalion (reinf) the terrain was wooded and hilly; manueverability reduced greatly by the mud and enemy vehicular obstactles. Steinhombuger Hill was tenaciously held by the ^Germans outposts, and was the key terrain feature between the 20th A.I.B.(Reinf.) and the Saar River. The owner of this owned the approaches to the Saar River.

The 20th A.I.B. (Reinf.) was given the mission of capturing Steinhombuger Hill prepared to advance to Saar via Merzig and blow the remaining bridge over the Saar.

The Battalion commander decided on a night attack for the following reasons:

1. To avoid heavy losses which would be incurred in attacking during daylight.
2. To seize key terrain for further operations.

To evolve the plan of attack and the execution of this plan we may well take our Army's basic principles and step-by-step follow the operation to its successful conclusion.

A. Careful Preparation:

1. A daylight observation post was established in the upstairs floor of Vorl Zollant, a large rural dwelling a few hundred yards from our front lines. Having ample time, night combat patrols went to Hilbringer Wald and into the edge of Silwingen.

2. The company commander with platoon and squad leaders made detailed visual reconnaissance of the zone of advance. Another important reconnaissance made was that of the Battalion Commander and S2 and S3. To plan a night attack against an enemy position a staff officer on Battalion level must see the ground. Reliance on map reconnaissance is stupid.

3. The 20th A.I.B. (Reinf.) issued a written overlay operations order for this attack and in conference, ^{the} Battalion commanding ^{er} officer went over every detail with the company commanders and his platoon leaders. A copy of the order was given to the direct support Artillery Battalion, the 420 Armd Field Artillery Battalion, and to

CCB Hq. The issuance of an operation order is very unusual on Battalion level, but time permitting, it is a good policy for a night attack of an enemy in position defense.

4. The following details were carefully planned and reviewed:

- a. Assembly position—Eastern edge of town of Waldwiese.
(see map # 1)
- b. Line of Departure—front lines of the Battalion on the Eastern edge of Wieser Wald (see map # 1)
- c. Objective—Steinhomburger Hill (both sides of the East-West Road)
- d. Formation— The formation was in four echelons. (see map # 1)
 1. A combat patrol of six men to precede column by ten minutes.
 2. A point
 3. The company in a column of two's until reaching position selected to begin the assault. (see map # 1)
 4. Support tanks to move up one hour before dawn.
(see # B)
- e. Route— The route of advance was selected to avoid passage near known enemy patrol routes and passage through the woods. The route (see map # 1) must be readily distinguishable on the ground. Note in this attack, direction

of the route of advance was changed. This is not desirable but is preferable to going through woods that are outposted.

- f. Identification- Each soldier was given an engineer luminous button that he wore on his back, in addition to a white mark on the back of his helmet.
- g. Organization of the position- The company commander designated platoon positions and the platoon leaders squad positions by drawing sketches. The exact position of each foxhole, of course, cannot be selected but it is important to have the soldier know the relative position of his squad and the prominent terrain features of the area. Knowledge of whether or not he's a flank squad or an interior squad assists materially in control. If heavy casualties cause revision after seizing the objective, the soldier must be informed of his new squad location.
- h. Information to all- Every soldier in the friendly front lines was thoroughly briefed by his platoon leader and his squad leader. Platoon leaders should have squad leaders repeat the instructions to him to assure understanding.

B. Simplicity of Plans.

- 1. Change of direction- After reaching the intended assault position (see map # 1) no envelopment or change of direction was made. Special thought was given as to the

best time and position to enter the Hibringer Wald. Due to the difficulty in control and the necessity for maximum fire-power at the very start of the assault, the woods were not entered until after the assault started, and then at the point closest to the enemy. This proved a very wise decision.

2. Formation- The company was in column of two's until reaching assault position where platoons came abreast.
3. Artillery Support- Artillery support was carefully studied with the artillery Battalion commander. Numbered concentrations were made and disseminated to the attacking company. Two forward observers with radio's accompanied the attacking company. Three points of interest here:
 - a. Likely avenues of enemy retreat should be selected so as to pound him after fires are lifted for the assault.
 - b. Likely avenues of enemy counterattack should be selected so as to intercept his intentions.
 - c. Remember that forward observers can use little if any light to check maps with concentration numbers. Have several key points designated so the Forward Observers who can't see their maps can adjust fire from these key points. The 20th A.I.B. did this successfully.

C. Control and Cohesion

1. Communications

- a. Radio silence was imperative until the assault. The

company commander didn't use his radio until rifle fire could be heard while he was transmitting.

- b. The Battalion wire team followed the tail of the column, laying wire as they went. Remember here that when laying wire in armored units keep off the roads and shoulders. Tank tracks chew wire unmercifully and tank antennae break overhead lines. Two good points that this battalion did:
 1. Patrolled line to prevent cutting and interception by the enemy.
 2. Communications sergeant in charge of wire team was carefully briefed on entire plan.
2. Deliniation fires- The company commander set up a machine gun on the right flank and fired "boundary line" with tracers after the assault started. This served two purposes:
 - a. Kept soldiers oriented as to direction of assault.
 - b. Line of fire was placed on a likely enemy avenue of withdrawal.
3. Pyrotechnics- No control flares were used in this operation but they are often very useful for control measures.
4. General comments on control:
 - a. Selection of a leader with a high degree of leadership ability is important. The most carefully laid plans can go askew at night.

- b. Allowed 20-30 minutes in assembly area in complete darkness before beginning march to permit darkness adaption.
- c. Strict orders not to fire until the order was given by the company commander. This order must be thoroughly understood and adhered to.

5. Secrecy and Surprise

- a. The artillery did not suddenly increase its fires on the area to be attacked. However, a gradual increase of harassing fires for 24 hours prior to the attack permitted a good volume of fire on the enemy during the march from Waldwiese to the assault position.
- b. Each soldier was carefully checked to insure an absence of equipment that would rattle and divulge intentions prematurely.
- c. Tanks (9) were not used in the assault but were led forward into firing positions one hour before daylight to support the company in the expected daylight counter-attack. Tanks were placed in hull defilade.

This attack by Company B. 20th Armed Infantry Battalion (Reinf.) was highly successful. The enemy was completely surprised as indicated

by the comparative losses:

20th Armd Inf. Bn. (Reinf)	Germans
Personnel losses	Personnel losses
1 EM Slightly wounded	KIA- approximately 135
Material losses	Captured- 1 officer
none	2 EM
	Material losses
	5 howitzer (approx. 75mm)
	3 AT guns, towed "
	1 88mm gun, towed
	70 rifles or small arms
	1 Mark V tank
	2 Artillery horses

In summary of this operation the following comment by the very capable company commander is worthy of note, "Even with careful and detail plans attacking at night is tricky because the men are unpredictable. It would take a lot of practice to get rid of that."¹

In essence this statement summarizes this entire paper. To operate after dark we must train, develop, and study until the focusing of the mind and eye can be accomplished. Inexorably we must attack at night, not only with small infantry units, but with full scaled combined arms teams. Tanks, infantry, and artillery teams that will create surprise

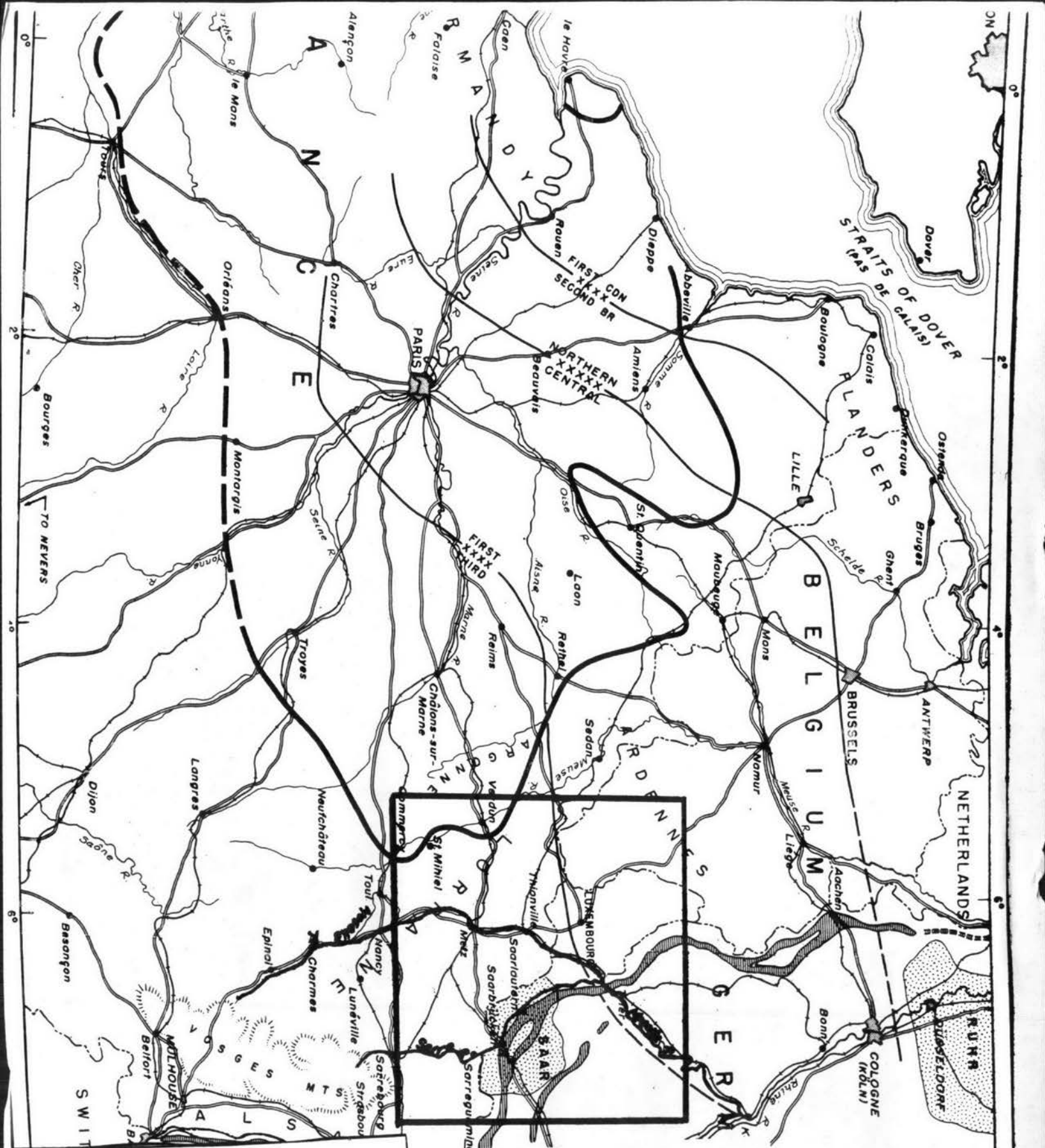
1. Captain Omar R. Billett, Company Commander B Co.

and consternation by shock action are going to be demanded.

We must accept this herculean challenge if we are to sensibly utilize our manpower in the next war. The time for acceptance is now.

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WESTERN FRONT

1 September 1944

-  ALLIED FRONT LINE
-  WEST WALL
-  INDUSTRIAL AREAS
-  TRUNK RAILROADS
-  MAIN HIGHWAYS








MAP 1

10TH AD AREA OF OPERATIONS
(INSET)



MAP 2

**XX CORPS
ADVANCE TO THE SAAR RIVER**
25 November - 2 December 1944

-  FRONT LINE, EVENING 24 NOVEMBER
-  FORWARD POSITIONS, EVENING 2 DECEMBER
-  MAGINOT LINE
-  SAAR HEIGHTS POSITION
-  WEST WALL

ELEVATIONS IN METERS

