CHAPTER 8

AUXILIARY OPERATIONS

Section I. INTRODUCTION

8101. GENERAL

Auxiliary operations are combat-related or assist the efficient conduct of offensive or defensive combat operations discussed elsewhere in this manual. Some of the operations discussed are passive in themselves but are conducted concomitant with combat operations. Others are preludes to combat or are its aftermath.

8102. SCOPE

a. The purpose of this chapter is to provide guidance in the planning and conduct of certain additional activities that may be essential to success of rifle company operations in a combat zone. They are grouped in this chapter only for convenience of organization and not as matters of less importance to the combat commander.

b. This chapter includes a discussion of the following:

(1) Relief operations.
(2) Reconnaissance in force.
(3) Retrograde operations.
(4) Mine warfare.
(5) Nuclear, biological, and chemical defense.
(6) Bivouacs.

(7) Special operations are not discussed in this manual. Refer to FMFM 8-1, Special Operations, for detailed information on these subjects.
Section II. RELIEF OPERATIONS

8201. GENERAL

A. Material presented in this section agrees with applicable portions of STANAG 2082. A relief operation is the replacement of one unit by another. A relief may be effected as part of the tactical plan, to ensure that the initiative is maintained, or to conserve the strength and effectiveness of the relieved unit. The rifle company may participate in a relief as a unit or it may effect reliefs within the company when the reserve platoon relieves another rifle platoon. Relief operations consist of two types, relief in place and passage of lines.

b. Certain basic considerations are common to all types of reliefs. The following are required:

(1) Preparation of detailed plans and their close coordination between all echelons of the relieving and relieved units. The incoming unit becomes thoroughly familiar with existing plans. Liaison personnel are exchanged.

(2) The time or circumstances under which the relieving commander assumes responsibility for the mission of the unit being relieved is established precisely by higher authority.

(3) Commanders of relieving units are afforded the opportunity for thorough reconnaissance. Reconnaissance should include inspection of existing defenses, relief routes, entrucking, detrucking, and turnaround points, and command and observation installations.

(4) Arrangements are made for the control of units moving into and out of the area.

(a) Routes to be used and priority of their use.

(b) Responsibility for traffic control.

(c) Location of entrucking, detrucking, and turnaround points.

(d) Guides.

(5) The unit being relieved transfers to the relieving unit all information and intelligence concerning the enemy and the area of operations. Any essential element of information required by the relieving unit is obtained by the unit being relieved.

(6) All fire support requested and delivered in the area is controlled through the commander responsible for the area.

(7) A written report of the transfer of responsibility for a minefield is prepared and signed by both the relieved and relieving unit commanders. It includes a certification that the relieving unit commander has been informed of all mines within his area and that he assumes responsibility for them. The report is forwarded to the first common superior of the relieved and relieving units.
8202. RELIEF IN PLACE

a. General.--A combat operation in which, by direction of higher authority, all or part of a unit is replaced in a combat area by the incoming unit. The responsibilities of the replaced elements for the combat mission and the assigned zone of operations are transferred to the incoming unit. The incoming unit continues the operation as ordered.

(1) Secrecy is essential in preparing for and conducting a relief. Darkness and reduced visibility help to preserve secrecy; therefore, reliefs are made more frequently at night than during daylight. The relief is conducted as rapidly as possible, consistent with secrecy and control.

(2) During a relief, units are particularly vulnerable to enemy fires. To avoid a concentration of troops, platoons may be relieved one at a time unless a particular situation requires all company elements to be relieved at once.

b. Planning the Relief.--Plans are as detailed and complete as time permits and include the considerations discussed below:

(1) Preceding the relief, the incoming company commander and platoon commanders conduct a daylight reconnaissance of the area, routes, and locations at which guides will be provided to incoming units. They familiarize themselves with defensive dispositions and plans, the terrain, and the enemy situation. The outgoing company commander makes necessary plans for conducting his part of the relief. He normally remains with his unit; therefore, he designates representatives to reconnoiter the outgoing route, guide locations, and the new area to be occupied, as appropriate.

(2) The commander of the incoming company and his platoon commanders take liaison personnel forward with them on their reconnaissance and arrange to leave them on the positions to be occupied. The liaison personnel keep informed of all changes occurring after the reconnaissance. When practicable, liaison personnel from the outgoing unit remain on the position long enough to further orient the newly committed unit commanders.

(3) Commanders of the incoming and outgoing units arrange for the mutual exchange of weapons which cannot be easily moved or whose removal would disrupt the effective delivery of fires, based upon the authority included in the relief order of the battalion commander. Outgoing units normally leave excess ammunition, field fortification material, wire lines, range cards, and minefield records on position. In the exchange of crew-served weapons, three possibilities or methods are presented and require careful analysis to determine which should be used:

   (a) Retention of weapons by both units.

   (b) Mutual exchange of all weapons.

   (c) Partial exchange of weapons (baseplates, tripods, etc.).

(4) To simplify control and reduce the number of guides, the incoming rifle company commander normally attaches weapons crews to the rifle platoons in whose areas their positions are planned. The outgoing
rifle company commander usually does the same. Attachments during the relief are generally made for the movement only.

(5) The guides reconnoiter and mark relief routes in advance. The incoming and outgoing companies use different routes to facilitate control and dispersion. The activities of the guides are supervised to ensure efficiency and avoid unnecessary delays. An incoming company is usually guided by its own personnel to the rear of the battle area of the outgoing company. From this point forward it is guided by personnel of the outgoing company. Movement should be continuous even when changing guides. Personnel of the outgoing company guide their units during the entire movement to the rear.

(6) Normal activities are simulated as much as practicable. Local security elements are normally maintained by the outgoing unit and are usually the last elements of that unit to be relieved. The relief is not mentioned in the clear over electrical means of communications. The size and activities of reconnaissance parties are limited, and the movement of vehicles is restricted. Light and noise discipline is enforced.

(7) The relief order follows the sequence of the standard operation order and includes the following:

(a) The times for the relief to begin and end.
(b) The time or condition for exchanging responsibility for the area.
(c) Routes.
(d) Attachments.
(e) March formations.
(f) The designation and location of crew-served weapons, equipment, and supplies.
(g) Security measures.
(h) Action to be taken in the event of hostile action during relief.
(i) The requirement for periodic reports to be submitted by subordinate leaders during the conduct of the relief.

Conduct of the Relief.—The relief is effected as follows:

(1) In time for the prescribed relief, the incoming company moves forward from the company release point. Guides lead the platoons from the platoon release point to their squad release points where other guides lead the squads to their positions. The incoming and outgoing squad leaders then relieve a fire team at a time until the relief is completed. Enough time is allowed for each man of the incoming squad to be thoroughly oriented by the man he is relieving.

(2) As each squad is relieved and the squad leader has been relieved of responsibility for the position, the squad moves directly from its assembly area to the platoon assembly area. When the platoon commander
is relieved of responsibility for his defense area, he joins his platoon and moves it to the company assembly area without further delay. When the company commander is relieved of responsibility for the company area, he rejoins his company. Throughout the conduct of the relief, commanders at all levels are responsible for the dispersion and security of their units.

d. Passage of Command.--The outgoing unit commander is responsible for the defense of his assigned sector until command passage. The moment when command is to pass is determined by mutual agreement between the two unit commanders unless directed by higher headquarters. It normally occurs when subordinate commanders have assumed responsibility for their sectors and the incoming unit commander has sufficient communication facilities in operation to exercise control over his entire sector.

8203. PASSAGE OF LINES

a. General.--In a passage of lines, an incoming unit attacks through and/or around a unit which is in contact with the enemy. Elements of the unit passed through remain in position and provide support to the attacking unit until their fires have been masked. A passage of lines may be conducted to:

(1) Maintain the momentum of an attack.

(2) Change the direction of attack.

(3) Exploit an enemy weakness by an attack with the reserve.

b. Areas of Passage.--When possible, the areas selected for the actual passage of lines should be the unoccupied areas between elements of the unit in position or on its flanks. This procedure reduces confusion and facilitates control by lessening the intermingling of the personnel of both units. Additionally, it reduces the vulnerability to enemy fires which exist in areas of high troop density. Movement from the assembly area through the area of passage and into the attack is continuous. Attack positions are not used.

c. Planning Procedures.--The commander of the unit to execute the passage of lines makes early contact with the commander of the unit in position to coordinate, as a minimum, the following details:

(1) Exchange of intelligence.

(2) Exchange of tactical plans to include fire support and communication plans.

(3) Arrangements for detailed reconnaissance by elements of the attacking unit, or limited reconnaissance when time is a critical factor.

(4) Measures for security of both units during the passage.

(5) Selection of areas and routes of passage.

(6) Provisions for guides for each squad size unit from the unit in position if the tactical situation permits.

(7) Establishment of priorities for the use of routes and provisions for movement control.
(8) Extent, type, and control measures for fire support to be provided by the unit in position.

(9) Extent of logistic support to be provided by the unit being passed through and procedures for continued support subsequent to the attack. This support includes the use of areas and facilities and the measures for the evacuation of casualties and prisoners of war.

c. Passage of Command.--The commander executing the passage assumes responsibility for the zone of action at a time mutually agreed upon with the commander of the unit in position, unless the time has been specified by higher echelon. When responsibility is transferred prior to the attack, the unit making the passage controls the elements of the unit in position that are in contact with the enemy at the time of transfer.
Section III. RECONNAISSANCE IN FORCE

8301. GENERAL

The reconnaissance in force is a limited objective operation conducted to discover and test the enemy’s dispositions and strengths or to develop other intelligence. It is essentially an attack designed to produce enemy reaction and disclose his positions and strengths. The rifle company participates as part of the battalion when the battalion comprises the reconnaissance force of a higher headquarters. A suitably reinforced rifle company may conduct the reconnaissance in force for the battalion or higher headquarters.

8302. PLANNING

a. The reconnaissance in force is employed to develop enemy information rapidly. The commander, in considering the decision to reconnoiter in force, weighs the urgency of the additional information sought against the efficiency and speed of other collecting agencies. Reconnaissance in force may prematurely divulge the contemplated plan of action or risk a general engagement under unfavorable conditions. It is seldom justified when the loss of the reconnaissance force would seriously hamper subsequent operations. For this reason, the rifle company reconnoiters in force only when authorized by higher echelons.

b. Reconnaissance in force may be planned as a limited objective attack to seize specific terrain objectives, or it may be a phased advance along an axis to successively probe a series of terrain features.

c. The reconnoitering force is of sufficient size to cause the enemy to react and thereby disclose his locations, dispositions, strengths, planned fires, and planned use of local reserves. Once the enemy makes the disclosures intended by the commander ordering the reconnaissance, the reconnoitering force executes a preplanned withdrawal to break contact with the enemy. Planning for the conduct of a reconnaissance in force is very similar to the planning involved in daylight attack or mechanized attack. Fires are planned to assist the withdrawal. The withdrawal is discussed in section IV of this chapter.

8303. CONDUCT

The reconnaissance in force is conducted in a manner similar to a dismounted attack or a mechanized attack, depending upon its depth. In the dismounted reconnaissance, the rifle company attacks to seize designated terrain objectives as in any other daylight attack. In the mechanized reconnaissance, a mechanized rifle company, supported by tanks, advances on an assigned axis of advance and attacks a series of deep objectives. Restrictions are normally placed on the reconnaissance commander to avoid decisive engagement. The commander ordering the reconnaissance is prepared to exploit success or to assist in extricating the reconnaissance force if it becomes heavily engaged. On order of the higher commander, the reconnaissance force conducts a withdrawal or remains in contact and awaits relief or a new mission.
Section IV. RETROGRADE OPERATIONS

8401. GENERAL

A retrograde operation is any movement of a command to the rear or away from the enemy. It may be forced by the enemy or it may be made voluntarily. Such movements are classified as withdrawals, retirements, or delaying actions. Since any retrograde operation is dependent upon the situation and plan of action involving the force as a whole, proper execution is carried out in accordance with plans and orders of higher echelons. The withdrawal of platoons and companies can, therefore, be accomplished in the manner prescribed by orders of the battalion. These orders may be fragmentary and may be issued by staff officers in the name of the commander when there is not adequate time for detailed planning. The movement may be made by foot, vehicle, helicopter, or a combination of these means.

a. Types.—Retrograde operations are classified by three basic types:

1. Withdrawal action in which all or part of a force is disengaged from the enemy to initiate other action.

2. Delaying action in which a force trades space for time while inflicting maximum punishment on the enemy without becoming decisively engaged.

3. Retirement in which a force avoids combat under existing conditions by conducting an orderly withdrawal according to its own plan and without pressure by enemy forces.

b. Purpose.—Retrograde movements are conducted to achieve one or more of the following purposes:

1. Draw the enemy into an unfavorable situation.

2. Permit the use of a force elsewhere.

3. Avoid combat under unfavorable conditions.

4. Gain time without fighting a decisive engagement.

5. Disengage from combat.

6. Avoid destruction by a superior enemy force.

C. Basic Considerations.—The commander ordering the retrograde considers the following:

1. Terrain must be exploited to the maximum. Good observation and fields of fire are sought to permit engaging the enemy at long ranges. Maximum use is made of concealment and cover. Natural obstacles are supplemented with minefields and other artificial obstacles to strengthen defenses, protect exposed flanks, and delay the enemy. Emphasis is placed on denying avenues of approach and key terrain features to the
enemy. Efforts are made to channelize the enemy and force him to mass so he can be destroyed by fires.

(2) Demolitions and obstacles are employed to the maximum extent practicable in order to delay and disorganize the enemy advance. In planning use of demolitions, guidance is provided concerning the time or conditions under which demolitions are fired. A demolition firing party is designated and, when appropriate, guards are provided to prevent premature firing or seizure by enemy infiltrators. Care is exercised to ensure that demolitions do not hamper future operations in the area.

(3) Because retrograde operations are usually more difficult to control than other operations, plans and orders are in greater detail. The responsibility for executing the plans is often decentralized. As the course of action cannot be predicted with accuracy, plans are flexible. Alternate plans are prepared as time permits. Leaders at all echelons must be thoroughly familiar with the concept of the operation so they can make sound decisions if they lose contact with higher commanders. Retention of the initiative is important. Close combat is avoided unless required to accomplish the mission.

(4) Ground and air transportation is used, when possible, to move units rapidly.Detachments left in contact and covering forces normally have transportation priority. Special measures are needed to control traffic at critical points.

(5) Plans are made to ensure that civilian refugees do not hinder the operation by blocking withdrawal routes. Higher headquarters normally help in planning for the handling of refugees. Military material that cannot be evacuated is destroyed.

(6) Close cooperation and coordination are required when a withdrawing force passes through a friendly unit. Plans include measures for mutual recognition, routes to be used, points of passage, responsibility for zones, and priority or routes in the rear. The withdrawing unit passes through as quickly as possible to reduce the period of concentration. The withdrawing unit commander is responsible for notifying the unit in position when the last withdrawing element has passed.

(7) Security is obtained in retrograde operations through passive and active measures, including:

(a) Maintaining normal radio patterns.
(b) Providing front, flank, and rear security for withdrawing units.
(c) Maintaining normal supporting fires and patrols.
(d) Displacing during periods or conditions of reduced visibility.

(8) Morale considerations take on added importance during retrograde operations. Aggressive spirit is retained and full advantage taken of all opportunities for offensive action. Forceful leadership is emphasized in order to suppress rumors, keep men informed, and to maintain strict discipline and control.
8402. WITHDRAWAL ACTION

a. General

(1) In a withdrawal action, the company (or elements thereof) disengages from combat in order to position itself for employment elsewhere. The company may participate in a withdrawal as part of a larger force, on its own, or direct the withdrawal of certain of its subordinate platoons.

(2) Withdrawals are classified as either withdrawals under enemy pressure or withdrawals without enemy pressure. Withdrawals without enemy pressure are favored over withdrawals under enemy pressure as they provide more freedom of action, facilitate deception, and reduce the effectiveness of enemy observation and fires. In either type, contact is maintained with the enemy to deceive the enemy, to provide security, and to prevent a rapid enemy advance. Units lightly engaged may be withdrawn by helicopters.

(3) The commander ordering a withdrawal designates the location to which troops move and the action to be taken after the withdrawal. Although withdrawals are normally conducted in a direction generally perpendicular to the line of contact, on occasions, a limited lateral movement may be considered.

(4) During the withdrawal, limited objective attacks or counterattacks can be conducted to facilitate disengagement and keep the enemy off balance.

b. Planning for a Withdrawal

(1) Upon receipt of an order to execute a withdrawal, the commander follows the normal sequence of planning. The plan of withdrawal includes a scheme of maneuver and a plan of fire support. Both are developed concurrently and are closely integrated. In addition to the essential details of security, logistic support, and communications, it also includes all or most of the following:

(a) New location of rear positions or assembly areas.
(b) Sectors of withdrawals and/or routes of withdrawal for subordinate units.
(c) Time of withdrawal and sequence of withdrawal of all subordinate units. If the exact time is not known, planning is based on H-hour.
(d) Composition and mission of detachments left in contact (DLIC).
(e) Location and composition of ambush.
(f) Planned employment of supporting fires.
(g) Tactical cover and deception measures.
(h) Designation of control measures for coordination; i.e., phase lines, checkpoints, initial points, release points, rallying points.
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(i) Instructions for the movement of logistic installations to the rear.

(j) Evacuation of casualties.

(k) Provisions for evacuation and/or destruction of specific supplies and equipment.

(l) Traffic control measures and instructions relative to priority of movement.

(m) Alternate plans.

(n) Preparation of limited attack or counterattack plans to aid in disengagement of heavily engaged units.

(2) Planning for the withdrawal should allow sufficient time for subordinate commanders to conduct daylight reconnaissance or routes, terrain, and new positions.

C. Withdrawal Without Enemy Pressure

(1) Concept.--The withdrawal without enemy pressure is executed with all possible stealth. It is conducted during periods of reduced visibility, natural or artificial, with maximum use of deception measures to deceive the enemy as to our intent. Upon execution, the main body of forward committed units withdraws to the rear, under the cover of the detachments left in contact. They simulate the normal activities of the unit by their fire, patrolling, and other deceptive means. In preparation for a withdrawal without enemy pressure, the battalion commander may prescribe special tactical measures such as limited objective attacks and raids to confuse and disrupt the enemy. Figure 75 is a schematic diagram of a withdrawal without enemy pressure.

(2) Planning

(a) When the company commander receives the battalion order, he issues a warning order immediately and starts his planning in accordance with the troop leading steps. He makes maximum use of available daylight for reconnaissance.

(b) The leaders of the company frequently cannot reconnoiter the new position personally. Since the company executive officer will be employed to command the detachments left in contact, the company commander normally directs the weapons platoon commander to command a reconnaissance detail for the new area. This detail consists of at least one representative from each rifle platoon, usually the platoon guide or platoon sergeant. Based on guidance from the company commander, the weapons platoon commander selects platoon defense areas and weapons positions and makes appropriate plans pertaining to the organization of the new position. The rifle platoon representatives prepare plans for the organization of their new platoon defense areas.

(c) The company commander may designate platoon assembly areas for the withdrawal and platoon routes to the company assembly area. Platoon assembly areas are normally immediately in rear of each platoon position. The company commander designates a portion of the company
assembly area for each platoon. He specifies security measures to be taken in the company assembly area.

d) The platoon commander designates squad assembly areas and routes to the platoon assembly area.

e) Routes and assembly areas may be marked for ease of identification at night, if it can be done without compromising secrecy.

f) To facilitate control during the withdrawal, weapons platoon elements are normally attached to the rifle platoon in whose area they are located. Attachments are normally effective only for the withdrawal.

(3) Detachments Left in Contact

g) The detachments left in contact protect the withdrawal of the main body by deception and resistance. The strength of the detachments usually does not exceed one-third of the company's rifle strength,
plus about one-half of the weapons platoon. Normally, one rifle squad is left in each frontline platoon area. As a platoon withdraws, the squad left in place adjusts positions as necessary to cover the most dangerous enemy approaches into the platoon defense area and provides close-in protection for weapons platoon elements. A squad from the reserve platoon may patrol the company rear area or block a dangerous approach into the flank or rear.

(b) The crew-served weapons remaining in the area of the forward rifle company are attached to the detachments left in contact for their protection and the protection of the withdrawing main body and to provide normal fires to deceive the enemy.

(c) Tanks and Dragons may be withdrawn, under battalion control, before the main body withdraws. The battalion commander, as an alternative, may require that they remain with the detachments left in contact if there is a definite threat of enemy armor, or if deception is jeopardized by moving them. Tanks and Dragons remaining with the detachments left in contact are normally attached thereto and withdraw immediately before or at the same time as other elements of the detachments.

(d) A rifle squad leader commands each platoon detachment. Control of the detachments left in contact is assumed by the executive officer at a specified time or on order from the company commander. Similarly, the detachments from the entire battalion are commanded by an officer designated by the battalion commander. He assumes control as designated in the battalion operation order.

(4) Conduct

(a) The rearward movement of all rifle company elements, less the detachments left in contact, begins simultaneously at the designated time. Fire teams move to squad assembly areas, squads move to platoon assembly areas, and platoons move to the company assembly area. Column formations are normally used for ease of control. The movement is made quietly and rapidly, consistent with the battalion plan and the reconnaissance made by platoon commanders, each platoon may be sent immediately to the rear as it arrives at the company assembly area. Sometimes the entire main body of the company may be assembled before any element is sent to the rear, although such halts are avoided if possible. Every effort is made to maintain continuous movement.

(b) The detachments left in contact cover the company's withdrawal. The company commander provides additional close-in security with small detachments to the front and rear of the main body and elements to block routes into the flank. The main body normally maintains radio listening silence. It may use wire lines along the route for communications with the battalion commander.

(c) At the specified time or on order, the detachments left in contact withdraw simultaneously. Squads normally move directly to the company assembly area where all are assembled. Before withdrawing, the detachments spoil wire lines by removing sections of the wire. The company detachments left in contact designate small groups to provide security for the movement from the assembly area to the rear. The time of withdrawal generally is prescribed by the higher commander. This should permit the detachments left in contact to join the main force prior to daylight.
d. Withdrawal Under Enemy Pressure

(1) Concept.--A withdrawal under enemy pressure is avoided whenever possible. If such a withdrawal is required, and the company is on the FEMB, a covering force is used to provide security for the withdrawing elements. Forward units withdraw intact and detachments are not left to cover the withdrawal. Success or the withdrawal under enemy pressure depends, in great part, upon at least temporary local air superiority and effective employment of covering forces.

(2) Planning

(a) It is desirable for all leaders to reconnoiter withdrawal routes, sectors, and subsequent positions, but time normally permits only limited reconnaissance. Reconnaissance parties may be used to reconnoiter successive positions. The company commander issues a fragmentary warning order as soon as possible to facilitate subordinate concurrent planning. Fragmentary orders are issued as plans are formulated.

(b) The company commander assigns each frontline platoon a sector, assembly area, and general route of withdrawal so he can coordinate and control their movement. The sectors of withdrawal for frontline platoons extend as far to the rear as it is anticipated the platoons will be required to move deployed for combat. Usually, this is no farther than the location of the company covering force, but it may be farther for platoons whose withdrawal cannot be covered by this force.

(c) The assembly areas are normally located in defilade to the rear of the company covering force. When the withdrawal of a frontline platoon cannot be covered by the company covering force, it may be necessary to locate the assembly area for that platoon to the rear of the battalion covering force. The assembly area for the company covering force is normally the company assembly area.

(d) Routes are designated from the platoon assembly areas to the company assembly area or a subsequent position, as appropriate. The routes pass around the flanks to the rear and offer as much concealment and cover as possible, consistent with the speed of the movement and the battalion plan.

(e) The covering force may have to be split so that elements are located where they can best cover the withdrawals of the frontline platoons. When the covering force is too far to the rear or flank to cover the withdrawal of the company covering force, the company commander may have the withdrawing rifle platoons occupy successive covering positions. Company organic weapons are attached to the platoons in whose areas they are located.

(3) Conduct

(a) Depending upon the situation, the commander may order all forward units to withdraw at the same time, or he may order the least engaged forward units to withdraw first. The decision whether to withdraw
the most heavily or least heavily engaged unit first is a difficult one. To withdraw the most heavily engaged units first may result in the loss of all or part of the most heavily engaged units. The decision must ultimately be based on determining which plan best contributes to the overall accomplishment of the mission and which best preserves unit integrity. Supporting fires and smoke used and a limited objective attack may be executed to extricate heavily engaged units.

(b) The company withdraws on order. If elements of the company are heavily engaged, the company commander usually orders the least engaged frontline platoons to withdraw first. If enemy pressure is about equal along the front, he may order all frontline platoons to withdraw at the same time by using fire and maneuver.

(c) Control of the platoon at all times is essential. The enemy situation dictates which of the tentative rallying points is used. The platoon sergeant may withdraw with or ahead of the initial elements of the platoon so that he can supervise the reestablishment of control of the platoon elements at the rallying point or can supervise the occupation of a subsequent position. Withdrawing elements pause at the rallying point only long enough to reestablish control. When the platoon withdraws using fire and maneuver, the position is thinned out gradually. Remaining automatic weapons are usually withdrawn last after other elements are far enough to the rear to be protected from enemy direct fire. Withdrawing units do not mask the fires of covering forces to the rear. Platoons assemble in platoon assembly areas and move immediately to the company assembly area, in rear of the battalion covering force.

Helicopterborne Withdrawal.--A withdrawal by helicopter is conducted much in the same manner as the withdrawals described above. However, additional assembly areas and helicopter loading areas are designated. As units assemble in the rear under the protection of the covering force, combat outpost, or detachments left in contact, they embark rapidly aboard helicopters. When units become helicopterborne, the remainder of their movement is actually conducted as a retirement rather than a withdrawal.

8403. DELAYING ACTIONS

a. General

(1) A delaying action is an operation in which a unit trades space for time and inflicts maximum casualties on the enemy without becoming decisively engaged in combat. Although the underlying principle of a delaying action is to gain time without fighting a decisive engagement, the company may be forced to accept close combat or a higher commander may order it to improve the overall situation.

(2) A delaying force consists of a security echelon, forward defense echelon, and a reserve. A rifle company may occupy the forward area, act as all or part of the security force, or it may be part of the battalion reserve. When extreme frontages are assigned, the battalion reserve may provide the security echelon.
(3) The mission may direct the delaying force to hold the enemy beyond a definite line until a stated time. The reason for the action is normally announced. The delaying force may conduct the operation from a single position or successive positions.

(4) During the conduct of the action, the delaying force maintains contact with the enemy. It delays to the maximum between, as well as on, successive positions. It takes advantage of all obstacles and employs maximum fire at long range.

b. Organization of Delaying Positions

(1) When selecting the exact location of a delaying position, the commander picks a position which incorporates the following characteristics:

(a) Good observation and fields of fire. The delaying force can normally develop long-range fires from positions on topographical crests. If a long delay on one position is required, consideration should be given to organizing the terrain to permit mutual support by flat trajectory weapons.

(b) Concealed routes of withdrawal.

(c) Obstacles to the front and flanks.

(d) Maximum concealment for the forces on the delaying position.

(e) Cross-compartment defense organization.

(2) The company commander normally is assigned an initial delaying position and a sector of withdrawal. The company frontage can be greater than in a defensive situation because, unlike the defense, the delaying action is usually conducted for a prescribed and relatively short period of time. Often, the company commander must use three platoons forward to cover the assigned frontage adequately. He retains a reserve, if possible, to provide flexibility and depth. The company organizes the extended frontage by accepting larger gaps between platoons, not by increasing the areas physically occupied by platoons over the maximum acceptable for a defense. The company commander covers the gaps between platoons with indirect fires, patrols, observation, and obstacles.

(3) The company commander designates platoon areas as he does for the defense, except that the forward edge of the platoon positions is normally on or near the topographical crest to provide long-range fires and observation and to facilitate withdrawal. The company organizes the ground indirect fires, patrols, observation, and obstacles.

(4) Weapons platoon elements are usually attached to the rifle platoon in whose area they are positioned. The rifle platoon commander places organic and attached weapons where they can obtain long-range fields of fire.

(5) The company commander normally prescribes platoon sectors of withdrawal. He designates as many subsequent platoon delaying positions as are required to control the company's action. The delaying positions
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block key approaches and take advantage of natural and artificial obstacles. If the assigned frontage allows him to retain a reserve, he uses it as the company covering force.

(6) Platoon commanders select additional delaying positions within their assigned sectors. They are generally located so that the first elements of the platoon to withdraw from a position can occupy the next one to the rear to cover the withdrawal or the remainder of the platoon.

C. Conduct

(1) Permission to withdraw forward forces from a battalion delaying position must normally be obtained from the battalion commander. Consequently, the company commander keeps the battalion commander informed of the situation at all times to prevent frontline platoons from becoming so heavily engaged that they cannot be withdrawn effectively.

(2) By using long-range fires, every effort is made to stop the enemy's leading elements. An effective delaying action will force the enemy into the time-consuming task of deploying his forces to attack the delaying position.

(3) Normally, forward forces withdraw, on order, before they become engaged in close combat. The same principles as a withdrawal are applied.

(4) As the platoons withdraw from initial positions, they continue to delay in their assigned sectors. The first platoon elements to withdraw move rapidly to and occupy the next position to the rear, normally under the supervision of the platoon sergeant. These elements cover the withdrawal of the remainder of the platoon. The platoon may move by bounds to the first delaying position to the rear or move by alternate bounds and occupy two successive positions to the rear. The platoon fights to delay the enemy at each successive position, withdrawing only to avoid close combat. It withdraws in this manner until it passes the covering force of a higher unit. Then the platoon may assemble to continue its movement to the company assembly area or a subsequent delaying position, as appropriate.

(5) The company commander coordinates the actions of his withdrawing platoons. Consistent with instructions from the battalion commander, he orders his forward platoons to withdraw in time to prevent them from being cut off by an enemy force. When he has retained a reserve, he repositions it to block enemy penetrations and protect the flanks and rear. He uses patrols to maintain contact with adjacent units, provide flank security, and block enemy threats from the flanks. If the enemy withdraws from the attack, the company maintains contact and reoccupies the forward positions, if possible.

8404. RETIREMENT

a. A retirement is a retrograde movement in which a force withdraws without enemy pressure. It may be made following action or when no contact with the enemy has been made. In a withdrawal, the movement becomes a retirement after the main forces have broken contact with the enemy and march columns have been formed.
b. The rifle company executes the retirement with the infantry battalion as part of a larger force. The company makes maximum use of cover and concealment and avoids undue concentration as it retires, particularly when the estimated enemy nuclear threat is great. The battalion adopts a march formation in which the rifle company or its elements may perform security missions or march as part of the main body.
Section V. MINE WARFARE

8501. GENERAL

a. The tactical requirement for dispersion imposed by the prospect of combat in a nuclear environment and also the rapid pace of modern conventional warfare result in separation of units in depth and the development of large gaps between adjacent units. The threat of their exploitation by mobile enemy forces demands means of denying, limiting, or slowing his attempts to penetrate these gaps. Landmine warfare, when boldly and intelligently employed, can act as a powerful deterrent to enemy mobility.

b. Minefields are used to delay, canalize, harass, and demoralize the enemy. Included in barrier plans, they are used to supplement other obstacles and weapons. The portability and weapon effect of each mine provides the commander with effective obstacles, particularly when mines are sown in fields of reasonable density.

c. The density of a minefield is expressed as the number of mines of any one type per linear meter of minefield trace or front where mines are laid by hand or machine. Density may also indicate the number of mines by type per square meter or minefield when mines are dropped from aircraft or scattered by hand or machine. Mine density is a measure of the degree of obstacle effectiveness in a minefield. A high density indicates more mines in a field than would be present if the density were lower. Normally, the density desired is directly related to the type and scale of enemy movement which the minefield is intended to deter and the tactical purpose it is designed to accomplish. For practical purposes, the depth of a minefield is not considered in determining its density.

8502. BASIC CONCEPTS

a. Methods of Employment.--There are three methods of installing a minefield: deliberate, hasty, and special technique. Deliberate minefields are those laid according to a standard pattern with the mines buried. Hasty minefields are laid without pattern and usually with the mines unburied. Special technique minefields are those laid with special purpose mines requiring specific techniques or adaptation of standard mines to unusual situations which differ from normal minefield installation. Hasty or deliberate methods may be employed in protective and defensive minefields.

b. Authority to Employ.--The authority to employ minefields is vested in battalion and higher commanders. It may be specifically delegated to the next lower commander, when the situation warrants. Normally, the authority to lay mines is held by the highest commander whose operations may be affected by the mines. Mine employment at each command echelon must be consistent with the overall concept of operation, probable future missions, and available resources.

c. Coordination of Information.--It is imperative that information concerning mine warfare operations be disseminated to subordinate and adjacent units, as well as higher authority. Proper use of reporting and
recording procedures and effective liaison with affected units contribute
to coordination. Accurate and timely records and reports are mandatory.

d. Obstacles.--Their ability to inflict casualties and damage vehi-
cles establishes mines as an excellent active obstacle. Minefields are
integrated with demolition projects and artificial and natural obstacles
to create effective barriers to the enemy advance.

8503. TACTICAL CLASSIFICATION OF MINEFIELDS

The basic tactical classification of minefields is in accordance
with the purpose of their employment. These are protective, defensive,
barrier, nuisance, and phony. Minefields may also be identified according
to the type of enemy movement to be obstructed; for example, antipersonnel,
antitank, antiamphibious, and antiairborne minefields. Moreover, mining
activity may be described according to the type of terrain in which mines
are employed; for example, route mining, beach mining, river mining, and
field mining. The identification of minefields in accordance with their
purpose or the type terrain in which mines are installed does not alter
the basic tactical classification. Thus, a barrier minefield may include
segments of route mining, field mining, and river mining; and an antiamphib-
ious minefield may serve as a protective, defensive, barrier, or nuisance
minefield.

a. Protective Minefield.--A protective minefield is one which is
simple, shallow in depth, and narrow in frontage. It is employed to assist
a unit in local close-in protection.

(1) Antitank and antipersonnel mines, flares, and flame mines
may be used. Chemical mines and antihandling devices are not employed in
protective fields.

(2) Protective minefields are sited across the most likely
enemy avenues of approach. They are located within range of organic weapons
of the employing unit but beyond enemy hand grenade range. Protective
minefields are removed by the installing unit unless responsibility is
transferred to a relieving unit; in which case a "report of transfer" is
submitted to the appropriate command. The company may be delegated the
authority to employ protective and phony minefields.

b. Defensive Minefield.--A defensive minefield is one employed to
defeat or limit penetration into or between company defensive areas, to
strengthen or link other obstacles, and to reinforce defensive areas them-
selves.

(1) To achieve maximum effectiveness, defensive minefields must
be covered by observation and fire.

(2) Location of mines are part of the coordinated fire support
plans.

(3) Density, location, and type of mines will be determined and
support from engineer units usually will be utilized in laying.

c. Barrier Minefields.--The barrier minefields are employed to can-
alize, disrupt, and delay the enemy attack. Normally, barrier minefields
are laid in considerable depth. Authority to employ is reserved by division
or higher commanders.
d. Nuisance Minefields.--Nuisance minefields are employed to delay and disorganize the enemy and to hinder his use of an area or route. Since the hazard presented to friendly troops by nuisance minefields may restrict future maneuver, only the highest commanders are authorized to employ nuisance minefields.

e. Phony Minefield.--A phony minefield is an area of ground used to simulate a minefield with the object of deceiving the enemy. Its purpose is to deceive the enemy when he has become mine conscious.

(1) A phony minefield may be employed by any commander who has the authority to use the type minefield simulated.

(2) Its composition may include phony mines or may have the earth disturbed and the area littered with evidence of mining. Real mines are not used.

(3) Fire coverage of a phony minefield is the same as that provided for the simulated minefield.

8504. PLANNING AND SITING

a. Siting of Minefields.--Primary consideration and priority in siting is given to blocking likely avenues of enemy approach, particularly when short-term use is contemplated, or time, material, and effort are critical. Minefields are sited in such a manner that they are anchored to other natural or artificial obstacles whenever possible. Mines are employed by types in accordance with trafficability of the terrain and the nature of the enemy threat. Whenever possible, they are located so that they can be covered by fire or are accessible to mobile fire support teams.

b. Siting of Lanes and Gaps.--Mines must contribute to the destruction and delay of the enemy with minimum hazard to the user. Minefields must conform to the plan of the commander responsible for largescale maneuver and must be sited to allow the unit protecting the field and adjacent units to execute operational plans such as patrolling, attacking, and counterattacking. For this reason, lane and gap locations and sizes, together with provisions to close or relocate them, are incorporated into the original design of the mined area.

(1) The general locations of lanes and gaps should be given to the commander of the laying unit by the tactical commander establishing the field. Lanes and gaps are skillfully sited so that their locations are not easily determined by the enemy. Their trace should be irregular and should not follow established roads or paths. Efforts should be made to deceive the enemy as to their locations.

(2) The locations of lanes and gaps are changed periodically to prevent enemy detection and subsequent ambush of friendly patrols. In minefields having a high density of small, nonmetallic mines, locations for future lanes and gaps should be determined before the field is installed so that metallic mines may be laid in those areas. This assists in relocation of the mines by using a mine detector.

8505. STANDARD PATTERN MINEFIELD

a. General.--United States mine warfare doctrine requires the use of a standard pattern a majority of the time. When time, logistic
support, or sufficient personnel are not available, nonstandard or scattered patterns may be authorized. A prescribed standard pattern affords the following advantages:

1. Speed and efficiency in laying mines.
2. Thorough coverage and adequate mine density.
3. Ease of recording.
4. Rapid clearing of the minefield.
5. Facilitates training of personnel.

b. Mine Cluster

1. The basic unit of deliberate, manually laid minefields is the standard cluster pattern. Figure 76 shows a typical cluster pattern minefield consisting of a minimum of three regular strips of mines and one irregular strip. The irregular strip or "irregular outer edge," when laid, is always on the enemy side of the minefield. Regular strips are lettered in alphabetical order beginning with the one nearest the enemy.

2. A cluster may consist of one mine or as many as five mines of certain types. When more than one mine is used, the additional mines are placed within a 2-pace radius of the base mine. Only one antitank mine is placed in a cluster and it is the base mine. When no antitank mine is used, an antipersonnel mine, preferably metallic, becomes the base mine.

3. A mine strip consists of two rows of mine clusters. In a manually laid field, row number one is nearest the enemy and is parallel with the strip centerline at a distance of 3 paces. Row number two is parallel to and 3 paces from the centerline on the friendly side. The clusters in row number two are staggered so that they lie between the clusters in row number one. Clusters are numbered consecutively from the first cluster in row number one to the first cluster in row number two throughout the strip, so that all clusters in row number one have odd numbers and those in row number two have even numbers. (See fig. 76.)

(a) Tripwire actuated antipersonnel mines are always placed in row number one, no more than one to a cluster and no closer than one in every third cluster. Tripwires should point toward the enemy from the strip centerline and should be no closer than two paces to another cluster, tripwire, or safety line.

(b) The minimum distance between adjacent strip centerlines is 18 paces. Strips need not be parallel with one another and may have as many turning points (changes of direction) as desired. Each segment of a strip (change of direction) is numbered consecutively starting with one at the strip marker stake indicating the turning point.

(c) The irregular outer edge (IOE) is used to confuse the enemy as to the pattern and spacing of mines in the regular strips. The use of IOE is largely dictated by the time allowed for construction of the minefield and the terrain of the laying site. The irregular strip consists of short sections of a regular trace with a varying number of clusters in each section. The number of mines in the IOE is about one-third the total.

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Figure 76.—Method of Numbering Clusters in a Mine Strip.

number of antitank mines laid in a regular strip. The number of mines in each cluster of the IOE may be varied as desired within the limits described in subparagraph b, above.

(4) The standard row and strip are used in a manner most suitable for the situation. Single strips may be used as needed; for example, in perimeter security, roadblock, and route mining. However, the typical minefield should be used whenever feasible and time permits.

c. Minefield Lanes and Gaps

(1) A minefield lane is a safe path or route through a minefield. Lanes through friendly fields are 8 meters wide for one-way vehicle traffic and 16 meters wide for two-way vehicle traffic.

(2) A minefield gap is that portion of a minefield in which no mines have been laid. The purpose of a gap is to enable a friendly force to pass through the field in a tactical formation. Gaps are of specified widths, seldom less than 100 meters.
PSIWXUlel Officer NC0 Enhsted Equipment Supervisory Personnel 1 Officer: Map, lensatic compass, notebook, and DA Form 1355 NCO: Map, notebook, and lensatic compass 3 Siting Party 1 Stakes or pickets, sledge, hammers, tracing tape on reels, and nails to peg tape 3 Marking Party 1 Marking wire on reels, pickets, marking signs, lane signs, wire cutters, gloves, and sledges 2 Recording Party 1 Sketching equipment, lensatic compass, DA Form 1355, map and metric tape 2 1st Laying Party 8 to 8 Notebook for squad leader, picks, shovels, and sandbags 8 to 8 2d Laying Party Same as 1st laying party Same as 1st laying party 8 to 8 3d Laying Party Same as 1st laying party 8 to 8 25 to 31 TOTALS Figure 77.—Platoon Organization and Equipment for Minefield Laying.

8506. MANUAL LAYING OF MINEFIELDS

a. Organization for Laying Minefields.—The platoon is the basic unit for installing a standard pattern minefield. The organization shown in figure 77 will serve as a guide for a typical platoon mine laying operation.

(1) Duties of Personnel

(a) The platoon commander as officer in charge (OIC) is responsible for the entire operation of the laying unit. When laying commences, he makes a report of initiation to the headquarters authorizing the field. At the site, the officer in charge indicates the traces of mine strips and marking fences, the location of dumps for mines and materials, the landmarks, and the location and marking of lanes. He indicates the cluster composition to each laying party NCO, including tripwire actuated mines, verifies the completed minefield record, and reports the completion of laying. The officer in charge submits progress reports during the laying operation which may be required by his headquarters.

(b) The platoon sergeant acts as the second in command of the laying unit. He tells each laying party NCO where to lay mines with
Figure 78.--Laying Out Strip A and Establishing Mine Dumps.

**c. Laying a Regular Strip**

1. From orders of the officer in charge, each NCO in charge of a laying party knows the cluster composition of the strip his party is to lay and any variations in cluster composition. When the centerline tape for a regular strip has been installed, the NCO in charge of the party assigned to lay that strip designates all of his party as layers, except two men who are to fuze the mines. Layers pick up a maximum load of cluster base mines, the fuzers carry all the fuses and detonators.

Figure 79.--Minefield Layout by Tape.
(2) The NCO then goes to the right-hand boundary stake of the strip and forms his layers in two columns to his rear, 6 paces apart. The NCO then steps off along the centerline; he stops at 3 paces. With his right arm pointing in the direction of the enemy, he indicates the placement of the first mine. The NCO next steps off the next 3 paces and, with his left arm, indicates the friendly side of the strip. The first layer on that side places a mine on the ground. As the initial load of mines is laid, each layer returns to the nearest mine dump for another load. Fuzers work behind layers inserting fuses and/or detonators (minus safety clips) in the antitank mines and placing the arming dial, on mines so equipped, on "safe." Fuzer safety clips are turned over to the NCO. This procedure is followed until the left-hand boundary stake of the strip is reached. Then, the NCO orders layers to obtain antipersonnel mines from a mine dump and tells them the number and types of mines to be placed next to the base mine of each cluster. As antipersonnel mines are being placed, the NCO proceeds along the strip placing all mines in each cluster where he wants them. He places a spool of tripwire next to each mine that is to be tripwire actuated. He indicates antitank mines which are to be equipped with antihandling devices by turning them upside down.

(3) When all mines are fused, layers return to the starting point for shovels. Each man is assigned to dig holes for all mines in one cluster. Spoil from the holes in one cluster is placed in a sandbag and left beside one of the holes. Each digger checks the positioning of mines in the holes but leaves the mines beside holes. Diggers anchor tripwires with nails or stakes and wrap loose ends around fuses. When digging has progressed at least 25 meters from the starting point, the arming operation begins. One man arms all the mines in a cluster, beginning with the mine farthest from the centerline and working back. He places mines in holes, attaches tripwires, covers and camouflages each mine, removes safety clips, then places sandbags containing spoil on the centerline tape opposite the base mine of the cluster. Individuals arming mines keep their feet toward the centerline and stay at least 25 meters from other personnel at all times. When a cluster contains a mine to be equipped with an antihandling device, the cluster is usually left unarmed until all clusters within 40 meters are armed and all personnel are a safe distance away. Mines located in lanes are not buried. They are placed there to prevent confusion in keeping the cluster numbers straight. The holes are filled in and the mines are carried to the lane entrance. Fuzers give their safety clips to the NCO who verifies the count. After all mines are armed and concealed, the NCO checks the strip and organizes his party to pick up sandbags, tapes, and debris. Upon completion of this task, he turns over the safety clips to the platoon sergeant who assigns him other duties such as installing another strip, if required.

d. Installing the IOE

(1) The officer in charge informs the NCO of the laying party assigned to the IOE of the total number of mines to be installed and indicates the areas where the heaviest concentrations of clusters are to be laid. The NCO then decides on the composition of each cluster. Unlike the clusters in the regular strip, clusters in the IOE differ from each other in type and number of mines.

(2) The procedure followed is basically the same as that described in subparagraph 8506c, but the NCO does not have a mine laid at every 3-pace interval. Along the less likely avenues of enemy approach,
he may have only a few clusters installed at widely spaced intervals. In areas affording the enemy logical routes of approach, he may have clusters installed at regular 3-pace intervals. Generally, he omits about two-thirds of the clusters.

8507. REPORTS AND RECORDS

a. General.---Mine warfare may be flexibly employed; however, reporting and recording are mandatory in all its phases. Reports and records are made on all minefield laying and alteration activities. Minefields are reported and recorded to inform commanders of mined areas which may affect future operations, to expedite the transfer of responsibility for minefields from one unit commander to another, and to facilitate the removal of the minefield by friendly units.

(1) A minefield report is any message or communications, normally verbal, concerning either friendly or enemy mining activities.

(2) A minefield record is a written record of pertinent information concerning a minefield. It is normally prepared by the recording party of the laying unit on DA Form 1355 and is signed by the officer in charge of the laying unit.

b. Minefield Reports.---Three informal reports are made on every minefield laid by friendly troops. These reports are classified secret.

(1) Report of Intention to Lay.---Any commander having the authority to install a minefield must make an immediate report of his intention to lay a field to the next higher commander before initiating laying operations. The report of intention to lay may be made by any secure means. The contents and format of this report, arranged in a manner to facilitate transmission by electrical means, is illustrated in figure 80.

(2) Report of Initiation of Laying.---When the commander of the laying unit is ready to begin operations, he informs the next higher commander. This report is forwarded to the commander authorizing the field and is posted on situation maps.

(3) Report of Completion of Laying.---Immediately after completion of the laying, the laying unit commander informs, by any secure means,

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<thead>
<tr>
<th>EXPLANATION OF CONTENTS</th>
<th>LETTER DESIGNATION</th>
<th>DATA</th>
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<tbody>
<tr>
<td>Tactical Objectives</td>
<td>ALPHA</td>
<td></td>
</tr>
<tr>
<td>Types of Mines</td>
<td>BRAVO</td>
<td></td>
</tr>
<tr>
<td>Number and Types of Lanes, if known</td>
<td>CHARLIE</td>
<td></td>
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<tr>
<td>Coordinates of Minefield</td>
<td>DELTA</td>
<td></td>
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<tr>
<td>Estimated Starting and Completion Time and Dates</td>
<td>ECHO</td>
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Figure 80.--Report of Intention to Lay.
<table>
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<th><strong>EXPLANATION OF CONTENTS</strong></th>
<th><strong>LETTER</strong></th>
<th><strong>DESIGNATION</strong></th>
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<tbody>
<tr>
<td>Changes in Information Submitted in Intention to Lay Report</td>
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<td></td>
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<tr>
<td>Total Number and Type of AT &amp; AP Mines Laid</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Date &amp; Time of Completion</td>
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<tr>
<td>Method of Laying Mines (Hand, Mach.)</td>
<td>DELTA</td>
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<tr>
<td>Details of Lanes &amp; Gaps Including Their Markings</td>
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<tr>
<td>Details of Perimeter Marking</td>
<td>FOXTROT</td>
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<tr>
<td>Overlay Showing Perimeter, Lanes, and Gaps</td>
<td>GOLF</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Laying Unit and Signature of Ind. Authorizing Laying of Field</td>
<td>HOTEL</td>
<td></td>
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</table>

Figure 81.—Report of Completion of Laying.

The next higher commander. This report is normally followed by DA Form 1355. The report of completion of a protective minefield is usually forwarded no higher than division level. See figure 81 for content and format of this report.

c. Progress Reports.—These are reports submitted by the commander of a unit installing a large field to keep the higher headquarters informed of the amount of work completed. This is a matter of command SOP.

d. Report of Transfer.—A report of transfer is a written report which transfers the responsibility for a minefield from the commander of a unit which is responsible for the field when the unit is relieved to the relieving unit commander. A report of transfer must be signed by both the relieved and relieving commanders. It must include a certificate stating that the relieving unit commander has been shown on the ground or otherwise informed of all mines within his zone of responsibility, and that he assumes full responsibility for such mines. The report of transfer is forwarded to the next higher commander having authority over both the relieved and relieving unit commanders. (See sec. II.)

e. DA Form 1355 Minefield Record

(1) Preparation of the standard minefield record form is the responsibility of the commander of the laying unit. It is signed by him and forwarded to the next higher headquarters as soon as possible. When completed, DA Form 1355 is classified secret. Minefield records can easily be circulated on a need-to-know basis. Minefield and boobytrap records are marked "SPECIMEN" when used for training purposes. (See fig. 82.)
Figure 82.—Minefield Record With Minimum Information.

(2) DA Form 1355 consists of a single, printed sheet, the upper half for tabular data and the lower half for a scale sketch of the field. Instructions for completing the forms are printed on the reverse side. Maximum length of the field to be recorded on one form is 400 meters at a scale of 1 centimeter equal to 10 meters.
8508. BREACHING OPERATIONS

a. Information as to the location and size of a minefield may come
from many sources.

b. Individual mines and boobytraps are most often detected by visual
means, by probing, or by electrical detection. Knowledge of the mine habits
of a particular enemy often aids in locating his mines. The following are
likely locations for mines:

1. Potholes, road patches, or soft spots in surfaced roadways.
2. Under the edges of road surfacing at the junction of the
surfacing and the road shoulder.
3. On road shoulders where mines are easily laid and camou-
flaged.
4. At locations which block logical bypass routes around a
blown bridge or cratered road.
5. Around the edges of craters and ends of damaged bridges or
culverts. Antipersonnel mines are sometimes placed in craters if the cra-
ters are likely to be used as shelter from enemy artillery fire or air
bombing.
6. In barbed wire entanglements, wire fences, and similar
obstacles. In any other type of obstacle such as abandoned vehicles or
among felled tree trunks or limbs across roads or trails.
7. Near any unusual object which may have been placed by the
enemy for his own use such as a minefield marker.
8. In places where it is natural to drive a vehicle such as
turnouts, parking lots, in front of entrances to buildings, narrow defiles,
and airfield runways.
9. Near bodies or souvenir materials such as pistols, field
glasses, and bottles of liquor.
10. In likely bivouac or assembly areas and in buildings suit-
able for use as command or observation posts.

c. There are four general courses of action which may be resorted
to in countering a mined area:

1. Bypassing mined areas is usually the best course of action.
This may be accomplished by either circumventing the mined area on the
ground or by helicopterborne movement over the mined areas. In some situa-
tions, circumvention on the ground may be impossible because of terrain char-
acteristics, time limitations, or the possibility of being canalized into
disadvantageous areas or positions.

2. Hasty breaching is an assault tactic which is sometimes
necessary when the tactical situation does not permit time to reconnoiter
and bypass, clear, or deliberately breach the obstacle. It involves blast-
ing with demolitions and shoving rollers, flails, and disabled vehicles.
through minefields to create mine-free lanes. It is a course of action usually selected only during fast-moving operations. Mine clearing devices suitable for use in hasty breaching are tank-pushed, mine-clearing rollers and linear explosive charges. Artillery and mortar fire and air strikes are expedient breaching techniques. The resulting gaps are not usually completely mine-free and may sensitize the field, making it more dangerous.

(3) Deliberate breaching of minefields is a major operation requiring extensive planning, specially trained personnel, and positive methods of locating and removing each mine. Individual mines are located using portable and vehicular mounted mine detectors and mine probes. Mines are marked and are then destroyed in place, removed by rope, or where required, by hand. Lanes are marked as they are cleared.

(4) Minefield clearance is the removal or destruction of all mines in a minefield and is normally done on areas which are not under enemy observation or fire. Minefield clearance is an extension of deliberate minefield breaching and employs the same materials and techniques. Whenever possible, minefield clearance is accomplished in daylight and under favorable weather conditions. Speed is secondary to thoroughness in minefield clearance operations.
Section VI. NUCLEAR, BIOLOGICAL, AND CHEMICAL DEFENSE

8601. GENERAL

The rifle company is required to be prepared to operate effectively in all geographical areas and under all conditions of warfare including situations short of war, limited war, and general war. The latter includes a conflict in which the entire spectrum of NBC weapons may be used. However, any of the three conditions may result in the employment of radiological, biological, and chemical contaminants without resorting to the blast effects of nuclear weapons. In such warfare, coverage of wide areas with toxic chemical agents, biological agents, or radioactive materials can be expected. The varied weapons available in these fields are capable of producing mass casualties and extensive damage. Commanders must ensure action to protect personnel, arms, equipment, and supplies from the effects of NBC weapons and agents if the combat mission is to be successfully executed. Training and readiness measures are implemented to provide individuals and units with effective defensive procedures.

8602. DEFENSE PERSONNEL

a. Assignment.--Marine Corps tables of organization provide billets in certain organizations for NBC defense personnel. In Fleet Marine Force companies, batteries, squadrons, and larger size commands for which the tables do not include such billets, a minimum of one officer and four enlisted assistants are normally assigned NBC defense duties in unit SOP's as additional duty. Current Marine Corps orders establishing NBC defense policies direct such assignments.

b. Duties.--NBC defense personnel assist the commander in NBC defense by performing the staff functions of planning and supervising training, operations, logistic support, and intelligence. The special tasks for these billets include:

(1) Conducting surveys, monitoring, detecting, identifying, and decontaminating NBC agents and munitions.

(2) Training, supervising, and controlling others in the performance of the tasks listed above.

8603. TRAINING

a. General.--Two levels of training are necessary in NBC defense. Defense personnel must have a level of training requisite to their assignments, and all Marines must be capable of self-protection to a degree permitting them to accomplish their missions during and/or after NBC attack.

(1) Defense Personnel.--Training to qualify personnel for the billets described in paragraph 8602 is provided at the U.S. Army Chemical Corps School, Ft. McClellan, Alabama; the U.S. Navy School Command, Treasure Island, San Francisco, California; and at local schools conducted by major commands. Most major subordinate commands of the Fleet Marine Force conduct NBC defense schools to train personnel for instructional duties and defense billets.
(2) Individual.--The training of the individual Marine in NBC defense procedures is a command responsibility. It is an inherent responsibility of command and devolves upon the rifle company and platoon.

b. Proficiency Standards.--The 1500 series of Marine Corps orders prescribes the attainment of certain levels of proficiency in NBC defense, both for individuals and units.

(1) Individual.--Each Marine must be able to:

(a) Put on and adjust the protective mask properly within 9 seconds following an alarm or recognition of NBC attack.

(b) Recognize, by appearance or effects, the existence of NBC hazards, and take protective action.

(c) Recognize NBC attacks, methods of delivery, and alarms, and take appropriate protective action.

(d) Perform simple decontamination of his person, personal equipment, individual weapon and position, and/or crew-served weapon.

(e) Perform first aid for NBC injuries.

(f) Recognize all standard marking signs which indicate NBC contaminated areas.

(g) Cross or bypass contaminated areas with minimum danger to himself.

(h) Maintain individual protective equipment.

(i) Perform his mission during friendly or enemy employment of nuclear or chemical weapons within the limitations imposed by the attack.

(j) Maintain a high order of health, personal hygiene, and sanitary discipline as a protective measure against biological operations.

(k) Take the maximum protective measures against the effects of nuclear weapons, especially radiological fallout.

(l) Be familiar with the basic capabilities and characteristics of radiac instruments.

(2) Unit.--Each unit must be able to:

(a) Decontaminate its equipment.

(b) Cross, bypass, or function in contaminated areas, decontaminating where necessary.

(c) Take action as required by unit SOP when local alarm action is given.

(d) Determine the presence of NBC hazards and take proper
(e) Operate its detection and protective equipment.

(f) Exploit friendly nuclear and chemical fire support, directly or indirectly.

(g) Sustain an enemy NBC attack with minimum interference in the performance of its assigned mission.

(h) Maintain a high order of sanitation to minimize vulnerability to biological attack.

(i) Report attacks promptly and properly.

(j) Maintain its defense equipment.

(k) Carry out field expedient methods of determining ground zero location, height of burst, elevation of top and bottom of nuclear cloud, and angular width of the nuclear cloud.

c. Material.--NBC defense equipment should be used in training. The protective mask should be carried routinely as individual equipment and used during training exercises. NBC defense property is periodically inspected to determine serviceability. The inspection of chemical items is prescribed in the 10010 series of Marine Corps orders as to serviceability standards, technical information, and modification instructions for specific items. Beta and gamma detection devices are tested weekly to ensure that the equipment is ready for operational use. The calibration interval of detection devices is 6 months.

8604. NUCLEAR WARFARE

a. General.--Nuclear warfare is characterized by sudden and drastic changes in the tactical situation. This demands an alert and flexible system of command with firm, centralized planning, decentralized execution, and a doctrine that stresses initiative and flexibility by subordinate commanders. All commanders must be prepared to act instantly and aggressively and in the absence of orders. To provide for contingencies, advance planning, including the use of a complete unit SOP, must be routine.

b. Leadership.--This type of warfare places great demands on the individual Marine and the combat leader, particularly the small unit leader. The individual Marine must be trained to control his fears in order to prevent panic and to ensure his aggressive reaction. Leadership roles of the platoon and company commander demand rapid and independent action arising from the greater dispersion of units. Emphasis is placed on decentralization of authority. The company officer is called upon to make decisions formerly made by officers of higher rank and greater experience. They must be prepared to cope with situations which tax their knowledge, judgement, initiative, and courage to the utmost.

c. Protective Measures.--Protective measures are either active or passive. Active measures include the destruction or neutralization of enemy nuclear delivery means and the destruction of enemy nuclear weapons. Passive protection falls into two categories, defense against the detection of friendly troop dispositions by the enemy and defense against the effects of enemy nuclear fires.
(1) Defense against enemy detection of troop dispositions may be accomplished through the use of appropriate counterintelligence measures. These measures include tactical dispersion, frequent and rapid movement, use of camouflage and concealment, and movement and operations during periods of low visibility. Tactical deceptions, use of dummy equipment, communication security, and the proper employment of security forces contribute materially to the counterintelligence effort.

(2) Defense against the effects of a nuclear detonation may be accomplished by tactical dispersion, cover afforded by digging, armor protection, taking advantage of the shielding afforded by terrain, and by using protective covering on the exposed parts of the body. FM 21-40, Chemical, Biological, Radiological, and Nuclear Defense, provides detailed instructions on unit operations during a nuclear attack.

d. Action After Nuclear Attack.--Commanders ensure that their units are prepared to withstand an enemy nuclear attack. This requires indoctrination of individuals and the preparation and rehearsal of SOP's to cover foreseeable situations. In the event of a strike, the following actions are taken in the priority dictated by the situation:

(1) Determine losses of personnel and equipment.
(2) Notify higher headquarters of the situation.
(3) Ensure or reestablish command control.
(4) Accomplish the assigned mission.

8605. CHEMICAL OPERATIONS

a. General.--The effective use of protective equipment is the first line of defense against chemical agents. It is essential that all personnel be trained in the use of protective equipment and in the first aid measures required to minimize injuries from chemical agents. The effectiveness of protective measures is dependent upon the ability of the individual to recognize the presence of a chemical hazard, his ability to use available protective equipment, and on speed of action.

b. Standard Procedures for Protection Against Chemical Attack.--The following is a relatively simple, standard set of individual procedures which are effective against chemical attack. These procedures should be followed when chemical or biological attack is imminent, or after such attacks have been initiated. When the enemy attacks with chemical or biological agents, take the following actions without command:

(1) Stop breathing.
(2) Take cover (use poncho).
(3) If liquid falls into eyes, flush with water.
(4) Put on mask, clear, and breathe.
(5) Remove liquid from skin.
(6) Flush skin with water.
(7) Apply protective ointment to skin.
(8) Decontaminate or remove contaminated clothing.
(9) If nerve agent symptoms appear, use nerve agent antidote injector.
(10) Attach used syrettes to pocket.
(11) Remain masked until "all clear" is sounded.
(12) Continue mission.

8606. BIOLOGICAL OPERATIONS

a. General.--The variety of agents available in the field of biological operations precludes a resume of the physiological effects or symptoms. The defense against biological attack is based upon planning, training, and supervision on the small unit level until the unit is molded into an alert and cautious force with an avid regard for any unusual activity in the forms of sprays, bombs, shells, aerosols, and actions of individuals or groups. There is no device available for the immediate detection of a biological agent. This is done through the efforts of medical teams and requires a long, tedious process. The unit commander cannot wait until an attack or agent is identified. He ensures that protective measures are taken and that the protective equipment available to the unit is effectively employed. A list of suggested items that assist in the defeat of a biological attack follows:

(1) Protective Equipment.--The protective mask and normal clothing offer good protection against biological agents.

(2) Immunization.--Prescribed shots taken regularly as scheduled help increase body resistance.

(3) Sanitation and Body Hygiene.--A clean body and sanitary quarters help prevent the spread of germs. Clean living habits, sleep, exercise, and a good diet guard the health.

(4) Decontamination.--The body should be scrubbed thoroughly and frequently with soap and water in any situation where the use of biological agents is likely.

(5) Food and Drink.--Only approved food and drink should be taken; these must be obtained from protected sources.

(6) Restricted Areas.--Quarantined buildings and areas must be avoided.

(7) Intelligence.--Personnel should be alert to note and report suspicious activities and materiel. Biological agents may be delivered by clandestine means.

(8) Rumors.--Repeating or exaggerating rumors should be avoided.
Section VII. BIVOUACS

8701. GENERAL

Adequate shelter contributes to the future combat efficiency of units in the field. It is essential that units in a combat zone be provided with the best shelter available consistent with the tactical situation. In the forward areas of the combat zone, troops at rest are provided with shelter tents or hastily improvised shelters. When thus quartered, the rifle company is in bivouac. Bivouacs are used only when tactically necessary and/or when other facilities are not available.

8702. SELECTION OF SITE

a. Prior to the arrival of the rifle company, a quartering party selects the specific bivouac site. The company commander furnishes the quartering party with general guidance as to the proposed area, internal arrangement, and security considerations. When the bivouac has been previously designated a battalion bivouac, the company's quartering party comprises a portion of the battalion quartering party which precedes the battalion and prepares the area for bivouac. The rifle company quartering party normally consists of the executive officer, the gunnery sergeant, and one representative from each platoon to organize the platoon area and guide the platoon into its assigned location.

b. The selection of the specific bivouac site is governed by both tactical and sanitary considerations. Tactical requirements always have priority over other considerations and include the following:

(1) Sufficient space for dispersion of the company.
(2) Concealment from ground and air observation.
(3) Ease of security.
(4) Defensible terrain in the immediate surrounding areas.

c. Sanitation measures and maximum troop comfort enhance morale and combat efficiency. The bivouac site selected must have as many of the following desirable sanitation and comfort features as possible:

(1) Ample water supply for drinking, bathing, and washing clothes.
(2) Grass covered area.
(3) Well drained, elevated, and fairly level site.
(4) Shaded in hot weather.
(5) Windbreaks in cold weather.
(6) Accessible to a good road.
(7) Not occupied by other units within the preceding 2 months.
b. When the bivouac site has been selected and prior to the arrival of the company, the quartering party performs the following functions:

(1) Selects areas within the bivouac site for each platoon.
(2) Determines the number and composition of outposts necessary for security of the bivouac.
(3) Marks unit areas and posts guides.
(4) Selects galley site near the road, as near the water supply as possible, and with adequate drainage.
(5) Establishes heads on the side of the bivouac opposite and downgrade from the galley.

b. On arrival of the company in the bivouac site, the platoons are guided to their assigned areas, and the bivouac is established as follows:

(1) Security is provided as necessary.
(2) An interior guard is organized.
(3) Work details are assigned prior to arrival of the company in the bivouac site. On arrival in the site, they commence:
   (a) Digging heads.
   (b) Setting up the galley.
   (c) Preparing wet and dry garbage pits.
   (d) Procuring fuel, water, etc., as required.
(4) Troops not otherwise assigned tasks commence pitching shelter tents. Figure 83 shows a typical rifle company bivouac.

8704. SECURITY

a. The rifle company may provide for the security of its bivouac or may be assigned the mission of establishing security for the battalion in bivouac. In either case, the security system established is similar.

b. Tactical security is established as a series of outposts, detached posts, and patrols to maintain surveillance and provide early warning of the enemy's approach. If the enemy situation warrants, outposts may be expanded into a perimeter defense of the bivouac site.

(1) The organization of an outpost is similar to that of the combat outpost in defensive combat. It is normally organized into a support, outguards, security posts, and patrols. The support is the principal echelon of resistance in the outpost and consists of the reinforcing weapons
emplaced within the outguard locations. They cover likely avenues of approach and protect the bivouac site with flanking fire. (See fig. 84.) The outguards are positioned on terrain which affords long-range observation and fields of fire covering the avenues of approach to the bivouac site. They establish security posts as necessary to maintain unit security. Patrols are extensively employed between adjacent outguards, between outguards and their security posts, and between outposts to further enhance security.

(2) Detached posts are located on terrain dominating dangerous avenues of approach beyond the limit of observation afforded by outposts.
c. Internal security involves the establishment of a small interior guard to prevent pilferage of supplies and to enforce sanitary discipline. Sentries are posted at the supply dump, the galley, the water point, and within each platoon area. The supply dump and galley sentries primarily prevent pilferage. The remaining posts enforce rigid sanitary measures throughout occupation of the bivouac.
APPENDIX A

TYPICAL ORAL OPERATION ORDERS

I. RIFLE COMPANY ATTACK ORDER

Orientation: (Refer to fig. 85.) Break out your maps. Our approximate location is coordinates 873976. On the map you can see Hill 326 at coordinates 886720. That is Battalion Objective A. Also on the map note the high ground at coordinates 882723. That ground is Company Objective 2. Note the hard surface road to our left. That road is Route #1. About 750 meters to our front you can see some high ground with a grove of trees on it just to the right of Route #1. In that grove of trees is a cemetery. The map shows a dirt road running southwest from Route #1 along that high ground. The high ground extending beyond the cemetery to the dirt road and southwest of Route #1 for 100 meters is Company Objective 1. Note the first ridge line about 350 meters to our front. That ridge line is Phase Line Green. The company left boundary is about 30 meters into the woods on the left.

TAKE NOTES.

1. SITUATION

a. Enemy Forces.--An estimated 12 to 15 enemy riflemen supported by several automatic weapons are reported well dug in on Objective 1. Air observers report a reinforced squad position on Objective 2 and prepared positions for about eight men on Phase Line Green. Patrols have reported an AT-AP minefield extending across Route #1 from coordinates 874733 to 878733.

b. Friendly Forces.--Battalion attacks to seize Belfair Crossroads before dark. Company "C" is on our left; our right flank is open.

2. MISSION

Company "D" attacks at 1250 on a frontage of 600 meters right of the company left boundary; seizes Objectives 1 and 2; and on my order, continues the attack and seizes Battalion Objective A.

3. EXECUTION

a. General

(1) We will conduct a frontal attack with two rifle platoons up initially. One platoon will attack on the left and seize Objective 1. One platoon will attack simultaneously on the right, clear its zone of action to Phase Line Green, and after seizure of Objective 1, on order, continue the attack to seize Objective 2. One rifle platoon, initially in reserve, will protect the company's right flank. On my order, the company will continue the attack to seize Battalion Objective A.

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Figure 85.—Daylight Attack Map and Terrain Sketch.
(2) I have planned two targets on Objective 1 on call: target AB105 at coordinates 878729; target AB106 at coordinates 877728. 81mm mortar target 101 is on call on Objective 2.

b. 1st Platoon.--With one assault squad attached; attack on a frontage of 300 meters right of the company left boundary and seize Objective 1. Be prepared to continue the attack on order.

c. 3d Platoon.--With one machinegun squad and one assault squad attached; attack on a frontage of 300 meters right of 1st Platoon; clear your zone of action to Phase Line Green and, on order, continue the attack to seize Objective 2. Be prepared to continue the attack on order.

d. Weapons Platoon.--Attach one assault squad to each rifle platoon. Attach one machinegun squad to 3d Platoon. Machinegun Section minus; general support; from positions this vicinity, support by fire the attack on Objective 1 until fires are masked. 60mm Mortar Section; general support. Be prepared to support the attack on Objective 1. Prepare to displace to Phase Line Green and to support continuation of the attack on Objective 2.

e. 2d Platoon.--With one assault squad attached; company reserve; follow in trace of 3d Platoon at the limit of visibility but not further than 200 meters; protect the company right flank and be prepared to assume the missions of either attacking platoon.

f. Coordinating Instructions

(1) LOD, this trail; no reconnaissance forward.

(2) Base unit, 1st Platoon until seizure Objective 1, then 3d Platoon.

(3) Maintain security, especially in the woods.

4. Service Support

a. Prescribed ammunition load is a basic allowance for all weapons and two grenades per man.

b. Service Group carries an additional basic allowance.

c. Replenish to prescribed load after seizure Objectives 1 and 2.

d. Battalion Aid on Route X, 700 meters to our rear.

e. POW's will be handled in accordance with the battalion SOP.

5. Command and Signal

a. Red smoke and red star clusters to 1st Platoon as signals. Green smoke and green star clusters to 3d Platoon.

b. I will be here initially and follow 1st Platoon to Objective 1. Will move to Objective 2 when it is seized.

Any questions? Time is now 1210. Move out!
II. RIFLE PLATOON ATTACK ORDER

Orientation: (Refer to fig. 85.) Note the hard surface road to our left. That road is Route #1. About 700 meters to the front you can see some high ground with a grove of trees on it just to the right of Route #1. The map shows a dirt road running southwest from Route #1 on the high ground. That high ground, its extension to the dirt road and to the southwest for 100 meters, is Company Objective 1. About 350 meters from here you can see a ridge running across the company front, that ridge is Phase Line Green. The portion of the ridge in our zone of action is Platoon Objective A. Note the woods on our left and the woods to the right front.

The left boundary of the platoon zone of action is 30 meters into the woods on the left. My map shows high ground 800 meters to the right front of Objective 1. That high ground is Company Objective 2. The battalion objective is beyond that about another 600 meters.

TAKE NOTES.

1. SITUATION
   a. An estimated 12 to 15 enemy with several automatic weapons are well dug in on Objective 1. I estimate that four to six riflemen are dug in on Objective A. A minefield extends across Route #1, into the woods on the left in the vicinity of or the area short of Objective A.
   b. Company "D" attacks to seize Objectives 1 and 2 and continues the attack, on orders, to seize the battalion objective. Company "C" is on our left. 3d Platoon attacks on our right; clears its zone of action to Phase Line Green; and on orders, continues the attack to seize Objective 2. Right WC/VA aircraft on 10-minute alert alert are available for support. Artillery and the battalion's 81mm mortar platoon are also supporting the attack. In addition, the machineguns and 60mm mortars of the weapons platoon are in general support of the company.
   c. 1st Assault Squad, Weapons Platoon, attached effective 1210.

2. MISSION
   1st Platoon attacks at 1250 on a frontage of 300 meters right of the left boundary; seizes Objective A; and on my order, continues attack and seizes Objective 1. Be prepared to continue the attack on order.

3. EXECUTION
   a. General
      (1) We will attack initially with one rifle squad to envelop Objective A from the right. After moving the remainder of the platoon up, continue the attack on my order and seize Objective 1 by a frontal attack with two rifle squads.
      (2) For the initial attack on Platoon Objective A, two rifle squads will provide a base of fire and the assault squad is in general support. When we attack Objective 1, one rifle squad and the assault squad will provide a base of fire. The company's machineguns also support by fire, the attack on Objective 1 from the
vicinity of the line of departure until their fires are masked. Artillery and mortar on call targets are planned on Objective 1 as follows: AB105 at coordinates 878729 and AB106 at 877728. The attack aircraft, as well as the 60mm mortars, will be used against targets of opportunity as the attack progresses.

b. 1st Squad.--Attack and seize Objective A through woods on right. On seizure of Objective A, lay down a base of fire on Objective 1.

c. 2d Squad.--Occupy positions vicinity of the LOD on the left and be prepared, on my command, to lay down a base of fire to support 1st squad's envelopment of Platoon Objective A. On order, follow in trace of 1st squad to rear left of Platoon Objective A and be prepared to continue the attack to seize the left portion of Objective 1 on order.

d. 3d Squad.--Initially occupy a position vicinity of the LOD on the right of the 2d Squad and be prepared to lay down a base of fire on my command to support the attack on Platoon Objective A. Un order, follow in trace of the 2d Squad to right rear of Platoon Objective A and be prepared to continue the attack to seize the right portion of Objective 1 on order.

e. Assault Squad.--On order, follow in trace of 3d Squad to rear of Objective A. General support; from positions, left portion Objective A, reinforce 1st Squad's base of fire by firing on covered emplacements.

f. Coordinating Instructions

(1) LOD is this trail; no reconnaissance forward.

(2) For the attack on Platoon Objective A, the base of fire will fire only on my command and will not fire into the treeline on the right or to the left of that fence; both squads' sectors of fire cover the entire objective and cease fire on the signal for the assault to commence. 1st squad leader is assault commander and designates the final coordination line.

(3) I'll issue a fragmentary order and provide additional coordinating instructions for the attack on Objective 1 after we seize Platoon Objective A.

(4) Maintain security when moving through the woods.

4. SERVICE SUPPORT

a. Carry two grenades per man and basic allowance per weapon.

b. Ammunition resupply after seizure Objective 1.

c. Platoon corpsmen with 1st and 2d Squads.

d. Battalion Aid 700 meters to rear on Route #1.

e. Prisoners of war will be handled in accordance with battalion SOP.
5. COMMAND AND SIGNAL

a. Signal:

(1) Signal to commence the assault and cease the base of fire for Platoon Objective A is red smoke. For Objective 1, the assault commences and the base of fire ceases (the company's machine-guns will shift fires) on a red star cluster.

(2) Hand and arm signals will be used to displace the base of fire on Platoon Objective A and on Objective 1.

b. I will be with the 2d Squad during the attack on Objective A.

ANY QUESTIONS? TIME IS NOW 1230. MOVE OUT!

III. RIFLE PLATOON FRAGMENTARY ATTACK ORDER

1. SITUATION

We are receiving small arms fire from Objective 1. Company C on our left and 3d Platoon on our right are generally abreast of us and continuing to attack.

2. MISSION

At my signal, the platoon continues the attack to seize Objective 1 and is prepared to continue the attack on order.

3. EXECUTION

a. General

(1) We will attack frontally to seize Objective 1 with two rifle squads. One rifle squad, our assault squad, and the company's machineguns will lay down a base of fire.

(2) I have requested artillery high explosive fires on target AB105 to precede our attack.

b. 1st Squad.--From present positions, continue base of fire on Objective 1. On signal, cease fire and displace down Route #1 to cemetery on Objective 1.

c. 2d Squad.--At my signal, attack on a frontage of 80 meters and seize left half of Objective 1. Consolidate from Route #1 right 80 meters and protect assault squad in your sector.

d. 3d Squad. At my signal, attack on a frontage of 80 meters and seize the right half of Objective 1. Consolidate from 2d Squad right 80 meters and refuse your right flank.

e. Assault Squad.--From present positions, support by fire, the attack on Objective 1. On signal, displace by unit to Objective 1 down Route #1 and consolidate with 2d Squad. Priority of fires to Route #1.
f. Coordinating Instructions

(1) LOD is the topographical crest of this hill (Platoon Objective A).

(2) Second Squad is the base squad.

(3) Final coordination line is on a line roughly parallel with that rock on the forward slope of Objective A. I will signal for the assault to commence.

(4) Base of fire. Do not fire below that rock and cease fire on signal for the assault to begin. Don't fire outside zone of action.

4. COMMAND AND SIGNAL

a. Signal

(1) Watch me for the signal to begin the attack. We move out immediately following the completion of the artillery fire on the objective.

(2) Otherwise, no change. Remember. Watch for the red star cluster to cease the base of fire and commence the assault.

b. Command.--I will move initially in the center behind the attacking squads. Platoon Sergeant coordinate the base of fire.

ANY QUESTIONS? TIME IS NOW 1314. MOVE.

IV. RIFLE COMPANY FRAGMENTARY ATTACK ORDER

1. SITUATION

a. Friendly Forces.--Five-minute air preparation Battalion Objective A commencing at 1525. Artillery target A1160 at coordinates 886721 and target AB1170 at coordinates B167226 planned on call on Objective A.

2. MISSION

Company "D" continues the attack at 1530; seizes Objective A. Be prepared to continue the attack on order.

3. EXECUTION

a. General

(1) The company continues the attack from present positions with two platoons abreast and one in reserve and seizes Battalion Objective A by frontal attack.

(2) Battalion has ordered an artillery preparation of the objective from 1505-1525. This will be followed by a 5-minute air preparation commencing at 1525. Artillery/81mm mortar on calls are
also planned: target AB1160 at coordinates 886721 and target AB1170 at coordinates 886720.

b. 1st Platoon.--With one machinegun squad and one assault squad attached; attack on a frontage of 300 meters right and inclusive of Route #1; seize left half Objective A. Be prepared to continue the attack on order.

c. 2d Platoon.--With one machinegun squad and one assault squad attached; attack through 3d Platoon on a frontage of 300 meters; seize right half Objective A.

d. Weapons Platoon.--Attach one machinegun squad and one assault squad to each rifle platoon. Be prepared to assume control all weapons when reverted to general support in consolidation of Objective A. 60mm Mortar Section in general support. Support the 1st and 2d Platoon attacks on Objective A from 3d Platoon’s position.

e. Reserve, 3d Platoon.--Remain present position initially. Support by fire attack of 2d Platoon through your positions until fires are masked. Follow in trace of 2d Platoon at limit of visibility, but not further than 200 meters. Protect company right flank. Be prepared to assume the mission of either attacking platoon.

f. Coordinating Instructions
   (1) LOD is present position, 3d Platoon.
   (2) Base unit, 1st Platoon.
   (3) The tentative final coordination line is the draw 150 meters forward of Battalion Objective 1. Each attacking platoon signal when you are ready to begin the assault.
   (4) 2d and 3d Platoons coordinate passage of lines.

5. COMMAND AND SIGNAL
   a. Signal.--No change. 1st Platoon use red star clusters to signal for beginning the assault. 2d Platoon get green star clusters from the 3d Platoon and use them to signal beginning of your assault.
   b. Command.--I will be on Objective 2 initially and move in trace of 1st Platoon to Battalion Objective A.

ANY QUESTIONS? TIME IS NOW 1500. MOVEOUT!

V. RIFLE COMPANY DEFENSE ORDER

Orientation: (Refer to fig. 86.) Break out your maps. Our approximate location is coordinates ----- . The direction we are facing is east. The ridge we are located on runs generally north and south. The east (forward) military crest of the ridge is the trace of the FEBA. The hard surface road running into the FEBA from the east is Route #6. The stream which parallels the FEBA is John’s Branch. Note the bridge on Route #8 spanning the branch. Note the powerline trail leading into the left front. Our
right boundary is 500 meters right of Route #8. Both boundaries extend to the forward military crest of the next ridge to our front. The company rear boundary is 500 meters to the rear of the FEBA. The forward defense area extends 200 meters to the rear of the FEBA.

TAKE NOTES.

1. SITUATION

   a. Enemy Forces.--An estimated enemy regiment has been reported operating in this general area. Increased enemy patrol activity westward has been reported. Air observers report evidence of enemy tanks operating 10 miles to the east.

   b. Friendly Forces.--Our battalion defends the high ground astride Route #8. Company C defends our left and Company D our right. 3d Battalion, which is in regimental reserve, have established the combat outpost 1500 meters to our front and will destroy the bridge after withdrawal. 1st Battalion, 10th Marines, is in general support of the regiment. The 81mm mortar platoon is in general support of the battalion.
2. MISSION

Company "A" occupies and defends the center portion of the battalion battle area.

3. EXECUTION

a. General

(1) We will defend on the forward slope with two rifle platoons up and one in reserve.

(2) The weapons platoon is in general support of the company and supports the rifle platoons by fire. We have one 105mm artillery battery FPF on Route #8 at grid coordinates ------, and 81mm mortar FPF's #6 and #7 ------ and ------ respectively. The company's 60mm mortar FPF's will be used to fill gaps or dead spaces after we get our machinegun FPL's established.

b. 1st Platoon.--Occupy and defend the left portion of the company battle area from the company left boundary to, but exclusive of, Route #8.

c. 2d Platoon.--Occupy and defend the right portion of the company battle area from and inclusive of Route #8 to the right boundary.

d. Weapons Platoon.--General support. Machinegun Section provide FPL's from company left flank across 1st Platoon's front to the powerline and from both flanks of 2d Platoon north and south across 2d Platoon's front. Assault Section occupy positions 1st Platoon area covering the powerline trail and positions 2d Platoon area covering Route #8. 60mm Mortar final protective fires will fill dead space or gaps existing in final protective lines.

e. Reserve--3d Platoon.--Occupy primary position on the high ground to our rear, support frontline platoons by fire, be prepared to limit enemy penetration on axis Route #8 by fire. Prepare a supplementary position covering the stream bed and draw to the left rear; be prepared to limit by fire penetration of company left flank from that position.

f. Coordinating Instructions

(1) Maintain 50 percent alert during hours of darkness and minimize movement on position.

(2) Frontline platoons establish and report locations of security posts.

(3) Reserve platoon provide fire team patrols to recon company security area. Patrol leaders report to CP at 1400 for patrol orders.

(4) Submit fire plan overlays by 1700.
(5) Priority of work:
  (a) Local security out.
  (b) Position weapons.
  (c) Clear fields of fire.
  (d) Prepare positions—two-man foxholes.
  (e) Tactical and supplementary wire. Frontline platoons assist weapons units to install.
  (f) Protective wire.
  (g) AT/AP mines.

(6) Camouflage discipline continuous on arrival in area.

(7) Complete preparation of positions by 1700.

4. SERVICE SUPPORT
   a. Engineer equipment and fortification material delivered on position by 1300.
   b. Draw an additional half allowance of ammo and tomorrow's rations at the CP.
   c. Pick up sound power phones for platoon wire nets at CP.
   d. Evacuate casualties to CP.

5. COMMAND AND SIGNAL
   a. Signals on my order only:
      (1) Commence final protective fires—green star cluster and voice.
      (2) Cease final protective fires—red star cluster and voice.
   b. Company wire net will be laid as primary communication means. Come up on radio if wire fails. Provide guide for wireman to your CP/OP's.
   c. My CP will be here at the vantage point.
   d. CP is in woods edge on Route #8 behind reserve platoon.
   e. The challenge is Bald and the password is Sparrow. The alternate is Gold Eagle.

ANY QUESTIONS? TIME IS NOW 1200. MOVE OUT!
VI. RIFLE PLATOON DEFENSE ORDER

Orientation: (Refer to fig. #6.) The direction we are facing is east. We are standing on the FEBA which runs generally north and south along the military crest of this high ground. Note the ridge line to our front. The forward military crest of that ridge is the forward limit of our security area. Note the powerline trail to our front and the draw to our right front. The stream to the front that parallels the FEBA is John's Branch. Note the bridge on Route #8 spanning the Branch. Note the wood line to our left flank. Our left boundary is exclusive of that wood line. Our right boundary is exclusive of the road. Our rear boundary is 200 meters to the rear of the FEBA.

TAKE NOTES.

1. SITUATION

a. An enemy regiment has been reported operating in this general area. Increased enemy patrol activity has been reported and we can anticipate an attack. Air observers have reported evidence of tanks operating 10 miles to our front.

b. Our company occupies and defends the center portion of the battalion battle area. 2d Platoon is on our right and Company C is on our left, in the woods. The 3d Platoon is in company reserve and will be sending out patrols to our front after 1400. Elements of the 3d Battalion have established the combat outpost 1500 meters to our front. Weapons platoon is in general support with one machinegun squad and one assault squad in our defense area. An artillery battalion is in general support of the regiment.

2. MISSION

This platoon occupies and defends the left portion of the company forward defense area.

3. EXECUTION

a. General

(1) We will occupy our positions and defend with three rifle squads abreast on the forward slope. Squad supplementary positions will be prepared to protect both flanks of the platoons.

(2) We have a machinegun FPL extending from the left flank across our front to the power line. The assault squad positioned in our area will cover the power line trail. In addition, three mortar FPF's #6 and #7 are planned on the power line in our portion of the security area as indicated here on my map. The company's 60mm mortar FPF's will be used to fill any gaps or dead spaces after we get established.

b. 1st Squad.--Occupy and defend in the left portion of the platoon defense area a position extending from 50 meters this side of our left boundary, right 150 meters. Sector of fire: left limit--that large dead tree (point), right limit--five fingers left of the double power pole to your right limit. Establish two-man
sentinel post in the trees beyond John's Branch. Establish two-
man listening post in the tree line this side of the Branch at
dusk. Prepare a supplementary position to your left rear facing
north.

c. 2d Squad.--Occupy and defend in the center portion of the platoon
defense area a position extending from the left portion of this
nose, right to and exclusive of the powerline. Sector of fire:
left limit--junction of the cedar tree line and tree line to our
front (point), right limit--where route #6 crosses the ridge line
to our right front. Establish two-man sentinel post in tree line
south side of powerline trail on topographical crest of the hill
to the front.

d. 3d Squad.--Occupy and defend in the right portion of the platoon
defense area a position extending from and inclusive of the power-
line trail right to but exclusive of the road. Sector of fire:
left limit--the double power pole 75 meters to your front, right
limit--the bridge over John's Branch. Establish two-man listening
post in brush line east of John's Branch at dusk. Prepare a sup-
plementary position along the high ground this side of the power-
line facing south.

e. Coordinating Instructions

(1) Mainten 50 percent alert during the hours of darkness com-
mencing at 1800. Movement out of foxholes after dark only on
order.

(2) Submit squad fire plan sketches by 1600.

(3) Locations of specific AR's and PDF's to be pointed out on the
terrain after my order.

(4) Report when security posts detect enemy.

(5) Withdraw security posts on my order only.

(6) Secure sentinel posts and establish listening posts at 1830.

(7) Relieve sentinel posts every 4 hours and listening posts every
7 hours.

(8) Priority of work.

   (a) Sentinel posts out.

   (b) Position weapons.

   (c) Clear fields of fire.

   (d) Prepare positions--two-man foxholes.

   (e) Assist weapons units in installation of tactical and
       supplementary wire.

   (f) Protective wire.

   (g) Lay AT/AP mines.
(9) Camouflage continuous upon arrival. Evacuate excess spoil. Vary routes to positions.

(10) Complete preparation of positions by 1700.

4. SERVICE SUPPORT
   a. Pick up engineer equipment and fortification materials at my CP/OP at 1300.
   b. At 1300 send one man each squad my CP to assist guide as working party.
   c. Draw additional ammo and tomorrow's rations before dark at my CP.
      (1) 50 rounds per rifle.
      (2) 250 rounds per automatic rifle.
      (3) 12 rounds for grenadier.
   d. Pick up sound power phones for security posts at my CP/OP.
   e. Platoon corpsman with CP/OP and 1st Squad.
   f. Evacuate casualties to company CP.

5. COMMAND AND SIGNAL
   a. Signals
      (1) Commence final protective fires--green star cluster and voice.
      (2) Cease final protective fire--red star cluster and voice.
      (3) SOP pull wire signals for security posts if net fails.
   b. Platoon wire net will be laid to squad leaders and security posts as primary communications means. Squads use messenger if wire fails.
   c. My CP/OP will be on the high ground in immediate rear 2d Squad. Company CP behind 3d Platoon in edge of woods near road.
   d. Platoon Sergeant behind 1st Squad at dark.
   e. The challenge is Bald and the password is Sparrow. The alternate is Gold Eagle.

ANY QUESTIONS? TIME IS NOW 1240. MOVE OUT!

VII. RIFLE COMPANY MARCH ORDER

Orientation: (Refer to fig. 87.) Break out your maps. We are presently located at coordinates 821774. Note the hard surface road running southwest. That road is Route #8. The start point is the junction of Route #8 and this dirt trail. Note the stream crossing the hard surface.
Figure 87.--March Route Map.

road in grid square 8177. That is Checkpoint 1. Checkpoint 2 is the road junction at coordinates 803766. Approximately 200 meters west of Checkpoint 2 a secondary road junctions with Route #8. That is Checkpoint 3. Continuing south on the dirt road there is another road junction at coordinates 799721. That is Checkpoint 4. Approximately 1,000 meters south of Checkpoint 4 there is a bend in the road at coordinates 803732. That bend is the release point. Coordinates 808727 is Assembly Area Delta.

TAKE NOTES.

1. SITUATION

   a. Enemy Forces.--The enemy has broken contact and is withdrawing to the South. He has established roadblocks of unknown strength to interdict the road net leading south. Our aircraft have spotted remnants of enemy armor and infantry moving southwest.

   b. Friendly Forces.--Our battalion will move on foot in tactical column to Assembly Area Alfa, Bravo, Charlie, and Delta; prepare to conduct further operations in clearing enemy pockets to the southwest.
APP. A

MISSION

Our company is the advance guard for the battalion.

EXECUTION

a. General

(1) We will move out in a tactical column along the assigned march route to assembly area DELTA. One platoon moves as advance party and the remainder of the company follows in column as the support.

(2) I have arranged for the following on call targets: target AB103 at checkpoint 3, coordinates 800765; target AB104 at checkpoint 4, coordinates 799751; and target AB105 on the hill mass located at coordinates 793747.

b. 1st Platoon.--With one machinegun squad and one assault squad attached; advance party. Revert to rear platoon of the support on my order.

c. 2d Platoon.--Follow in trace of 1st Platoon at 300 meters as lead platoon of the support.

d. Dragon Section.--General support of the advance guard with priority of fires to the advance party. Follow 2d Platoon.

e. Weapons Platoon.--Attach one machinegun squad and one assault squad to 1st Platoon. Weapons Platoon minus and 81mm Mortar Section; general support. Follow Dragon Section.

f. 81mm Mortar Section.--General support. Follow Weapons Platoon.

g. 3d Platoon.--Follow in column behind the 81mm Mortar Section. Provide squads as right and left flank security under company control.

h. Coordinating Instructions

(1) Start time--1100.

(2) Start point--Junction Route #8 and dirt trail.

(3) March route--southeast on Route #8 to Checkpoint 3 and then south on dirt road to march objective.

(4) Rate of march--106 paces/minute. Advance party regulate.

(5) March distances within support.
(a) Between units--50 paces.
(b) Between individuals--5 paces.
(6) Report arrival at checkpoints.
(7) Advance party report arrival at release point, deploy, and clear march objective.
(8) March objective--Assembly Area Delta.
(9) Connecting groups and security elements rejoin platoons upon commitment.
(10) Enforce noise discipline.
(11) Maintain all-around security.
(12) Post two air sentinels per platoon.
(13) Confirm all march control measures from my map before you leave.

4. SERVICE SUPPORT
   a. Carry basic allowance of ammunition for all weapons.
   b. Service group transport additional basic allowance of ammunition for crew-served weapons.

5. COMMAND AND SIGNAL
   a. Connecting group contact with advance party from leading platoon or support.
   b. Monitor the company tactical net commencing at 1045.
   c. Command group moves at the head of the support. I will move with the command group.
   d. Service group moves behind weapons platoon.

ANY QUESTIONS? TIME IS NOW 0950. MOVE OUT!

VIII. RIFLE PLATOON MARCH ORDER

Orientation: (Refer to fig. 87.) Look at my map and follow along as I point out certain features. This hard surface road running southwest is Route #8. Note where this trail meets Route #8. That is the start point. The stream that crosses Route #8 here is Checkpoint 1. See this road junction here? The road junction is Checkpoint 2. The secondary road junction here is Checkpoint 3. Now, moving south on the secondary road, the road junction here is Checkpoint 4. See the bend in the road here? That bend is the release point. Note the area here to the left of the secondary road. That is Assembly Area Delta, the march objective. Our march route is from start point here, southwest along this hard surface road to Checkpoint 3, and then south along the dirt road.
(4) Rate of march--106 paces per minute. 2d Squad leader is pacer.

(5) March distances with advance party minus:
   (a) Between units--10 paces.
   (b) Between individuals--5 paces.

(6) Point report arrival at checkpoints.

(7) Point report arrival at release point.

(8) All units be prepared on order to deploy and clear march objective.

(9) Enforce noise discipline; troop silence; no yelling by unit leaders.

(10) Maintain all-around security. Assign sectors of observation; one air sentinel each rifle squad less point.

(11) Confirm all march control measures from my map before you leave.

4. SERVICE SUPPORT
   a. Carry basic allowance of ammunition for all weapons. Draw ammunition here at 1040.
   b. Platoon corpsmen will march with me and 3d Squad.

5. COMMAND AND SIGNAL
   a. Communications: arm-and-hand signals until we make contact; connecting files to point on my order.
   b. I will move at the head of 2d Squad.

ANY QUESTIONS? TIME IS NOW 1020. MOVE OUT.
## APPENDIX B

### CHARACTERISTICS OF WEAPONS AND EQUIPMENT

#### 1. WEAPONS CHARACTERISTICS

<table>
<thead>
<tr>
<th>Weapon</th>
<th>No.</th>
<th>M/Cal.</th>
<th>Weight</th>
<th>Length</th>
<th>Muzzle Velocity</th>
<th>Muzzle Energy</th>
<th>Effective Range</th>
<th>Type of Fire</th>
<th>Rate of Fire</th>
<th>Time on Target</th>
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<tbody>
<tr>
<td>Sniper rifle</td>
<td>85</td>
<td>7.62mm</td>
<td>6.25</td>
<td>1.075</td>
<td>250</td>
<td>6400</td>
<td>450</td>
<td>X</td>
<td>500</td>
<td>45</td>
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<td>Green Beret</td>
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<td>5.56mm</td>
<td>4.50</td>
<td>1.225</td>
<td>320</td>
<td>4000</td>
<td>350</td>
<td>X</td>
<td>150</td>
<td>75</td>
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<tr>
<td>Machine gun</td>
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#### 2. EQUIPMENT CHARACTERISTICS

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Type</th>
<th>Length</th>
<th>Weight</th>
<th>Volume</th>
<th>Rate</th>
<th>Degree</th>
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<td>155mm howitzer</td>
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<td>45,000</td>
<td>450</td>
<td>600</td>
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<tr>
<td>Field artillery</td>
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<td>30,000</td>
<td>300</td>
<td>450</td>
<td></td>
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<tr>
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<td>20,000</td>
<td>200</td>
<td>300</td>
<td></td>
</tr>
<tr>
<td>Rocket system</td>
<td>155mm</td>
<td>3.75</td>
<td>50,000</td>
<td>500</td>
<td>600</td>
<td></td>
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</tbody>
</table>

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APPENDIX C

OVERLAY TECHNIQUES

1. GENERAL

Overlays provide a rapid and easily understood means by which the commander or his staff may express an operational plan, concept, or friendly or enemy situation. Standardization of technique is essential if tactical information is to be relayed without misunderstanding. Guidelines for the pictorial representation of tactical situations are established in this appendix.

2. MILITARY SYMBOLS

a. Colors.--Colors in conjunction with military symbols denote the following:

   (1) Blue or Black.--Friendly units and activities.

   (2) Red.--Enemy units and activities. If this color is not available, enemy symbols are outlined with double black lines.

   (3) Yellow.--Friendly or enemy areas of chemical, biological, or radiological contamination.

   (4) Green.--Manmade obstacles.

b. Units and Installations

   (1) Geometric figures form the basic symbols to represent units and installations. Future or proposed locations of units or installations are shown by broken lines. Examples of the more common figures are as follows:

      (a) A unit:

      (b) A headquarters or command post:

      (c) An observation or security post:

      (d) A single purpose, logistical installation:

   (2) To show the size of a unit, the appropriate size indication is placed on top of the basic symbol as follows:
(a) Fire Team ○ (f) Battalion \[\cdot\]
(b) Squad ● (g) Regiment \[\cdot\]
(c) Section ●● (h) Brigade \[\times\]
(d) Platoon ●●● (i) Division \[\times\times\]
(e) Company \[\cdot\] (j) Corps \[\times\times\times\]

(3) To show the type unit being represented, a symbol is placed inside the basic figure as follows:

(a) Infantry \[\times\times\] (f) Reconnaissance \[\slash\]
(b) Armor \[\cdot\] (g) Medical \[\uple]
(c) Assault Amphibious Vehicle/Unit \[\times\] (h) Motor Transport \[\circ\]
(d) Artillery ● (i) Shore Party \[\rm{SP}\]
(e) Engineer \[\cdot\] (j) Amphibious \[\rm{mT}\]

(4) To indicate a particular unit or installation, place the unit’s own designation (in accordance with its size symbol) to the left of the symbol with higher echelons of command to the right of the symbol. Slash separates command echelons. To avoid cluttering the symbol, known units in the chain of command may be omitted.

Example: 3d Plt, Company "A", 1st Bn, 6th Marines, 2d Mar Div \[\rm{3/6}\]

\[\text{c. Weapons}\]

(1) Symbols are also used to indicate the type and location of a weapon or group of weapons. When a weapon symbol appears on a map or overlay, the base of the shaft indicates the location of the weapon.

(2) Most weapons are derived from the following basic symbols:

\[\begin{align*}
\text{Basic Infantry Weapon} & \quad \text{Basic Artillery Weapon}
\end{align*}\]
(a) If the weapon has a high trajectory, a \( \bigcirc \) is placed at the base of the weapon.

(b) A weapon which is a flat trajectory, antitank weapon has a \( \downarrow \) placed at the base of the shaft.

(c) If the weapon is primarily for air defense, a \( \bigcirc \) is placed at the base of the shaft.

(d) A weapon which is a rocket projector or launcher has a \( \bigdiamond \) placed at the head of the shaft.

(e) If the weapon is also a tracked, self-propelled vehicle, a \( \bigdiamond \) is placed below the weapon symbol.

(3) Generally, the number and caliber of weapons are indicated by placing the number of weapons to the left of the symbol and the caliber to the right of the symbol.

- Mortar
- TOW
- Antitank rocket launcher
- Howitzer
- Dragon
- 155

A group of four tracked, self-propelled 155mm cannons

\section*{CONTROL MEASURES}

\subsection*{a. Lines of control or coordination are drawn and labeled as shown below:}

1. Fire support coordination line
2. Restrictive fire line
3. Light line
4. Line of departure
5. Line of departure is present positions
6. Line of departure is forward friendly dispositions
7. Phase line with code name

\begin{itemize}
  \item FSCL
  \item RFL
  \item LL
  \item LOD
  \item LOD/PP
  \item LOD/FFD
  \item PL
\end{itemize}
b. Control points are drawn on the selected terrain feature and identified as follows:

1. A checkpoint consists of a circle enclosing a selected terrain feature with a number, letter, or code name placed inside the circle.

2. A coordinating point is shown by drawing a circle on the selected terrain feature and placing an "X" in the center. Coordinating points are used in conjunction with boundaries to designate defensive areas.

Example:

3. A contact point is shown by drawing a square with a number placed inside.

4. FIRE PLANS

a. Sector of Fire

1. Representation of a sector of fire is shown by two arrows composed of broken lines:

Example:

Sector of Fire

2. A weapon symbol is normally used in conjunction with the symbol for a sector of fire. The base of the symbol indicates the weapon's position.

Examples:

Automatic Rifle

Machinegun

Heavy Machinegun

Rocket Launcher
b. Direction of Fire

(1) A principal direction of fire is represented by a solid arrow. To prevent confusion with similar symbols, the symbol representing a principal direction of fire is always shown together with the appropriate weapon symbol.

Example:

\[\rightarrow\rightarrow\rightarrow\]  
principal direction of fire for an antitank rocket launcher.

(2) Symbols for sectors of fire and principal directions of fire are often combined.

Example:

\[\left< \rightarrow \right>\]  
Sector of fire and principal direction of fire for a machinegun.

(3) A special principal direction of fire symbol is used to indicate final protective lines. Heavily shaded portions along the principal direction of fire symbol indicate areas of grazing fire.

Example:

\[\rightarrow\ldots\]  
Final protective line for a single machinegun.

(4) The final protective line symbol is usually combined with the sector of fire and weapon symbols.

Examples:

\[\left< \rightarrow \right>\]  
A final protective line and sector of fire for a single machinegun (machinegun team).

\[\left< \rightarrow\ldots\right>\]  
A final protective line and sector of fire for a machinegun squad (two machineguns).

c. Targets

(1) Point targets of less than 100 yards AA1070

(2) Linear targets AA1080
(3) Area targets

(4) Rectangular targets

d. Final Protective Fire

A/1/10

(FF assigned battery A, 1st battalion, 10th Marines)
APPENDIX D

SPECIAL TECHNIQUES FOR COUNTERGUERRILLA OPERATIONS

1. GENERAL

This appendix contains techniques for use in counterguerrilla operations which supplement established tactical procedures. It includes counterambush preparations for motorized units, immediate action drills for small units, and village search procedures.

2. COUNTERAMBUSH TECHNIQUES FOR MOTORIZED UNITS

   a. General.--Experience in fighting terrorists and guerrillas has shown that they favor the ambush wherever the situation permits. The ambush of units traveling in motor convoy is not difficult and can be very costly if measures have not been taken to prepare vehicles and occupants before contact. This section contains information concerning techniques for the preparation of vehicles and their occupants for counterambush action when motorized.

   b. Characteristics of Vehicular Ambushes.--A convoy is never safe from guerrilla ambush. Experience has shown that no set patterns of likely areas for ambush such as ravines, defiles, heavily wooded, or jungle covered areas can be established. Ambushes are equally likely to be set in villages or in flat terrain which offers a minimum of cover and concealment. The following additional characteristics are most often encountered:

      (1) The ambush lasts the minimum time necessary to accomplish the mission.

      (2) The ambush occurs in two phases, a short period of heavy fire followed by an assault of the ambushed vehicles to capture equipment, completely annihilate personnel, and to destroy vehicles.

      (3) The basic ambush weapons are small arms. These may be augmented by machineguns, rocket launchers, and recoilless rifles.

      (4) Electrically detonated mines to disable vehicles and cause personnel casualties are used. These mines may consist of artillery shells and mortar rounds as well as conventional mines.

   c. Preparation of Vehicles.--Occupants traveling in vehicles must have all-around observation and fields of fire and be able to throw or fire grenades without hindrance. They must be able to debark from the vehicle rapidly with minimum restriction. For these reasons the configuration of vehicles such as the M35, 6x6 cargo truck must be altered. The following measures may be taken to "harden" a vehicle to provide its occupants with a degree of protection.

      (1) Canvas, hoods, windshields, and doors are removed.

      (2) The tailgate is lowered to a horizontal position. A piece of pipe, wood, or metal may be affixed to the vehicle in a vertical position...
extending above the driver's head to prevent decapitation if wire is stretched across the road.

(3) Sandbags are placed on the floorboards and bed of the vehicle. For the M35, 6x6 truck, a single row of sandbags, stacked five layers high down each side of the truck above the layer in the bed of the truck, provides protection from most small arms. A total of 70 to 100 sandbags are required for each truck. This load plus troop and equipment weight permits off-highway operation without undue wear on the vehicle. A wooden bench or packs rigged down the middle of the bed provide the troops with seats. (See fig. 88.)

(4) Sections of scrap armor plate may be used to reinforce sandbags in the bed of the vehicle.

Figure 88.--Hardened Vehicle.
d. Organization of Occupants.—Encounters with a guerrilla ambush are sudden, short, and so unexpected that the opportunity to inflict casualties upon him is lost if troops are not organized and well drilled to take immediate offensive action. The organization of a rifle squad as occupants of an M35, 6x6 truck is as follows:

(1) The squad leader is vehicle commander. A commander is designated for each vehicle. He is positioned in the bed of the vehicle where he can best control the squad and driver reaction to the ambush.

(2) An assistant driver is seated in the cabin with the driver. He should be able to operate the vehicle and should be prepared to aid the driver in controlling the vehicle. He remains with the vehicle after debarkation to act as close protection for the driver and vehicle. He does not accompany maneuvers executed by the occupant squad.

(3) Four corner sentries are positioned in the bed of the vehicle. The two at the front observe an arc of 90 degrees from the front to each side. When possible, each sentry should be armed with an automatic rifle. These sentries fire immediately from their positions within the vehicle should the vehicle be ambushed. Their fire covers the debarkation of the occupants should the vehicle be halted in the ambush killing area. They also assist in convoy control by notifying the vehicle commander of any disruption of the convoy formation.

(4) If a machinegun team is traveling with the occupant squad, it should be positioned facing out the rear of the vehicle and be prepared to expeditiously debark, bringing fire to bear on the enemy and covering the debarkation of the four corner sentries.

(5) The remaining occupants are positioned in the bed of vehicle, each facing outboard.

(6) The maximum number of men in the bed of a hardened M35, 6x6 truck should not exceed 13. (See fig. 89.)

e. Convoy Commander.—The convoy commander positions himself where he can best control the convoy. He should not, however, position himself in the lead vehicle. He designates a second in command and a vehicle commander for each vehicle. He briefs them thoroughly before departure. Briefing by the convoy commander before departure is detailed and explicit. All drivers and vehicle commanders are present. The briefing includes:

(1) Formation: close column, open column, or infiltration.

(2) Timings.

(3) Route.

(4) Speed.

(5) Order of march (organization of vehicles).

(6) Maintenance of contact.

(7) Procedure when contact is lost and action on vehicle break-
Figure 89.--Organization of Occupants of Hardened 6x6 Truck.

(8) Distribution of subordinate units.
(9) Appointment of vehicle commanders.
(10) Actions on ambush.
(11) Action in danger areas (dismounted sweeps or use of reconnaissance by fire).

f. Action on Contact.---Whatever the precautions and preparations, the ambush is nearly always an unexpected encounter. Counterambush drills are simple courses of action designed to deal with the problem of the unexpected encounter. They call for immediate, positive, offensive action. The action on ambush is to drive through the ambush area or stop before running into it, then to attack the enemy immediately from flank or rear.

(l) When vehicles are fired upon:
(a) Drivers attempt to drive through the killing zone.
(b) Sentries return fire immediately.
(c) When vehicles are clear of the killing zone, they are halted. Occupants dismount and take immediate offensive action against the enemy positions.
(d) Subsequent vehicles approaching the killing zone halt short of the zone. Occupants debark and take immediate offensive action against the enemy positions.

(2) If hardened vehicles are forced to halt in the killing zone, all available weapons are used to return fire immediately. Occupants remain in the vehicles. On the first perceptible slackening of enemy fire, occupants dismount. When riding in a "soft" vehicle and caught in a killing zone, occupants dismount immediately. In both cases, occupants dismount under the covering fires of the four corner sentries, who initially remain aboard. The occupants then deploy to the side directed by the vehicle commander and take the enemy under fire to cover the dismount of the four sentries.

(3) After dismounting, if no cover is available, an immediate frontal assault against the enemy should be employed. The most logical course of action after dismounting is to take cover, immediately build up a base of fire, and employ a maneuver element against the enemy ambush positions. Speed of execution is all important.

g. Tactical Considerations.--The most effective counteraction to ambushes is a flanking attack by elements not in the killing zone quickly followed by relentless pursuit of the enemy. Attention must be given to the following considerations:

(1) In actions when no troops have entered the killing zone, the convoy commander launches an immediate flanking attack on the enemy position, using supporting fires from machineguns and mortars.

(2) In actions where a portion of the vehicles are ahead and out of the killing zone and the remainder are halted short of the zone, the portion which has not yet entered the killing zone initiates the flanking attack. If the convoy commander is not present, the senior vehicle commander takes command and directs the attack. Troops in vehicles which are ahead of the killing zone dismount and, under the command of the senior vehicle commander, return to the vicinity of the killing zone and exploit the situation.

(3) The best way in which an armored vehicle can assist in counterambush action is by moving into the killing zone to engage the enemy at short range. In this way it can give good covering fire to the flanking attack or provide protection for those troops caught in the killing zone.

(4) It is possible that the convoy commander may be killed, wounded, caught in the killing zone, or positioned on the wrong side of the zone. It is essential that all commanders know their responsibilities for organizing and directing the counterambush action. This is clearly stated in unit convoy orders and emphasized at briefings.

(5) The techniques outlined above are practiced repeatedly until the reaction procedures become a predrilled response permitting immediate, positive action on ambush.

h. Vehicle Unloading Drill.--When a vehicle is forced to halt in the killing zone of an ambush, the debarkation of occupants must be organized and predrilled. On order or signal, the response must be immediate and each man must act swiftly to move to his proper position. Confusion is
thus overcome and immediate offensive action against the enemy is more likely to be effective. When the vehicle is halted, actions are as follows:

1. If the vehicle is hardened, the vehicle commander takes appropriate action as set forth in subparagraph f(2) above. He then commands, "DEPLOY RIGHT (OR LEFT)," to indicate the direction in which occupants are to assemble after dismounting.

2. Sentries throw smoke grenades and open fire immediately on the ambush positions. The grenadier, if one is aboard the vehicle, fires on the ambush position.

3. Occupants, under cover of fire from the sentries, dismount over both sides of the vehicle and move to the side of the vehicle indicated in the command. As few occupants as possible attempt to dismount over the tail gate of the vehicle.

4. As soon as the occupants have dismounted, the sentries dismount under covering fire from troops on the ground.

5. The driver and assistant driver dismount in the direction indicated by the vehicle commander.

6. When all occupants are out of the vehicle, action is taken in accordance with paragraph f(3).

3. IMMEDIATE ACTION DRILLS
a. General.—The guerrilla normally seeks contact with organized units only under favorable tactical circumstances; e.g., ambushes. When contact is made under less favorable circumstances, the guerrilla attempts a rapid withdrawal. In either case, small unit encounters with guerrillas are likely to be sudden, violent, and of short duration. Inaction or slow reaction results in excessive losses or the loss of an opportunity to punish the guerrilla unit. Contact is often made at close range, particularly when operating in jungle, temperate zone forests, woods, or heavy brush. Immediate action drills aid small units in reacting quickly and properly.

1. Immediate Action.—Immediate and aggressive offensive action against guerrillas is fundamental to success in counterguerrilla warfare. In the performance of their combat missions against guerrillas, small rifle units employ immediate action drills and conventional tactics.

a. Immediate Action Drills.—Immediate action drills are predrilled, prerehearsed reactions to contact or anticipated contact with the enemy and are used by small units operating in close terrain. They are similar to the conventional battle drills discussed in FMFM 6-5, Marine Rifle Squad. Immediate action drills are most frequently employed by rifle platoons and squads during the conduct of foot patrols and dismounted movements in close terrain against guerrillas. These actions may also be used against conventional forces in close terrain.

1 The variety of drills is limited only by the imagination and initiative of the small unit leader and the state of training of the unit. It is impractical to develop drills covering every contingency; however, it is important to develop a drill for each of the most frequently
occurring situations. The response to a given situation must not be stereotypically rigid adherence to the same tactics.

2 Immediate action drills stress simplicity, aggressiveness, and rapid execution. They demand alertness and a high state of individual training. Drills are of little value to a unit in which the individual Marine lacks proficiency in the fundamental combat skills.

(b) Conventional Tactics.--In open terrain, conventional small unit tactics, battle drills, and patrolling techniques are usually required.

(2) Troop Leading Procedures.--The conventional troop leading procedures relate to the seizure of terrain and the destruction of a relatively static enemy. The procedures by which the small unit leader arrives at a course of action in combat operations against guerrillas often are a parallel but abbreviated form of conventional troop leading.

(a) The unit leader makes a continuing estimate of the situation during his unit’s movement; e.g., patrol. Prior to contact with the enemy, the estimate is normally limited to the following:

1 Consideration of the terrain and the visibility.
2 Selection of the most suitable immediate action drill to undertake in the event of a chance encounter: i.e., meeting engagement.
3 Selection of the most suitable counterambush maneuver.

(b) Once contact with the enemy has been established or is imminent, the leader completes his estimate by rapidly determining the nature of the encounter. He then conveys his decisions to the unit by prearranged signal. The signal initiates the immediate actions of the unit.

D. Freeze and Hasty Ambush.--The freeze and hasty ambush is a drill designed to deal with the meeting engagement. The drill is undertaken when the small unit has sighted guerrillas approaching but has not yet been seen by them. Immediate action is taken to ambush the guerrillas when they approach moving on a trail different from that used by the Marine unit or when the approach is on the same trail.

1 Freeze.--When the guerrillas are sighted, the unit is halted by silent signal such as an arm and hand or other prearranged special signal. Each member of the unit relays the signal to individuals more remote from the originator than he and freezes in his tracks with his weapon in a firing position.

2 Different Trails. If the guerrillas are approaching on a route different from that of the Marine unit, the unit remains on the trail in a freeze position. The unit leader signals commence firing when the guerrillas present suitable targets.

3 Same Trail.--On initially sighting the enemy, the freeze is executed. The individual making the sighting indicates the number of enemy by silent signal and then moves off the trail. Each individual relays the signal and moves off the trail on the same side used by the originator.
It is essential that the entire unit move to the same side of the trail. Speed of execution and silent movement are mandatory. Any unnatural sound may cause the guerrillas to turn and flee. Each man takes up a firing position facing the direction of enemy approach. The unit leader initiates the ambush by firing his weapon. In the event the guerrillas sight any unit member, that individual fires and springs the ambush.

c. Immediate Assault.—The immediate assault is a tactic used during an unexpected encounter at close quarters. It is a predrilled response to situations in which the guerrillas and the Marine unit become aware of each other at the same time. The immediate assault drill is a rapidly executed frontal assault.

   (1) The drill is usually initiated by the first member of the unit who sights the enemy. He fires at the enemy and shouts a prearranged signal indicating the direction of the encounter; e.g., "enemy front (left, right), charge."

   (2) The signal is repeated by each individual.

   (3) The unit adopts the line formation. The line is oriented in the indicated direction of contact. A predesignated subordinate unit is withheld from the line to protect the flanks and rear.

   (4) The unit leader sounds a prearranged assault signal.

   (5) The assault is pressed forward until halted by the unit leader, usually when the guerrillas are no longer in sight.

d. Counterambush Drill.—There is no generally accepted immediate action for foot troops when ambushed. Adherence to the principle of security in avoiding an ambush is easier than escape from one. When ambushed, violent and concerted reaction is required to prevent annihilation. Small units must have a prearranged plan, known to every man, that/allots a specific immediate action to each individual in accordance with his location and function in the formation.

   (1) Entire Unit in Killing Zone

      (a) It is seldom possible to find covered or concealed positions within the killing zone from which to exchange fire with the enemy. The unit may execute the immediate assault in the direction indicated by the unit leader. The direction indicated is normally what appears to be the weakest point in the ambush and is a prearranged counterambush drill.

      (b) The unit may initially execute a preplanned movement to a position outside the killing zone indicated by the unit leader. The position is normally one which provides cover and/or concealment and is the location from which a subsequent drill is undertaken to eliminate the enemy.

   (2) Leading Element in Killing Zone.—When only the foremost elements of the unit are caught in the killing zone, an immediate encircling attack is executed.

      (a) Elements within the ambush indicate the nature and location of the ambush by prearranged signal; e.g., by voice, "ambush front (left, right)," or by whistle or other signals.
Figure 90.--Encircling Attack.

(b) Ambushed elements execute the immediate assault.

(c) Previously determined base of fire elements from subordinate units not yet engaged assume base of fire positions. These fires simultaneously support encircling maneuver elements and the units in the killing zone.

(d) The encircling attack units move out in a prearranged envelopment of the enemy flank and/or rear. (See fig. 90.)

(e) Whenever possible, the enemy rear is enveloped. The assault by the encircling units drive the enemy into the fires of the base of fire elements.

4. SEARCH TECHNIQUES

a. General.--In counterguerrilla operations, the rifle company must have the capability to effectively seize and thoroughly search villages. This section provides the company and platoon commander with the techniques of village seizure, clearing, and search operations. The attack of a fortified village is not treated herein.

b. Seizing and Searching Friendly or Neutral Villages.--The ability to seize and search a village results in the capture of guerrillas, reduces their effectiveness, and encourages the cooperation of the local population. The objective is to develop methods of capturing or killing guerrillas in a friendly or neutral village without alienating or harming residents or damaging their property.

1) Principles.--Villages and hamlets vary from place to place and the details of procedure may vary, but the principles remain constant. The principles of village seizure and search are these:

(a) Purpose for the Operation. A village clearing operation is never undertaken for its own sake alone. It derives from some specific
The aim may be psychological warfare, a show of force and support, or apprehending guerrillas based on intelligence information received. Patrols are never sent into villages with vague, general orders, with neither the patrol leader, nor his troops, nor the villagers themselves being clear on the precise aim of the intrusion. This results in a wide scale of effects, ranging from ineptitude and a laughing guerrilla to excesses and a village population driven to resentment.

(b) Know Your Enemy.--Every enemy develops a behavior pattern which varies from district to district, and from time to time, often as a reaction to the methods of the military's efforts. Knowledge of this behavior pattern is one of the most important weapons in the commander's armory. He must study it, watch for variations, and keep abreast of it constantly. Typical questions are:

1. Where do guerrilla groups live? In the villages? On the edge of the village? 500-1,000 meters outside the village? concentrated?
2. If living in the villages, do they disperse or live location, e.g., near fringing jungle, etc.?
3. If living concentrated, do they favor any particular location; e.g., near fringing jungle, etc.?
4. How are they fed? Do they come together for meals? Do they eat dispersed in individual huts?
5. What are their alarm arrangements?
6. What are their security arrangements?
7. What get-away techniques do they favor? Dispersion among villagers? Escape individually or in small groups?

(c) The Village.--The following questions should be answered:
1. Size; what shape; how many huts?
2. Fortifications? Where? What type?
3. Tunnels?
4. Location? Open country, jungle all around, on edge of jungle, etc.?
5. Livestock, dogs, poultry, pigs, cows, buffalo?

(d) The Villagers.--The following questions should be answered:
1. Number?
2. Ethnic group or groups?
3. Religion or religions?
4. History of relations with guerrillas?
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5 Industry? Rice, timber, etc.?
6 Where are the young men?
7 Where do the guerrillas normally hide weapons? In roof thatch? In double walls? In pits outside the house? In the fields?
8 Are the villagers sympathetic to the guerrillas? Terror-ized? Apathetic?
9 Are any elements progovernment?

(e) A well-rehearsed procedure.—Search and seizure opera-
tions are combat operations and, like other operations, require plan-
ning and training. The final plan is a welding together of a number of
familiar, well-known procedures. The plan varies from place to place.
The individual procedures will vary little. Attempts to improvise pro-
cedures on the spot invite failure. A company must be trained for this
operation.

(2) Organization.—A rifle company may conduct search operations
independently or as part of a larger unit. The tactical organization for
conduct of operations is as follows:

(a) General Organization.—The first step is to designate a
blocking or cordon force, an assault force, and a headquarters group. Unit
integrity is maintained to the maximum extent possible.

(b) Special Organization.—The two forces are further orga-
nized into subordinate elements. The blocking or cordon force is organized
into a blocking element, security element, and mobile reserve. The assault
force may be organized into the following elements as appropriate:

1. Reconnaissance team.
2. Search teams.
3. Civilian control and interrogation team.
4. Prisoner-of-war team.
5. Fire support team.

(3) Execution.—There are three main steps in seizing and search-
ing a village:

(a) Isolation.—The first step is the isolation of the village. This is the task of the blocking or cordon force. It is necessary to seal
off escape routes to prevent the guerrillas from leaving the village prior
to its seizure, and to prevent persons outside from warning or reinforcing
those in the village.

1. The village is surrounded by a cordon, the blocking
element of the blocking force. These troop units approach by as many dif-
ferent routes as possible. Secrecy, noise discipline, and light discipline
are paramount. Surprise is required. When the troops are close to their
line of encirclement, they double time to their final positions. The aim
must be to try to surround an area before the inhabitants realize what is happening. A cordon established in darkness needs to be as continuous as possible, but it can be thinned out after daylight as long as close observation between individuals or observation posts is maintained. Normally, it is impossible to maintain a continuous cordon for any length of time due to the large number of troops required. If necessary, cordon troops should dig in and/or take advantage of natural cover.

2. If there is a chance hostile elements from outside may attempt to interfere with the search, it may be necessary to use a security element of the blocking force to prevent their approach toward the cordon. At all costs, such persons must be prevented from joining the inhabitants of an area under search.

(b) Seizure.--The second main step is seizing the village. The seizure is accomplished after the cordon is established.

1. The officer in command informs the villagers by banner, loudspeaker, or through the leader of the community of the following:
   a. The area is to be searched.
   b. A house curfew is in force and all inhabitants are to remain indoors, or all inhabitants are to gather at a central point for searching.

2. On signal from the commander, the assault force enters the village, crossing the cordon perimeter at as many points as possible. The troops avoid using known gates and paths to avoid boobytraps and bear pits.

3. Once in the village, the assault troops fire only at known enemy targets, their object being to clear the village as quickly as possible. Houses are not entered at this stage. The fire support teams may be assigned fire positions sighted along possible escape routes. During the assault, a minimum of two men may be positioned at each house or likely hiding place to prevent any guerrilla movement or fire from inside.

4. As soon as the village has been seized, the commander moves his headquarters to the village to organize the detailed search.

(c) Village Search.--The third main step is searching the village. The commander assigns areas for search. There must be a system of search whereby every house is thoroughly searched for any hiding place, hidden weapons, entrances to underground tunnels, etc. In addition, each team must be supported by a fire unit. It must be remembered that the bulk of the villagers may be neutral, and because of this, there must be no indiscriminate firing. Units fire only when fired upon.

1. When searching a building with inhabitants inside, the first action required is to get everyone into one room. When searching, imagination is needed but every effort must be made to avoid causing wanton and unnecessary damage. When a house has been searched, it must be marked accordingly. Persons awaiting search must not be able to move into a building marked as searched.

2. When it is decided to search inhabitants in one central area, the villagers are segregated into one group of women and children and
a second group of men. Both groups are guarded. It will be necessary to
have one person remain in every house so that he or she can be present
when the house itself is searched. If this is not done, the owner is in
a position to deny knowledge of anything incriminating that is found and
to claim that it had been planted.

3 A great problem in all search operations is the accus-
sation of theft and looting which is often made against the troops. In
small searches, it may be possible to obtain a signed certificate from
individual householders that nothing has been stolen, but in a large
search this is likely to be impossible.

4 The prisoner-of-war team(s) are responsible for erect-
ing any cages (compounds) required, guarding persons inside, and acting as
escort troops for suspects found by the search teams. Separate cages must
be provided for men, women, and suspects, and must be out of sight of each
other. Children must not be regarded automatically as innocent, since they
may have been trained to be hostile by parents and teachers. As a general
rule, if under 12 years of age, children should be kept with women.

5 Interrogation is of greatest importance, but this must
be regarded as a specialist task. The interrogator should be a member of the
battalion intelligence section attached to the company for the operation.

Figure 31.--Perimeter Search.
APPENDIX E

CASUALTY CARE AND EVACUATION IN THE PLATOON LINE

1. GENERAL

A medical team of 11 corpsmen is assigned to and operates with each rifle company in training and in combat. The company medical team is distributed as follows: the senior corpsman, designated the company corpsman, is assigned to company headquarters; the other 10, designated platoon corpsmen, are attached to platoons, normally one to the weapons platoon and three to each rifle platoon.

a. Casualty care in the platoon zone of action is the responsibility of the platoon commander. To assume that responsibility, the platoon commander must be aware of the facilities for casualty care and evacuation. He must also be able to plan for their proper use in combat. Not only does the ultimate welfare of the casualty call for efficient care and evacuation, but the performance and record of the platoon in present and subsequent engagements will be greatly influenced by proper handling of casualties. The loss of effectives among highly trained combat troops, when they are utilized for removal of the wounded because proper planning did not provide for litter bearers from supporting elements, may result in a disastrous lack of firepower when it is most needed in the attack.

b. Facilities for casualty care and evacuation in the forward zone of action consist of the following: the individual Marine and his buddy, platoon corpsmen, litter bearers from various sources, jeep ambulances from the battalion medical platoon, and most often, helicopters. The capability, availability, and employment of each of these facilities will be discussed in some detail.

2. INDIVIDUAL MARINE AND HIS BUDDY

During the training period, the platoon commander will ensure that all personnel are instructed by battalion medical personnel in basic first aid for battle wounds. Further, the individual Marine should be taught that, if wounded, he must remain calm. If his wound is minor, he or his buddy should apply a battle dressing and continue to deliver fire until the action lessens. If more seriously wounded, he should make his way, if able, to a place of relative safety and have the word passed for the platoon corpsman. If unable to move, his buddy may assist him. Such movement should be out of the direct line of fire. The ability of a buddy to give aid is dependent on the tactical situation.

3. PLATOON CORPSMEN

a. Hospital corpsmen are assigned from the battalion medical platoon on the basis of three per rifle platoon. They are as much a part of the platoon as any other member; however, corpsmen have not had as complete training as the combat infantryman and, initially, may require more tactical guidance and leadership from the platoon commander and his subordinate leaders. The platoon corpsman is a well trained technical assistant; he has been through naval recruit training, 12 weeks of instruction in hospital
corps school, and 5 weeks special instruction at a field medical service
school. On joining the platoon, he must be made a part of the team. The
platoon corpsman, to properly and efficiently carry out his duties, must
have the confidence and backing of the platoon commander in matters that
deal with his technical specialty.

b. During the development of the attack, battalion corpsmen assigned
to rifle platoons are normally positioned one to each squad. The corpsman
assigned to the weapons platoon, initially, is positioned with the platoon
command group. In both cases, however, the platoon commander may desire
to position his corpsmen differently, based on his estimate of the situa-
tion and scheme of maneuver.

4. PLATOON CORPSMAN DUTIES PRIOR TO AND DURING THE ATTACK

Prior to and during the attack, the corpsman will:

a. Consult with the platoon commander on the objective of the attack,
the terrain features involved, possible routes of evacuation, the avail-
ability of litter bearers and the position he will take in the attack for-
mation.

b. Remove or direct removal of casualties to a place of relative safety
where the corpsman can administer such first aid as indicated. This does
not mean removal from the platoon zone of action, but only to a place pro-
tected by terrain features from direct aimed fire. In this connection, it
is emphasized that it is neither necessary nor desirable that a corpsman
expose himself recklessly to direct aimed fire to go to the assistance of
a casualty in an exposed position. Covering fire, smoke screen, or empl-
lement of a tank for a shield may need to be used in making medical evacua-
tions under fire. Usually, if the assault is moving, the corpsman will be
ordered to delay until the casualty lies behind the advance. These pre-
cautions are not only for the preservation of the corpsman, but for the
casualty as well, lest he become a target during evacuation over fire-
swept terrain.

c. While giving first aid, the platoon corpsman will decide whether or
not the condition of the casualty is serious enough to demand evacuation.
If in the corpsman's judgment the condition of the casualty so demands, he
will direct the casualty to the route of evacuation or, if litter bearers
are necessary, will contact the litter squads by voice, runner, platoon
radio, or field phone. The platoon commander must be aware that certain
types of casualties demand high priority of evacuation if they are to have
the best chance of survival (penetrating wounds of the abdomen, etc.), and
that the corpsman's judgment should be adhered to on such occasions, when-
ever the tactical situation allows.

5. COMPANY CORPSMAN

a. While the corpsman assigned to a rifle company headquarters is not
a part of a rifle platoon, he may play an important role in evacuation
from a platoon zone of action by prompt dispatching of litter bearers when
needed. He will also secure replacement platoon corpsmen and supplies
when necessary.

b. It is mandatory that this corpsman be briefed by the rifle company
commander on anticipated platoon activities if he is to properly plan for
litter bearers, plan evacuation routes, and secure facilities for evacuation to the rear.

6. LITTER BEARERS

Litter bearers are sometimes assigned from battalion headquarters. Such personnel as messmen, clerks, or bandsmen often being utilized. Stretcher teams are usually stationed with the corpsman at rifle company headquarters. Many variations occur, however, and it is to be emphasized that this source of litter bearers should not be taken for granted. In planning his attack, the platoon commander must assure himself of an adequate number of litter teams. Eight men per rifle company are considered adequate unless unusually heavy casualties are anticipated. Other sources of litter bearers are:

a. Members of the Rifle Platoon.--This source is mentioned only to be discouraged, although it will be well recognized that in an emergency or through poor planning, this is the only source available at times. Utilization of platoon personnel may result in a disastrous lack of firepower when it is most needed during the attack.

b. Members of the Reserve Platoon.--Here again it is recognized that in an emergency, this source must be employed. However, to rely on this source is not good practice because in the attack, when large scale casualties occur, the reserve platoon will usually be committed to action. In a moving situation, the reserve platoon is used to maintain contact with adjacent units, as a flank or rear guard, and for numerous other tactical duties. If the platoon is used for casualty evacuation, the company commander may be caught short handed.

c. Native Laborers.--Availability of native laborers for litter bearers depends on the local situation. Natives have been used for carrying rations, water, and ammo forward on litters and for evacuation of personnel on the return trip. Careful planning and supervision must be maintained.

(1) Many times, casualties who would demand litter carry, as judged by civilian standards, must make their way on foot and may do so without further injury. The platoon corpsman is the best judge of the patient's ability in this regard. Care must be taken in the administration of morphine by nonmedical personnel to ensure against making a litter case out of an ambulatory casualty.

(2) Litter bearers are vital from the standpoint of the survival of the casualty, in the maintenance of good morale, and most of all, to prevent loss of firepower to the assaulting platoons. Provisions for litter bearers must be included in plans.

7. AMBULANCES

An ambulance is normally available at battalion headquarters and it functions as far forward as the terrain and enemy activity will permit to prevent prolonged carrying of litters. When these vehicles are called forward, explicit instructions must be given as to routes taken and the exact location to which they are to proceed. Inasmuch as these vehicles frequently draw enemy mortar and artillery fire, they should not be brought up to an area under direct observation of the enemy. Casualties can and should travel by any conveyance available returning to the battalion aid station.
station or command post area from the front when ambulances are not immediately available.

8. HELICOPTER EVACUATION

a. Evacuation by helicopter is, of course, the ideal evacuation method. However, they should be used with discretion as their number is usually limited and they draw enemy fire when observed. This type of evacuation is available day and night at the rifle company level. Inasmuch as helicopters usually bypass the battalion aid station after picking up a casualty in the rifle company zone, care should be exercised that minor wounded are not evacuated by this means lest their ultimate return to duty be extended, and helicopters thereby used needlessly.

b. Helicopters are normally requested through battalion, but the platoon and rifle company commanders should be aware of their availability under all circumstances.

c. In those cases where the platoon commander has the capability or may be required to call in a helicopter for casualty evacuation, a landing site in the immediate area must be located and cleared. Flat open spaces and hilltops are good locations, provided that all-around security can be established. It is imperative that physical security be provided out to the effective range of small arms fire, if at all possible. When patrolling in the jungle highlands, a landing site may have to be cleared by the platoon. Tools likely to be used would be chain saws, hatchets, K-bars, entrenching tools, and explosives such as TNT and C-4. In extreme cases, where single and double canopy exists, casualties may have to be evacuated by hoisting as the helicopter hovers overhead. This necessitates extremely accurate map reading and communications with the helicopter. For normal operations when the helicopter approaches the landing site, the platoon commander should throw a smoke grenade to mark his position and show the pilot the direction of the wind. The platoon commander should also inform the pilot of the friendly position and the enemy position and situation. Particularly in a debris-strewn landing site, a Marine should direct the helicopter in, signalling where it is clear for the aircraft to land in the site. All Marines in the platoon should be trained in directing helicopters into a landing site, requesting medical evacuation helicopters from the company commander and communicating with the pilot over the radio. Radio communications are particularly important in night operations. Because of the inherent danger in night evacuation, the seriousness of the wound must be considered. It might be advantageous to wait until first light to evacuate the casualty. If night evacuation is necessary, it is preferable to form a triangle with flashlights or small fires to outline a landing point for the helicopter. Unit SOP's may be established so that the apex of the triangle indicates the direction in which the nose of the helicopter will point when setting in the zone and also the best direction for takeoff. Do not shine lights on the helicopter as it approaches, since this may confuse the pilot in addition to making a better target for the enemy. It is obvious that excellent signals and communications are essential for night evacuation by helicopter.

9. BATTALION AID STATION

a. The next medical echelon to the rear is the battalion aid station, having two medical officers and 21 hospital corpsmen. They are equipped with one jeep ambulance which works as far forward as possible. The
function of the battalion aid station is to give further first aid, check continued hemorrhage, re-bandage where indicated, apply splints if needed, and give supportive therapy for shock in the form of plasma and serum albumen in order to put the seriously wounded casualty in condition to withstand further evacuation.

b. This station also serves as a holding point for minor casualties, heat prostrations, minor psychiatric cases, and others, in which a return to frontline duty is anticipated in a matter of 24 to 36 hours.

10. CASUALTY HANDLING METHODS

a. The platoon commander is briefed for the attack by the rifle company commander; the company corpsman should be present at this conference to advise on the need for, and the availability of litter bearers, jeeps and helicopters, and details of routes of evacuation.

b. The platoon corpsmen should be present when the squad leaders of the platoon are briefed. The position of the corpsmen in the assault will be decided upon, routes of evacuation discussed, and a place selected for the collection of casualties for evacuation to the rear. Information regarding the availability of litter bearers will be passed on to the corpsmen and squad leaders.

c. When a casualty occurs as the attack develops, the wounded man, if possible, will make his way back to a relatively protected spot and the word quietly passed for one of the platoon corpsmen who will go forward to give first aid. The necessity for passing the word back quietly and efficiently is important. Loud shouting for a corpsman by all the men in the vicinity may have a demoralizing effect on green troops. Incidents have occurred when inexperienced troops have actually panicked because of frenzied shouting of the whole squad for a corpsman to take care of a single casualty. The call for a corpsman is sometimes passed by code or the corpsman's name.

d. If there is heavy firing in the area to be traversed by the corpsman, the platoon commander may prevent the corpsman's going forward until a reasonable chance of success is apparent.

e. After giving first aid, the corpsman will make a recommendation to the platoon commander on the disposal of the casualty.

f. If litter carry is indicated, the corpsman will contact the litter bearers by voice, runner, or by the use of the platoon radio or field phone. If the situation is such that jeep ambulances can be brought forward with relative safety, the platoon commander shall inform the rifle company commander, who will order the ambulances up and assume responsibility for their employment. If the patient's condition demands helicopter evacuation, the platoon commander shall so inform the company commander, who will decide on the advisability of bringing a helicopter into the area and communicate the request to battalion if affirmed.

g. If evacuation is interrupted by enemy interdiction, casualties will be collected in a relatively safe spot and company headquarters informed of the situation. If large-scale casualties occur and their care is beyond the capabilities of the platoon corpsmen and assigned litter bearers, these facts will be made known to company headquarters and assistance will be requested.
11. CASUALTY CARE AND EVACUATION ON PATROL MISSIONS

Under no other circumstances is detailed planning so necessary to ensure adequate casualty care and evacuation as for patrol actions. When a casualty occurs on a patrol, several courses of action are open to the patrol leader:

a. Take the casualty along with the main body of the patrol. Such action will be taken when the wound is minor, when the patrol is nearing its objective, when return route of the patrol is not to be along the route of original advance, or when the route of evacuation is too insecure to send him back or leave him at a collecting point with attendants.

b. Leave casualty or casualties at designated rally points along the route of advance. This method is indicated when the patrol is to return shortly over the same route and sufficient personnel can be left with the casualties to ensure reasonable protection. This method may also be used if supporting elements have the capability of coming out to collecting points to accomplish evacuation.

c. Evacuation by motor transport or ambulance if route is secure.

d. Evacuation by helicopter if this means is available. The patrol leader should consider the following factors in deciding which method or combination of methods will be utilized on any given patrol:

(1) Mission.
(2) Size of patrol.
(3) Estimated enemy contact.
(4) Distance patrol will probably advance from a base line and route of return.
(5) Expected duration of a patrol.
(6) Ability of supporting elements to come to the relief of the patrol should heavy casualties be taken.
(7) Whether or not supporting elements are to move up to consolidate position of contact.
(8) Efficiency of communications.
(9) Availability of helicopters and efficiency of their use under the anticipated circumstances.

e. Methods may change as the patrol action develops, but adequate planning will facilitate proper casualty care under all but the most unusual circumstances.

12. CASUALTY CARE AND EVACUATION IN THE DEFENSIVE SITUATION

a. In the ideal defensive situation, where all units are tied in, communications to higher echelons are open and close liaison has been established with all supporting units, casualty care and evacuation should
be at its highest peak of efficiency. Platoon commanders must ensure, however, that all available means mentioned heretofore are in readiness day and night. When action is light, there is time to take stock of the health of the platoon and to inaugurate such measures indicated to prepare it for further offensive action. Minor wounds and complaints are attended, and the borderline cases of physical unfitness may be evacuated from the platoon.

b. In other defensive actions, where the platoon is occupying an extended front or required to defend isolated outposts, casualty care can be a serious problem. All facilities outlined under the care and evacuation during the assault must be considered for use and their employment planned for. It is particularly important that in the defense of isolated outposts, the most protected area in the perimeter of defense be utilized as a collecting point for casualties and higher echelon notified of such an accumulation of ineffectives.
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   FM 31-50, Combat in Fortified and Built-Up Areas
   FM 31-60, River-Crossing Operations

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