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FM 7-35

WAR DEPARTMENT • FIELD MANUAL

INFANTRY

ANTITANK COMPANY, INFANTRY REGIMENT AND ANTITANK PLATOON, INFANTRY BATTALION

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WAR DEPARTMENT • 15 MARCH 1944

RESTRICTED CHANNON, R. L.

FM 7–35
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WAR DEPARTMENT FIELD MANUAL

INFANTRY ANTITANK COMPANY, INFANTRY REGIMENT AND ANTITANK PLATOON, INFANTRY BATTALION

CHANGES No. 1 } WAR DEPARTMENT,
WASHINGTON 25, D. C., 13 November 1944.

FM 7–35, 15 March 1944, is changed as follows:

2. ARMAMENT.

* * * * *

b. Crew-served weapons.

* * * * *

(2) ANTITANK ROCKET LAUNCHERS.

* * * * *

(*a*) **Launchers are issued on the basis of one per gun squad** in the antitank squad, and one to the platoon headquarters in the antitank mine platoon. They are normally * * * (See app. I.)

* * * * *

13. WARNING SYSTEM.

* * * * *

d. Warning signals. To give warning of the approach or presence of hostile aircraft or **armored** vehicles, the following standard warning signal is prescribed: three long blasts of a whistle, vehicular horn, siren, or klaxon, repeated several times; or three equally spaced shots with a rifle, carbine, or pistol; or three short bursts of fire from an automatic weapon. In daylight, the * * * may be employed.

WO 71D 610404°—44

14. ACTION IN CASE OF AIR ATTACK. (Superseded.)

a. Regardless of the effectiveness of the security measures taken by higher command through the offensive action of combat aviation, all units must consider the probability of air attack and reconnaissance and employ appropriate security measures. Passive measures include dispersion, concealment, and camouflage. Active measures comprise firing at enemy airplanes.

b. (1) Upon receiving warning of air attack, personnel of the antitank company in position, bivouac or billets seek the nearest concealment or cover and remain motionless, except gun crews who are engaged in a fire fight with hostile tanks. Such crews continue to combat the tanks.

(2) When on the march, foot troops deploy and seek cover. When the situation indicates the necessity for continued movement, and the time of warning permits, foot troops deploy off the road and continue the march. Motorized troops continue the march. The company must be prepared to accept some casualties rather than arrive late at the destination.

c. Crews of caliber .50 machine guns and individuals armed with rifles should be constantly prepared to fire on low-flying aircraft upon command or prearranged signal of the company commander or responsible unit leader. No aircraft will be fired upon unless it has been clearly recognized as hostile, or is positively identified as hostile, or attacks with bombs or gunfire.

21. CLASS V SUPPLY.

* * * * *

(2) Initial supply of * * * carried as follows:

For—	*Carried on—*
Antitank guns____	Prime movers **and company ammunition vehicle.**

* * * * *

b. Replenishment.

* * * * *

(2) GENERAL PLAN OF REPLENISHMENT. (*a*) Ammunition for the antitank guns and other weapons is ordinarily delivered to the company ammunition supply point **by the company ammunition vehicle and/or** by vehicles of the regimental train. The company distributes * * * (See fig. 4.)

* * * * *

(5) ANTITANK PLATOON. (*a*) *Replenishment in attack.*

1. Because of the * * * the ammunition supply. If replenishment in larger quantities becomes necessary, **the company ammunition vehicle should be used and/or** arrangements made for use of additional vehicles from the regimental train.

* * * * *

83. AMMUNITION SUPPLY. The company commander * * * becomes seriously depleted. Upon occupation of the position, **the company ammunition vehicle** and regimental train vehicles are unloaded in covered and concealed locations as close as practicable to localities where their loads are to be used. As soon as the vehicles

are unloaded, they are withdrawn to the rear, at which time **the company ammunition vehicle** and regimental train vehicles revert to company and regimental control respectively. **If the company commander anticipates the early need of additional ammunition and the terrain permits, the company ammunition vehicle, after being reloaded with ammunition, may be retained at the company ammunition supply point; otherwise, it should revert to regimental control in the train bivouac.** Replenishment of * * * see paragraph 21.

88. NIGHT WITHDRAWAL.

* * * * *

d. (1) If considerable amounts * * * or assembly area. **The company ammunition vehicle may also be used for removal of ammunition.** Provisions should be * * * cannot be removed.

* * * * *

151. ANTITANK MINES. An antitank mine * * * of a tripwire. For a description of antitank mines, including assembly, disassembly, care in handling, burying and camouflaging and packing and marking, see FM 5–31.

152. OTHER MATÉRIEL EMPLOYED AS ANTITANK MINES.

* * * * *

b. Bangalore Torpedo. For use of the Bangalore torpedo as an antitank mine, see FM 5–31.

155. DELIBERATE MINE FIELDS. A deliberate mine * * * this type of operation. For deliberate mine field patterns, organization for laying, duties of personnel and operation of antitank mine details, camouflage and removal of deliberate mine fields, see FM **5–31.**

156. HASTY MINE FIELDS. A hasty mine * * * (see app. III). For the hasty mine field pattern, drills for laying the pattern, organization of an antitank mine detail, and duties and methods of operation of the lay-out party, surveying party, and laying party or parties, see FM **5–31.**

158. ROAD BLOCKS. a. General. A road block * * * around the block. In a mined road block, mines alone may be quickly placed across a road and sufficiently beyond to block the movement of enemy vehicles, or the road itself may be blocked by other obstacles, while the mines are used on one or both flanks to prevent vehicles from detouring around the road block. (See FM **5–31.**)

159. BARRIERS. A barrier is defined as a large system of bands and zones of obstacles. (See FM 5–**31.**) Barriers are especially * * * hostile armored vehicles.

175. SUPPLY. a. The battalion commander * * * the platoon sergeant * * * the ammunition and pioneer platoon of the battalion headquarters company may assist in ammunition supply. (See FM 7–**30.**)

* * * * *

178. MISSIONS. *a. Primary* **Mission.** The primary mission * * * its own battalion.

* * * * *

183. AMMUNITION SUPPLY.

* * * * *

c. (1) **In an attack,** because of the limited mobility of the antitank gun when moved by hand, the prime mover should normally remain under cover near the gun position. The platoon headquarters * * * the ammunition supply. If replenishment in * * * regimental train. The **prescribed** ammunition loads of prime movers should be maintained as continuously as possible. In a rapid forward * * * from higher headquarters.

(2) The hand carry of ammunition from the location of the prime mover is controlled by squad leaders, under the general supervision of the platoon leader and platoon sergeant.

Subparagraphs e and f are relettered d and e.

199. ATTACK IN WOODS.

* * * * *

c. During the advance * * * of the woods. In fairly open * * * front and flanks. When a platoon of the antitank company is **attached** flank guns may be reinforced with guns from this platoon. Where the woods * * * will be necessary.

* * * * *

APPENDIX III

GENERAL TRAINING

3. MINES AND BOOBY TRAPS. As members of * * *. (See d (1) below.) For methods and principles of training in the employment of mines and booby traps see FM 5–31, TM 5–325, and TM 11–1122.

c. Antitank mine platoons. The antitank mine platoon will be trained in methods of laying, marking, and registering mine fields (see fig. 23); recognition of all types of mines and booby traps used by friendly and enemy troops; technique of disarming, lifting, and destroying activated antitank and antipersonnel mines and booby traps of all types used by friendly and enemy troops; gapping extensive mine fields.

[AG 300.7 (25 Oct 44).]

BY ORDER OF THE SECRETARY OF WAR:

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OFFICIAL:

J. A. ULIO,
Major General.
The Adjutant General.

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INFANTRY

ANTITANK COMPANY, INFANTRY REGIMENT AND ANTITANK PLATOON, INFANTRY BATTALION



WAR DEPARTMENT • 15 MARCH 1944

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This manual supersedes FM 7–35, Antitank Company, Rifle Regiment, 23 May 1941, including Changes No. 1, 31 December 1941, and Training Circular No. 38, War Department, 1942.

NOTE. Attention is directed to FM 21–7 for details as to how appropriate Training Films and Film Strips are intended to be used and how they are made available for use during training.

PART ONE

ANTITANK COMPANY INFANTRY REGIMENT

CHAPTER 1

GENERAL

SECTION I

COMPOSITION

1. ORGANIZATION. a. *General.* The antitank company consists of a company headquarters, three antitank platoons, and one antitank mine platoon (see fig. 1).

b. Company Headquarters. The company headquarters personnel are divided according to the nature of their duties into the command group and the administration group.

(1) COMMAND GROUP. This group consists of the

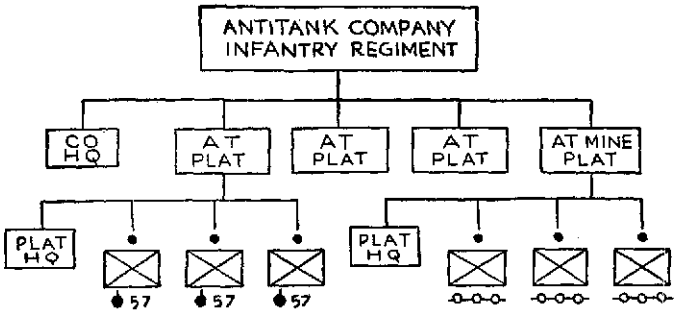


Figure 1. Composition of the antitank company.

company commander, second-in-command, reconnaissance officer, first sergeant, communication sergeant, reconnaissance sergeant, bugler, radio operators, messengers, and basic privates. The company commander employs the command group primarily to assist him in making the necessary preparations for employing the company in combat and in controlling it during combat. Duties of individuals are as follows:

(*a*) *Company commander.* The company commander is responsible for the training, discipline, control, tactical employment, supply, and administration of the company. For details of his duties during combat, see section III of this chapter. For a description of his duties in training, see appendixes III and IV.

(*b*) *Second-in-command.* The second-in-command operates in and from the company command post to assist the company commander. He is frequently charged by the latter with the specific duty of assisting in the delivery of ammunition, rations, water, and gasoline. He must keep abreast of the situation, and be prepared to assume command of the company immediately if the company commander becomes a casualty. He may be

used by the company commander as his representative at the regimental command post.

(*c*) *Reconnaissance officer.* The reconnaissance officer assists the company commander in conducting the reconnaissance. He also assists, when necessary, in directing or guiding platoons to areas or positions designated by the company commander. For a discussion of his duties in reconnaissance, see paragraph 10.

(*d*) *First sergeant.* The first sergeant, under the supervision of the company commander, establishes and operates the company command post. He assists the company commander in maintaining contact with the regimental command post, antitank platoons, antitank mine platoon, administration group, and company transport. When the communication sergeant is performing duties away from the company command post, the first sergeant may be required to operate or supervise the operation of the company message center (see also (*e*) below).

(*e*) *Communication sergeant.* The communication sergeant is the principal assistant of the company commander in maintaining communication. He is responsible for the establishment and operation of the unit message center at the company command post, and for the installation, operation, and maintenance of communication equipment throughout the company. He may frequently be required to accompany the company commander at the observation post, or in his movements throughout the company area. During such absence from the command post, the company message center may operate under the supervision of the first sergeant, or may be maintained by other available personnel as directed by the communication sergeant, in the first sergeant's absence. The communication sergeant is responsible for the training of appropriate company personnel in the installation, operation, and maintenance of communication equipment issued to the company. (See app. III.)

(*f*) *Reconnaissance sergeant.* The reconnaissance sergeant performs such reconnaissance as may be assigned to him by the company commander or reconnaissance officer. He may assist in the establishment of the observation post, and may also act as a guide.

(*g*) *Bugler.* The bugler is trained to act as a signalman, guide, observer, and messenger. He drives the company headquarters radio truck (¾-ton weapon carrier, equipped with radio), and is responsible for driver maintenance.

(*h*) *Radio operators.* The radio operators are trained to operate the radio set issued to the company for communication in warning nets or with higher headquarters, in conformity with the current plan of signal communication. They aid in the training of other company personnel in the operation of the radiotelephone used in the company command net. They may receive their training in code practice, and in the installation, operation, and maintenance of radio sets, with the regimental communication platoon.

(*i*) *Messengers.* Messengers when not engaged in carrying messages, may be used as guides, and as assistants to other personnel at the company command post. They are trained in the operation and maintenance of the company communication equipment. They drive the ¼-ton trucks assigned to company headquarters and are responsible for driver maintenance.

(*j*) *Basic privates.* The basic privates are used as replacements, and are trained as observers and messengers.

(2) ADMINISTRATION GROUP. This group consists of the transportation sergeant, supply sergeant, armorer-artificer, mess sergeant, cooks and cooks' helper, automobile mechanic, and company clerk. Their principal duties are:

(*a*) *Transportation sergeant.* The transportation sergeant is in charge of the company transport. He super-

vises the operation and maintenance of the motor vehicles of the company. For his duties in ammunition supply, see paragraph 21.

(*b*) *Supply sergeant and armorer-artificer.* The supply sergeant is responsible for the replenishment and distribution of all supplies, except rations and water. He keeps the company commander informed of the needs of the company. He also supervises the work of the armorer-artificer. During combat, he will usually be in the forward area in order to assist the company commander in matters relating to supply, particularly of ammunition. The armorer-artificer will usually be in the train bivouac, where he assists in the procurement and distribution of supplies, executes minor repairs on weapons and other equipment, and performs simple carpentry tasks.

(*c*) *Mess sergeant, cooks, and cooks' helper.* The mess sergeant is responsible for checking the rations and water issued to the company, the division of rations into meals, the supervision of the cooks and cooks' helper in the preparation of meals, and the distribution of meals to the company. He and his assistants work in the regimental train bivouac, under the direct supervision of the service company commander, except when distributing meals in the forward area.

(*d*) *Automobile mechanic.* The automobile mechanic performs company maintenance of company transportation under the supervision of the transportation sergeant. He drives the maintenance truck (¾-ton weapon carrier), and is responsible for driver maintenance. (See par. 24.)

(*e*) *Company clerk.* The company clerk keeps the company records. As a member of the regimental personnel section, he functions under the personnel officer. In combat, the personnel section may be separated from the regiment, and operate and move with the rear

echelon of the division or corps; otherwise, it operates in the regimental train bivouac.

c. *Platoons.* For the composition of antitank platoons and the antitank mine platoon, see figure 1 and paragraphs 97 and 149, respectively.

2. ARMAMENT. *a. General.* The armament of the antitank company includes crew-served and individual weapons.

(1) The crew-served weapons are the 57-mm antitank gun, the antitank rocket launcher, and the caliber .50 machine gun.

(2) The individual weapons are the rifle, the carbine, and the pistol.

(3) For descriptions and characteristics of weapons, see TM 9–303 and FM 23–5, 23–7, 23–30, 23–35, 23–65, and 23–75.

b. Crew-served Weapons. (1) 57-MM ANTITANK GUN. The principal weapon of the antitank company is the 57-mm antitank gun. This gun has a high muzzle velocity and flat trajectory; its practicable rate of fire is 15 to 20 rounds per minute. The rate of fire is influenced more by observation of effect than by any limitations of the piece. It has a relatively wide traverse (90°); the trails can be shifted readily to permit it to engage targets appearing beyond this traverse.

(*a*) *Ranges.* The effective range of the gun when used against moving vehicles is limited largely by the ability of the gunner to secure hits on a moving target. Normally, fire will not be opened against tanks at ranges greater than 800 yards. Fire opened at longer ranges, or without regard for the terrain, subjects the gun positions to premature disclosure and consequent loss of surprise. Such action enables hostile tanks to take position with hull defilade and open fire on the guns. (See fig. 2.)

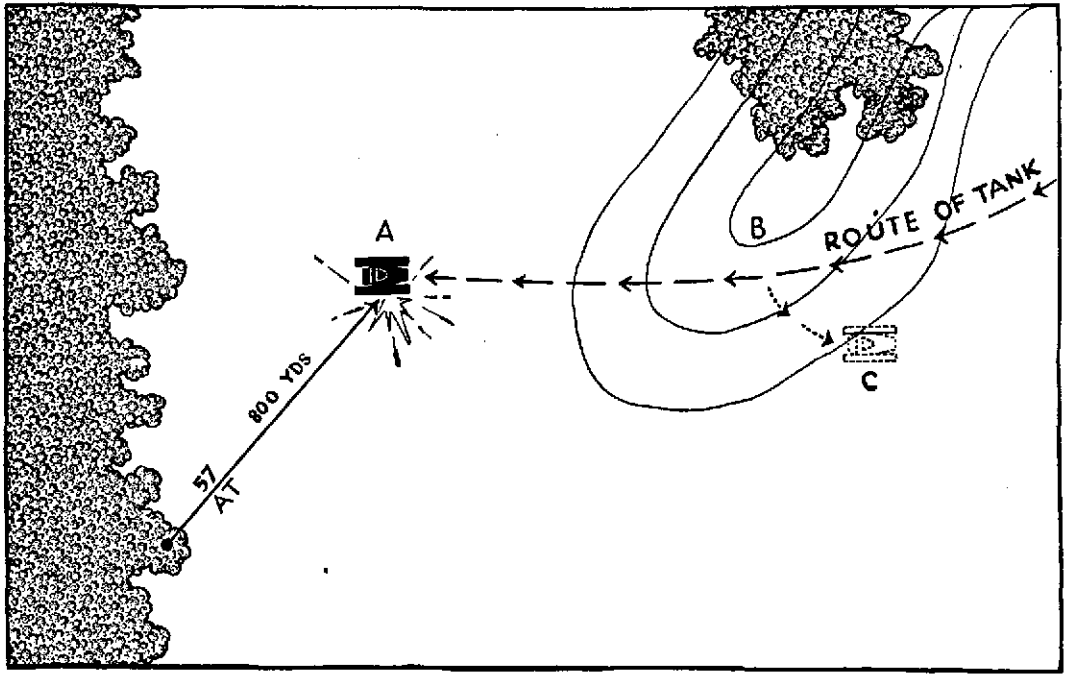


Figure 2. Opening fire. Fire should be opened when tank is within effective range, and definitely committed, as at A. If opened when tank appears at crest B, it can move to defiladed position C.

(*b*) *Angle of impact.* The penetrating ability of the armor-piercing projectile is greatest when the angle between the path of the projectile and the plane of the portion of the target which it strikes is 90°. The penetrating ability lessens as the angle deviates from 90°, and is markedly reduced when the deviation is greater than 20°. Armored vehicles usually have their heaviest armor in front, with much thinner armor on the sides, rear, and underneath. Every effort should be made to obtain hits on the sides, rear, and under surfaces of these vehicles, even though the angle of impact deviates from 90°.

(*c*) *Mobility.* When drawn by prime mover, the gun has high mobility, both on roads and across country. Because of its weight, it has a limited capacity for movement across country by hand. Every effort should be made to provide additional assistance to the squad when long movements must be made by hand.

(*d*) *Vulnerability.* The antitank gun is extremely vulnerable during movements in the zone of infantry fire. It is also more or less vulnerable when in firing position, depending upon whether or not it is emplaced and, when emplaced, upon the nature of the terrain. Because of the risk that a gun will be discovered and destroyed, or that its crew will become casualties from hostile fire before it can be effectively used, it should be kept in a cover position until a hostile attack is imminent. (See par. 6*b*.)

(2) ANTITANK ROCKET LAUNCHERS. Antitank rocket launchers and high explosive rockets are provided for use against tanks and other armored vehicles. The rockets are also effective against buildings and masonry.

(*a*) Launchers are issued on the basis of two per squad in the antitank squad, and one to the platoon headquarters in the antitank mine platoon. They are normally carried on prime movers. Ammunition bearers

or other members of gun crews not absolutely required for service of the principal weapon are designated as rocketeers by the squad leaders. To provide necessary assistance in loading and reloading, antitank rocket launchers are normally operated by teams of two men each. The rocket may be fired from the prone, standing, sitting, or kneeling position; it may be fired from an emplacement (pit or pit fox hole), provided this is so constructed that the blast from the rear of the launcher will not be deflected against the loader or other nearby personnel. (See app. I.)

(*b*) The rocket has a maximum range of 650 yards. It is reasonably accurate against moving targets at ranges up to 300 yards. In order to achieve greater accuracy and assist in effecting surprise, fire against moving targets is withheld until the last practicable moment.

(*c*) The flanks and rear of crew-served weapons are particularly vulnerable to mechanized attack. When such an attack is imminent, the rocket team takes positions which permit flanking fire against the lighter armor on the sides and rear of armored vehicles. Employment in pairs of teams will facilitate the action of combating two or more hostile armored vehicles which attack simultaneously from different directions.

(*d*) Likely avenues of approach for hostile armored vehicles not covered by antitank guns, are reconnoitered, and firing positions for rocket teams selected and prepared as soon as practicable.

(*e*) For use of the antitank rocket as an antitank mine, see paragraph 163.

(3) MACHINE GUNS. A caliber .50 machine gun is mounted on one of the three 1½-ton trucks (prime movers) in each antitank platoon, chiefly for employment in the antiaircraft defense of the platoon transport. A ground mount is also provided for the local protection of the platoon transport. All personnel are trained to

fire the weapon. When the truck is halted, and only the driver is present, he will execute such fire, if necessary.

c. *Individual Weapons.* (1) CARBINES, RIFLES, AND PISTOLS. These weapons are employed for the emergency defense and local protection of individuals, groups, guns, and company installations. (See par. 15.) When elements of the company are operating in exposed positions, it is imperative that additional riflemen be detailed for their close-in protection.

(2) RIFLE GRENADES. (*a*) The antitank rifle grenade is used against tanks and armored vehicles. (See FM 23–30.) It is fired from such rifles and carbines in the company as are equipped with grenade launchers. Within its effective range, approximately 75 yards, the high explosive grenade is effective against all known light and medium tanks; it may also be used as an antipersonnel grenade at ranges up to 260 yards.

(*b*) Each truck driver is armed with a rifle or carbine, and grenade launcher, to be used primarily for the protection of his truck against attacks by armored vehicles approaching within effective range. The leader of each antitank squad may utilize the truck driver, when not required with the vehicle, to assist in protecting the gun and crew against mechanized attack, particularly from directions not covered by the fire of antitank guns.

3. EQUIPMENT. *a. General.* For equipment of the antitank company, see Table of Organization and Equipment.

b. Signal Communication Equipment. The antitank company is provided with the following signal communication equipment: a vehicular radio set, low-power portable radiotelephones, sound-powered telephone equipment, pyrotechnic devices, panel sets, and maintenance equipment.

(1) The vehicular radio set operates in a division or higher unit warning net when such operation is prescribed; otherwise, it may be used for communication with regimental headquarters.

(2) Low-power portable radiotelephone sets are used for communication within the company command net or any other designated net within the regiment.

(3) Sound-powered telephone equipment is used for communication within the company when the elements are not too widely separated. All or any number of the sound-powered telephone sets may be retained by company headquarters for communication between —

(*a*) The company command post and a company warning post or security detachment.

(*b*) The company command post and the platoon leaders.

(*c*) The company command post and other headquarters.

(4) Projectors may be used within the company and between the company command post and the command posts of higher and adjacent units. Panels are used for air-ground communication.

4. TRANSPORT. ***a.*** The company transport comprises the vehicles organically assigned to the company (see Table of Organization and Equipment). Ordinarily, these vehicles are used for command, communication and maintenance, as prime movers, and for transportation of ammunition and company personnel.

b. Whenever the terrain is suitable, and hostile fires permit, 57-mm guns and ammunition are moved by prime movers. Individual arms, except those on weapon carriers and prime movers, are carried by the individuals to whom assigned. When effective hostile fire prevents movement by vehicles, the guns and ammunition are moved by hand.

c. One truck and trailer of the transportation platoon, service company, are allotted to the company as the antitank company section of the regimental kitchen and baggage train.

SECTION II

TACTICAL EMPLOYMENT

5. GENERAL. *a. Tank Tactics.* (1) Tanks are likely to attack in large numbers with the mission of breaking through and overrunning our defended localities. They endeavor to gain surprise by attacking from unexpected directions, and across terrain which appears to be impassable for armored vehicles. Extensive bombardment and dive-bombing will frequently precede the launching of the attack. The attack is usually led by large numbers of tanks which seek to destroy our antitank guns; the tanks will be followed by infantry, who destroy any areas of resistance left by the tanks and exploit success. Reserve infantry and antitank guns may be brought up to carry out encircling attacks from a flank.

(2) On encountering an antitank gun, one tank will seek cover and pin the gun by fire, so that other tanks can envelop the gun and attack it from the flanks and rear. Tanks normally attack by fire; seldom by charging. They make full use both of their machine guns and antitank weapons, ranging from 50-mm upwards, for this purpose. At close quarters they also make use of grenades.

(3) During the extensive reconnaissance preceding the attack, the enemy makes full use of decoys, and sends out fighting tank reconnaissance to discover the where-

abouts of antitank guns. This fighting reconnaissance will both bait antitank guns at long ranges and penetrate into localities in an attempt to make the guns disclose themselves.

(4) Tanks usually avoid firing when on the move; consequently, upon discovering targets, they will attempt to get into positions in hull defilade prior to opening fire.

b. Function of Antitank Company. The function of the antitank company is to provide protection, in conjunction with the battalion antitank platoons, to the regiment or its elements against attacks of hostile armored vehicles, whether in offensive or defensive combat. Surprise, mobility, aggressiveness, and flexibility are essential. Combat action is never static in the sense that the guns remain constantly in one position, prepared to expend their fire power on a single target.

(1) PRIMARY MISSIONS. (*a*) The company may be assigned one or more of the following primary missions by the regimental commander: to reinforce the antitank defense of front-line battalions; to deepen the antimechanized defense within the regimental zone or sector; to protect the flanks and rear of the regiment against armored attack. The last named mission may include protection of the regimental command post, of ammunition distributing points, and of the route of ammunition advance. The regimental commander may assign sectors of responsibility including specific avenues of approach, or may specify directions of fire. In order to insure continuous protection of the regiment against hostile armored attack, the employment of units of the antitank company must be included in the general plan of action of the regiment as a whole, and their movements and positions coordinated with those of cannon company howitzers and of the antitank elements of battalions, adjacent units, and higher units. Their employ-

ment as independent defensive elements results in wide dispersal and loss of mutual fire support, and leads to uncoordinated action and loss of effectiveness.

(*b*) Missions assigned by the regimental commander are usually based on recommendations made by the company commander; if not, it is the duty of the latter to recommend any changes which, in his opinion, the situation requires. (See par. 8b.)

(2) SECONDARY MISSIONS. (*a*) The regimental commander may assign antitank elements of the company a secondary mission of neutralizing or destroying hostile observation posts, and antitank and other weapons which have survived preparatory or other fires and which offer a threat to friendly troops. The regimental commander may also assign fire missions against definitely located crew-served weapons, emplacements, pill boxes, groups of personnel offering remunerative targets, or similar point targets. Such missions are frequent when the regiment is engaged in a special operation, such as an attack against a town or fortified position.

(*b*) If a hostile mechanized attack develops while guns are engaged in any secondary mission, they revert at once, without further orders, to their primary mission of antimechanized defense.

(*c*) To avoid premature disclosure of the location of antitank defenses, such secondary missions should be performed, whenever possible, from supplementary firing positions well removed from primary firing positions.

6. POSITIONS (see fig. 3). ***a. Firing Positions.*** Firing positions of antitank guns are classified as primary, supplementary, and alternate.

(1) PRIMARY. The primary firing position is the position from which the gun can best execute its primary mission.

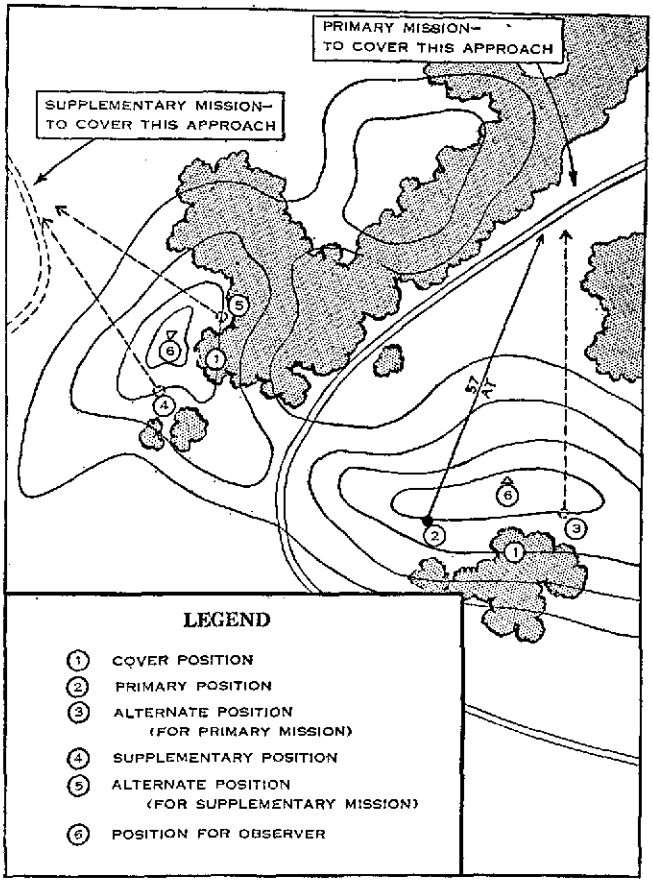


Figure 3. Gun positions.

(2) SUPPLEMENTARY. A supplementary firing position is one from which the gun can perform a fire mission which cannot be accomplished from its primary position.

(3) ALTERNATE. (*a*) An alternate firing position is one which is occupied to avoid enemy fire directed at a primary or supplementary position, and from which the same fire missions can be executed as from the respective primary or supplementary position. An alternate position must be close enough to the primary (supplementary) position for movement of the gun by hand, and by routes affording cover and concealment. It should be located far enough (at least 75 yards) from the primary (supplementary) position to avoid being included in the effective area of fires directed on that position. When practicable, several alternate positions should be selected for each primary and supplementary position.

(*b*) Fire, once opened, is not interrupted while hostile tanks remain within range. This fire will, however, disclose the location of the firing position, necessitating movement to an alternate position. In such case, advantage should be taken of any lull in the action to effect the movement.

b. Cover positions. Cover positions are those (other than firing positions) in the immediate vicinity of the gun, which afford defilade and concealment for men and weapons not actively engaged with the enemy.

c. Firing Position Areas. The areas within which the firing and cover positions of platoons (squads) are located are known as firing position areas. Firing position areas should afford — good observation and fields of fire; suitable locations for primary, supplementary, and alternate firing positions for each gun; partial defilade for firing positions; nearby cover positions defiladed from hostile flat-trajectory fire; covered routes to firing positions for movement of the guns and replenishment

of ammunition; concealment from air observation in both cover and firing positions; protection against mechanized attack by natural or artificial obstacles, particularly on the flanks of the area; sufficient distance from features likely to attract hostile fire, such as crossroads and mortar or artillery positions. Whenever practicable, the field of fire should contain no ground which affords hull defilade positions to hostile tanks.

d. Uncoupling Positions. (1) Uncoupling positions are those where guns are uncoupled, and from which they are moved by hand to firing or cover positions. Uncoupling positions should be under cover and defiladed, if possible, and as near as practicable to firing or cover positions.

(2) While the guns of an antitank unit are in firing or cover positions, the vehicles of the unit are held in a covered and concealed location in rear. In moving situations, this location should be close enough to the firing position to permit communication by arm-and-hand signals, and reduce the manhandling of ammunition to a minimum.

e. Readiness for Action. Crews manning antitank guns must be prepared at all times to meet a sudden mechanized attack. The guns may be in one of the following degrees of readiness for action.

(1) MOBILE. Guns held mobile are kept coupled to the prime mover; engines of prime movers are kept warm; in urgent situations, crews remain entrucked.

(2) IN COVER POSITION. (*a*) The gun remains in its cover position until required, when it is moved quickly by hand to the firing position. At times, fires in directions other than the principal direction of fire of the gun may be delivered from the cover position, while the gun and crew remain defiladed from the front.

(*b*) It may frequently be necessary to dig emplacements and fox holes at cover positions for protection

against the heavy preparatory artillery fires, aerial bombardment, and infantry supporting fires which usually precede hostile mechanized attack.

(3) IN FIRING POSITION. A gun ordinarily cannot be kept in a firing position exposed to flat-trajectory fire from the front except in defensive combat or in other situations where it is practicable to prepare and camouflage an emplacement at the firing position. When defiladed from such fire it may be placed (emplaced, if time permits) in a firing position covering a sector of responsibility extending to the flank; such a location is similar to that which would be a suitable cover position if the sector of responsibility extended to the front.

f. References. For mechanical training, gun drill, and technique of fire, see FM 23–75. For the training of individuals in other weapons, see FM 23–5, 23–30, 23–35, 23–60, and 23–65.

7. TERRAIN. Within the limitations fixed by the location and mission of troops, the terrain and its probable influence upon a hostile mechanized attack govern the distribution of the antitank gun units and the employment of the antitank mine platoon. Terrain particularly influences the operation of armored vehicles in the following respects:

a. Covered and concealed routes of approach are sought.

b. Open spaces, or terrain exposed to distant observation, will be avoided or crossed at high speed.

c. Water, soft ground, steep banks, heavy woods, and similar difficult terrain usually will be avoided. However, the defender must not place undue reliance for antitank defense on features which are unfavorable to tank action, but must be prepared to cover them, as well as favorable terrain, by fire.

SECTION III

COMBAT DUTIES OF COMPANY COMMANDER

8. COMMANDER AND STAFF OFFICER. ***a. As Company Commander.*** (1) The commander of the antitank company must anticipate and plan in order to prepare the company for prospective missions; his supervision must be continuous to insure that all subordinates properly execute their part in the company task. In conformity with orders from higher headquarters, he is responsible for decisions as to specific courses of action. While he may accept advice and suggestions from any of his subordinates, he alone is responsible for what his unit does or fails to do.

(2) For a description of the duties of the company commander in supply and motor maintenance, see chapter 3.

b. As Regimental Antitank Officer. The commander of the antitank company is the regimental antitank officer. He advises the regimental commander on matters pertaining to defense against armored vehicles. He maintains close contact with the regimental S–3, through whom he may submit his recommendations, and receive the regimental commander's orders. (See FM 7–40 and 100–5.) His duties include—

(1) Making timely recommendations for the antimechanized defense of the regiment, to include the employment of the antitank company, battalion antitank platoons, and other battalion and regimental antitank weapons; necessary coordination with the regimental howitzer officer whenever cannon units are directed to supplement the antimechanized defense of the regiment; the improvement of natural obstacles; and the construc-

tion of artificial obstacles. If, prior to submission of recommendations by the antitank company commander, the regimental commander has already made a decision, the former recommends such changes as he considers necessary.

(2) Keeping S–2 informed of all steps taken for antimechanized defense which are likely to affect the plans for the regimental antiair-antimechanized warning system.

(3) Coordination of all antimechanized activities, including supporting and attached units, within the regimental area, and of these activities with the plans of higher and adjacent units.

(4) Making timely recommendations for the breaching of hostile mine fields.

(5) Making timely recommendations for changes in the locations or missions of any elements of the antimechanized defense of the regiment, as changes in the situation require.

9. CONTROL. *a.* The degree of control which the company commander exercises over the activities of each platoon during combat depends on several factors: the time available to effect reconnaissance and issue orders; his ability to observe the zone of action or sector of the platoon; facilities for rapid communication with the platoon; his ability to employ efficiently the agencies of signal communication available in the company; and the speed and intensity of the action. Whenever practicable, control is exercised as follows:

(1) Each antitank platoon is assigned a position area; or concealed and defiladed area, if guns are to be held mobile. It is also assigned a sector of responsibility and principal direction (s) of fire covering one or more likely avenues of hostile tank approach, and is given specific instructions as to the conditions under which it will

open fire. If the platoon is to occupy successive positions, similar instructions are issued for each position. In addition, the time, route, and method of displacement to each successive position may be prescribed by the company commander.

(2) The mine platoon is assigned locations for mine fields and mined road blocks, and is given specific instructions and information concerning the installation (s) which must be effected, the protection to be given the platoon by other units while the mines are being laid, and the responsibility of the platoon for guarding the installation after its completion. If the mines are to be removed and laid again in successive locations, similar instructions are issued for each location; in addition, the company commander prescribes the time or conditions upon which the removal is to commence, and the route to be followed to the new location (s).

(3) The company commander controls the movement of ammunition vehicles in rear of each platoon area, and the supply of ammunition or mines to that area.

b. When, as is frequently the case, such complete and centralized control is impracticable, control will be partially decentralized to platoon leaders by means of mission orders. A mission order is one which assigns a definite mission to a subordinate unit, but leaves a part or all of the details of execution to the subordinate unit leader. The degree to which control may be decentralized by the company commander will be based upon a determination of the method which will best insure maximum antimechanized protection for the regiment under the existing conditions. Examples are as follows:

(1) In a moving situation, a platoon may be assigned an initial firing position area, a sector of responsibility and a principal direction (s) of fire, with the mission

of protecting a flank of the regiment from the initial firing position area and subsequent firing position areas to be announced later. In this case, determination of the conditions for opening fire is decided by the platoon leader.

(2) A platoon may be assigned the mission of protecting a flank of a battalion which is advancing in the leading echelon of the regiment. In this case, the initial position (s) to be occupied, the conditions for opening fire, the location of subsequent positions, and the time and method of displacement thereto, are decided by the platoon leader.

10. RECONNAISSANCE. *a. General.* (1) The antitank company commander keeps himself informed of the locations and capabilities of the antitank means within the regiment. He secures this information by personal reconnaissance; by reports from his reconnaissance officer, or other personnel; and by conference with battalion commanders or battalion antitank officers, and the regimental howitzer officer. In a similar manner, he obtains information of the location and nature of existing antitank obstacles, and determines the feasibility of creating others by construction or by improvement of existing terrain features.

(2) Initially, the antitank company commander may have little more than a general knowledge of the measures for the antimechanized defense being taken by adjacent or higher units. In such cases he must take prompt advantage of every opportunity to secure the necessary additional information, by reconnaissance or contact with appropriate unit commanders. After the receipt of such information, he recommends any necessary changes in the regimental plan of antimechanized defense.

b. Planning. Upon receipt of the regimental field order, or on the basis of prior instructions of the regimental commander, the company commander should—

(1) Analyze all parts of the order or instructions which affect the antitank company.

(2) Briefly consult with other appropriate officers concerning details of cooperation and fire support.

(3) Plan the reconnaissance.

(4) Issue early instructions for any preparatory movement or dispositions of the company.

(5) Inform the second-in-command and first sergeant of his route of reconnaissance (if conducted by the company commander personally), and the place and time subordinates are to assemble to receive the company field order, if such assembly is practicable.

c. Making Reconnaissance. (1) Antitank reconnaissance is the examination of terrrain for likely avenues of hostile armored approach; location of firing position areas and cover and firing positions; concealed positions and tentative firing positions and routes thereto for guns held mobile; possible enemy tank assembly areas and avenues of approach thereto and therefrom; existing or potential tank obstacles; locations for the employment of antitank mines; and communication routes and distributing points. Reconnaissance habitually precedes movement and occupation of positions; its extent, thoroughness, and the assistance required are determined by the amount of time available.

(2) Reconnaissance must be—

(*a*) Timely.

(*b*) Carefully planned. Use is made of all available information, including observation reports, maps, and photos.

(*c*) Continuous and progressive.

(*d*) So conducted as to take full advantage of cover and concealment.

11. ORDERS. **a.** Having decided upon a detailed plan of action to carry out an assigned mission, the company commander assigns specific missions to his subordinate units. Sketches or overlays are furnished when practicable. Prior to combat, subordinates can frequently be assembled to receive the order. This facilitates orientation prior to issuance of orders, and enables the company commander to insure that the orders are understood. In attack, assembly of subordinates will often be impracticable because of hostile observation and fires. Leaders engaged with the enemy should not be called away from their units for the purpose of receiving orders. When the commander cannot issue orders to leaders personally, they may be transmitted by messenger.

b. In many situations, it may be necessary or desirable to issue warning orders of impending operations. The principal purpose of a warning order is to initiate early planning, movement, and reconnaissance, and to avoid subsequent delays.

c. The company commander supervises the execution of his orders to insure that they are properly understood and executed by subordinate units.

12. LOCATION DURING COMBAT. During combat, the antitank company commander goes where he can best observe the action of the company or exert the greatest influence to obtain decisive results. He will ordinarily spend the greater part of his time at the observation post or some other point at which he can obtain the fullest and most direct information regarding the operations and situation of his company. He maintains continuous contact with the command post, and, before leaving the observation post, orients his staff as to future plans, including his approximate routes and time schedule. He keeps abreast of the situation at all times, considers future possibilities, and prepares

tentative plans to meet them. If he issues orders, or acquires information affecting the general situation, he informs higher headquarters at the earliest opportunity.

SECTION IV

PROTECTIVE MEASURES

13. WARNING SYSTEM. ***a. General.*** The regimental antiaircraft-antimechanized warning system includes an intelligence system and a signal communication system, both coordinated to insure early and continuing information of the presence and action of hostile air, armored, and motorized forces. (See FM 7–40.)

b. Regimental Antiaircraft-Antimechanized Warning System. (1) The regimental S–2 is responsible for the establishment and supervision of the regimental warning system, and for its coordination with the observation system of supporting artillery and the warning systems of adjacent and higher units. He utilizes the services of the antitank company commander to assist him in these functions.

(2) The regimental warning system includes all reconnaissance and security detachments operating under regimental control, all observation facilities within the regiment, and air-antitank guards equipped with means for giving the alarm. The regimental system of signal communication is used to transmit warnings between other elements of the warning system and regimental antitank units. All elements in the system make immediate report of mechanized threats by the most expeditious means of communication available. All warning messages are classified as urgent.

c. Local Warning Systems. Air units and motor reconnaissance elements usually give the first warning of the presence of hostile tanks in the vicinity of the regiment. However, the antitank company commander is responsible that an effective local warning system is constantly in operation within the company. He insures that air-antitank guards are posted by each squad, and that warnings received from the regimental warning system and from such guards are promptly transmitted to all elements of the company.

d. Warning Signals. To give warning of the approach or presence of hostile aircraft or mechanized vehicles, the following standard warning signal is prescribed: three long blasts of a whistle, vehicular horn, siren, or klaxon, repeated several times; or three equally spaced shots with a rifle, carbine, or pistol; or three short bursts of fire from an automatic weapon. In daylight, the individual giving the signal indicates, by pointing, the direction of the impending danger. At night, the alarm signal will be supplemented by voice to indicate the direction. In addition to the standard signals, other available means, such as radio and pyrotechnics, may be employed.

14. ACTION IN CASE OF AIR ATTACK. ***a.*** Regardless of the effectiveness of the security measures taken by higher command through the offensive action of combat aviation, all units must consider the probability of air attack and reconnaissance and employ appropriate security measures. Passive measures include dispersion, concealment, and camouflage. Active measures comprise firing at attacking airplanes.

b. Fire will not be delivered on any aircraft unless it is clearly recognized as hostile, or is positively identified as hostile, or unless the aircraft attacks with bombs or gunfire. Concealment and camouflage are used whenever

possible to prevent detection by enemy aircraft. If concealment is believed to have been achieved, no weapons are fired at approaching enemy aircraft.

c. (1) On the march, upon receipt of warning of hostile air attack, prime movers and other vehicles are driven off the road; whenever terrain and time permit they are driven off the road far enough to clear the probable impact area. Maximum use is made of any available cover and concealment. All men, except those designated as crews for the caliber .50 machine guns, dismount and take cover, but remain close enough to their vehicles to resume movement as soon as the attack has passed.

(2) In other situations, upon warning of air attack, personnel of the antitank company disperse and take cover, except gun crews who are engaged in a fire fight with hostile tanks; such crews continue to combat the tanks.

(3) Caliber .50 machine guns and individuals armed with rifles and carbines open fire upon attacking planes only upon command or prearranged signal of the company commander or responsible unit leader, given as soon as the planes are within effective range.

15. CLOSE-IN DEFENSE AGAINST MECHANIZED ATTACK. If tanks succeed in approaching within 300 yards of an antitank gun, personnel not engaged in operating or serving the gun, or in firing at accompanying foot troops, employ rockets and individual weapons against the tanks. Doors and turrets, if open, offer particularly favorable targets to small-arms fire, as do also vision slits and periscopes. Should tanks succeed in approaching close enough to warrant such action, incendiary grenades, antitank bombs, and smoke grenades may be used. Fire is continued until defenders are forced to take cover to avoid the crushing action of tanks. (See

app. I.) They return to their firing positions as soon as the tanks have passed, and continue their fire on these vehicles or on other approaching tanks or accompanying infantry.

16. INDIVIDUAL PROTECTION. **a.** Full advantage should be taken of available cover and concealment, both while in movement and while halted.

b. Whenever troops are halted in a combat zone, individual protection will be sought and improved, or excavated. When the halt is expected to be brief, they will take advantage of such natural protection as is afforded by the terrain. When the halt is expected to be for a longer period, as, for example, a halt in an assembly area, fox holes will be dug. Full advantage will be taken of natural cover and concealment in the construction of fox holes. Guns are emplaced and concealed whenever time permits.

c. For details of construction and camouflage of fox holes and weapon emplacements, see appendix I.

CHAPTER 2

MEDICAL SERVICE AND EVACUATION

17. AID STATIONS. ***a.*** Elements of the antitank company utilize the aid stations of battalions in whose areas they are operating. If not operating in a battalion area, they utilize the regimental or nearest battalion aid station.

b. At the beginning of an action, the antitank company commander contacts the regimental surgeon to insure a clear understanding as to which aid stations are to be utilized by the elements of the company; thereafter, he keeps the surgeon informed of changes in the location of these elements, since such changes may require corresponding changes in designation of aid stations which they are to utilize.

18. COMPANY AID MEN AND LITTER BEARERS. ***a. Company Aid Men.*** Company aid men are attached to battalion lettered companies and the antitank company on a basis of three per company. They are attached in turn to platoons of their respective companies. Elements of the antitank company are served by their own company aid men. These aid men operate between forward positions and battalion aid stations or the regimental aid station. The battalion antitank platoon is served by aid men of the nearest lettered company. Duties of company aid men are—

(1) To follow closely the unit to which they are attached.
(2) To administer emergency treatment to the sick and wounded.
(3) To send information to the battalion (regimental) surgeon by walking wounded or litter bearers. These messages give the location of the unit, any contemplated changes in location or disposition, and the approximate number and location of casualties in the unit area.
(4) To instruct walking sick and wounded as to the exact location of the aid station and the route thereto.
(5) To place seriously sick and wounded in sheltered locations on the route of advance of the company which they serve.
(6) To examine, tag, and mark the location of the dead.

b. Litter Bearers. A litter bearer section of 12 men is attached to each battalion. These sections work in teams of 2 or 4 men; teams vary in size according to the weight of the load and the carrying distance. Litter bearers evacuate nonwalking wounded from battlefield positions to battalion aid stations. Leaders of antitank elements desiring litter evacuation of wounded personnel contact appropriate aid stations and request such evacuation.

19. ORDERS. The antitank company order will include the designation and locations of aid stations to which casualties will be evacuated. All members of the company will be informed of these designations and locations. If, during the course of the action, the casualties of any element of the company are to be evacuated to a different aid station from that originally announced, or any other changes in the system of evacuation are to be made, the company commander issues the necessary additional instructions.

CHAPTER 3

SUPPLY AND MOTOR MAINTENANCE

SECTION I

SUPPLY

20. REFERENCES. For definitions and methods relating to supply, see FM 7–30 and 100–10; for logistical data, see FM 101–10; for administrative procedures, see TM 12–250 and 12–255.

21. CLASS V SUPPLY. a. General. (1) Class V supply includes all types of ammunition for the weapons of the company, as well as antitank mines and pyrotechnics.

(2) Initial supply of ammunition for the antitank company is carried as follows:

For—	*Carried on—*
Antitank guns.	Prime movers.
Machine guns, cal. .50.	Prime movers.
Antitank grenades.	Prime movers and company headquarters vehicles.
Antitank rocket launchers.	Prime movers.
Carbines, pistols, and rifles.	Individuals.
Mines.	Cargo vehicles of the antitank mine platoon.

(3) The War Department or the theater of operations commander prescribes the initial amounts of ammuni-

tion to be carried. The amount carried on the individual and on the company transport is that deemed sufficient to enable the company to enter and sustain combat until replenishment can be effected.

b. Replenishment. (1) RESPONSIBILITY. The regimental commander is responsible for making ammunition available, in adequate amounts, to the company ammunition supply point. The company commander is responsible for distributing ammunition to his platoons. The platoon leaders are responsible for distributing ammunition to their squads.

(2) GENERAL PLAN OF REPLENISHMENT. (*a*) Ammunition for the antitank guns and other weapons is ordinarily delivered to the company ammunition supply point by vehicles of the regimental train. The company distributes its ammunition from this point. (See fig. 4.)

(*b*) Ammunition for the battalion antitank platoon and any elements of the antitank company attached to the battalion is the responsibility of the battalion commander. He arranges for replenishment of ammunition from or through the regimental ammunition supply point.

(3) COMPANY AMMUNITION SUPPLY POINT. (*a*) The company commander selects the company ammunition supply point, which usually will be near the company command post, so as to take advantage of the company communication net. Vehicles proceeding to or from the company ammunition supply point will be routed so as to avoid passing closer than necessary to the company command post. Desirable characteristics of a company ammunition supply point are—

Location at or in rear of a point from which covered routes to the platoons diverge.
Concealment from air and ground observation.
Defilade from hostile flat-trajectory fire.

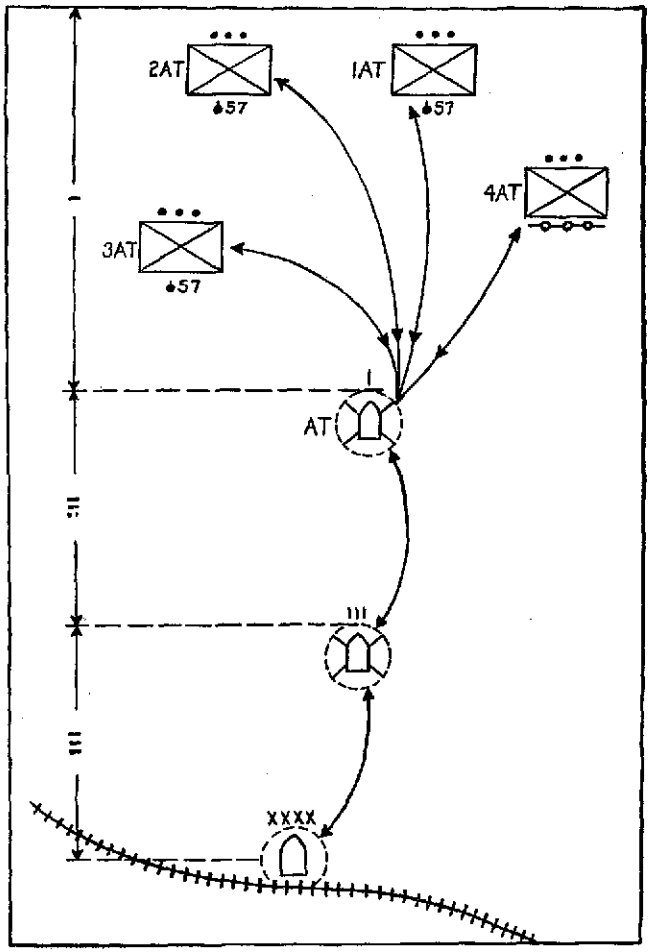


Figure 4. Ammunition supply. Regimental vehicles procure antitank ammunition from the army ammunition supply point, and deliver it, through the regimental ammunition supply point, to the company ammunition supply point. The company distributes ammunition within the company area.

Ease of identification.

Facility of motor movement to the rear.

(*b*) The supply sergeant, assisted by other personnel designated by the company commander, operates the company ammunition supply point. The status of ammunition supply within the platoons must be reported frequently to operating personnel at this point during all phases of combat.

(4) CONTROL OF PLATOON VEHICLES. All platoon vehicles remain under platoon control while within a platoon area. The company transportation sergeant supervises, coordinates, and expedites the movement of vehicles used for carrying ammunition while en route from the platoon area to the company ammunition supply point, and return.

(5) ANTITANK PLATOON. (*a*) *Replenishment in attack.*

1. Because of the limited mobility of the antitank gun when moved by hand, the prime movers should normally remain under cover near the gun positions. In an emergency, the truck in platoon headquarters may be used to replenish the ammunition supply. If replenishment in larger quantities becomes necessary, arrangements must be made to secure a vehicle from the regimental train.

2. The platoon sergeant keeps himself informed regarding the status of ammunition within the platoon. The tactical situation permitting, he dispatches the platoon headquarters truck to the company ammunition supply point for emergency replenishment. The noncommissioned officer in charge of the company ammunition supply point has this vehicle refilled and dispatches it to the

platoon from which it came. The normal ammunition loads of prime movers should be continually maintained. Small stocks of ammunition may be located near gun positions, and sufficient quantities to meet estimated needs kept at the position.

3. A platoon leader confronted with emergency ammunition requirements so notifies the company commander, who may direct priority of ammunition supply to that platoon, or transfer of ammunition from platoons whose expenditure has been less.

(*b*) *Replenishment in defense.*

1. The regimental commander will prescribe the amount of ammunition to be unloaded in the regimental sector of the battle position. After the enemy has advanced to contact, replenishment of ammunition from the rear is frequently practicable only under cover of darkness. Provision must be made, however, for the immediate resupply of any antitank elements of the company whose ammunition becomes seriously depleted. This is accomplished by keeping a proportion of the ammunition at the company ammunition supply point, established in the vicinity of the company command post, or by transfer of ammunition from platoons whose expenditure has been less, as in 3 above.

2. Ordinarily, platoon leaders will be instructed to report, at or shortly before dark, the amounts of ammunition on hand. Basing his action on these reports, the company commander plans and effects distribution

to the platoons of the resupply of ammunition brought forward after dark.

(*c*) *Replenishment of antitank elements attached to battalion.* A stock of antitank ammunition should, if possible, be held at the battalion ammunition supply point for the battalion antitank platoon. In an emergency, replenishment for attached antitank elements may be effected from this stock; at other times, vehicles of these elements are refilled at the company ammunition supply point, being routed through the battalion ammunition supply point.

(*d*) *Replenishment during rapidly moving situations.* In a rapid forward movement, such as with an advance guard or in pursuit, the system of ammunition supply is similar to that in attack. When distances from supply points are so great as to make replenishment difficult, needs must be anticipated and additional quantities of ammunition and transport secured from higher headquarters.

(*e*) *Replenishment in retrograde movements.* During retrograde movements, replenishment of ammunition will be held to the minimum necessary for antimechanized defense. Sufficient amounts for the contemplated action are left with each unit. Regimental ammunition carrying vehicles may be released to the company or platoon on rear positions; or resupply may be effected by the establishment of ammunition supply points by higher headquarters, either on selected delaying positions or along the route of withdrawal. The regimental commander will inform the company and battalion commanders as to the location of such supply points.

(*f*) *Replenishment by hand-carrying.* At times, the situation may prohibit the movement of vehicles between platoon firing position areas and the company ammunition supply point. When such a condition occurs during a moving situation, it is ordinarily impracticable for

antitank company personnel alone to hand-carry sufficient ammunition to effect adequate replenishment. The regimental commander, upon request of the company commander, insures replenishment either by reinforcing the company with additional personnel or by delivering the ammunition, through hand-carry by personnel of other units, to one or more points designated by the company commander from which hand-carry by personnel of the company is practicable. Similar assistance is made available by battalion commanders to battalion antitank platoons and any attached antitank elements; personnel of the ammunition and pioneer platoon and necessary additional personnel may be employed.

(6) REPLENISHMENT OF ANTITANK MINES. (*a*) In certain situations, particularly in defensive action, it may be necessary to use all of the mines carried in the antitank mine platoon vehicles. Whenever practicable, however, approximately one-third of the initial allowance of the antitank mines should be kept on one of the vehicles as a mobile reserve.

(*b*) When the situation indicates that mines will be required in certain locations for a limited period of time only, after which they must either be recovered or abandoned, the regimental commander may direct that the mine platoon vehicles (cargo trucks and trailers) be held available to transport the recovered mines. Unless the vehicles are to be employed for this purpose, the mine platoon leader sends them through the company ammunition supply point to the regimental ammunition supply point, as soon as they have been emptied. The regimental munitions officer may in turn dispatch the vehicles to the army ammunition supply point for refill.

(*c*) When the need for any given mine field or mined road block no longer exists, the mines should be disarmed, collected, and inspected, and usable mines loaded on available platoon vehicles. When cargo space is in-

sufficient to load all mines so collected, the surplus mines will be placed in small dispersed piles, and their location reported to the regimental commander for disposition.

(*d*) If lack of time, shortage of personnel, or other reasons prevent recovery of planted mines, the mine field must be guarded by a traffic guard (s), and the location reported to the regimental commander. An exception to such procedure is the abandonment of a mine field during a retrograde movement after all friendly vehicles have passed.

22. ORDERS. ***a.*** Administrative details in company orders include such of the following items as are applicable:

(1) Location of company ammunition supply point and of regimental ammunition supply point.
(2) Route of advance of ammunition (in attack only).
(3) Amount of ammunition to be placed on positions.
(4) Disposition of company vehicles.
(5) Location of class III supply point (s).
(6) Location of regimental and battalion aid stations.

b. Additional directions of an administrative nature may be included in the order, or issued later in fragmentary form to those concerned. These directions may include the plan for feeding, and the detailing of guides and carrying parties.

c. Similar appropriate information is contained in the order of the platoon leader.

23. EXPEDIENTS IN THEATER OF OPERATIONS. ***a. Exploitation.*** Efficient use must be made of all resources in the regimental area to supplement supply and to provide for deficiencies when the normal means for procurement and distribution of supplies are inoperative or partially inoperative. Troops must be trained to load, lay, and fire captured weapons in general use by the

enemy; and to effect minor repairs and operate enemy transport, both mechanized and motorized, in constant use within the theater of operations.

b. Battlefield Recovery of Vehicles, Weapons, and Other Supplies. Means within the regiment must be employed to recover vehicles, both our own and those of the enemy, which are serviceable or can be made serviceable within the combat zone before the fluctuation of battle permits the enemy to recover or destroy them. When ammunition is exhausted and serviceable weapons and ammunition of the enemy are available, these should be used. Usable stocks of all types of supplies which are discovered within the regimental area must be guarded and higher authority immediately notified of the general type, amount, and location of such supplies.

c. Destruction of Serviceable or Reparable Vehicles and Usable Supplies. Troops must be trained in quick, effective methods for the destruction of matériel and supplies of all types. In the case of weapons and vehicles, efficient destruction will require further action than the mere removal of certain working parts. If organic means are not supplied with vehicles, efficient methods must be improvised for destruction of the latter and to render useless all other types of supplies. Prompt action will be taken to prevent serviceable equipment or usable supplies from falling into the hands of the enemy. (See FM 23–75.)

SECTION II

MOTOR MAINTENANCE

24. RESPONSIBILITY AND DUTIES. ***a.*** The company commander is responsible for the operation and maintenance of his vehicles. Operating personnel are carefully selected. The most important link in the chain of maintenance is the driver. He is selected for his ability, judgment, and conscientious performance of duty. He is carefully instructed in driving, in the required march inspections, and in driver maintenance. By observation and frequent personal and staff inspections, the company commander insures that these duties are properly performed.

b. The company automobile mechanic, under the supervision of the transportation sergeant, is charged with company maintenance. The service company maintenance section will perform organizational maintenance which is beyond the capabilities of the antitank company automobile mechanic.

c. Vehicles requiring maintenance beyond the capabilities of the antitank company are reported to S–4. For echelons of maintenance, see AR 850–15.

d. For a discussion of the problems involved in the operation and maintenance of motor vehicles in cold climates and in desert country, see FM 25–10, 31–15, and 31–25.

CHAPTER 4

MARCHES AND BIVOUACS

SECTION I

MARCHES

25. REFERENCES. For the fundamental doctrines governing troop movements, see FM 100–5. For technical and logistical data pertaining to troop movements, see FM 101–10. For conduct of the regiment and battalion in route marches, see FM 7–40 and 7–20. For operation of regimental trains, see FM 7–30. For detailed treatment of motor movements, see FM 25–10. For forms for march orders, see FM 101–5.

26. GENERAL. **a.** The antitank company commander is charged with the organization and coordination of the antimechanized defense of the regiment on the march in accordance with instructions from the regimental commander.

b. The recommendations of the company commander, made prior to the start of the march, should include the attachment of elements of the company to security forces and the disposition and missions of that portion of the company held under his control. Recommendations should be such as to provide maximum protection to the regiment in coordination with the antimechanized measures of the battalions and of adjacent and higher units.

27. DAYLIGHT ROUTE MARCHES. *a. Antitank Company.* (1) The elements of the antitank company must be so distributed for the protection of the regiment as to provide defense against mechanized attack from all directions. If the terrain permits rapid cross-country movement, or road conditions permit elements of the company to pass the regimental column, these elements occupy successive firing positions along the route of march. While roads intersecting the route of march are the most dangerous and should be covered by either gun units or obstacles (including mines) or both, the possibilities of infiltration by hostile armored vehicles must also receive constant consideration.

(2) Antitank units move by bounds from one position to another. Each prime mover follows, the preceding one at a distance of from 50 to 100 yards. If a leading vehicle halts, vehicles in rear are halted; distances are maintained unless vehicles are signaled to close up. Drivers of vehicles which have halted as a result of mechanical failure signal rear vehicles to pass. When a column is halted, drivers move the vehicles a short distance off the road or trail, and disperse and conceal them (see fig. 5). Guns and vehicles are parked so that they may readily resume the march (see fig. 6). Over rough ground or hard going, men dismount and follow the vehicles, helping if necessary. One man goes ahead to select a route. Covered routes are sought. Edges of woods, and scattered buildings or trees contribute to concealment (see fig. 7). Open crests are avoided. When moving to positions not fully protected by other troops, vehicles advance by bounds, each bound being reconnoitered by designated personnel.

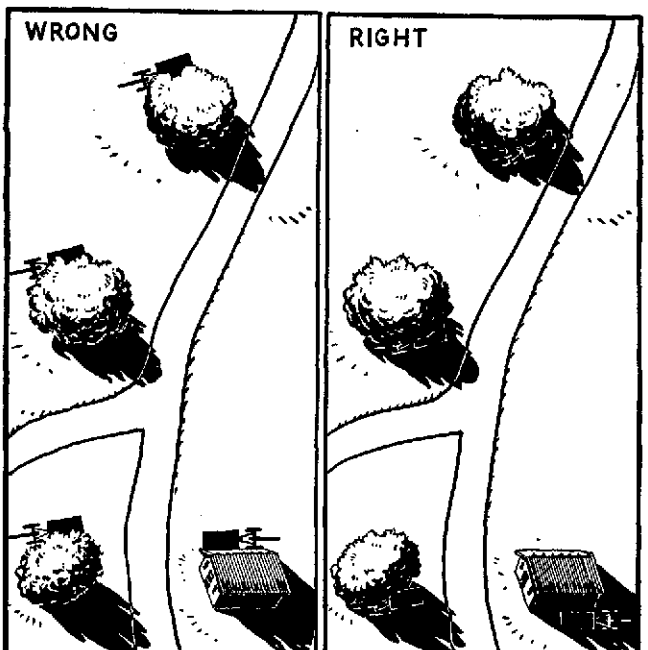


Figure 5. Vehicles concealed during a halt.

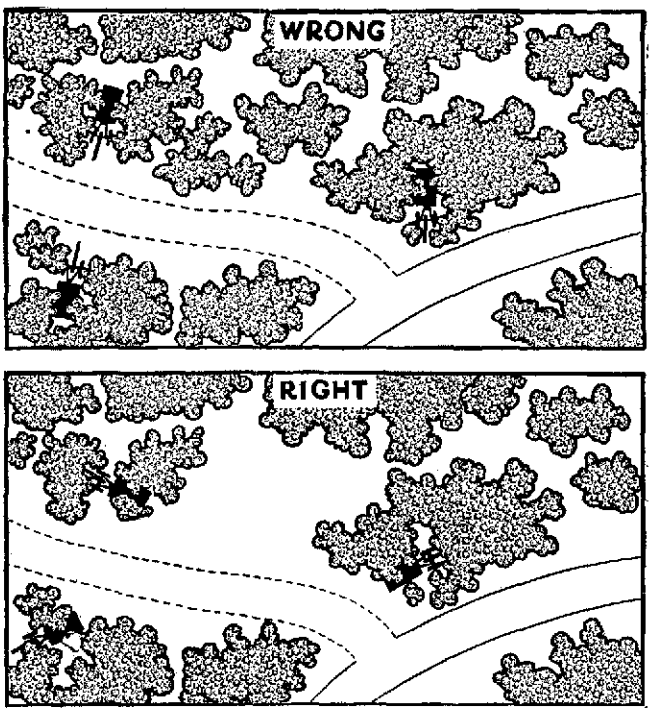


Figure 6. Vehicles parked and concealed ready to resume the march. Foliage has been cut away in figure in order to show positions of vehicles and guns.

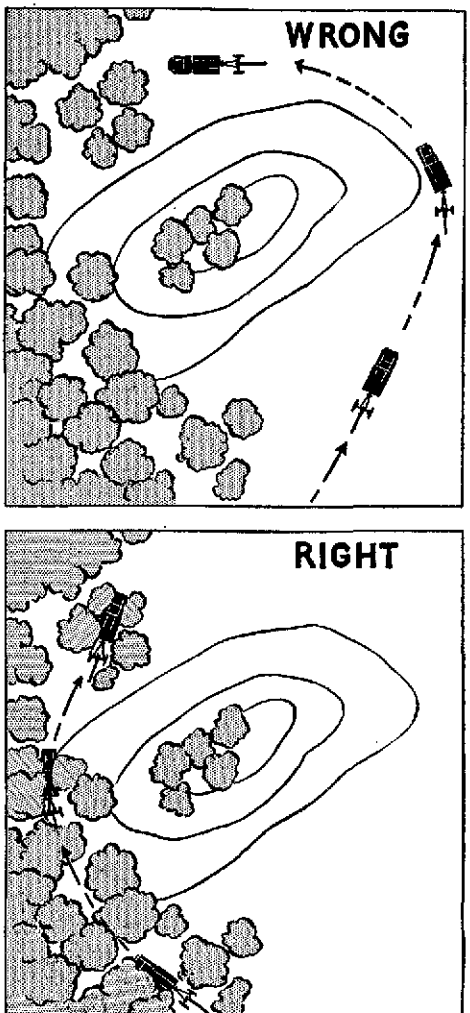


Figure 7. Vehicles taking advantage of edge of woods.

b. Antimechanized Security. (1) For an interior regiment, the most likely direction of hostile armored attack during an advance is from the front. For this reason, elements of the antitank company should be attached to the advance guard or should march well forward in the column in order that they may rapidly reinforce the antitank platoon of the advance guard battalion. In the latter case, priority on roads for the antitank company should be requested by the company commander.

(2) A hostile mechanized attack in flank becomes more probable as the interval between regiments increases. In an advance with an exposed flank, antitank company elements should be attached to the flank guard. When several dangerous flank localities must be passed during the progress of a march, echelons of the flank guard move by bounds from one position to another (see fig. 8). If there is a single avenue of approach from a threatened flank, the flank guard may occupy a single key terrain feature, the possession of which will afford the necessary antimechanized protection to the main body. This key terrain feature may be utilized as an initial delaying position or defended until the mission is accomplished. In case of attack, the main body commander is immediately notified and the flank guard delays the advance of the enemy until the main body can prepare for action or until the tail of the column passes a designated point. (See FM 7–40.)

(3) In a march toward the enemy, the rear of the regiment is usually protected by a small rear guard; an element of the antitank company may be attached to this force. In a retirement, the regimental rear guard will be much stronger and may include the attachment of one or more antitank platoons, and a part or all of the mine platoon from the antitank company. In general, the combat action of antitank elements attached to the



Figure 8. Flank guard protection. Main body is moving on road indicated by arrows. Flank guard moves on road to the right. Antitank elements furnish protection at intersection approaches, ①, ②, and ③, by gunfire and road blocks. (See also fig. 22.)

rear guard in close contact with the enemy is conducted in accordance with the procedure described for a delaying action (occupation of successive delaying positions to the rear).

(4) The antitank units (including battalion antitank platoons), cannon company elements, and supporting field artillery in the main body, are so disposed as to effect coordination with antitank elements of the advance, flank, and rear guards in providing antitank defense to the regiment. The detailed distribution of the antitank company in the main body varies with the terrain and anticipated tactics of hostile armored elements. When the terrain facilitates movement, it is generally preferable to hold the bulk of the weapons under centralized control in a position favoring quick reinforcement of any part of the column which is under immediate threat of hostile armored vehicles that have evaded or penetrated the security elements.

(5) A reconnaissance detail, headed by the company reconnaissance officer, marches well forward with the advance guard in order to furnish early information of possible routes of approach of hostile armored vehicles, and suitable positions for guns and mine fields. This detail should be furnished with radiotelephones for communication with the regimental command group.

c. Command Group. The company command group habitually marches with the regimental command group. The company commander is with or maintains liaison with the regimental commander.

d. Action in Case of Attack. Upon receipt of warning of a mechanized attack, the company commander obtains the decision of the regimental commander as to whether the regiment will meet the attack in place or continue the march to a more suitable locality. He must be prepared to submit brief, specific recommendations for the employment of all antitank weapons not attached

to security forces. If time permits the use of mines, he should recommend that they be laid in localities where they will divert the hostile mechanized attack or canalize it into areas covered by the concentrated fire of antitank weapons. Elements of the company should at all times be prepared to move into firing positions without delay.

28. NIGHT ROUTE MARCHES. ***a.*** At night the company usually marches as a unit in the regimental motor column. However, if there is danger of a hostile mechanized attack, elements of the company may be distributed throughout the entire column; attached to flank guards, or employed to establish road blocks on approaches intersecting the flanks. (See FM 7–40.)

b. The company commander and all subordinate leaders devote particular attention to march discipline to include sound and light discipline, maintenance of contact, and security. Units are kept well closed up, and distances are greatly reduced. If illuminated by flares from aircraft, all elements of the company halt; individuals keep their heads down and remain motionless until the light dies out. Normally, hostile aircraft are not engaged by fire.

c. If the company is to establish road blocks along the flanks, a detailed daylight reconnaissance of the route and of the road block sites should be made, if practicable. Personnel making this reconnaissance should include the company commander and the leader of each unit which is to be employed to establish such road blocks. If circumstances prevent a terrain reconnaissance, a map reconnaissance should be made. In either event, route sketches must be prepared for the use of each leader responsible for establishing a block. These sketches should show the road, prominent landmarks near the road which can easily be recognized at night, road junctions, cross roads, and any distinguishing fea-

tures thereof, compass bearings for each important change of direction, and distances from the initial point to the more important features. When the situation permits a terrain reconnaissance, it should be conducted by single vehicles in order not to attract enemy attention. The route is carefully marked, particularly at road junctions and cross roads. Guides, luminous markers, lime, tape, or paper strips may be used. If guides are posted, they remain concealed during daylight and display no lights at night, except as authorized by the company commander for control of the movement.

29. ANTIMECHANIZED PROTECTION DURING MOTOR MOVEMENTS. ***a.*** Antimechanized protection of the regiment during motor movements includes both active and passive defense measures. Within the column, units having suitable weapons are in general responsible for their own immediate defense. Units not having such weapons are so disposed as to receive protection from suitably armed units, or special provision is made for their defense.

(1) Active defense measures include the distribution of antitank weapons of the regiments throughout the column; however, the bulk of the antitank company is frequently attached to security elements.

(2) Passive defense measures include concealment, dispersion, deception, speed, and use of mines and other obstacles, both natural and artificial.

b. When the route of the motor movement is inclosed by natural tank obstacles with but few openings, antimechanized defense of the motor column is best obtained by the placing of elements of the antitank company at or near these openings prior to the advance of the main body (see fig. 8). After passage of the command, these elements successively resume their places in column or join the rear of the column.

30. MARCHES UNDER SPECIAL CONDITIONS. For discussions of marches in mountainous terrain, deserts, jungles, and in extreme cold, see FM 100–5, 31–15, 31–20 and 31–25.

31. MARCH OUTPOST. When antitank elements are attached to security elements and the latter become march outposts, antitank guns are employed in a manner similar to that in antimechanized protection of a bivouac area. (See par. 32.)

SECTION II

BIVOUACS

32. ANTIMECHANIZED PROTECTION OF BIVOUAC AREA (see fig. 10). **a.** In a route march protected by covering forces to the front, the regimental commander may direct the antitank company to proceed directly to the bivouac or assembly area and establish temporary antimechanized defense prior to arrival of the rest of the regiment. Although the antitank elements cannot precede the regiment in an uncovered route march, it is especially important that the antimechanized defense of the bivouac or assembly area be established promptly upon arrival of the troops. During the march, the antitank company commander may be required to formulate a plan for such antitank protection. He ordinarily recommends the employment of the battalion antitank platoons in firing position areas on the perimeter, in the sectors allotted to their respective battalions. Considerations of terrain and the limitations of the guns determine the portions of the perimeter which can be thus protected. If, in the opinion of the company commander, the battalion antitank guns are insufficient in number for complete perimeter defense, he may recommend that a part or all of the antitank company guns be employed to assist in such defense. Any remaining guns may be held mobile pending the completion of a reconnaissance of the bivouac area. Whether the antitank company precedes or accompanies the remainder of the regiment to the bivouac area, the company commander initiates as early a reconnaissance thereof as is practicable, preparatory to recommending a coordinated plan for its defense.

b. Whether the regiment bivouacs alone or as part of a larger force, it is frequently necessary to place all bat-

talion and regimental antitank guns, except those included in mobile detachments, in firing position areas around the perimeter of the bivouac area. Howitzers of the cannon company may also be employed to cover secondary avenues of approach, or to reinforce the fires of antitank guns from rear positions. The employment of howitzers is coordinated through the regimental S–3. Whether the regiment bivouacs alone or in proximity to a larger force, mobile detachments which include antitank guns, howitzers, and artillery elements may be organized. These detachments are held within the bivouac area until a threat of hostile mechanized attack develops, when they are employed to meet, disrupt, and delay the attack outside the perimeter of defense.

c. Mines may be laid across tank approaches so as to canalize hostile tanks into the fire of defending antitank guns. They may also be used in the immediate vicinity of antitank guns to protect such guns against attacking tanks. Guards and suitable warning signs must be used to prevent accidental detonation of the mines by friendly troops or vehicles.

33. OCCUPATION OF BIVOUAC AREA. **a.** Within the portion of the bivouac area assigned to the antitank company, the company commander assigns locations for those elements not employed on security missions, and for the company command post and kitchen. Vehicles are ordinarily placed in concealment and defilade, and so disposed in direction and position as to be able to resume the march with the minimum of confusion and delay. An interior guard is established to maintain camouflage discipline and to give the alarm in case of attack. (See FM 7–40.)

b. All personnel, wherever located, are required to dig one-man or two-man fox holes. These fox holes, as well as tentage, if used, must be camouflaged from aerial observation.

CHAPTER 5

OFFENSIVE COMBAT

SECTION I

GENERAL

34. REFERENCES. For the fundamental doctrines covering offensive combat, see FM 100–5. For general doctrines governing offensive combat by the infantry regiment and battalion, see FM 7–40 and 7–20, respectively. For signal communication and combat intelligence, see FM 7–25. For supply see FM 7–30.

35. INFANTRY MISSION. In the attack, the primary mission of infantry is to close with the enemy, and destroy or capture him.

36. DISTRIBUTION OF TROOPS. The general distribution of the infantry regiment in offensive action comprises a reconnaissance and security echelon, an attacking echelon, a reserve echelon, and an administrative echelon. The security echelon may include reconnaissance elements, an advance security detachment (advance guard), flank and rear security detachments, and connecting groups or contact patrols. The attacking echelon may comprise one or more battalions, with any attached units or weapons. The administrative echelon comprises the service company (less regimental headquarters personnel) and the regimental medical detachment. The reserve echelon comprises the remainder of the regiment.

SECTION II

APPROACH MARCH

37. DEVELOPMENT ORDER. The regimental commander's development order assigns protective missions to the antitank company. These missions may include —

a. Flank protection of the regiment against armored attack from specified directions or areas.

b. Protection of the advance of the leading battalion (s), or echelon (s), of the regiment.

38. DISTRIBUTION OF ELEMENTS OF ANTITANK COMPANY. ***a.*** When the regiment is in the leading echelon of the division, and is advancing without covering forces to its front, or behind covering forces which are inadequate to prevent hostile mechanized attack, the distribution of the antitank company during the approach march is frequently as follows:

(1) One or more antitank platoons attached to or supporting the leading battalion (s).

(2) The remaining antitank platoon (s) disposed to provide protection to the second echelon of the regiment. Protection of the flanks and rear are primary considerations.

(3) The mine platoon usually marches with the second echelons, prepared to move promptly to any threatened locations upon development of a hostile mechanized attack.

(4) The company command group moves with the regimental command group. The company commander is with, or maintains liaison with the regimental commander. He maintains contact with his platoons by radiotelephone (unless radio silence is prescribed) and by motor messengers to coordinate their operations with

the activities of battalion antitank platoons to insure continuous protection to the regiment.

b. When the situation requires that the regiment establish a flank guard, elements of the antitank company are usually attached thereto.

39. MOVEMENT OF MOTOR VEHICLES. Upon initiation of the approach march, the regimental commander releases antitank company vehicles to the company commander. Since movement by hand of the 57-mm antitank guns is impracticable for extended distances, the prime movers of the antitank platoons usually accompany their units. Movement may be made by long bounds from cover to cover. Routes which follow easily distinguishable terrain features are preferable, even though circuitous.

40. DAYLIGHT APPROACH MARCH. ***a. Formations.*** A daylight approach march must be made in formations which afford protection against artillery fire, attack by ground forces, and air attacks. Maximum advantage of the terrain will be taken for concealment and cover, and for firing positions affording good observation and fields of fire against likely hostile armored attack. Platoons will be separated laterally, or in depth, or both, depending upon the terrain, the frontage which each must cover, and the proximity and actions of the enemy. The company commander does not usually prescribe the formations within platoons, but promptly corrects any erroneous formations adopted by the latter.

b. Company Commander's Development Order. (1) By prompt, concise orders, frequently in fragmentary form, the company commander distributes the platoons for the execution of the missions assigned to the company. He prescribes the initial positions or locations in the regimental formation, and the mission of each

platoon. Orders for the movement of antitank units which are to be attached to battalions or other elements are issued by the company commander at the earliest practicable moment following receipt of the regimental order.

(2) The company commander also prescribes the method of movement of each platoon; that is, whether it is to move so as to maintain approximately its initial position in the regimental formation, or by bounds from one firing position area to another. Unless mechanized attack is imminent, each gun on completing a bound remains coupled to its prime mover in a cover position located near a tentative firing position. Ordinarily, the antitank weapons are moved by echelon, so that at least part of them are always prepared for action. When the platoon is directed to move by bounds, the company commander, either in the initial order, or by subsequent fragmentary orders, should inform the platoon leader of the time or conditions of release from each successive location, and whether the latter is responsible for reconnaissance of these locations. He may also prescribe whether the displacement will be made by the entire platoon at one time, or by leap-frogging individual guns.

c. *Reconnaissance During Approach March.* (1) The company commander is responsible for continuous reconnaissance throughout the approach march. He is assisted by the reconnaissance officer, reconnaissance sergeant, and such other personnel as he may designate. If the company commander personally heads a reconnaissance detail, the second-in-command is placed in control of the company, and may act as the representative of the company commander with the regimental commander.

(2) Reconnaissance is executed to locate likely avenues of tank approach, gassed areas, areas exposed to hostile observation, tank obstacles, routes of advance, obstacles

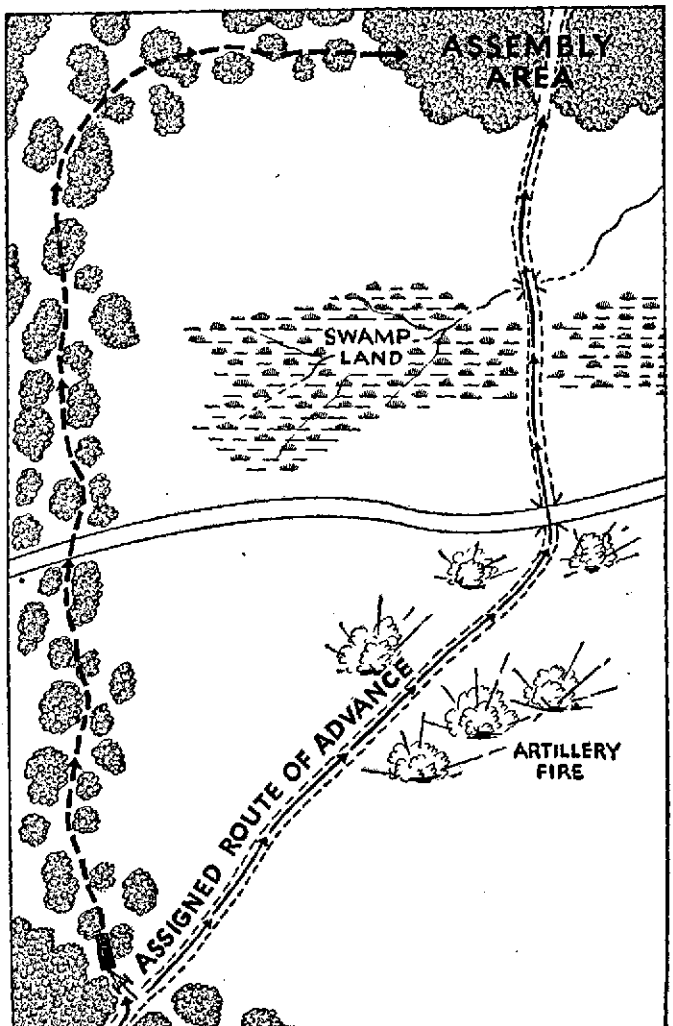


Figure 9. Deviation from assigned route of advance. Routes exposed to hostile observation and artillery fire are avoided. A concealed and covered route is followed.

to motor movement, detours, stream crossings, and the selection of firing position areas and locations for antitank mines. Maps and aerial photographs, if available, are used to supplement study of the ground.

d. Conduct of Platoons. During the march, routes are utilized affording cover and concealment from hostile ground and air observation, gassed areas are detoured, and areas being shelled avoided (see fig. 9). When shelled areas or prominent points exposed to hostile observation cannot be avoided, vehicles are required to cross these areas or points individually, at high speed. Preparation for immediate action is maintained throughout the movement.

e. Antiaircraft Security. Subordinate units are responsible for their own protection against air attack.

41. NIGHT APPROACH MARCH. ***a.*** A night approach march differs from a daylight approach march principally in the great difficulty of maintaining direction and control. Detailed plans are made to reduce these difficulties. Routes are carefully selected. If the march is made across country, routes are plotted on maps or sketches, so that direction can be maintained by compass readings and the use of landmarks. Lateral dispersion is avoided, and distances and intervals are reduced. Bounds, when used, are shorter than those by day.

b. The antitank company usually marches as a unit with the regimental motor elements. Squads or platoons may, however, be given specific security missions to protect the front, flank (s), or rear against surprise mechanized attack.

c. The company commander's order for a night approach march is similar to that for a daylight approach march, with appropriate modifications.

d. If a separate route or zone of advance is assigned to the company, a daylight reconnaissance should be

made by the company commander, or by such personnel as he may designate, for the purpose of securing accurate compass directions, plotting and marking the routes, and posting guides at critical points. Circuitous routes which follow easily distinguishable terrain features are preferable to more direct but less clearly marked routes.

SECTION III

ASSEMBLY AREAS

42. OCCUPATION OF ASSEMBLY AREA. When practicable, the regiment occupies assembly areas preliminary to deployment for attack. The attack is organized and coordinated in these areas; equipment not essential to combat is disposed of, and extra ammunition issued. Units are assigned positions in the area in accordance with their subsequent employment in action, but are kept sufficiently dispersed so as not to present concentrated targets to air attack or artillery fire. Reconnaissances are made and orders issued before departure from the assembly positions. (See FM 7–40.)

43. ANTIMECHANIZED PROTECTION OF ASSEMBLY AREA (see fig. 10). **a.** When the approach march of the regiment is made under the protection of covering forces to the front, the antitank company commander, with reconnaissance personnel, may precede the regiment in order to initiate early reconnaissance for the antimechanized protection of the assembly area. If the covering forces are sufficiently strong, all or part of the antitank company may be directed to precede the regiment during the later stages of the approach march in order to establish antimechanized protection prior to the arrival of the regiment at the assembly area.

b. When directed to submit recommendations, and a terrain reconnaissance is impracticable, the company commander makes an immediate study of available maps, aerial photographs, and reconnaissance reports. He then submits recommendations for the defense of the perimeter of the assembly area, specifying areas to be covered by the fires of the battalion antitank guns, which, together with areas covered by his own guns and the howitzers of the cannon company (if used), will insure the all around defense of the assembly area. He may recommend, after consultation with the howitzer officer, that howitzers which are not required to be emplaced initially to supplement and reinforce the defense, be held mobile at a central location. He may recommend the laying of antitank mines, if his knowledge of the situation and terrain is sufficient to warrant such action at this time.

c. Upon receipt of the regimental commander's order, the company commander issues fragmentary orders specifying the firing position areas to be occupied by platoons upon their arrival at the regimental assembly area, and principal direction of fire of each platoon.

d. The company commander should promptly initiate an inspection of the antimechanized defense, employing the second-in-command or reconnaissance officer to assist him. This inspection should determine —

(1) Whether all tank approaches to the area are under observation and are adequately covered by fire.

(2) Whether changes are necessary in the locations or missions of any antitank weapons engaged in antitank defense.

(3) Whether mines should be employed.

e. Changes in the dispositions within platoons of his own company, necessary for the proper fulfillment of their assigned missions, are effected by the company commander at once. Immediately following this inspection,

he recommends to the regimental commander the location of any antitank mine fields to be laid, and any changes required in the initial assignment of locations or missions of his own or battalion antitank platoons, in the employment of rocket teams, or in the employment of cannon company weapons necessary to provide effective antimechanized defense. If the situation is urgent, recommendations are dispatched by messenger during the course of the inspection.

f. The company commander must insure that—

(1) Advantage is taken of all natural concealment, and of every accident of the terrain, to disperse and conceal troops, vehicles, and guns from hostile aerial or ground observation and to minimize the effects of artillery or aerial bombardment.

(2) Advantage is taken of all available obstacles to tank movement, such as streams, closely spaced stumps, boulders, or large trees.

(3) All personnel dig fox holes.

(4) Local security, unless provided by other troops detailed for the purpose, is promptly established.

(5) If time permits, the physical condition and equipment of each individual is checked by his immediate superior.

(6) Men are given all possible rest.

SECTION IV

RECONNAISSANCE PRIOR TO ATTACK, PLANS, AND ORDERS

44. REGIMENTAL RECONNAISSANCE PARTY. The regimental commander is assisted by certain staff officers in reconnaissance. The reconnaissance party usually

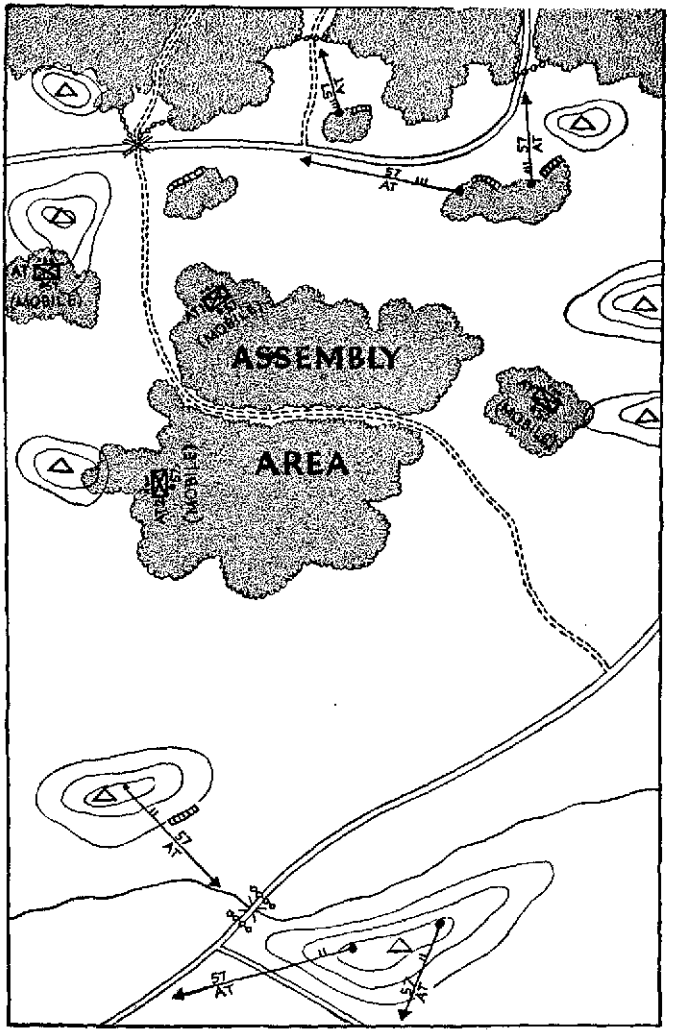


Figure 10. Defense of an assembly area. An antitank platoon of the antitank company, and one from a battalion, occupy firing positions covering mined avenues of approach. Two antitank company platoons and two battalion antitank platoons are held mobile, prepared to move rapidly to reconnoitered firing positions upon warning of hostile tank attack.

breaks up into small groups for detailed reconnaissance, as directed by the regimental commander. The antitank company commander may be instructed to accompany the regimental commander on reconnaissance, or to meet him, at a designated time and place, prepared to submit recommendations for the antimechanized protection of the regiment during the advance to the line of departure and the attack. In the second instance, the antitank company commander will initiate a reconnaissance upon which to base the required recommendations. (See FM 7–40.)

45. RECONNAISSANCE. a. The company commander must carefully plan his reconnaissance in order to achieve the maximum results in the time available. Before starting, he makes a brief map study, secures pertinent information of the enemy and of adjacent and supporting units, and decides how much ground he can cover in the time available. He issues instructions for any necessary preparatory movement of the company, and announces the time and place subordinates are to assemble to receive the company attack order, if such assembly is practicable. He also informs the senior officer with the company of his route of reconnaissance, so far as known. He confers with adjacent and higher commanders, either prior to, during, or following the reconnaissance, for coordination of firing position areas and other details of antimechanized defense. Time may be so pressing that reconnaissance by the regimental commander, prior to the issuance of his attack order, will be extremely limited, or even confined to a map study. Under these circumstances, the company commander completes a reconnaissance, similar in scope to that described in b below, at the earliest practicable moment after the regimental attack order is issued. He then submits recommendations for any essential changes in the

positions or missions assigned to elements of the company in the regimental order.

b. The regimental zone of action is frequently too large for thorough reconnaissance by one individual in the limited time available. The company commander may, therefore, divide the area for detailed reconnaissance among reconnaissance personnel, platoon leaders, and himself, or he may divide the area among these individuals, while he makes a general survey from a few selected vantage points.

c. The reconnaissance should be executed according to the prepared reconnaissance plan. For a discussion of antitank reconnaissance, see paragraph 10. If the regiment is to pass through a covering force, the reconnaissance should include a determination of the locations and missions of antitank units of that force, and the instructions which they have received as to their conduct after the attack commences.

46. PLANS. **a.** During his reconnaissance, the company commander makes his plans for the employment of the antitank elements of the regiment in the attack and the advance thereto. His plan will include the times, or conditions, for elements of the company to commence their forward movement. This may involve the selection and occupation of intermediate positions between those occupied for protection of the assembly area and those to be initially occupied for the attack. If the movement of the regiment to the line of departure is to be made at night, the plan ordinarily includes blocking all roads leading into the regimental zone of action from the flanks by means of mines or other obstacles.

b. As the attack progresses, the company commander must be constantly prepared to recommend, and to effect, such changes in the locations or missions of platoons as may become necessary through changes in the situation and as dictated by the terrain.

47. ORDERS. **a.** Following the receipt of the regimental attack order, the company commander initiates the movement of any element of the company which is to support or be attached to a battalion or other subordinate unit of the regiment, and issues the attack order.

b. Whenever practicable, the order is issued to the officers and selected noncommissioned officers of the company at a location affording cover and concealment, and from which terrain features referred to in the order can be pointed out. In rapidly moving situations, the assembly of leaders is usually impracticable, and orders must be issued in fragmentary form to individual platoon leaders, either orally or by written messages.

c. The attack order, whether issued in complete or fragmentary form, covers—

(1) Necessary information of the enemy and of friendly troops, to include—

(*a*) Types of enemy tanks operating in the vicinity.

(*b*) Locations of known or suspected enemy mine fields or mined road blocks; information as to passages and warning signs.

(*c*) Proposed movement and plan of action of friendly tanks operating in the vicinity, their identifying marks, and signals.

(*d*) The challenge signal (if prescribed) to be used in requiring that tanks believed to be friendly identify themselves.

(*e*) Location of nearby antitank guns of other units, and of known mine fields and other obstacles pertaining to friendly troops.

(2) Regimental zone of action and objectives, general plan of attack, and mission of the company.

(3) (*a*) Instruction to each antitank platoon to cover as many of the following details as are appropriate: uncoupling positions; firing position area, sector of re-

sponsibility and principal direction of fire (or its location and mission (s), if guns are to be held mobile); conditions for opening fire; any special instructions concerning coordination with other antitank elements operating in its zone of action. The order should indicate at what time, or under what circumstances, as for example, the initiation of movement by a specified battalion or other element of the regiment, platoons will move to initial positions for the attack, and should contain any necessary instructions for the conduct of the movement.

(*b*) Location of mine fields or road blocks to be laid by the mine platoon; any special instructions concerning the laying or guarding of mines; reconnaissance and other preparations for laying additional fields; location of the mine platoon upon completion of its tasks.

(4) (*a*) Ammunition supply; location of company ammunition supply point; instructions for disposition of prime movers.

(*b*) Location of regimental and battalion aid stations.

(5) Provisions for signal communication, details of warning system not covered in prior instructions, pertinent extracts from signal operation instructions, such as call names, frequencies, prearranged message code, map coordinate code, and pyrotechnic signals; location of regimental, battalion, and antitank company command posts; location of company commander.

SECTION V

EMPLOYMENT IN ATTACK

48. GENERAL. ***a.*** (1) When the regiment moves to attack positions in daylight, one or more platoons of the antitank company will usually be employed to reinforce the antimechanized defense of the leading bat-

talion (s) during the advance to the line of departure and the attack. These platoons, under company control, will usually occupy positions in rear of the guns of the battalion antitank platoons, to reinforce their fires and furnish them mutual support; to limit penetrations made by hostile armored vehicles; to cover approaches on the flanks and rear of the attacking battalions; and to maintain the continuity of protection of these battalions by timely displacement (see fig. 11).

(2) When the regiment moves at night to positions from which it will launch a daylight attack, roads entering the flanks or rear of the regimental zone of action will often be the only feasible routes by which hostile armored vehicles can interfere with this movement. The company commander reconnoiters for suitable locations for road blocks to be established after dark. The reconnaissance should also cover firing position areas and mine field locations for the attack as well as enemy mine fields offering a threat to the advance of friendly troops. Routes to firing positions and mine field locations are marked, and guides familiarized therewith. Whenever practicable, the company commander submits his recommendations to the regimental commander and issues his orders to subordinates in time to permit them to reconnoiter their assigned positions during daylight. By conferences with commanders or antitank officers of battalions and of higher and adjacent units, he insures coordination of all antitank means, including rocket teams. All movements are made quietly and without lights; they should be completed without confusion or loss of time. Radio silence is preserved. Firing positions are occupied prior to daylight.

b. In cases where organic battalion antitank weapons are inadequate to protect the attacking echelon of a battalion, or to cover all of the forward approaches, a gun or guns of the antitank company may be used forward,

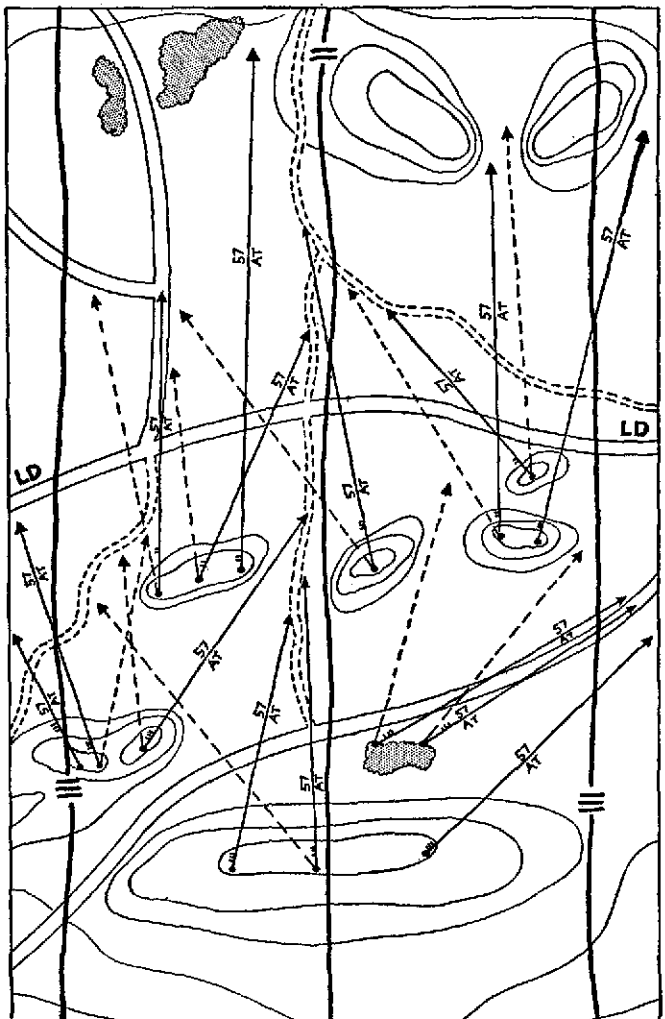


Figure 11. Initial dispositions for coordinated use of antitank guns in a regimental attack. Regimental antitank guns, from positions in the center and rear, deepen the antimechanized defense, provide protection to the flanks and rear, and assist in the coordination of fires with the guns of adjacent units.

near the leading troops. This may be effected through a specific mission-type order to the element (s) of the antitank company so employed, or by the attachment of a squad or platoon to the battalion. When a platoon is attached, the battalion commander may employ the battalion antitank platoon on one flank of the battalion area, and the attached platoon on the other, bringing forward the required number of guns from each platoon to cover the forward approaches. For details of employment of the platoon in such a case, see paragraph 100.

c. The remainder of the company is employed to provide antimechanized defense in depth for the regimental zone. The positions and missions of elements of the company so employed are coordinated with the antimechanized defense of the reserve battalion and of the supporting artillery. When the available elements of the company are insufficient to cover all likely avenues of hostile tank approach, they may be disposed in depth toward the most vulnerable area; a portion may be held mobile. (See par. 6e (1).)

d. (1) In the attack, mines are used principally to supplement the antitank defense of the flank (s) and rear of the attacking echelon by the establishment of hasty mine fields and road blocks across likely avenues of approach for hostile armored vehicles. Roads extending in the direction of the attack may require blocking in the event of enemy counter-attacks. Mines may also be employed to protect command and administrative installations. (See ch. 9.)

(2) Elements of the antitank mine platoon are responsible for the protection of all mine fields or mined road blocks which they have installed, unless other troops are specifically detailed for the purpose, or until relieved by higher authority. Such protection includes the maintenance of a traffic warning guard and posting of warning signs to prevent casualties to friendly troops and ve-

hicles; small-arms fire is employed to prevent hostile interference with mine installations. (See par. 161.) They are also responsible for gapping or assisting in gapping enemy mine fields as directed by the regimental commander. (See par. 169.)

49. LOCATION OF COMPANY COMMANDER. The company commander goes where his presence is most needed (see par. 12). If necessary, he designates his second-in-command or other available individual to maintain liaison with the regimental commander.

50. RECONNAISSANCE DURING ATTACK. Reconnaissance should be continuous throughout the attack. Reconnaissance personnel closely follow the attacking echelon, and reconnoiter areas previously indicated by the company commander for advance firing position areas for the elements under company control, routes of advance thereto, observation posts, and routes for ammunition vehicles. The reconnaissance officer and the reconnaissance sergeant are furnished with radiotelephones when practicable. They report the locations of enemy mine fields, likely avenues of tank approach, and possible locations for mine installations. They recommend to the company commander new firing position areas and principal directions of fire for the antitank platoons, together with covered routes to the new areas. In making these recommendations, consideration is given to the existing dispositions of battalion antitank guns and cannon company howitzers and, as far as can be ascertained, their planned dispositions, in order to insure coordination. When a platoon or other element of the company is operating under a mission order which leaves the selection of successive positions to the judgment of its leader, the company commander promptly relays to the latter any pertinent information concern-

ing positions or routes received from reconnaissance personnel.

51. PROTECTION OF COMMAND POST. In combat, the antitank company command post is usually located near the regimental command post. For the security of the latter, the regimental headquarters commandant posts air-antitank guards and patrols. These guards and patrols may also provide security for the antitank company command post; however, the antitank company commander is responsible for the security of his own installations and personnel. The headquarters commandant also prepares plans for the assembling and employment of all available personnel when the approach of hostile units is reported; these plans may include the use of such personnel as are present at the antitank company command post. The antitank company commander and the regimental headquarters commandant will coordinate the defenses of the respective command posts so as to effect mutual support. Antitank mines are frequently employed (see fig. 25 and par. 172).

52. CLOSE-IN PROTECTION OF ANTITANK GUNS. Close-in protection of antitank guns against attack by nonmechanized ground forces is provided either by members of the gun crews armed with individual weapons and with the platoon machine gun, supplemented, if necessary, by the detail of troops armed with rifles and bayonets, or by moving the antitank guns within an area occupied by riflemen. Mines may be employed to supplement the close-in protection of gun positions. Protection by troops armed with rifles and bayonets is particularly important at night.

53. ANTIAIRCRAFT SECURITY. a. Each element of the antitank company relies chiefly on passive antiair-

craft measures for its own security. When concealment is essential, and is believed to have been achieved, fire is not opened on hostile aircraft. Time for preparing cover will rarely be available, and advantage must be taken of such natural features as are in the immediate vicinity of each unit or individual. To avoid detection by hostile aerial observation, firing positions which afford concealment and have concealed routes leading thereto are utilized when practicable. Vehicles are habitually concealed when not in movement.

b. For procedure in case of air attack, see paragraph 14.

54. AMMUNITION SUPPLY. For the system of ammunition supply in the attack, see paragraph 21.

55. DISPLACEMENT. ***a.*** When an element of the antitank company has been assigned the mission of protecting a specific rifle unit, the control of displacement is ordinarily delegated to the leader of that element. The displacement of a platoon supporting a leading battalion must be initiated at such time as will insure continuous reinforcement of the antimechanized defense of the battalion. Exceptionally, when the attacking echelon occupies a position on or near a crest, guns of these platoons may move into the position of the leading rifle units, or occupy nearby cover, in readiness for such displacement.

b. For other elements of the company, the company commander prepares for displacement by timely instructions. He may regulate the displacement by the assignment to platoons of zones of advance, or by prescribing the location of new position areas selected on the basis of his reconnaissance or reports from reconnaissance personnel. He usually leaves the details of the displace-

ment to platoon leaders, although he may require that they secure his approval prior to the movement.

56. ACTION WHEN ADVANCE IS HELD UP. When the advance of the regiment is held up in front of a hostile position which cannot be outflanked, the regimental commander may arrange for a coordinated assault, supported by the antitank company, cannon company, heavy weapons companies, and artillery. Antitank units support the action by firing on suitable targets. Rapid displacement must be made to positions from which to resist any possible mechanized counterattacks or to support the attacking echelon in a continuation of the attack. (See par. 55b.)

57. ACTION DURING REORGANIZATION OF REGIMENT. ***a.*** The regiment may halt for reorganization, either on the final objective or on an intermediate objective before the final objective is reached. Measures for defense against mechanized attack must be taken promptly, as the regiment is particularly vulnerable to such an attack at this time. The antitank company commander coordinates the dispositions of the company with those of the battalions, the cannon company, and adjacent or higher units, to insure all around protection during the reorganization. Mines may be laid if the situation and terrain make their employment feasible and profitable.

b. The company commander insures that platoon leaders take advantage of the first favorable opportunity to reorganize their platoons, and that they report their strength and ammunition status. He replaces casualties among his command group and platoon leaders, makes any necessary adjustment of strength among platoons, and expedites the replenishment of ammunition. (See FM 7–40.)

c. While the reorganization is in progress, the company commander initiates a reconnaissance to select new observation posts and firing position areas, and determines any changes in missions which may be required to insure the continuance of effective antimechanized protection. Upon approval of his recommendations by the regimental commander, he promptly issues the necessary orders, including instructions for movement to new positions. Movement to these positions must be conducted in such a manner as to insure uninterrupted protection to the regiment.

58. PURSUIT. ***a. General.*** Upon capturing the final objective, leading regiments may be ordered to continue the advance in order to maintain pressure on the defeated enemy and prevent his successful withdrawal. At the same time, reserve forces, under control of a higher commander, may carry out an encircling maneuver to block his retreat.

b. Regiment in Direct Pressure. When a regiment is assigned the mission of exerting direct pressure, an antitank platoon is usually attached to each leading battalion. Antitank guns may be employed to use long-range fire in disabling enemy vehicles in defiles and on bridges, when such action will interfere with enemy withdrawal; they may also be employed to destroy or neutralize point targets, particularly armored vehicles, firing from delaying positions. Elements of the mine platoon may also be attached, although the platoon usually remains, at least initially, under the control of the company commander. The remaining portion of the company is employed primarily for protection of the flanks and rear of the regiment. The company commander usually attaches reconnaissance personnel to detached platoons. (See FM 7–40.)

c. Regiment as Encircling Force. When the regiment forms all or part of an encircling force, the employment of the antitank company is similar to that described for marches, motor movements, and the approach march. Elements of the company may be attached to advance, flank, or rear guards. If a motorized detachment precedes the regiment, antitank company elements are usually included.

d. Battalion(s) in Direct Pressure and as Encircling Force. A regiment operating alone or at a considerable distance from other units, may maintain pressure with the leading battalion (s), and carry out an encircling maneuver by the battalion (s) in the rear. (See FM 7–20.) In such an operation, battalions may be reinforced by the attachment of elements of the antitank company, as in b and c above.

59. ACTION WHEN ADVANCE IS DEFINITELY HALTED. When the advance of the regiment is definitely halted by hostile resistance, the leading rifle battalions pass to the defensive on the ground they have gained. During the organization of the position, the antitank company commander employs his weapons to provide the attacking echelon with antimechanized protection in a manner similar to that provided during reorganization. He reconnoiters for more suitable defensive positions, and for positions from which the attack may be supported when resumed, recommends any appropriate changes in the regimental scheme of antimechanized defense, and effects any changes ordered by the regimental commander. Upon approval, he issues the appropriate orders, and supervises their execution. If an attack is interrupted by darkness, elements of the antitank company are promptly disposed to cover the most favorable routes of approach for hostile armored vehicles

leading into the position occupied by the regiment. For conduct of the antitank company in defense, see chapter 6.

60. NIGHT ATTACK. **a.** For the general characteristics of night operations, see FM 100–5. For details of the employment of the rifle company, and of the infantry battalion and regiment in night attacks, see FM 7–10, 7–20, and 7–40.

b. Difficulty of maintaining direction and control makes it essential that a night attack be preceded by daylight reconnaissance and detailed plans and orders, especially by subordinate commanders. Plans should provide for the protection of attacking echelons against hostile mechanized counterattacks immediately upon capture of the objective, and for covering the withdrawal of the attacking units in case the attack is discovered and repulsed before the objective is reached.

c. When one or more battalions are employed in a night attack, antitank company platoons may be attached. Provision is made for every eventuality which can reasonably be foreseen. The order of the battalion commander to antitank elements includes the initial firing position area (s) and principal directions of fire, or location of mobile position (s) if elements are to be held mobile; designation of elements to displace to the objective after its capture, time and method of displacement, new position area (s), and direction (s) of fire; and changes, if any, to be made prior to daylight by any elements not displacing to the objective. (See FM 7–20.)

d. When the objective is reached, immediate measures for the defense of the position are undertaken. Antitank guns are emplaced to cover likely approaches for hostile armored vehicles. Mines may also be employed to block these approaches. All defensive measures are checked.

e. Rear elements move forward upon the prearranged signal announcing capture of the objective. All elements

should be in position by daylight. Final adjustments in antitank gun positions are made at dawn.

61. ANTITANK COMPANY OF RESERVE REGIMENT. All or part of the antitank company of a reserve regiment may be detached temporarily for special missions. Typical examples are —

a. Support of the leading regiments of the division in the initial stages of attack.

b. Reinforcement of the division antimechanized defense to meet a serious mechanized threat.

SECTION VI

SPECIAL OPERATIONS

62. ATTACK IN WOODS. a. For general considerations governing the conduct of an attack in woods, see FM 100–5, 7–20, and 7–40. For a discussion of jungle warfare, see FM 31–20.

b. During a daylight attack by the regiment against the near edge of a woods, the antitank company is employed in a manner similar to that described in paragraphs 48 to 59, inclusive. If, as is frequently the case, the attack is made under cover of smoke or darkness, particular attention is devoted to approaches leading into the flanks or rear of the regimental zone of action.

c. (1) During an attack through woods, the antitank platoons of the leading battalions provide frontal and flank protection for the attacking echelon. The antitank platoon of the reserve battalion usually provides that battalion with the necessary close-in antimechanized protection. Mine elements may be attached to leading battalions, or mines may be issued to the battalions for installation by battalion personnel. Owing to the short

fields of fire, rockets and antitank rifle grenades will be freely employed for antimechanized protection, both by leading battalions and antitank units, and in depth throughout the regiment.

(2) The distribution of elements of the antitank company will depend upon the possibility of hostile mechanized attacks. A platoon of the regimental antitank company will usually be employed to protect a flank of the regiment which extends to or beyond the edge of the woods. In fairly open woods, in which most of the terrain is suitable for the approach of tanks but control of ground troops is difficult, a platoon from the antitank company will frequently be attached to each leading battalion; that portion of the company remaining under regimental control will be used for protection of the flanks and rear. If the nature of the woods precludes hostile tank attack in one portion of the regimental zone, the bulk of the antitank company will be used for protection of the more exposed portion (s). If the nature of the terrain and the number of guns available makes it impossible to cover the entire zone satisfactorily by any of the above methods, elements of the company may be held mobile. In an advance through thick woods which contain roads and clearings, antitank weapons may move forward by bounds to cover such possible avenues of approach, particularly those leading into the flanks of the zone of advance. This may be accomplished by leapfrogging by squads or larger elements of the company.

(3) In an advance through woods, antitank platoons protecting the flanks move abreast of the regiment until the latter is held up by resistance, or halts for any other reason. Guns then occupy the most suitable firing positions in their immediate vicinity and are held in readiness for immediate delivery of fire until the regiment resumes its advance. Antitank platoons protecting the

rear operate in a similar manner; formations are usually in line and with squads well separated.

(4) Suitable routes for prime movers will usually be few in number, and frequently cannot be determined in advance. The company commander should therefore request blanket priority for movement of antitank elements over all routes.

(5) All leaders must cope with the difficulty of maintaining direction, contact, and control, and of operating with short and obstructed fields of fire. Compass directions of advance should usually be prescribed. Vigorous reconnaissance for suitable routes for movements by prime mover, and for firing positions, must be conducted. Visual contact with adjacent units is maintained whenever practicable. In woods too dense to permit such visual contact to be maintained by available personnel, liaison agents from platoons may be stationed with nearby units of the regiment or with the company commander; each such agent should be accompanied by a messenger or provided with other means of communication. Frequent reports from these liaison agents will assist platoons to maintain their place in the formation or to displace at the proper time from one avenue of tank approach to another.

(6) The concealment afforded by woods offers opportunity for surprise attack by hostile patrols or hostile elements by-passed by the leading rifle units. The company commander should request the attachment of sufficient riflemen to provide additional close-in protection for each gun. During movement by prime mover, gun crews should be formed into small dismounted patrols furnishing all around protection with their individual weapons.

d. The regiment is rapidly reorganized short of the far edge of the woods; it then continues its attack from the edge of the woods in generally the same manner as

for an attack in other open terrain. During the reorganization and subsequent attack, the antitank company is employed to reinforce the antimechanized defense of the leading battalions and provide additional protection on the flanks. Since the edge of a woods is a favorable target for hostile artillery, every effort is made to locate the initial firing positions as far within the woods as is practicable. These positions must permit effective fire to be delivered against hostile tanks which may attack while the exit is in progress. Firing lanes may be hastily prepared if time permits. All antitank gun elements should displace promptly to new positions outside the woods, as soon as such positions become available.

63. ATTACK OF TOWNS. ***a.*** The employment of the antitank company during the attack of the near edge of a town, and during the exit from the town, is similar to that described for an attack in woods and the exit therefrom. Frequently, platoons of the company will be employed to neutralize automatic weapons, located in fortified buildings and on the edge of the town, which have not been neutralized by artillery, cannon company howitzers, or other supporting weapons.

b. (1) In a large town (where the entire regimental zone of action lies within the town), all around antimechanized protection is essential. Tanks can be readily concealed within the town, and may attack from several directions with little or no warning. Attacks against the flanks or rear are particularly likely if the regiment has progressed more rapidly than adjacent units. An antitank platoon is frequently attached to each leading battalion. The remaining antitank platoon (s) may be employed under the company commander to complete the all around protection of the reserve, the regimental command post, and other regimental installations and units. Frequently, the mine platoon is similarly divided

between the leading battalions and the reserve elements; in such a case, additional transportation will be required.

(2) Firing positions may be selected in buildings, taking advantage of doorways or of loopholes knocked in the walls; guns may also be placed in the debris of ruined buildings or behind street barricades. Since it is difficult for leading battalions to mop up completely as they advance, antitank units must be closely protected by riflemen, both while firing and while in movement.

(3) Elements of the company employed in protecting the regimental reserve and installations can ordinarily use their vehicles in effecting displacements. The vehicles, protected by details of riflemen, are held in side streets, if necessary, in the shelter of buildings or other concealed positions, until needed.

c. In a small town which lies entirely within the regimental zone of action, a portion of the regiment is usually assigned the mission of securing positions outside the town, from which it can command the defenders' line of communications and prevent reinforcement or block retreat. Since this portion of the regiment is particularly subject to armored attacks against its flanks and rear, the bulk of the antitank company, under control of the company commander, will usually furnish protection against such attacks. Elements of the company may be attached to the units of the regiment actually advancing through the town.

d. For further discussion see FM 100–5, 7–20, and 31–50.

64. ATTACK OF RIVER LINE. **a.** For general principles governing operations at river lines, see FM 100–5. For technical details of stream crossing equipment and the use of assault boats, see TM 5–270. For expedients in

stream crossing, see appendix II. For the regiment in attack of a river line, see FM 7–40.

b. The immediate object of the attack of a river line is the establishment of a bridgehead which will protect the crossing of the remainder of the command. River crossings by the regiment may be made under any of the following circumstances:

(1) When the enemy is not actively holding the river line, or when his forces holding the river line are weak, and no defensive organization has been accomplished.

(2) When mobile ground forces, or parachute units, precede the regiment in an effort to secure the far bank, and the regiment's effort consists of a prompt reinforcement of such forces.

(3) When strong hostile forces, organized for defense, hold the far bank. (See FM 7–40.)

c. When an attack by hostile armored forces on the near side of the river is possible, protection is usually provided by antitank units under the control of higher headquarters. However, if the enemy possesses mechanized units, tank attacks can be expected on the far bank after all or part of the regiment has crossed the river, and before sufficient forces and matériel have been crossed to permit a bridgehead to be firmly established. Such attacks are most probable after leading units have pushed forward so far from the river that cannon company weapons and artillery on the near side can no longer deliver effective fire against tanks attacking these units, and before bridges or rafts can be constructed to displace this heavy matériel across the river. All battalion and regimental antitank units must therefore be moved across at the earliest practicable moment after the leading units have seized the far bank, in order to be properly disposed to protect the regiment during this critical period.

d. In order to seize a crossing or crossings not held by enemy forces, or weakly held, and with no defensive organization accomplished, the regimental commander organizes and dispatches one or more motorized detachments to precede the advance of the regiment. These detachments should be strong enough to hold the crossings against any enemy forces known to be capable of intervening before the arrival of the remainder of the regiment. The bulk of the antitank company will usually be attached to such motorized detachments, frequently, the entire company will be attached. Upon arrival at the river, supporting weapons, including the bulk of the antitank guns, may be placed in suitable firing positions on the near bank in order to protect the leading units while the latter cross the river and initiate their advance from the far bank. This action is usually taken when the river is not too wide, and suitable firing positions are readily available, even though the opposite bank is believed to be unoccupied. Antitank guns are usually the first supporting weapons moved across the river behind the leading rifle units. If there is no bridge, and ponton rafts or other engineer crossing means are not promptly provided, improvised methods of crossing must be employed. (See app. II.)

e. When the far bank of the river has already been seized by units preceding the regiment, antitank guns are seldom placed in position on the near bank. After crossing, the employment of the company is similar to that for any other attack except that, at least initially, the supply of ammunition may be restricted by the necessity for moving it across the river by boats or rafts.

f. (1) When strong hostile forces, organized for defense, hold the far bank, the regiment forces a crossing on a broad front, usually with either one or two battalions in the attacking echelon. Ordinarily, at least one antitank platoon and an element of the mine platoon

are attached to each leading battalion. The leaders of these attached elements should join the respective battalion commanders as soon as regimental orders for the attachment are received. While reconnaissance and other preparations for the crossing are in progress, battalions occupy initial assembly areas located far enough from the river to be out of range of hostile light artillery. They move from these initial assembly areas to final assembly areas near the river under cover of darkness. To avoid confusion, elements of the antitank company attached to battalions should join these in the initial assembly areas well in advance of the time of departure therefrom.

(2) All elements of the antitank company may be attached initially to the leading battalion (s). Usually, however, a portion of the company is held under control of the company commander. It is moved across the river at the earliest practicable moment after the crossing of the leading battalion (s) is completed. Ordinarily, its first employment after reaching the far bank is to provide close-in antimechanized protection for the area in which the regimental reserve is to assemble. If the crossing is to be made at dawn, or in daylight, and the river is not too wide, the guns may be placed initially in firing positions on the near bank to assist in covering the crossing of the leading elements by direct fire at hostile automatic weapons. If not so employed, this portion of the company is moved under cover of darkness into a concealed and defiladed final assembly area near the river and held mobile under cover, until the time for crossing. Daylight reconnaissance and marking of the final assembly area or firing positions, and of the routes thereto, is essential.

(3) Prior to leaving the initial assembly area, the company commander issues orders to that portion of the

company remaining under his control. These orders should cover—

(*a*) Mission, firing position area, sector of responsibility and principal direction of fire for each platoon or element which is to occupy firing positions on the near bank, including the conditions under which fire is to be opened.

(*b*) Final assembly area (if to be occupied).

(*c*) Time and place of crossing for each subordinate unit.

(*d*) Detailed instructions as to the means by which each subordinate unit is to make the crossing.

(*e*) Instructions for the disposition of motor vehicles which are not to cross with their units.

(*f*) Initial mission of each subordinate unit after crossing the river, to include the initial firing position area, sector of responsibility, and principal direction of fire.

(*g*) Secrecy measures.

(*h*) Instructions concerning ammunition supply and evacuation of casualties.

(*i*) Means of communication. Location of the company commander on the near bank, his time of crossing, and his location immediately after crossing.

(4) Elements of the antitank company attached to leading battalions may revert to company control as soon as the first objective of the regiment has been gained. This objective ordinarily is a position the occupation of which will secure the crossing against effective hostile small-arms fire. Thereafter, the company is employed to reinforce the mechanized defense of leading battalions, and to protect the flanks of the regiment, as in other attacks.

(5) Elements of the mine platoon may be attached to units in the attacking echelon to assist in blocking the approaches of enemy armored vehicles attempting to

attack the bridgehead. Mines are of particular importance in supplementing other elements of antimechanized defense on the flanks of the attacking troops as these troops advance inland from the river bank. Since the number of mines which can be transported by hand in such a situation is necessarily small, their immediate use may be to furnish protection to the antitank guns of the attackers. Personnel of the mine platoon may function as rocket teams until mines can be brought across the river in greater numbers.

65. ATTACK OF FORTIFIED POSITION. ***a.*** For a general discussion of the employment of infantry in an attack against a fortified position, see FM 100–5. For employment of the battalion and regiment in such an attack, see FM 7–20, 7–40, and 31–50.

b. The antitank company is employed to reinforce the antimechanized defense of leading battalions, and to protect the flanks and rear of the regiment, substantially as in other daylight attacks. Additional features frequently connected with such an operation are—

(1) Inclusion in the regimental and company orders of a considerable amount of detail relating to the conduct of the company and platoons, respectively.

(2) Assignment of missions involving firing against embrasures, loopholes and other openings in fortifications.

(3) Several rehearsals of the initial phases of the attack. Sufficient time for such rehearsals will ordinarily be available.

c. When contact has been established, antitank guns will normally execute the firing missions described in (2) above. However, once the hostile fortified position has been penetrated, repeated counterattacks by hostile armored units and infantry must be expected. Ordinarily, the enemy will have prepared these counterattacks in great detail in advance. Initially, while the

penetration is shallow, fires supplementing those of the leading battalion (s) against automatic weapons and other point targets will be the primary mission of the antitank company. As the penetration deepens, counterattacks on the regimental flanks are to be expected, and antimechanized protection of these flanks may become the primary mission. Since these prepared counterattacks may be launched with great speed, displacements to captured terrain masks must be effected with the minimum delay. Hasty mine fields or road blocks may be employed to delay such counterattacks.

66. RAIDS. Raids are made to capture prisoners, capture or destroy matériel, obtain information, inspire confidence and aggressiveness in the raiding troops, and harass the enemy. They are usually made by a battalion or smaller element of the regiment, employing hit-and-run tactics. (See par. 203.) Elements of the antitank company may be employed to protect the flanks or rear of the raiding force against armored attacks. Antitank elements may also reinforce fires of other supporting elements by direct fire on located point targets. They may be employed either under regimental control, or attached to the raiding force.

67. DESERT OPERATIONS. a. Deserts vary greatly in character. The surfaces may consist of loose sand and sand dunes, over which the movement of motor vehicles is greatly impeded, or it may be hard enough to permit free movement of mechanical transport at considerable speed. There are seldom any well-defined roads; trails often exist between water sources. Because there are few landmarks, maintenance of direction is often difficult. Mirage is a constant source of error. Distances are deceptive and are usually underestimated. When the surface consists of loose sand, operations will

probably involve chiefly the use of foot troops and animals. In such operations, the use of antitank elements may be restricted because of reduction in the speed of vehicles and added difficulties of movement and supply. Operations on hard surfaces will probably involve the employment of motorized and mechanized forces. In such operations, weapons of the antitank company can furnish powerful support both offensively and defensively because of their mobility and flexibility of their fires.

b. Desert movements require strong all around security forces. Elements of the antitank company are frequently attached to the advance, flank and rear guards; their employment is similar to that on corresponding missions on ordinary terrain.

c. Lack of natural concealment places special emphasis on dispersion, deception, camouflage, and proper employment of active measures for security. Since attacks may come from the air or from any direction on the ground, the protective measures taken should insure that—

(1) Air-antitank guards and ground patrols, provided with adequate signal communication equipment (radio and/or radiotelephone), are posted so as to give early warning of an impending attack. An air-antitank guard is designated for every vehicle on the move, and as required at the halt.

(2) Gun crews are in constant readiness for immediate action.

(3) Vehicles are dispersed in width and depth.

(4) Antiaircraft weapons (caliber .50 machine guns) are constantly manned and prepared for immediate fire.

(5) Strict discipline as to lights, direction, and rate of movement is maintained.

d. Support of an attack will, in general, be similar to that indicated in section V of this chapter.

e. For further details, see FM 31–25.

68. TACTICAL EMPLOYMENT IN ESTABLISHMENT OF BEACHHEAD. a. In the establishment of a beachhead, the antitank company is employed in a manner similar to that in the establishment of a bridgehead in a river crossing. The priority of landing of the guns depends upon the likelihood of mechanized counterattack, and upon whether the guns are to be employed against targets other than armored vehicles.

b. Prior reconnaissance, other than by map and aerial photo, is often impracticable. Once ashore, reconnaissance will be promptly and vigorously conducted.

c. Owing to the difficulties of supply, reinforcement, and of the landing itself under varying conditions of weather, visibility, and enemy resistance, the closest coordination must be effected in advance between the antitank elements and the units which they support.

69. MOUNTAIN OPERATIONS. Mountain operations are characterized by the difficulties which the terrain offers to movement. Likely approaches for hostile armored vehicles are, in general, restricted to roads and trails. Antitank units may be employed to defend or block such approaches, especially passes or other defiles, both by gun fire and mines. For a discussion of mountain warfare, see FM 100–5.

CHAPTER 6

DEFENSIVE COMBAT

SECTION I

GENERAL

70. REFERENCES. For the fundamental doctrines covering defensive combat, see FM 100–5. For general doctrines governing defensive combat by the infantry regiment and battalion, see FM 7–40 and 7–20, respectively. For data pertaining to field fortifications, see FM 5–15. For signal communication and combat intelligence, see FM 7–25. For supply, see FM 7–30.

71. DEFENSIVE DOCTRINES. The general object of defensive combat is to gain time pending the development of more favorable conditions for undertaking the offensive, or to economize forces on one front for the purpose of concentrating superior forces for a decision elsewhere. The organization of a principal defensive position presupposes determination to hold at all costs. Defensive considerations require a determined defense of certain key terrain, the loss of which would endanger the entire defensive position. In order to make the defense strong against hostile armored attack, not only must full advantage be taken of natural antitank obsta-

cles, but antitank mines and other artificial obstacles may also be installed so as to divert hostile armored vehicles from favorable avenues of approach and into areas which can be effectively covered by the bulk of the available antitank weapons.

72. MISSION. The principal mission of the antitank company of a regiment defending a sector of the battle position is to reinforce or add depth to the antimechanized defense provided by the organic antitank weapons of front-line battalions, and to protect the flanks, and, if necessary, the rear, of the regimental sector.

SECTION II

EMPLOYMENT IN DEFENSE

73. SUPPORT OF OUTPOST. ***a. General Outpost.*** The general outpost may be established and controlled by higher authority, or it may be furnished by front-line infantry regiments, and its actions coordinated by higher authority. Its mission is to provide time for the main force to prepare itself for combat, to deceive the enemy as to the location of the battle position, and to delay and disorganize his advance. When a regiment furnishes an outpost for a larger force, a portion of the guns of the antitank company, and all or part of the mine platoon are usually attached. A battalion assigned to the general outpost is frequently given a delaying mission; one or more elements of the antitank company may be attached to that battalion. For employment of the antitank company in a delaying action, see paragraph 90.

b. Combat Outpost. Combat outposts, detailed from each front-line battalion in the battle position, cover the

foreground of the battle position when the general outpost is at a considerable distance from the main line of resistance, when the enemy situation prevents the establishment of a general outpost, or when battle is interrupted by nightfall. The mission of combat outposts is to provide security of a more local nature than that provided by the general outpost or, when there are no friendly troops to their front, to perform those duties of the general outpost which their strength and location permit. When the combat outpost is located on terrain which permits of effective antitank fire, and covered routes of withdrawal are available, antitank elements may be included. The withdrawal of antitank elements is initiated in time for them to occupy firing positions supporting the regimental defense area before the hostile attack strikes the main line of resistance.

74. TACTICAL CONSIDERATIONS. ***a.*** Frequently, one platoon of the regimental antitank company is employed to reinforce or add depth to the antimechanized defenses of each front-line battalion, and provide protection to its flanks (see fig. 12). However, this distribution is not invariable. If the nature of the terrain makes a strong hostile armored attack against a given battalion unlikely, an antitank element, if so employed, may be smaller than a platoon.

b. The remaining guns of the company are assigned firing positions from which they may limit hostile mechanized penetrations of forward areas, and provide protection against attacks striking deep on the flanks or from the rear. They may initially be held mobile, in a concealed and centrally located area. However, as soon as the direction and strength of a mechanized attack becomes known, guns held mobile must occupy previously reconnoitered and prepared firing positions from which to meet this attack. Although located in firing posi-

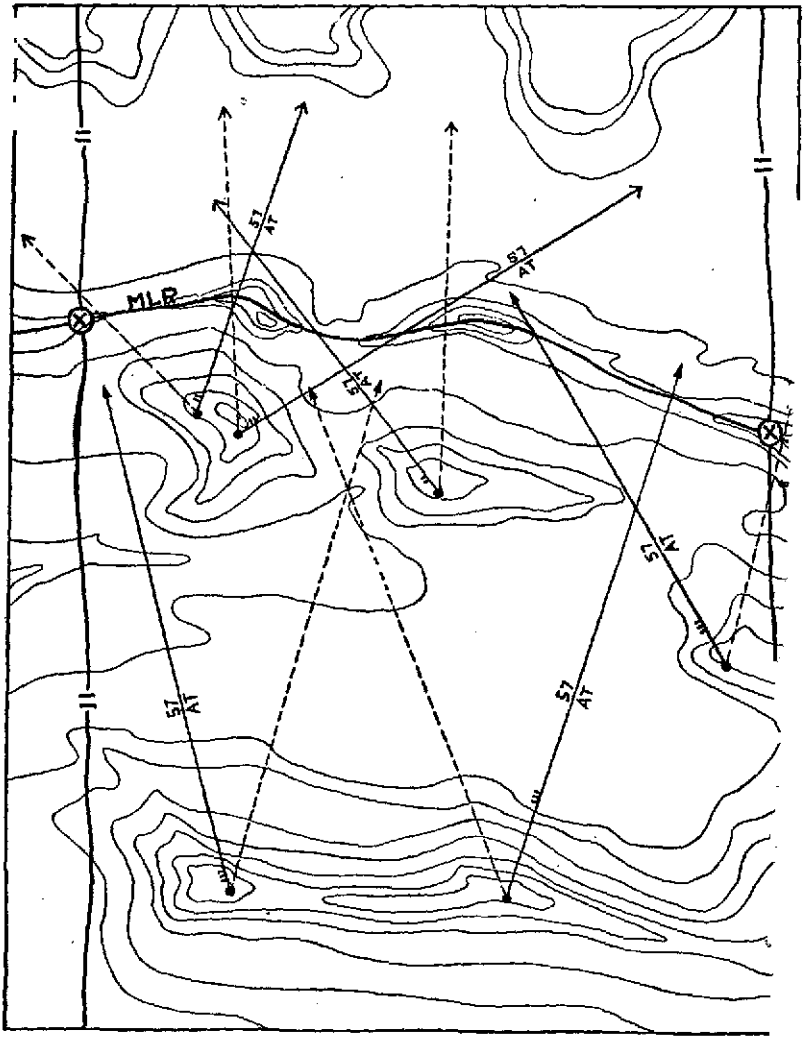


Figure 12. Antitank platoon of antitank company reinforcing the antimechanized defense of a front-line battalion. Regimental antitank guns, from positions in the rear, limit the advance of hostile tanks which penetrate front-line defenses, supplement, where the range permits, the forward antimechanized defense, furnish antimechanized protection to the flanks and rear, and assist in the coordination of fires with adjacent units.

tions with assigned sectors of responsibility, certain designated guns should be prepared to move to previously reconnoitered and prepared firing positions to meet an armored threat in some other sector of the regimental defense area.

c. Guns of the antitank company, attached initially to outposts established by the regiment or by battalions, withdraw when so directed by the outpost commander. Upon completion of the withdrawal, they revert to control of the antitank company commander, who utilizes them in previously determined areas of the defense position.

75. USE OF ANTITANK MINES. **a.** The use of antitank mines is coordinated with natural and other artificial obstacles, and with the employment of battalion and regimental antitank guns and other weapons, to provide all around antitank protection. Mines are laid to divert or prohibit the movement of hostile mechanized units in certain areas, and force them into areas more effectively covered by antitank gun fire.

b. Outpost lines of resistance may be strengthened by the use of mines; these are left in place when the outpost troops are forced to withdraw.

c. In a defensive situation, a large number of antitank mines should be available. This permits of the establishment of much more extensive mine fields than is practicable in other situations. Mine fields may be laid not only across likely avenues of tank approach to the main line of resistance, but in depth throughout the regimental sector to prevent tanks which penetrate the front line from maneuvering freely in rear thereof. Mine fields within the defensive position should, if possible, be so placed as to supplement existing natural obstacles in providing all around protection for individual areas of resistance. The responsibility for laying these fields, as

well as those in front of the position, may be delegated to front-line battalions. Mine fields within the defense area must be laid in accordance with the regimental scheme of antimechanized defense. Upon completion, a report should be submitted to the antitank company commander. (See fig. 23 and par. 162.)

d. Mine fields should be laid in a zone roughly from 50 to 500 yards (effective small-arms range) from the organized and occupied portions of defended localities. Mine fields and exposed personnel, weapons, or installations should be at least 100 yards apart. Mine fields should not be laid across areas to be covered by the close-in defense fires of supporting artillery and mortars. (See also par. 166.)

e. When the regimental commander allots prescribed quantities of mines to front-line battalions, the mine platoon delivers these mines to specified locations, and lays, or assists in laying, the mines in accordance with instructions issued by the battalion commanders. At other times, when the division engineer has been made responsible for the laying of all mines in the division area, the mine platoon may operate under his direction. When neither of these conditions applies, the mine platoon lays mines under company control in accordance with the regimental plan for antimechanized defense.

f. For further details, see chapter 9.

76. ACTION BY COMPANY COMMANDER PRIOR TO OCCUPATION OF REGIMENTAL SECTOR. a. Prior to occupation of a regimental sector of a battle position, the antitank company commander formulates and recommends a plan for regimental antimechanized defense. The procedure which he follows includes—

(1) Making a map study and tentative plan for defense.

(2) Providing for the forward movement of the company.

(3) Designating the time and place for the issuance of the company order.
(4) Planning the ground reconnaissance and conferring with higher and adjacent commanders, regimental S–2, and battalion staff officers.
(5) Checking the tentative plan by a personal reconnaissance of the ground.
(6) Completing and submitting to the regimental commander his plan for the antimechanized defense of the regimental sector.

b. When time is available, the antitank company commander will usually accompany the regimental commander on reconnaissance; he may, however, be directed to execute an independent reconnaissance. In the latter case, selected members of the company may accompany him. Lack of time may frequently require the issuance of fragmentary orders and hasty occupation of a position without prior detailed reconnaissance.

77. RECONNAISSANCE, PLANS AND ORDERS. a. Reconnaissance. (1) The reconnaissance should cover the regimental sector and adjacent areas, and is usually made in the following sequence: the foreground, the interior, the flanks in order of vulnerability, and the rear. The reconnaissance of the foreground of the sector is made to determine likely avenues of tank approach, and locations in which mines can be effectively employed, and other antitank obstacles constructed or improved. The reconnaissance of the interior of the sector is made to determine likely areas for hostile tank penetration and positions from which antitank guns can cover these areas and the flanks and rear of the regiment. In the reconnaissance of the flanks, the exchange of information should be effected with adjacent regimental commanders or their agents for the coordination of antitank defense between regiments. An exterior regiment

should consider the exposed flank as part of the foreground. Reconnaissance of the rear includes the exchange of information with commanders or agents of reserve units. The company commander submits his recommendations for antimechanized defense during, or immediately after, this reconnaissance. If he accompanies the regimental commander on reconnaissance, he will often be sufficiently acquainted with the regimental plan of defense to be released without waiting for the issuance of the regimental order.

(2) Additional reconnaissance may be necessary in order to determine more definitely the locations of firing position areas, as well as to select uncoupling positions and routes thereto, the company observation post (s) and the company ammunition supply point. Much of this reconnaissance will frequently be delegated to the reconnaissance officer and his assistants.

(3) When necessity for immediate occupation of the position precludes prior ground reconnaissance, the regimental commander will assign the company general missions, and areas into which to move the vehicles and guns. The company commander then selects platoon firing position areas, or positions of units to be held mobile, and prescribes platoon missions. Since speed is essential, all practicable steps are taken to expedite the occupation of positions. The company commander promptly inspects the dispositions of the company, and directs such changes as are necessary to provide adequate all around antimechanized defense of the regimental sector.

b. Plans. (1) A plan for the antimechanized defense of the regimental sector should include—

(*a*) Employment of mines, and construction or improvement of other antitank obstacles.

(*b*) Employment of the antitank platoons of the com-

pany, including attachment of any elements to outposts established by the regiment or battalions.

(*c*) Coordination with the howitzer officer for employment of cannon company weapons to supplement the fires of antitank guns, whenever necessary.

(2) The company commander prepares the antitank fire plan at the earliest practicable moment, and submits it, usually in the form of an overlay, to the regimental commander for approval. This plan shows the location of all mine fields and other antitank obstacles, both natural and artificial, together with the primary, supplementary, and alternate positions, and the principal and supplementary directions of fire of all antitank guns, including those of battalions and adjacent units, so far as they immediately affect the antimechanized defense of the regimental sector. It also indicates guns designated by front-line battalion commanders to open fire on hostile armored vehicles engaged on reconnaissance or acting as decoys. (See FM 7–20.) The plan is reviewed and modified as necessary by the regimental commander to insure —

(*a*) That the fires of regimental and battalion antitank weapons are coordinated primarily for defense of the forward portion of the battle position.

(*b*) That provision is made to meet mechanized threats from the flanks and rear.

(*c*) That all antitank fires are coordinated, for all around defense, with mine fields and other natural and artificial antitank obstacles, and with the fires of antitank weapons of adjacent units.

c. Orders. (1) POINT OF ISSUANCE. After receiving the regimental defense order, the company commander issues the company defense order. This may be done by assembling the platoon leaders at one location for the issuance of a complete order or conducting them to the areas their respective platoons are to occupy, and there issuing the order; when time is limited, he may

use his reconnaissance officer to conduct one or more platoon leaders to the area (s) to be occupied and there issue the order or the platoon (s). To avoid delay in the occupation and organization of the position, the order may be issued in fragmentary form. Orders are issued in time to enable platoon leaders to reconnoiter assigned firing position areas, effect dispositions, and initiate construction of emplacements without delay.

(2) CONTENTS. The defense order covers—

(*a*) Necessary information of the enemy and of friendly troops to include—

1. Types of enemy tanks operating in the vicinity.
2. Proposed movement and plan of action of friendly tanks operating in the vicinity, their identifying marks, and signals.
3. The challenge signal (if prescribed) to be used in requiring that tanks believed to be friendly identify themselves.
4. Location of nearby antitank guns of other units, and of known mine fields and antitank obstacles.

(*b*) Regimental sector of defense, trace of the main line of resistance, missions of the company.

(*c*) Instructions to each antitank platoon to cover—

1. Firing position areas, sector of responsibility, and principal direction of fire.
2. Construction (to include priorities) of emplacements, measures for concealment and camouflage, location and construction of dummy emplacements.
3. Conditions governing opening of fire.
4. Coordination with nearby antitank and other units.

(*d*) Instructions to the mine platoon to include location of mine fields or road blocks to be laid by the mine platoon, any special instructions covering the laying or

guarding of mines or assistance to front-line battalions in laying mines, reconnaissance and other preparations for laying additional mine fields, location of the mine platoon upon completion of its tasks.

(*e*) Instructions for the conduct of each individual in case hostile parachutists or other troops reach the firing positions.

(*f*) Ammunition supply, quantities to be placed at firing positions, location of company ammunition supply point, instructions for disposition of vehicles.

(*g*) Location of regimental and battalion aid stations.

(*h*) Provisions for signal communication, details of warning system not covered in prior instructions, pertinent extracts from signal operation instructions such as call names, frequencies, prearranged message code, map coordinate code, and pyrotechnic signals; location of regimental, battalion, and antitank company command posts; location of company commander.

78. OCCUPATION AND ORGANIZATION OF FIRING POSITIONS. Upon arrival at the firing position, each gun is concealed and camouflaged in a temporary firing position, and prepared to open fire at once to cover its assigned sector.

a. Unless otherwise prescribed, work is immediately commenced on primary emplacements, and, when these are completed, on their alternate emplacements. Supplementary emplacements and their alternate emplacements are ordinarily next in priority. Fox holes are dug. Dummy works may be prepared concurrently with work on true positions. Tools and materials made available by the regimental commander are allotted in accordance with the amount and urgency of the work to be done.

b. The company commander inspects the dispositions, and makes any necessary changes. (See par. 77a (3).)

c. When the work is completed, guns and personnel occupy cover positions, unless terrain or reduced visibility necessitates occupation of firing positions. Observers are posted.

79. CONDUCT OF DEFENSE. a. Early warning of a mechanized attack is essential to the conduct of the defense, in order that the antitank weapons may be moved to firing positions in time to meet the attack with effective fire. The vehicular radio of the antitank company is ordinarily included in the division warning net, as part of the regimental warning service established by S–2. (See par. 13.) Every available means must be utilized to insure prompt transmission to all elements of the company of any warning of the approach of armored vehicles. Antitank gun crews and observers immediately take their posts. Communications are retested. Personnel take advantage of emplacements and individual fox holes during hostile artillery preparations, aerial attack, or other preparatory fires.

b. The fires of the antitank guns should be withheld until hostile tanks reach the range or the points designated by the company commander for opening of fire. Gun crews must not be deceived into opening fire on decoy vehicles, thus prematurely revealing their positions unless their gun (s) has been specifically designated to fire on such vehicles. If not designated by the company commander, platoon leaders designate for each gun certain terrain features which hostile tanks are to cross, or pass, before fire is opened.

c. When necessary, the company commander should recommend changes in the initial plan of antimechanized defense to meet new situations. Such changes should not contemplate any use of the antitank platoons of front-line battalions, or of elements of the antitank company, which would unduly weaken the defense against a frontal

attack. By active supervision, the company commander should coordinate and expedite the movement of all units displacing to repel hostile mechanized attack (s), and insure that their fires are so coordinated as to continue the all around antimechanized defense.

d. In the event that one or more of the battalion antitank guns are put out of action, guns of the antitank company may be employed to fire on appropriate targets in the sectors thus left undefended.

80. CLOSE-IN DEFENSE AGAINST MECHANIZED ATTACK. For action in close-in defense against mechanized attack, see paragraph 15.

81. POSITION AND DUTIES OF COMPANY COMMANDER DURING HOSTILE ATTACK. The company commander ordinarily occupies his observation post during the hostile attack. From this point, assisted by the reconnaissance officer, reconnaissance sergeant, and such other observers as he may designate, he maintains constant observation over the conduct of the antitank fires in order to keep both himself and the regimental commander informed of the situation, and to be prepared to make any necessary changes in fire missions or dispositions. Communication between the company observation post and the platoons is insured by the use of all available means. (See par. 3b.)

82. SUPPORT OF COUNTERATTACK. A counterattack executed by the reserve either of a front line battalion or of the regiment is supported by elements of the antitank company, which fire at antitank weapons, automatic weapons, groups of enemy personnel offering remunerative targets, and observation posts. This support is coordinated by the antitank company commander in accordance with orders of the regimental commander. If

enemy armored vehicles make their appearance, antitank elements revert to their primary mission of destroying or neutralizing such vehicles.

83. AMMUNITION SUPPLY. The company commander exercises continuous supervision over ammunition supply. His prior arrangements should enable him to replenish promptly the ammunition of any elements of the company whose supply becomes seriously depleted. Upon occupation of the position, prime movers and regimental train vehicles are unloaded in covered and concealed locations as close as practicable to localities where their loads are to be used. As soon as the vehicles are unloaded, they are withdrawn to the rear, at which time prime movers and regimental train vehicles revert to company and regimental control, respectively. Replenishment of ammunition on the position will usually be effected under cover of darkness. Movement of vehicles at night is made without lights. Supply vehicles are returned to the rear area prior to daylight. For further details, see paragraph 21.

84. ANTIAIRCRAFT SECURITY. For antiaircraft security, see paragraphs 13 and 14. Additional security may be provided by nearby heavy machine-gun and rifle elements.

85. ANTITANK UNITS OF RESERVE REGIMENT. Reserves of a division or larger force held out for counterattack may include infantry, tank or armored force units, and tank destroyer units. Antitank units of a reserve regiment are assigned definite missions in accordance with the division plan of antimechanized defense. These missions, in addition to providing protection for the assembly area of the reserve regiment, may include the defense of avenues of approach leading into

the rear areas of forward regiments. Exceptionally, these antitank units may reinforce the antitank defense of forward regiments.

SECTION III

RETROGRADE MOVEMENTS

86. REFERENCES. For the general doctrines covering retrograde movements see FM 100–5. For details of operation of supply and evacuation of the regiment, see FM 7–30. For details of operation of signal communication and intelligence, see FM 7–25. For conduct of the regiment in a withdrawal, see FM 7–40.

87. WITHDRAWAL. *a.* A withdrawal from action is the operation of breaking off combat with a hostile force. It may be followed by a retirement, or by the occupation of a rear position, or area, from which subsequent offensive or defensive action will be conducted. Withdrawals are classified as night withdrawals or daylight withdrawals, according to when the movement is begun. Since daylight withdrawals usually result in excessive losses, withdrawals should, whenever practicable, be effected under cover of darkness. (See FM 7–40.)

b. Any order for a withdrawal must be carefully verified.

88. NIGHT WITHDRAWAL. *a.* Upon receipt of the regimental warning order for a night withdrawal, the company commander issues warning orders to the platoons, and promptly initiates reconnaissance of the company assembly area and route (s) of withdrawal of the regiment, and of the rearward defensive position, if one is to be occupied. Time for a reconnaissance by

daylight is ordinarily available. Since the company commander should remain with his unit while a defensive action is in progress, this reconnaissance will usually be delegated to the reconnaissance officer or the second-in-command, assisted by other selected personnel. The company commander's recommendations for the protection of the withdrawal, based on a map study and on reports received from reconnaissance personnel, should be submitted in time to be acted upon prior to the commencement of the withdrawal. Ordinarily, these recommendations should include provisions for the protection of defiles and the establishment of mined or other road blocks on roads intersecting the route of withdrawal.

b. Ordinarily, no elements of the company are left with the covering force. The regiment, less the covering force, withdraws, assembles, and marches to the rear. During the march to the rear, antimechanized protection of any rear position which is to be occupied is similar to that of other defensive positions. While at a rear position on reconnaissance the reconnaissance personnel confer with the representatives of battalions in order to coordinate plans for the antimechanized defense of the position. They select firing positions, locations for mines or other obstacles, and routes thereto, secure approval of these positions and locations by the representative of the regimental commander at the rear position, and mark them or otherwise make provisions for their ready identification during darkness.

c. Vehicles are brought forward, after dark, to the company assembly area. Prime movers are then moved as close to firing positions as the tactical situation, including the requirements for secrecy, will permit; if practicable, their location is immediately in rear of the first crest behind the firing positions. All movements after dark should be made quietly and without lights; radio silence may be prescribed. Such elements of the company as are

located in battalion defense areas are ordinarily attached to those battalions for the initial phases of the withdrawal, reverting to company control in the company assembly area. From this location, the company may be required to proceed to a regimental assembly area. Frequently, however, it is directed to precede the regiment, either to a rear defensive position or to establish firing positions and road blocks protecting the route (s) of withdrawal. As the elements of the company reach the rear position (if one is to be occupied), they are met by members of the reconnaissance detail and guided to their firing positions. (See FM 7–40.)

d. (1) If considerable amounts of antitank ammunition remain in the forward area when a withdrawal is contemplated, the regimental commander may instruct the regimental S–4 to make arrangements for its removal. As much of the ammunition as can be carried on the prime movers should be removed when guns are withdrawn from their firing positions. In order to provide space for extra ammunition, some of the members of the squad may be required to proceed to the rear on foot, with the rifle elements in whose areas they are initially located, rejoining their squads in the rear defensive position or assembly area. Provisions should be made for the destruction of any ammunition which cannot be removed.

(2) The plan of ammunition supply on the new position will be determined by the mission and the tactical situation.

e. The occupation and construction of firing positions, and the laying of antitank mines, should be conducted as prescribed in the occupation of a battle position. Daylight must find the guns in their new firing position areas ready for action against mechanized attack.

89. DAYLIGHT WITHDRAWAL (see fig. 13). ***a.*** In order to control the withdrawal of forward battalions, the regimental commander may assign zones of withdrawal and phase lines. When phase lines have been designated, the battalion commander designates the first phase line as the battalion assembly area; otherwise, he designates the first suitable delaying position in rear of the regimental covering force as the assembly area. Subordinate units move directly to the assembly area and occupy it as for a delaying action. (See par. 90.) Further movement to the rear is executed as directed by the regimental commander.

b. In a daylight withdrawal the bulk of the company antitank guns and all or part of the mine platoon are usually attached by regimental order to the covering force and to any flank guards established by the regiment. (See FM 7–40.) The remaining elements of the company, if any, are employed to reinforce the protection provided by battalion antitank platoons during the further movement of the regiment to the rear, and during the occupation and organization of any rear defensive position (s).

c. Antiaircraft security is obtained through the use of dispersed formations by all units. For further details, see paragraph 14.

d. Upon receipt of the regimental order for the withdrawal, the company commander promptly designates the elements of the company to be attached to security forces, and issues the necessary orders. When movement of these elements is necessary, the orders announce the place (s) at which they are to report to the units to which attached, the time movements are to commence, and the time they are to be completed. Instructions as to the method (s) of movement may be included. He also dispatches reconnaissance personnel to reconnoiter

route (s) of withdrawal, and any designated rear defensive position.

e. The company commander, assisted by designated members of his command group, closely supervises the forward movement of prime movers. This movement is made by infiltration as rapidly as possible, and by individual vehicles if time permits; otherwise, in small groups. Prime movers are brought as close to firing positions as practicable. Ammunition is kept mobile; only that sufficient for estimated needs is placed at firing positions.

f. Elements of the company located in battalion defense areas are attached to those battalions for the initial phases of the withdrawal. Elements to be attached to the covering force or flank guards are released from attachment to battalions as they reach the areas occupied by the covering force or flank guards, and should then be guided to previously reconnoitered positions. Antimechanized protection for the regiment (less security forces), during movement to the rear, is provided as for a route march or approach march. The action of antitank company elements attached to security forces is conducted as for a delaying action.

g. In a daylight withdrawal, all security elements, including the covering force, must be prepared to lay and defend hasty mine fields and road blocks. Attached elements from the antitank company may be directed to employ their guns and rocket launchers in the defense of such obstacles.

h. Destruction of matériel subject to capture is a command decision, and will be undertaken only when in the judgment of the division or higher commander such action is necessary. For methods of destruction of guns and vehicles, see FM 7–30.

90. DELAYING ACTION. **a.** Delaying action is a form of defensive action employed to delay the enemy's advance and gain time without becoming decisively engaged. Delay is usually obtained by forcing the enemy to early deployment and to time-consuming preparations for battle. (See FM 7–40.)

b. Owing to the extended frontage on which a delaying action is ordinarily conducted, the bulk of the antitank company is usually attached to front-line battalions and flank security elements, while the remainder of the company, if any, is held in readiness or disposed to protect rear installations.

c. The antimechanized protection of a regiment conducting a delaying action on one position is not materially different, except for the extended frontage, from that of a regiment occupying a position in sustained defense.

d. When successive positions are to be occupied, and a portion of the company remains under direct control of the company commander, he employs his reconnaissance personnel to reconnoiter the flanks of the first delaying position for tentative firing positions, as well as for locations where mines can profitably be employed. As time permits, this reconnaissance is extended to the rear to include the flanks of the next delaying position. When all platoons of the company are attached to subordinate units of the regiment, the company commander employs his reconnaissance and other command group personnel to assist these subordinate units, primarily by furnishing them with information regarding routes and antitank positions to their rear; and by assisting in the supply of ammunition.

e. If practicable, firing position areas should be such that firing positions may be located near topographical crests, with nearby cover positions for prime movers to facilitate withdrawal. The firing position is selected to

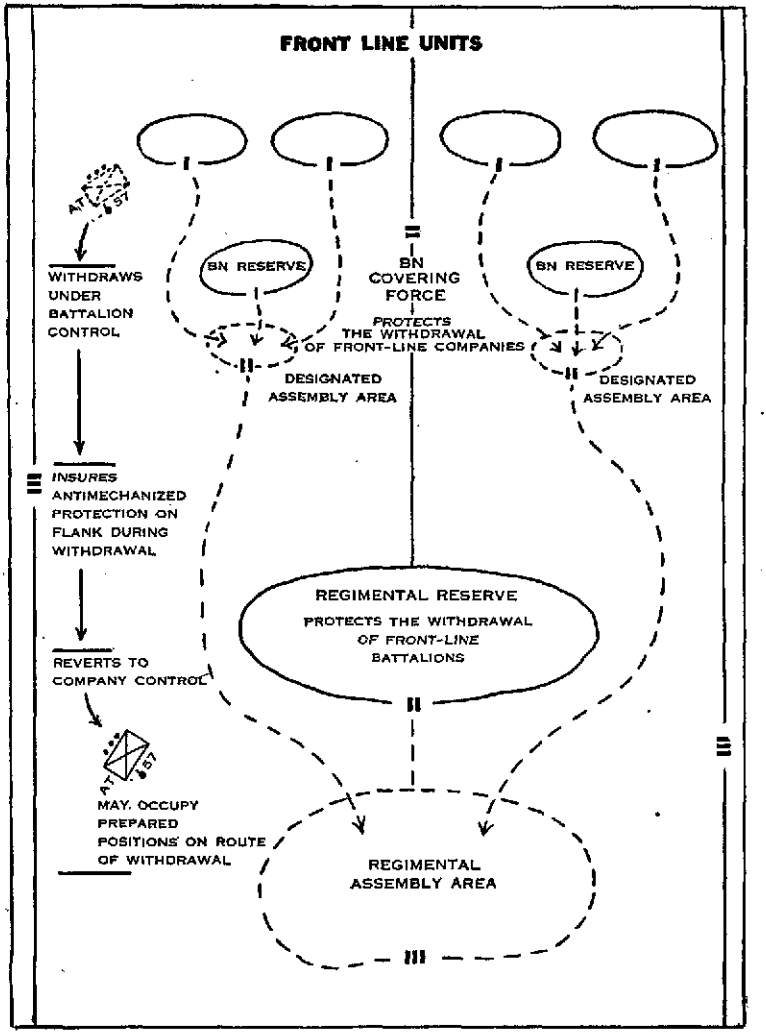


Figure 13. Front-line regiment in withdrawal. Antitank platoon of antitank company, attached to left battalion, shown in figure. Distances are schematic.

favor long-range fires. Guns open fire at the earliest moment that promises effect against the type of hostile armored vehicles employed, as well as such secondary targets as automatic weapons and groups of personnel. Ammunition is kept mobile; only that sufficient for estimated needs is placed at firing positions.

f. In open country, where hostile forces have freedom of action, the regiment will be particularly vulnerable to encirclements and flank attack. The antimechanized measures employed during its withdrawal from one delaying position to the next must provide all around protection. Elements of the company should be constantly prepared to go into action in any direction without delay. Antitank guns, protected by riflemen, may be placed temporarily in intermediate delaying positions to delay hostile armored or motorized units closely following the withdrawal or working around the flanks. Mines are extensively employed to block roads and defiles. Traffic warning guard (s) must be maintained over mines placed in rear delaying positions until the last friendly vehicles have cleared.

g. The difficulties of supply in a delaying action require that the company commander make an early estimate of the additional mines and ammunition required, and initiate timely recommendations to the regimental commander for the use of additional mines, as well as requests to S–4 for additional mines and ammunition. Command group personnel are employed to assist in insuring the delivery of these supplies at the proper times and places.

SECTION IV

SPECIAL OPERATIONS

91. DEFENSE IN WOODS. **a.** For defense in woods, the antitank company is usually employed in a manner sim-

ilar to that in other defensive operations, although the need for reinforcing the antimechanized defense of front-line battalions may be reduced, and correspondingly greater weight given to defense of the flanks and rear of the regiment. Within the woods, antitank weapons and mines are sited to cover roads or other likely avenues of approach for hostile armored vehicles. If a lateral edge of the woods lies within the regimental sector, guns protecting that flank should, if practicable, be located either well within or well outside the edge. The edge itself does not provide suitable positions, since it is particularly subject to artillery preparatory fires.

b. Close-in protection for antitank guns is essential. Unless they are emplaced within areas defended by riflemen, the company commander should request the attachment of sufficient riflemen to provide adequate close-in protection. (See also par. 62.)

92. DEFENSE IN TOWNS (see FM 31–50). **a.** When the regimental sector of the battle position lies within a town, all around antimechanized protection is essential. Hostile tanks which succeed in entering the town may be able to move unobserved to attack positions very close to the defensive positions. Although tank attacks are largely canalized along streets, the time during which antitank weapons can fire at the approaching vehicles before the latter overrun the position is brief. The debris of destroyed buildings also limits the defenders' ability to move antitank weapons rapidly to threatened points. For these reasons, antitank guns are seldom held mobile.

b. Adequate close-in protection for antitank guns is particularly important because of the ability of small groups of enemy foot troops to work their way, unobserved, through or over buildings.

c. Some of the streets in the town may be obstructed by fallen walls, as a result either of hostile shelling or

of deliberate demolition by the defenders, thus denying approaches to armored vehicles. Open streets leading to the position should be barricaded. These street barricades may be constructed by using vehicles (such as streetcars or earth-filled trucks with wheels removed), car rails, beams, or rubble obtained from ruined buildings.

d. Antitank guns are usually sited to cover street intersections, street barricades, and open streets, parks, or other areas along which tanks can approach the position. Fields of fire should be cleared of obstructing fences, hedges, and buildings. Guns should be emplaced in the debris of ruined buildings or placed within buildings to fire through loopholes. Loopholes should be concealed when possible. Dummy loopholes are prepared in order to deceive the enemy. Sandbags should be placed behind each unused loophole, to prevent the passage of enemy fire. An ordinary brick wall usually will not afford protection against a sustained burst of machine-gun fire at short range, nor will an ordinary floor protect against small-arms fire from above or below. Positions inside buildings should be reinforced by sandbags, or any other available containers filled with sand or rubble. Window panes should be broken and removed to prevent casualties from flying glass. All exterior doors should be barricaded, chimneys closed near the top, and windows screened or covered to prevent hand grenades from being thrown or dropped into the building. Supplies of water, food, and ammunition, as well as first aid and fire fighting equipment, should be stocked at each gun position.

e. Mines are used to assist in blocking favorable tank approaches.

f. Antitank guns and rockets will frequently be used to neutralize or destroy automatic weapons which the enemy succeeds in advancing to positions sheltered be-

hind the concrete or brick walls of buildings or piles of debris. Antitank grenades may be employed to advantage against targets which cannot be neutralized by flat-trajectory weapons.

g. Troops should prepare shelters affording protection from flying masonry.

93. DEFENSE OF RIVER LINE. **a.** When the regiment defends a river line, some antitank guns may be emplaced on or near the bank with the mission of firing on boats, amphibian tanks, landing barges, and hostile automatic weapons supporting the attack. However, since the enemy may be expected to use smoke, only the minimum number of guns should be employed on these missions. Guns should be provided with adequate close-in rifle protecion, and promptly displaced to the rear when the enemy attacks under conditions which prevent their effective employment.

b. When it is known that the enemy does not possess amphibian tanks and landing barges, antitank guns are not emplaced on the river bank, since tanks usually will not be ferried across until other hostile troops establish a bridgehead. The antitank company should be held mobile in one or more positions in the general vicinity of the regimental reserve. The company commander must be informed of the regimental plans for defense and counterattack. In accordance with these plans, the regimental sector is thoroughly reconnoitered to select tentative firing position areas and routes thereto.

c. If the enemy succeeds in establishing a bridgehead and bringing tanks across the river, the antitank company may be employed to reinforce battalion antitank platoons in neutralizing such tanks as cross to the bridgehead. Prior to that time, if its guns are employed, their

fire is directed against hostile automatic weapons and antitank guns.

d. For further details, see FM 7–20.

94. DEFENSE AGAINST AIRBORNE OPERATIONS. *a.* Troops transported by air include parachute troops and air-landing troops. The latter, transported by airplanes or gliders, are usually landed in combat units equipped with infantry weapons. Light artillery, lightly armored combat vehicles, and the smaller types of wheeled transport may be landed with the troops. Ordinarily, this matériel can be landed only after suitable landing areas have been seized by parachute troops.

b. The hostile attack is usually preceded by extensive aerial reconnaissance. Immediately preceding an attempted landing by airborne troops, enemy combat aviation may be expected to bomb and machine-gun all defenses surrounding the selected area (s). During and following a landing, it may be expected to continue machine-gun and low altitude bombing attacks.

c. Elements of the antitank company may be attached to any portion of the regiment employed as a task force in defending areas against airborne attack. These elements may be employed to establish and defend road blocks for the purpose of delaying the hostile advance from areas in which landings have been accomplished. Antitank guns may also be assigned position areas, with the mission of firing upon hostile gliders and airplanes as they land.

d. The area commander's plans will include interception and neutralization of airborne landings before the enemy can occupy any critical terrain features. When the number and size of probable landing areas for airplanes and gliders are so limited that an effective defense of each area can be provided, all troops may be distributed in defensive positions to protect these areas.

When probable landing areas are so numerous that such fixed defense of each area cannot be provided, the entire force may be held mobile. In many situations, a combination of the above methods will be employed.

e. Antitank elements which form part of mobile units must conduct, in advance, intensive reconnaissance of routes and tentative position areas in order to be prepared to move rapidly to any threatened locality. In selecting firing positions, concealment from hostile aerial observation during movement thereto is of particular importance. Formations, as well as routes and methods of movement, should be planned to reduce losses from the intensive air attacks which are to be expected.

f. Leaders of antitank elements included in units assigned to the fixed defense of a probable landing area select and prepare as many alternate firing positions as possible, in order that the guns may occupy positions, during the attack, different from any occupied during hostile reconnaissance, and to permit prompt displacement when so required. All positions must be concealed and camouflaged, and numerous dummy positions constructed. When time permits, sufficient one-man or two-man fox holes for all members of gun crews should be constructed near each firing position.

g. Close-in rifle protection for all antitank units is essential. In addition, it is particularly important that plans of fire and maneuver be so prepared and executed that friendly troops will not fire upon one another.

h. Constant alertness is required. It must be impressed upon every individual that there is no "front." Each subordinate unit, whether assigned to a defensive position or forming part of a mobile unit, must be prepared to go into action, at a moment's notice, in the area in which it is located, or to move to any threatened locality.

95. DESERT OPERATIONS. For a discussion of desert operations, see paragraph 67.

96. MOUNTAIN OPERATIONS. For a discussion of mountain operations, see paragraph 69.

CHAPTER 7

ANTITANK PLATOON

SECTION I

GENERAL

97. COMPOSITION. **a.** The antitank platoon of the antitank company consists of a command group (headquarters) and three gun squads (see fig. 1). The command group consists of the platoon leader, platoon sergeant, and messenger.

b. For composition of antitank squads, see chapter 8.

c. For armament, equipment, and transport, see Table of Organization and Equipment.

98. DUTIES OF COMMAND GROUP. **a. *Platoon Leader.*** The platoon leader commands the platoon and is responsible, under such orders as he may receive from the company commander, for its training, discipline, control, and tactical employment. So far as applicable, his duties are similar to those of the company commander described in paragraphs 8a, and 9–12. Assisted by the platoon sergeant and the messenger, he controls the action of the platoon through timely orders issued to the squad leaders.

b. Platoon Sergeant. (1) The platoon sergeant, the second-in-command, assists the platoon leader in the execution of his duties, and commands the platoon when the latter is absent or becomes a casualty.

(2) In the attack, the platoon sergeant performs any duties assigned by the platoon leader. Initially, he will be in the rear of the platoon at a point where he can supervise ammunition supply. He may command the rear element of the platoon during displacement. When the squads are widely separated, he may be employed to reconnoiter for the displacement of one or more squads.

(3) In defense, he may remain with the platoon leader, or, when the squads are widely dispersed, supervise the actions of one or more of the squads. He may operate the observation post. He performs any necessary administrative duties when the platoon is detached.

(4) He controls the platoon vehicles when they are assembled, and insures their security by timely reconnaissance, dispersion in defilade, concealment, and camouflage. He posts truck drivers as observers near their vehicles in order to insure observation in all directions, and designates one driver to observe for signals and receive messages from himself or from the platoon leader. He supervises fuel requirements and driver maintenance of vehicles.

c. Messenger. The messenger transmits oral and written messages. He may be directed to act as observer, assist in performance of security missions, and operate the signal equipment allotted to the platoon. Exceptionally, he may be used as a liaison agent between the platoon and the unit supported. He drives the vehicle assigned to platoon headquarters, and is responsible for driver maintenance.

99. COMMUNICATION. ***a.*** The antitank company commander, and the commander of the unit which the platoon supports, are responsible for maintaining contact with the platoon. Similarly, the platoon leader is responsible for maintaining contact with his squads.

b. For communication, the platoon leader employs the messenger, as well as arm-and-hand signals, panel set, pyrotechnic projectors, sound-powered telephones, and radiotelephones. The last two items of equipment are not provided organically, but may be made available by the antitank company commander.

100. MISSIONS AND TACTICAL EMPLOYMENT. ***a.*** The missions of the platoon are assigned by the antitank company commander, except when the platoon is attached to another unit of the regiment. Primary missions may include reinforcement of the antitank defenses of a front-line battalion, deepening of the antimechanized defense within the regimental zone or sector, and assisting in the protection of the regimental command post, flanks, rear, and ammunition distributing point. At times, the platoon may be assigned secondary missions of firing on hostile antitank guns, automatic weapons, emplacements, pill boxes, or other point targets (see par. 5).

b. When the platoon is employed under company control in the mission of reinforcing the antitank defense of a front-line battalion, it will generally occupy a position which will afford depth and density in fire, and flank and rear security to the battalion. When so operating, its guns will be placed farther to the rear than the battalion guns; however, every effort should be made to locate the guns so that they can fire forward of the leading troops to the greatest practicable distance, as well as toward the flanks and rear of the battalion. (See FM 7–20.)

c. The regimental commander may frequently attach a part or all of a platoon of the antitank company to a leading battalion. In such cases, the battalion commander may employ the regimental guns as outlined in b above, or, if there are wide frontages and many frontal avenues of approach to be covered, he may employ the greater number of all available guns in forward areas. One method of covering an extended frontage is to divide the battalion area into two zones or sectors, using the battalion antitank platoon in one zone (sector), and the attached platoon in the other. Each platoon will then have the mission of providing antimechanized defense for its allotted portion of the battalion area, and may bring its greater strength forward to protect the leading troops and cover the forward avenues of approach.

d. When an antitank platoon of the antitank company is attached to a forward battalion, and is to be employed in one of the two zones (sectors) as described in c above, both antitank platoon leaders must insure—

(1) That there are no unprotected avenues of approach near the boundaries of the two units.

(2) That the guns of the platoons provide each other with mutual fire support; this is particularly important during displacements.

e. When the regiment is advancing in attack, antitank platoons of leading battalions ordinarily complete their displacements to more advanced firing position areas before any elements of regimental antitank platoons arrive in the new location. In the organization of a defensive position, the battalion antitank guns frequently occupy their positions prior to the arrival of units of the antitank company which are to be employed in their vicinity. In both attack and defense, platoon leaders of the antitank company note on arrival the locations of the battalion antitank guns and other

weapons which may be employed against tanks, as well as the location of any nearby mine fields and obstacles. They then assign such firing position areas and sectors of responsibility to their squads as will effect maximum coordination of fires.

f. Antitank mines may be made available to the platoon for the establishment of road blocks and other mined obstacles to tank approach, especially when the platoon is employed on security missions. The platoon leader is responsible for the laying of mines by the squads, and for their recording, guarding, and marking. Technical assistance may be furnished by attached individuals of the mine platoon. (See also par. 158.)

101. COORDINATION AND COOPERATION WITH ADJACENT UNITS. So far as his orders permit, the platoon leader insures that the location (s) and actions of his unit, in coordination with adjacent antitank guns, antitank grenadiers, rocket teams, mine fields, and other obstacles, provide the best possible protection to the unit which his platoon is supporting, or the area which it is protecting. This is of particular importance when the platoon is protecting a flank. He arranges with the commander of any antitank element which may be located in the immediate vicinity of his firing position area (s), for mutual support in case of hostile attack. He also effects coordination with any nearby friendly units in regard to local security, use of communications, warning of hostile tank approach, and similar matters. (See also par. 100b.)

102. FIRE CONTROL. *a.* The gun squad is the basic fire unit. Squad leaders usually control the fire of their guns; direct control by platoon leaders is exceptional. Antitank squads must be prepared at all times to fire on any tanks appearing within effective range. (See

par. 2b (1) (a).) However, in order to carry out the mission assigned him by the company commander, the platoon leader will, as a general rule, assign a definite sector of responsibility to each squad. The size of the sector will depend on the terrain, visibility, and proximity of mutually supporting guns. Whenever practicable, sectors should overlap those of adjacent squads. Although gun squads are primarily responsible for firing on hostile tanks appearing at effective range within their sectors of responsibility, they are also responsible for engaging dangerous targets in adjacent sectors. The squad leader is responsible for continuous observation of his assigned sector, as well as the flanks and rear.

b. The platoon leader assigns a principal direction of fire to each gun. The squad leader is responsible for placing the gun in its firing position. Whether in a primary or alternate position, the gun is so placed that it can fire in the assigned principal direction without shifting trails. However, it will frequently be necessary to shift the trails to engage targets appearing elsewhere either in or outside the squad's sector of responsibility.

c. Usually each squad is assigned its firing and cover positions by the platoon leader. If lack of time prevents him from selecting these positions, he will designate the firing position area for each squad and the principal direction (s) of fire, and delegate the selection of firing and cover positions to the squad leader.

d. The platoon leader may control the opening of fire either by prescribing ranges or designating terrain features which hostile vehicles are to cross or pass before fire is opened. (See par. 47c.) Opening fires are withheld until the target is positively recognized as a hostile vehicle. A vehicle is assumed to be hostile if its crew fails to establish its identity in accordance with a prearranged code. When such a code has not been established, recognition may be effected by the appearance,

sound, and actions of the vehicle. The possibility of the enemy's using vehicles captured from friendly forces, and of friendly forces' using vehicles captured from the enemy, must be considered. Reconnaissance and decoy vehicles will not be fired on except by order of the company commander, or, if the platoon is attached to a battalion, the battalion commander. (See figs. 2 and 14.)

e. When the guns of the platoon are in a firing position for a considerable period of time, control by the platoon leader is greatly facilitated by the use of sound-powered telephones. Such telephones, together with wire, should be made available for this purpose by the company commander.

103. SECURITY. *a. Warning Service.* (1) The platoon leader directs each squad leader to post at least one air-antitank guard prior to the fire fight, to warn of the approach of hostile aircraft, armored vehicles, or foot troops. All around observation must be maintained by these guards, and other members of the squad must be constantly alert for signals which the guards transmit. Gun crews located in cover positions also maintain constant observation, and are particularly watchful over their assigned sector of responsibility. Leaders of squads which have good observation in all directions from the firing position will not post an air-antitank guard during the fire fight itself; squad members at the gun will maintain all-around observation.

(2) All personnel of the platoon should be informed of the location and movements of friendly tanks and their identifying signals; they must know the identifying features of both hostile and friendly tanks and aircraft. In addition to the standard warning signal (par. 13), they must know any other warning signals prescribed by higher commanders.

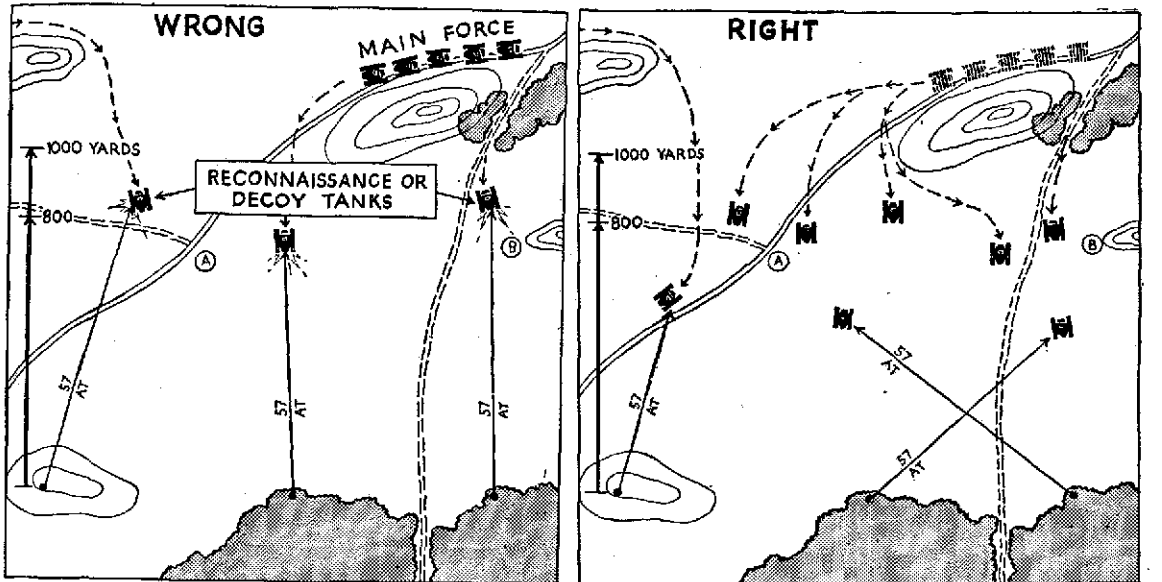


Figure 14. A and B have been designated as terrain features which hostile tanks are to pass before fire is opened by antitank guns. Reconnaissance or decoy tanks will frequently be employed to locate gun positions. Fire should be withheld until main force is committed, and within effective range, at which time all tanks are fired on. Flanking fire is employed when practicable.

b. Action in Case of Air Attack. For action in case of air attack, see paragraph 14.

104. ROUTE MARCHES AND BIVOUACS. ***a. Route March.*** (1) During a daylight route march by the regiment, the platoon or its elements may be attached to advance, flank, or rear guards, or disposed in the column to provide protection to the main body. (See par. 27.) Depending on the practicability of cross country movement, it may be directed to march, either as a unit or distributed by squads, in the column of that element of the regiment which it is protecting, or to occupy successive firing positions covering likely avenues of hostile tank approach intersecting the route of march. When displacing by bounds to successive firing positions, the distance to the new position, and the need for continuing protection at the old one, will determine whether the platoon should move as a unit or by squad echelon. In moving by squad echelon, one squad may displace forward, leaving two squads at the old position, or vice versa; or each squad may displace successively. Ordinarily, displacement of squads will be effected by leapfrogging (see fig. 15).

(2) When the platoon is attached to a dismounted security element of the regiment, the platoon leader, or personnel designated by him, must accompany the leading foot elements in order to select cover and firing positions. When the platoon is operating under company control, these positions will usually be designated by the company commander upon information received from company reconnaissance personnel. In either case, the platoon leader, or personnel designated by him, should precede the leading element of the platoon during movement to a new firing position area, in order to reconnoiter the route and insure expeditious movement.

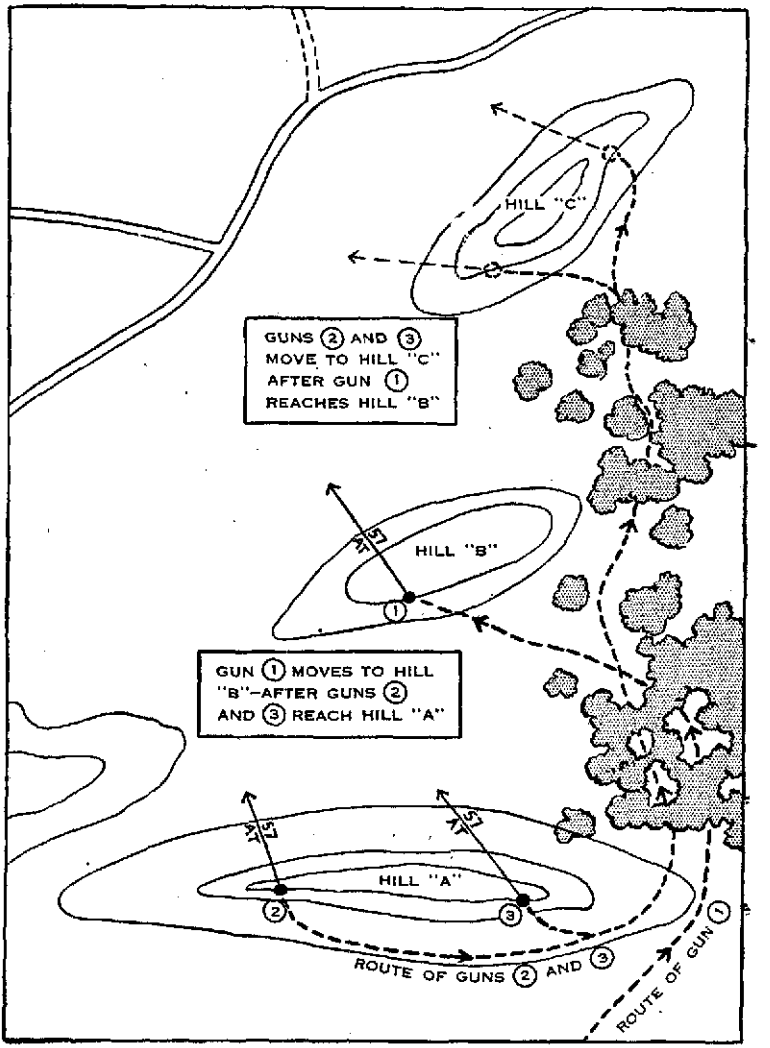


Figure 15. Guns covering one another in advance by bounds.

(*a*) In an advance guard, antitank squads may be advanced from one suitable firing position to another, so as to afford continuous antimechanized protection to the marching column. In such movements, antitank units are given priority on roads and move rapidly to successive positions. Only the amount of ammunition required for immediate needs is unloaded at the gun positions. If such employment of the antitank platoon is impracticable, as in a motorized movement, the guns are distributed in the support and reserve, usually by squads, so as to afford protection throughout the advance guard. Speed in going into action is essential. When guns are in cover or firing positions, members of the crews are posted to observe in all directions. Gun crews must at all times be on the alert for warning signals from air-antitank guards. When contact with the enemy is gained, the platoon is employed as in offensive or defensive combat, depending upon the action of the advance guard.

(*b*) For the employment of the antitank platoon with a flank guard, see paragraph 27e (2).

(*c*) Antitank guns employed with a rear guard are distributed in the column, or move by bounds, as in an advance guard. As in advance and flank guards, firing positions are selected from which the guns may fire on hostile armored vehicles before the latter are able to disrupt the progress of the rear guard, or break through and attack the main body. The platoon may be disposed with a squad on each flank of the rear guard to prevent its encirclement by hostile mechanized forces. If additional guns are attached, two or more guns may be placed on each flank. A single gun operating on a flank should be reinforced with one or more antitank grenadiers, as well as riflemen and/or machine guns.

(3) For employment of the platoon in night marches, see paragraph 28.

(4) For the employment of the platoon during motor movements by the regiment, see paragraph 29.

b. Bivouacs. (1) When the regiment bivouacs, or makes a long halt, the platoon may be attached to the bivouac outpost; employed under company control in antimechanized defense of the bivouac area, or held mobile (see par. 32). When the platoon is attached to the outpost, or when there has not been an opportunity for detailed prior reconnaissance by company reconnaissance personnel, extensive reconnaissance by platoon personnel frequently is necessary. To afford immediate protection to the bivouac, temporary positions may be occupied until a more detailed reconnaissance can be completed. (See par. 42.)

(2) Platoon vehicles are held in concealment and defilade near the guns. Personnel dig fox holes for individual protection. Fox holes, and tentage, if employed, must be camouflaged from aerial observation.

SECTION II

APPROACH MARCH

105. GENERAL. In an approach march, the platoon usually operates as a unit under the immediate direction of the platoon leader. Its assigned mission may be to protect a flank of the regiment, or to support a designated rifle unit or echelon. Occasionally, it may be attached to a leading battalion. If attached to a battalion, the platoon leader receives his orders from the battalion commander.

106. DAYLIGHT APPROACH MARCH. ***a.*** (1) Movement in a daylight approach march is effected in a

series of bounds. The platoon leader's order for the march, in accordance with that of the company commander, includes directions and distances of bounds, and objectives. (See par. 40.)

(2) When the platoon operates under company control, the company commander prescribes the initial position of the platoon, and indicates whether it is to maintain approximately its initial position in the regimental formation, or is to move by bounds from one firing position area to another. When assigning a mission of flank protection, the company commander indicates known or likely avenues of tank approach which are to be defended. His initial orders, or subsequent instructions, also state the time, or conditions, of release from the antitank defense of each designated approach or area, and whether company or platoon personnel will reconnoiter for successive positions. He may attach reconnaissance and communication personnel to the platoon.

b. (1) When the leader of a platoon assigned the mission of defending successive tank approaches leaves the platoon in order to conduct a reconnaissance of the firing position area for defense of the first approach, he usually arranges for the movement of the platoon to a prescribed location, where it will remain under cover, prepared for instant action, until he directs further movement. The prescribed location should be as close as practicable to the first probable firing position area of the platoon.

(2) While the platoon leader is engaged on reconnaissance, the platoon sergeant conducts the platoon to the designated covered location, and makes appropriate provisions for security, both en route and upon arrival thereat.

(3) Having completed his reconnaissance, the platoon leader rejoins his platoon, or dispatches a messenger to

conduct it promptly to the firing position area. Upon arrival of the platoon at the firing position area, he causes air-antitank guards to be posted, and, if necessary, establishes communication between his command post and the observation post (s). He assigns firing position areas, sectors of responsibility, and principal directions of fire to the squads, and takes the necessary measures for the local defense of the platoon. Guns may be kept coupled or may be uncoupled, depending on the terrain and the probability of mechanized attack. If uncoupled, guns occupy cover positions, when available; otherwise, they move directly into firing positions. The platoon leader promptly informs the company commander of his dispositions.

c. When definite approaches to be defended are not specified, or when the mission of the platoon is to support a designated unit or echelon, the platoon usually moves by bounds to successive terrain features. The rear squad (s) usually does not commence displacement until the leading squad (s) has completed its bound, so that at least one squad can go into action without delay in case of hostile attack (see fig. 15).

d. Battalion antitank platoons usually advance between the leading and second echelons of their battalions; their primary mission is antitank protection of the leading echelon. (See par. 186.) A platoon of the antitank company assigned the mission of supporting a designated battalion of the regiment, moves generally abreast of the rear elements of the battalion unless otherwise ordered. It should be prepared at all times to engage hostile tanks attacking from the flank or rear, or which break through the leading echelon. The platoon leader coordinates the operations of his platoon with that of the battalion antitank platoon to insure continuous all-around protection of the unit which it is supporting.

e. (1) The platoon leader studies the terrain, and orders such initial dispositions of the platoon, less any detached elements, as will best enable him to screen his unit from hostile observation, move it in such a manner as to avoid or minimize the effect of hostile fire, and retain the greatest practicable degree of control over all elements. He varies dispositions throughout the approach march in accordance with changes in the nature of the terrain and in the situation. Squad leaders take up initial formations as directed by the platoon leader. Thereafter, they may change formations whenever necessary to maintain control and take advantage of available cover and concealment.

(2) The platoon leader may dispose the platoon in line of squads, in column, with squads echeloned, or in triangular formation. A formation in line of squads is generally best adapted to rapid movement over exposed terrain, and reduces vulnerability to fire from the front, but increases the difficulties of control. A column formation is vulnerable to fire from the front, and requires a change in disposition to employ the weapons toward the front; however, it is easily controlled and maneuvered. It is especially suitable for narrow, covered routes of advance, for maneuvering through gaps in mine fields and between areas receiving hostile artillery fire, and for moving through woods, smoke, or darkness. A formation with squads echeloned to the right or left rear is more easily controlled than squads abreast, and is less vulnerable to fire from the front than platoon column; it also facilitates rapid entry into action toward an exposed flank. Control is more difficult than in a column formation. A triangular formation may be used to advantage when neither flank is secure. Characteristics of ease of control and vulnerability to fire are similar to those in a formation with squads echeloned.

(3) Platoons on security missions, or otherwise detached

from the company, should be furnished with radiotelephones in order to communicate rapidly with the antitank company commander and commanders of supported units. The messenger may also be employed, as well as any other available agencies of communication.

f. For further details, see section II, chapter V.

107. NIGHT APPROACH MARCH. **a.** The warning order for a night approach march should, if possible, be issued in time for a daylight reconnaissance of the route.

b. When the platoon is assigned a separate route or zone of advance, and march objectives, the platoon leader makes such daylight reconnaissance as is practicable in order to secure accurate compass directions, plot the route, and post guides at critical points. The route should follow easily distinguishable terrain features, rather than routes which, though more direct, may be less clearly defined.

c. For purposes of control, the platoon usually moves in column, with reduced distances.

d. For further details, see paragraph 41.

108. ANTIMECHANIZED DEFENSE OF ASSEMBLY AREA. **a.** When, during an approach march, the regiment halts and occupies an assembly area, antitank platoons are ordinarily ordered to occupy firing position areas on the outer perimeter of the area. Platoons may be assigned principal directions of fire, or be directed to cover specified tank approaches. Frequently, due to lack of prior ground reconnaissance, the orders received describe the firing position area (s) merely as being in a generally designated locality, or localities. These orders are usually received from the company commander during the course of the approach march, and require the platoon to move to its position and establish antimechanized protection immediately upon arrival at the

assembly area. Speed in establishing such protection is essential.

b. (1) When the platoon is directed to occupy one firing position area only, the platoon leader informs the platoon sergeant of the route to be followed and, accompanied by the necessary guides, precedes the platoon to the designated locality for the purpose of effecting a reconnaissance.

(2) Whenever practicable, the platoon leader completes his reconnaissance of the locality in time for the platoon to move directly into firing or cover positions. Each squad is met by guides dispatched by the platoon leader and is conducted, without halting, into the uncoupling position. The guide points out the firing and cover positions to the squad leader, who immediately has the gun moved into whichever position is designated. The platoon leader may direct the squad leaders to remain at the gun positions to receive his further orders there, or to report to him for orders while the guns are being moved into position. Orders should be brief and definite, prescribing the firing position, principal direction of fire, and sector of responsibility of each squad.

(3) (*a*) When time is limited and immediate protection is necessary, temporary firing and cover positions which appear, from a map or from limited observation, to afford protection for the assembly area, may be selected by the platoon leader. He directs the occupation of these positions until he can complete a more detailed reconnaissance. They should afford defilade from flat-trajectory fire and concealment from air observation.

(*b*) When the area to be reconnoitered is extensive, it may be divided among the platoon leader and the platoon sergeant and one or more squad leaders. Each of these individuals, accompanied by a messenger, rapidly reconnoiters his particular portion of the area. The officer or noncommissioned officer making the recon-

naissance selects firing and cover positions, and, upon completion of the reconnaissance, returns or sends the messenger to his unit to guide it to such positions. When squad leaders do not participate in the reconnaissance, the platoon leader issues instructions personally or by messenger as to the general route to be followed, the location of the firing position area, and the missions of each squad.

(*c*) While the reconnaissance for firing and cover positions is in progress, squad leaders or, in their absence, the gunners, place their guns in the designated temporary firing positions and check the condition of guns, rocket launchers, individual weapons and equipment, and vehicles. All elements of the platoon are held in readiness for prompt movement.

c. After each squad has occupied its firing or cover position, the platoon leader makes an immediate inspection, and orders any necessary changes.

d. For further details, see section III, chapter V.

SECTION III

EMPLOYMENT IN ATTACK

109. RECONNAISSANCE PRIOR TO ATTACK. *a.* The platoon leader may be summoned to receive the company attack order at a location from which the initial firing position area of the platoon can be pointed out, or, if guns are to be held mobile, the initial location of the platoon and probable firing positions. Frequently, however, the order will be issued to the platoon leader at the location occupied by the platoon for the defense of the assembly area. The platoon leader may be directed to assist the company commander in reconnaissance prior

to the time the company attack order is issued.

b. The interval between receipt of the company attack order and the time the platoon must commence movement to its attack positions will frequently be brief; however, if the platoon leader has not already made a reconnaissance, he makes one in as thorough a manner as time and circumstances permit. Prior to leaving on reconnaissance, he informs the platoon sergeant of his planned route and destination, and may issue instructions for the forward movement of the platoon to its firing position area.

c. During his reconnaissance, the platoon leader seeks information concerning—

(1) Likely avenues of approach for hostile armored vehicles.

(2) Natural and artificial tank obstacles.

(3) Locations of supported rifle troops and their plan of action.

(4) Positions and principal directions of fire of nearby battalion or other antitank units.

(5) Cover, primary, and alternate positions, and sector of responsibility for each squad.

(6) Supplementary and alternate firing positions. When time is pressing, it may be necessary to defer the selection of supplementary firing positions until after the platoon attack order is issued, and the firing position area occupied.

(7) Uncoupling positions as far forward as concealment and defilade for the prime movers permit, and concealed or covered routes therefrom to firing or cover positions.

(8) Location of enemy mine fields.

(9) Covered routes for forward displacements from initial firing position areas.

(10) A platoon observation post from which the platoon leader can observe all elements of the platoon or, if

this is impracticable, from which he can observe the squad (s) having the more important mission (s).

110. ORDERS. **a.** When practicable, the platoon leader issues his order to squad leaders at a point from which they can see the terrain over which they are to advance. Ground which is favorable for tank action, as well as existing tank obstacles, should be pointed out.

b. If time permits, the platoon leader may direct that squad leaders go forward to receive the order while the squads are in the assembly area. In such a case, squad leaders, after receiving the order, return, or send a messenger, to guide the squads into their firing or cover positions. If the squads have already advanced to the initial firing position area, the platoon leader may direct that the squad leaders report to him at the point where the order is to be issued, as soon as the guns are in temporary firing positions.

c. The platoon leader's order covers—

(1) Necessary information of the enemy and friendly troops, to include—

(*a*) Types of enemy tanks operating in the vicinity.

(*b*) Location of known or suspected enemy mine fields or mined road blocks, information as to passages and warning signs.

(*c*) Proposed movement and plan of action of friendly tanks operating in the vicinity, together with their identifying marks and signals.

(*d*) Challenge signal (if prescribed) to be used in requiring tanks to identify themselves.

(*e*) Location of nearby antitank guns of other units, and of known mine fields and other antitank obstacles.

(*f*) Available details of the plan of action of nearby antitank units, or other friendly troops, so far as they may affect the action of his platoon.

(2) Mission (s) of the platoon.

(3) Instructions for each squad, to include—

(*a*) Location of cover, primary, and alternate positions, principal direction of fire, and sector of responsibility.

(*b*) Conditions governing opening of fire (see par. 102c).

(*c*) Locations of supplementary and alternate positions, and conditions under which they are to be occupied.

(*d*) Employment of rocket teams.

(*e*) Construction of emplacements.

(*f*) Engagement of secondary targets.

(*g*) Instructions which can be given at this time concerning displacement to more advanced position areas.

(*h*) Establishment of liaison with nearby units.

(4) Location of company ammunition supply point; information covering resupply of ammunition; location of aid station to be utilized by the platoon.

(5) Location of platoon leader; location of company command post; any warning signals, or other pertinent details of the warning service, not covered in standing operating procedure; pertinent extracts from signal operation instructions, such as call names, prearranged message code, map coordinate code, and pyrotechnic signals.

111. OCCUPATION OF INITIAL FIRING POSITION AREA. a. The platoon leader initiates the movement of his platoon to the initial firing position area at such time, or under such conditions, as may be prescribed by the company commander, as, for example, the initiation of forward movement by a specified battalion, or other element, of the regiment. (See par. 109b.) Whenever practicable, the platoon leader personally leads the platoon; otherwise, he employs a guide for that purpose.

b. Upon arrival at the uncoupling positions, sufficient

ammunition to meet contemplated needs is unloaded from squad prime movers, and vehicles are disposed in nearby defiladed and concealed positions. The movement of the guns to cover or firing positions, and of ammunition to firing positions, is completed by hand. Upon arrival at the designated position, an air-antitank guard is posted by each squad leader, and the platoon observation post manned. Rocket teams are designated. Emplacements and fox holes are constructed for the weapons and personnel. Technical means of communication (sound-powered telephones or radiotelephones) which may be furnished the platoon are tested. The platoon leader notifies the company commander when the platoon is in position. For ammunition replenishment in attack, see paragraph 21.

112. ACTION AGAINST HOSTILE MECHANIZED ATTACK. **a.** Guns remain in cover positions until action is imminent, at which time they are moved quickly, by hand, to firing positions. Fire is opened and conducted as prescribed in paragraph 102. Individuals not engaged in the operation of the guns maintain observation for hostile tanks which may approach from the flanks or rear, and employ their weapons in the close protection of the guns and crews. Antitank rockets and grenades are employed for protection against tanks approaching from directions other than those in which the guns are firing (see fig. 16). The platoon leader closely supervises the action, and promptly orders any changes in the conduct of squads which may be necessary for the accomplishment of the platoon mission.

b. Fire, once opened, is not interrupted during the progress of a tank attack, except when advantage is taken of lulls in the action to move to alternate positions. Immediately after accomplishing a fire mission, guns must often be moved to cover or alternate firing posi-

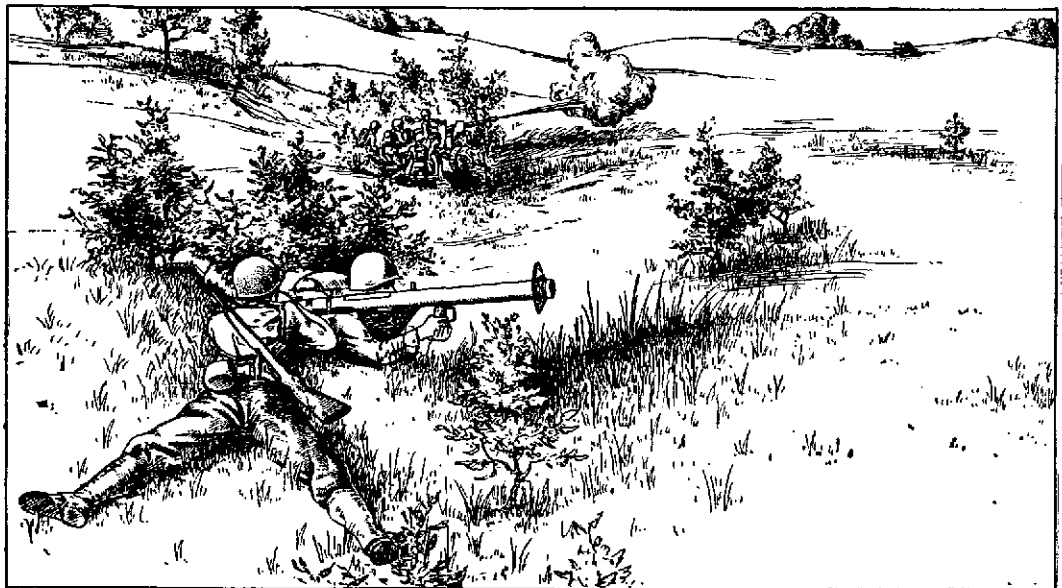


Figure 16. Rocket team protecting antitank gun.

tions, since the muzzle blast and distinctive noise will have disclosed the location of primary positions. Ordinarily, this movement is accomplished under the supervision of squad leaders, and without specific orders from the platoon leader.

c. Continuous mutual support between guns insures that hostile tank attempts to overrun one gun position will be met by the flanking fire of another gun.

113. RECONNAISSANCE DURING ATTACK. **a.** Reconnaissance for new firing and cover positions, and covered routes thereto, is continuous throughout the attack. The platoon leader initiates this reconnaissance at the earliest practicable moment.

b. Before leaving a firing position area on reconnaissance, he issues fragmentary orders to the platoon sergeant and squad leaders. These orders usually include—

(1) Signal or conditions for the platoon to initiate displacement; if on signal, the locality from which the signal will be given.

(2) Method of displacement (whether by platoon as a unit or by squad echelon).

(3) Method of movement (whether coupled or by hand; if by hand, whether trucks will move under platoon or squad control).

(4) Information of proposed route of platoon leader, and where he can be reached for further instructions. When the intervening terrain is not entirely visible, or is unknown, information as to the route(s) to be followed may be sent back during the course of the reconnaissance; otherwise, they must be marked by prearranged means, or guides sent back before the displacement is commenced.

c. The leader of a platoon designated to protect a leading battalion, accompanied by a messenger, follows the attacking echelon closely, and reconnoiters for the

displacement of his platoon. Reconnaissance covers the location of the attacking echelon, including nearby rocket teams, likely hostile tank approaches, enemy mine fields, routes for displacement, firing and cover positions, and locations where trucks may be held under cover. Routes are marked, or squad leaders informed of their location, as described in b (4) above. During his reconnaissance, the platoon leader maintains contact with the battalion antitank platoon leader.

114. DISPLACEMENT. **a.** Platoons operating under mission orders must displace when the mission can no longer be accomplished from the positions occupied. Displacement of platoons retained under company control is effected upon order of the company commander. Displacement is made rapidly, as soon as the first terrain mask occupied by the enemy has been captured. Depending upon the need for maintaining protection at the initial position, displacement may be made by squad echelon — two squads displacing, with one remaining in place, or vice versa — or by platoons displacing forward as units, either under the control of platoon leaders or platoon sergeants. Squads are met on nearing new firing position areas, and guided into position. Preparations to repel armored counterattack are completed without delay. A platoon providing flank protection for an advancing unit must quickly occupy new firing position areas to defend tank approaches on the flank as these approaches are uncovered by the advancing troops.

b. Although antitank guns may be moved moderate distances by hand, they are dependent upon their prime movers for movements over extended distances. Since movement over terrain exposed to observed hostile fire invites destruction, covered routes should be followed whenever practicable, even though this may involve detouring. At times it may be necessary to await the cap-

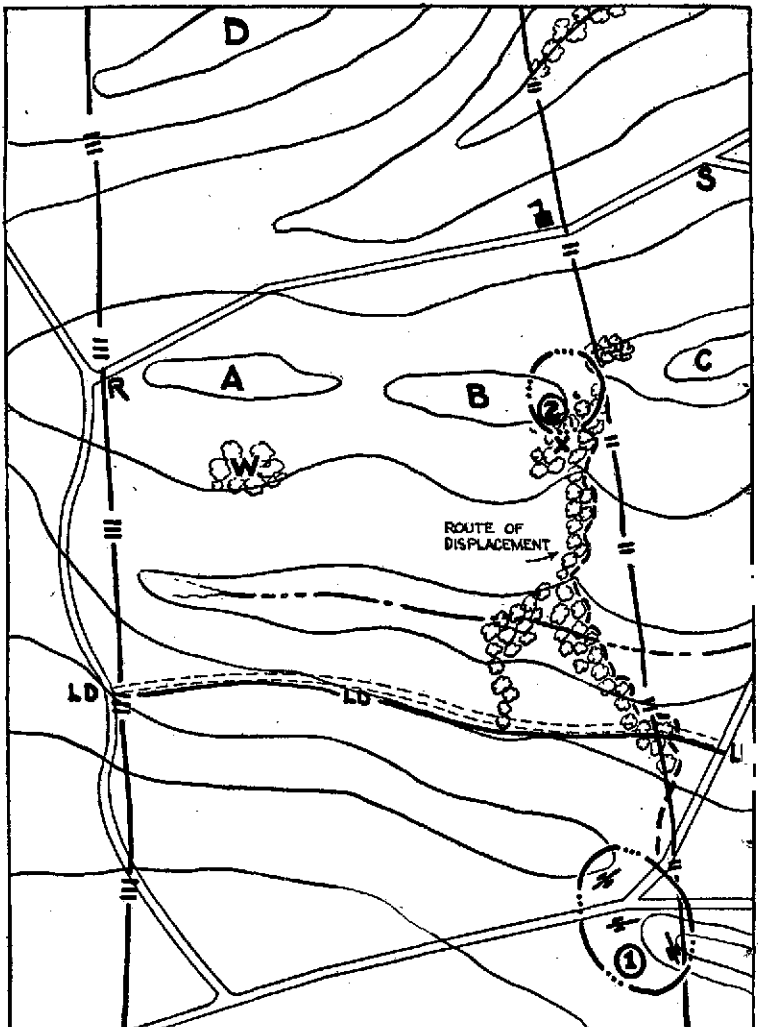


Figure 17. Displacement of antitank platoon. Platoon initially in firing position area 1, protecting right flank. (1) Capture of woods W and X; enemy still holding hill C. Reconnaissance initiated for routes of displacement; guns do not displace. (2) Capture of hill B, enemy holding hill C. Reconnaissance for routes continued; guns do not displace. (3) Capture of hill C. Guns displace to firing position area 2. (4) Capture of hill A and road R–S. Reconnaissance initiated for further displacement.

ture of terrain which will provide defilade, before commencing displacement (see fig. 17).

c. If possible, the platoon leader meets each squad in the vicinity of the new firing position area and points out to the squad leader the uncoupling position, cover position, squad sector of responsibility, and principal direction of fire. Otherwise, a guide with this information meets the squad nearing new firing position areas and conducts it to its new firing position (see par. a above).

115. PROTECTING REORGANIZATION OF LEADING RIFLE UNITS. After leading rifle units have captured a hostile position, they may halt to effect reorganization, at which time hostile mechanized counterattacks are to be expected. The antitank guns are promptly displaced forward to positions where they will be able to cover by fire all likely avenues of approach. (See par. 57.)

116. REORGANIZATION OF ANTITANK PLATOON. Whenever a leader or other key man becomes a casualty, he is promptly replaced. During a fire fight, guns whose crews have been seriously depleted by casualties are kept in action by temporary readjustment of duties among other squad members, and, if necessary, by reassignment of men within the platoon. Complete reorganization usually is postponed until the final objective has been reached. The reorganization must be so conducted that an attack by hostile armored vehicles can be immediately and effectively engaged. The situation, strength, and ammunition status of the platoon are promptly reported to the company commander without waiting for completion of the reorganization.

117. PURSUIT. a. For a discussion of pursuit, and of the employment of the antitank company therein, see paragraph 58.

b. A retreating enemy must be expected to employ armored vehicles in counterattacks to assist in disengaging his retreating units, or to disrupt and delay the pursuit. The platoon must be prepared to engage such counterattacks at all times.

c. Pursuit usually requires decentralization of control, and always requires the exercise of initiative, judgment, and aggressiveness on the part of platoon and squad leaders. They must be constantly alert for opportunities to engage and destroy retreating armored vehicles or motorized units which are in march column or traversing defiles, as well as hostile automatic weapons or other point targets which are holding up the pursuit and are not being effectively engaged by other weapons.

118. EMPLOYMENT AT NIGHT. ***a. Action when Advance is halted.*** If an attack is interrupted by darkness, the platoon leader promptly disposes his platoon to cover the most favorable tank approaches leading into his sector of responsibility. He contacts the company commander, or, if attached to a battalion, the battalion commander, for further instructions.

b. Preparation for Daylight Attack. (1) Reconnaissance by daylight should, if possible, precede a night movement in preparation for a daylight attack. When attached to, or supporting a leading battalion, the platoon should be moved to the area of departure in time to be in position at daylight. The platoon may displace to the area of departure as a unit, or by individual squads under the control of their squad leaders. Antimechanized protection must be continued during the forward displacement.

(2) It is frequently impossible to select exact firing positions prior to dawn. In such cases, temporary firing positions are occupied. The selection of exact firing positions

must be completed as soon after dawn as possible, in order that movement of the guns thereto may be completed before the platoon is exposed to hostile observation. The platoon leader prescribes in advance the exact duties which each individual is to perform during this period, and insures that all members of the platoon understand their duties. By inspection, both en route and after occupation of firing positions for the attack, he assures himself that all guns can perform their assigned missions, and so informs the company commander.

(3) If prime movers are not employed, additional personnel may be required to assist in moving the gun, and in hand-carrying ammunition.

(4) For further details see paragraph 48a.

c. Night Attack. (1) When a night attack is to be made, the preparations by a platoon leader include prompt issuance of warning orders to subordinates, fixing the time and place at which squad leaders are to report for orders, and reconnaissance of the terrain over which the advance is to be made.

(2) The attack order goes into much greater detail than a similar order for an attack by day. The squads are assigned initial firing position areas and principal directions of fire, or locations of positions for guns to be held mobile, if so employed. Instructions for squads displacing to the objective after its capture include the signals for and method of displacement, any necessary information as to passage of mine fields, new firing position areas, and new directions of fire. Instructions for squads not displacing to the objective include changes, if any, to be made prior to daylight. Instructions for all squads include security measures, methods and rates of advance, and special measures for control and coordination.

(3) For further details see paragraph 60.

119. AMMUNITION SUPPLY. For the system of ammunition supply in attack and duties of the platoon leader in connection therewith, see paragraph 21.

120. SPECIAL OPERATIONS. For the employment of the antitank platoon in attack in woods, of towns, of a river line, of a fortified position, in support of raids, in desert operations, in mountain operations and in the establishment of a beachhead, see chapter 5, section VI.

SECTION IV

EMPLOYMENT IN DEFENSE

121. TACTICAL EMPLOYMENT. In defense, the platoon may be employed to reinforce the antimechanized defense of a front-line battalion, or as part of the regimental antimechanized defense in depth.

122. MISSIONS. ***a.*** The company commander assigns the mission (s) of the platoon and indicates its general position area (s). The primary mission of the platoon is to destroy or neutralize hostile armored vehicles which threaten that portion of the defensive position of the battalion or regiment within the assigned sector of responsibility of the platoon, or adjacent thereto.

b. The platoon, or one or more squads, may be attached initially to an outpost established by the regiment. (See par. 73.) When so employed, the leader of the platoon, or lesser element, promptly reports to the outpost commander for orders, and, as soon as possible, reconnoiters for firing positions on the outpost position. It is essential that an early and thorough reconnaissance be made of firing position areas in the battle position,

the routes by which the platoon, or element, is to withdraw thereto. This reconnaissance will ordinarily be performed by company reconnaissance personnel, who will also act as guides if the platoon is to occupy positions selected by them.

123. RECEIPT OF COMPANY DEFENSE ORDER. ***a.*** When time is available, the platoon leader will usually be directed to report to the company commander and receive a complete order at a location from which his firing position area, or mobile position, and the dispositions of nearby friendly troops, can be pointed out. (See par. 77c.)

b. When time is limited, the company order will usually be issued in fragmentary form and, initially, may designate only the general mission of the platoon, and the location of its firing position area (or mobile position). It may consist of a message transmitted to the platoon leader while his platoon is en route to that battle position.

c. If the defensive position is to be occupied at night, orders should be issued in time to permit daylight reconnaissance by the platoon leader.

124. RECONNAISSANCE. ***a. General.*** While the platoon leader may be directed to accompany the company commander on reconnaissance of the regimental sector of the battle position prior to the time the company defense order is issued, his reconnaissance usually will follow the receipt of the defense order from the company commander. Before leaving on reconnaissance, he issues any necessary instructions for the forward movement of the platoon. If the platoon is to reach the battle position prior to completion of reconnaissance by the platoon leader for firing positions, guides are sent back to lead it to the vicinity of the firing position area, or position

where it is to be held mobile. If the positions are to be occupied during darkness, the selected positions and the routes thereto should be marked during daylight; the platoon leader designates guides and insures that they familiarize themselves with the routes and positions.

b. Platoon Emplaced in Firing Position Area Within Defense Area of Front-line Battalion. (1) When the platoon has been assigned a firing position area within the defense area of a front-line battalion, the platoon leader should contact the leader of the battalion antitank platoon and effect necessary coordination. He seeks to locate —

(*a*) Probable avenues of approach for hostile armored vehicles.

(*b*) Natural and artificial tank obstacles, and areas which should be covered by mine fields.

(*c*) The position of nearby friendly troops, particularly the positions and principal directions of fire of the battalion antitank platoon, and other nearby antitank units.

(*d*) Cover, primary, and alternate positions, sector of responsibility, and principal direction of fire for each squad.

(*e*) Supplementary and alternate positions for each squad.

(*f*) Emplacements for rocket launchers.

(*g*) Position (s) for platoon observation post (s).

(2) The platoon leader should select squad firing positions which permit coordination of fire with nearby antitank guns. Guns are emplaced to be mutually supporting so that when a tank attempts to overrun one gun position it will be engaged in flank by another gun. Guns usually are placed not less than 100 yards apart, and should be located where they can receive close rifle protection. Alternate and supplementary positions must be close enough to the primary firing positions for move-

ment of the guns by hand. The platoon's firing positions must be coordinated with those of the guns of the battalion antitank platoon and nearby rocket teams, so that hostile tanks will be compelled to advance against an effective volume of frontal and flanking fire.

c. Platoon not Located Within Battalion Defense Area. The procedure described above applies so far as applicable when the platoon is assigned a firing position area which is not located within a battalion defense area.

d. Platoon held mobile. (1) When the platoon is to be held mobile, the company commander will inform the platoon leader of its probable missions, and the areas in which its employment is contemplated. Unless otherwise directed by the company commander, the platoon leader promptly initiates reconnaissance to locate tentative firing position areas from which the probable missions can be accomplished, and the most suitable routes for movement thereto (see fig. 18). The scope of the reconnaissance of each firing position area is similar to that described in b (1) above.

(2) Missions assigned to the platoon may include protection of the regimental reserve while the latter is in the assembly area, and reinforcements of its antimechanized defenses when it occupies battle positions. Close cooperation between the platoon leader and the antitank officer of the reserve battalion is essential; whenever practicable, they should reconnoiter and develop their plans together. Coordination must also be established with the leader of any nearby tank destroyer unit.

125. FIRE PLAN. The platoon leader formulates his fire plan and, when time permits, submits it to the company commander for approval, usually in the form of an overlay or sketch. This should show the location of all nearby mine fields and other antitank obstacles, both

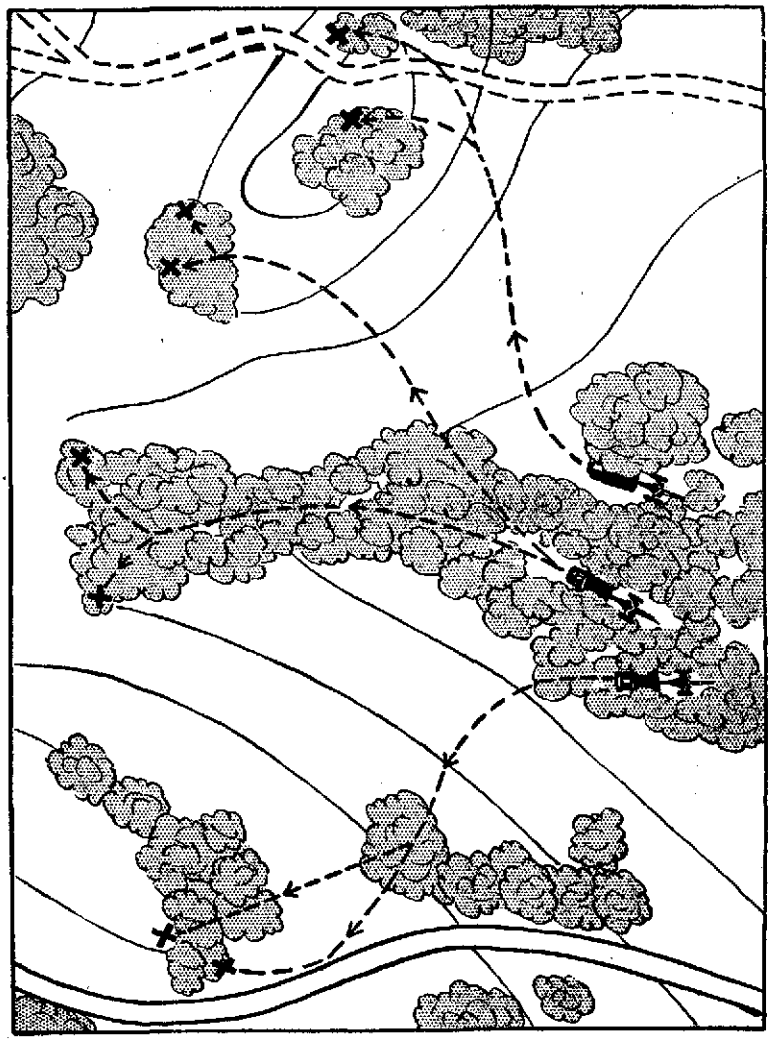


Figure 18. Guns held mobile, prepared to move to firing positions. Foliage in figure has been cut away to show initial locations of guns.

natural and artificial; the sector of responsibility, principal direction of fire, and primary, supplementary and alternate positions of each gun; rocket launcher emplacements, and the positions and directions of fire of nearby antitank guns of other units.

126. ORDERS. *a.* After receiving the order of the company commander, the platoon leader issues his orders at a location from which he can point out to each squad leader the position the squad is to occupy, and its sector of responsibility and principal direction of fire. If no single location provides the requisite field of view, it may be necessary to issue orders to individual squad leaders in their respective areas. The order covers the following:

(1) Necessary information of the enemy and friendly troops, to include –

(*a*) Types of enemy tanks operating in the vicinity.

(*b*) Proposed movement and plan of action of friendly tanks operating in the vicinity, their identifying marks, and signals.

(*c*) The challenge signal (if prescribed) to be used in requiring that tanks believed to be friendly identify themselves.

(*d*) Locations of friendly troops, mine fields, and other antitank obstacles; locations, missions, and fields of fire of nearby antitank guns and rocket teams.

(2) Mission (s) of the platoon.

(3) Instructions for each squad, to include –

(*a*) Location of cover, primary, and alternate positions, principal direction of fire, and sector of responsibility.

(*b*) Conditions governing opening of fire.

(*c*) Location of supplementary and alternate positions, and conditions under which they are to be occupied.

(*d*) Employment of rocket teams.

(*e*) Construction (to include priorities) of emplacements and fox holes, concealment and camouflage, construction of dummy positions, if any.

(*f*) Establishment of liaison with nearby units.

(4) Ammunition supply, amounts to be placed at firing positions, location of company ammunition supply point, disposition of vehicles, and location of aid station which the platoon is to utilize.

(5) Location of platoon leader, location of company command post and command post (s) of nearby unit (s), any warning signals, or other pertinent details of the warning service, not covered by standing operating procedure; pertinent extracts from signal operation instructions, such as call names, prearranged message code, map coordinate code, and pyrotechnic signals.

b. If the platoon sergeant is not present when the platoon leader issues his orders, the latter acquaints him with its contents at the earliest opportunity.

127. OCCUPATION AND ORGANIZATION OF FIRING POSITIONS. ***a.*** Guns are uncoupled as near to the cover positions as practicable, and placed in immediate readiness for action in temporary firing positions. Observers are posted. Construction of emplacements, fox holes and ammunition shelters, and measures for concealment and camouflage are carried out according to the priorities prescribed in the orders of the platoon leader. The platoon leader exercises supervision to insure that the terrain is used to best advantage, and that the work on the position progresses without loss of time or wasted effort. He makes an inspection when the work is completed, and orders any necessary changes.

b. When time permits, dummy works may be constructed. These should be located at least 150 yards from

any true position, so that fire directed at them will not include occupied areas.

c. If time is pressing, the platoon leader may designate the general locations of firing positions for the squads. Squad leaders then determine the exact locations of such positions for their respective guns.

d. If the defense area must be occupied under hostile artillery fire or air attack, covered locations may initially be selected and occupied, and organization of exposed positions either postponed until dark or completed piecemeal by daylight.

e. If the platoon is held mobile, emplacements for primary, supplementary, and alternate positions in all selected firing position areas should be constructed and camouflaged, and the routes thereto marked, if necessary.

128. CONDUCT OF DEFENSE. **a.** During combat, the platoon leader takes position where he can best observe and control the action of his platoon. This position should, if practicable, permit easy communication with the company commander. If the width of the platoon sector of responsibility is great, he may assign a portion of the sector to the platoon sergeant for supervision and control.

b. Unless terrain or reduced visibility necessitate initial occupation of firing positions, cover positions are occupied until warning of a hostile tank attack is received, at which time firing positions are occupied. After a hostile tank attack is launched, the platoon leader can have little influence on the course of action. Hostile armored vehicles appearing in a squad sector of responsibility are fired upon as soon as they come within the range or pass the limiting features designated by the platoon leader, and are held under constant fire until they are destroyed or neutralized, or pass beyond effective range. Rockets and grenades should be employed

against tanks approaching from directions other than those in which the guns are firing, as well as in areas which cannot be covered by the guns. (See par. 112.) Guns are moved to alternate positions during lulls in the firing.

c. A platoon held mobile remains alerted in the initial position until the extent and direction of the hostile tank attack is determined. The decision to move a mobile platoon to a firing position area is made by the regimental commander or by the battalion commander if the platoon is attached or may be delegated to the antitank company commander. On receipt of the order or signal announcing this decision, the platoon moves rapidly over the reconnoitered route to the designated firing position area. The platoon leader precedes the platoon by the fastest available means in order to select the firing positions to be occupied by each gun, if not already selected. This information is given promptly to the squad leaders. Squads move without halting to the designated firing positions and execute their fire missions as described in b above.

129. ANTIAIRCRAFT SECURITY. For antiaircraft security, see paragraph 53.

130. LOCAL SECURITY. For local security, see paragraphs 15 and 16.

131. AMMUNITION SUPPLY. For ammunition supply, see paragraph 21.

132. SPECIAL OPERATIONS. For discussions of the employment of the antitank platoon in defense in woods, of towns, of a river line, against airborne operations, in desert operations, and in mountain operations, see paragraphs 91 to 96 inclusive.

SECTION V

RETROGRADE MOVEMENTS

133. NIGHT WITHDRAWAL. ***a.*** Prior to a night withdrawal, a company warning order is, if practicable, issued in time to permit each platoon leader to perform a daylight reconnaissance. This order covers the time of commencement of the withdrawal, location of the company assembly area, and any other necessary details. Upon receipt of the order, the platoon leader promptly initiates a reconnaissance of route (s) to the designated assembly area. If a defensive action is in progress at the time, he remains with his platoon, and delegates this reconnaissance to an appropriate individual, usually the platoon sergeant.

b. If the platoon position is within the defense area of a frontline battalion, the platoon is attached to that battalion for the withdrawal, and released at the antitank company assembly area. The platoon leader receives instructions as to the time and other details of the withdrawal from the battalion commander.

c. Prime movers are brought forward under company control after dark to locations as close in rear of firing positions as practicable. Guns are moved by hand to the prime movers at the prescribed time, and proceed, coupled, to the company assembly area. All movements must be conducted quietly and without lights. (See par. 88.)

d. During further withdrawal, the platoon may be given the mission of covering one or more road blocks protecting the flanks of the route of withdrawal. Attached riflemen, or members of the platoon armed with rifles or carbines, are so placed as to provide close-in protection to the guns and prevent dismounted enemy per-

el from removing the road blocks. Defending personnel are usually located closer to a road block at night than during daylight; care must be exercised, however, that they are beyond grenade throwing distance.

134. DAYLIGHT WITHDRAWAL. *a.* In a daylight withdrawal, quick decisions, clear orders, and prompt action by all leaders are essential. Time is usually not available for reconnaissance prior to the commencement of the withdrawal. A platoon located in the defense area of a frontline battalion is attached to that battalion until completion of the initial withdrawal to the location of the regimental covering force, when it reverts to company control. Thereafter, it may be employed with the regimental covering force, or with a flank guard. Prime movers are brought forward, by infiltration, under company control (see par. 89e). Upon receipt of warning orders for a withdrawal, the platoon leader immediately contacts the battalion commander for further orders.

b. If a platoon is to be detached from the company to operate with the regimental covering force or flank guard, the platoon leader promptly dispatches available personnel, usually under the direction of the platoon sergeant, to contact the commander of the force, obtain instructions, select firing positions to carry out the missions assigned, and guide the elements of the platoon to the selected locations. The guns are moved to a defiladed coupling position by hand, thence, by prime mover to join the covering force or flank guard. The operations of the platoon, after joining the covering force or flank guard, are conducted as for a delaying action. (See par. 135.)

135. DELAYING ACTION. *a.* Platoons located in frontline battalion areas are attached to battalions in whose areas they are located. If possible, firing positions are

located near topographical crests, with prime movers near the gun positions, and concealed behind the crest, in order to facilitate withdrawal. Guns are sited so that their fire will force the enemy to leave the roads, thus slowing down his mechanized advance, and causing him to expend time-consuming preparations for attack. The firing position is selected to favor long-range fires. Guns open fire at the earliest moment that promises effect against the type of hostile armored vehicle employed, as well as such secondary targets as automatic weapons and groups of personnel.

b. When the platoon is attached to a battalion, or to a regimental security element, early reconnaissance of routes of withdrawal and of rear positions is initiated by the platoon leader. If not so attached, reconnaissance is effected by the company commander, as described in paragraph 90c.

c. If the prime movers can be retained close to the gun positions, an amount of ammunition sufficient only for the immediate mission is unloaded and placed at these positions. If practicable, withdrawals to rear positions are usually made by leapfrogging squads, so that a part of the platoon is constantly prepared to engage hostile mechanized elements.

CHAPTER 8

THE ANTITANK SQUAD

SECTION I

GENERAL

136. COMPOSITION. The antitank squad consists of a squad leader, gunner, four cannoneers, three ammunition bearers, and one truck driver who is also an ammunition bearer.

137. DUTIES. a. *Squad Leader.* The squad leader is responsible, under such orders as he may receive from the platoon leader, for the training, discipline, control, and proper execution of all missions of his squad. In combat, his duties include –

(1) Selection of firing positions (primary, supplementary, and alternate) and cover positions, if not already prescribed by the platoon leader; supervision of construction of emplacements and fox holes, and of measures for concealment and camouflage.

(2) Supervision of movement of gun into position (s), and preparations for firing.

(3) Fire direction and control. Selection of terrain features or maximum ranges limiting the opening of fire, if not already prescribed by the platoon leader.

(4) Preparation in duplicate of a range card of his assigned sector, as well as adjacent and rear sectors, which can be covered by fire from or near his firing position. Data on range cards should include reference

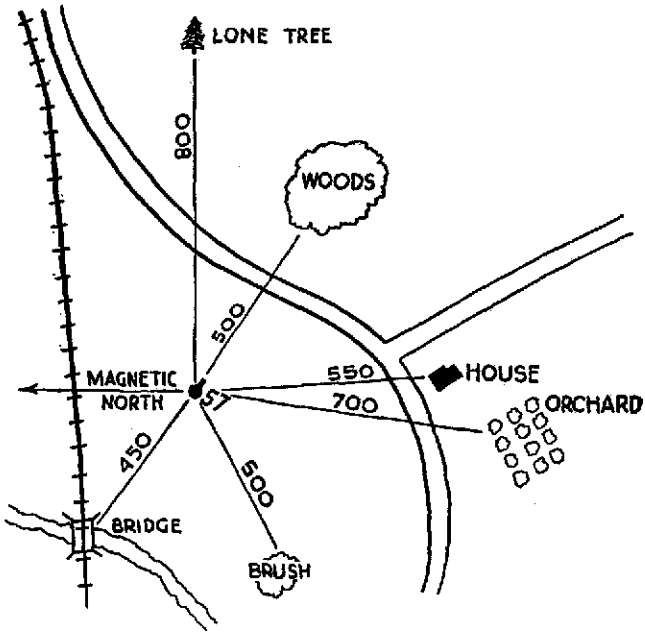


Figure 19. Range card prepared by squad leader.

points and ranges thereto (see fig. 19). One copy of the range card is sent to the platoon leader.

(5) Supervision of ammunition supply, to include keeping the platoon leader informed of the amounts of ammunition on hand.

(6) Security. Posting of an air-antitank guard to warn of the approach of hostile armored vehicles, airplanes, or foot troops.

(7) Designation of rocket teams.
(8) Coordination of the fire of his gun, and the small-arms fire of the squad, to include that of antitank rockets and rifle grenades, with the fire of nearby units, as directed by the platoon leader, or, if not so directed, on his own initiative.

b. Truck Driver. The driver of the squad prime mover operates his vehicle in compliance with the instructions of the squad leader, except when it is under the control of the platoon sergeant. He is responsible for driver maintenance of the vehicle, for concealing and camouflaging it at all halts, and for defending it with his individual weapon against attacks by hostile armored vehicles, airplanes, or patrols. When at a halt and in the absence of other personnel, he is prepared to operate the caliber .50 machine gun, when the machine gun is allotted to his truck. (See par. 1b.) When the prime mover is located close enough to the gun position for visual signaling between the squad leader and the truck driver, the latter will take a position where he can observe arm-and-hand signals from the squad leader. He provides for his own protection by digging a fox hole near the vehicle. If his presence is not required at the truck, he acts as an ammunition bearer when the situation so demands.

c. Other Individuals. The gunner and cannoneers operate the gun. The ammunition bearers supply the gun with ammunition and assist the gunner and cannoneers when it is moved by hand. For details of their duties, see FM 23–75.

138. COMMUNICATION. Communication within the squad is effected by voice or arm-and-hand signals. Communication with the platoon leader, or commander of a unit to which the squad is attached, may be by arm-and- hand or other prearranged signals, or by messengers.

When the situation does not call for frequent movement, the next higher leader may establish communication with the squad by sound-powered telephone. (See par. 102.)

SECTION II

TACTICAL EMPLOYMENT

139. MISSIONS. ***a.*** While in the combat zone, the antitank squad is employed to assist in furnishing antimechanized protection to a designated portion of the regiment, whether the latter is advancing in a route march or an approach march, occupies a bivouac or assembly area, or is engaged in an attack, in defense of a position, in a withdrawal, in a delaying action, or in special operations. It may also be employed in secondary missions, such as firing on hostile antitank guns and other located crew-served weapons, emplacements, pill boxes or other point targets. The squad ordinarily functions as a part of the platoon, and is assigned missions by the platoon leader. Occasionally, however, it may be detached from the platoon, in which case, the squad leader receives his orders directly from the antitank company commander, or, if the squad is attached to a unit, from the commander of that unit. If two squads of the platoon are detached for a special mission, they will usually be commanded by the platoon leader or the platoon sergeant. If only one squad is detached, the squad leader, in the absence of both the platoon leader and the platoon sergeant, executes the reconnaissance and other duties of the platoon leader so far as they apply to his squad.

b. In most situations, the mission assigned the squad will be to occupy a designated *firing position* and destroy or neutralize all hostile armored vehicles approaching in an assigned sector of responsibility, and from specified directions, if prescribed, in adjacent sectors. The order assigning the mission designates a principal direction of fire within the squad sector of responsibility. Instructions frequently include restrictions on opening fire against single or small groups of armored vehicles engaged on reconnaissance or acting as decoys.

c. Since the squad will frequently be located at a considerable distance from the platoon leader, with only limited means of communication, the squad leader, particularly while a hostile tank attack is in progress, will often be faced with situations requiring a decision on his part before instruction can be secured from the former. In such situations he must act aggressively, displaying initiative, good judgment, and prompt decision.

140. POSITIONS. For definitions of primary, supplementary, and alternate firing positions, cover position, uncoupling position, and firing position area, see paragraph 6.

141. METHODS OF MOVEMENT. ***a.*** The squad prime movers are used to tow the guns and to carry the crews, ammunition, and accessories on the march, and in cross-country movement, whenever the situation permits. On difficult ground, men may be required to dismount and assist the vehicles; squad leaders precede the vehicles on foot in order to select the best route. For field expedients to assist motor movement in difficult terrain, see FM 25–10. For stream crossing expedients, see appendix II.

b. The gun will be moved by the prime mover as far forward as possible, usually to a designated cover position; movements from cover to primary firing positions,

or from primary to alternate firing positions, are executed by hand. Movement of the gun from a cover position, or from primary or alternate firing positions, to supplementary firing positions are usually executed by hand. If the prime mover is lost or destroyed, or the nature of the terrain, or the intensity of hostile fire makes movement by the prime mover impossible, the squad leader must show ingenuity and aggressiveness, and take active steps to secure any necessary assistance from other troops or vehicles. The squad must be so trained that loss or destruction of the prime mover will not result in immobilization of the gun.

142. SQUAD HELD MOBILE. A squad held mobile goes into action on orders of the platoon leader, or in accordance with a prearranged plan. It is assigned a covered and concealed position, preferably centrally located, from which it can move quickly to firing position areas by covered routes. It will usually be assigned two or more firing position areas. Each firing position area and route thereto must be reconnoitered promptly. Firing positions are selected; if time permits, emplacements are constructed. During the period in which the squad is held mobile, the squad leader posts observers, who give warning of the approach of hostile tanks far enough in advance for the squad to go into action.

143. RECONNAISSANCE AND OCCUPATION OF FIRING POSITION. *a.* (1) The platoon leader frequently assigns the squad a covered and concealed location to be occupied while he completes his reconnaissance. He may direct the squad to move to this location independently, or under control of the platoon sergeant. While en route to this location, or shortly after arrival thereat, the squad leader may be summoned to join the platoon leader for orders. If summoned while en route,

he turns over the command of the squad to the gunner, and gives him instructions concerning the route and destination. Orders to the squad leader include the mission of the squad, and its firing position, cover position, sector of responsibility, and principal direction of fire within the sector. Having received his orders, the squad leader returns to the squad and directs the movement to the firing position.

(2) If a firing position area only has been assigned, the squad leader must conduct a reconnaissance to select firing positions. When there is danger of an immediate attack, he will direct that the gun be brought forward and set up in a temporary firing position while he completes his reconnaissance. As soon as time permits, he selects supplementary and alternate positions, including covered routes thereto, in addition to primary firing positions. When necessary, he selects a position for the air-antitank guards.

b. The squad leader supervises the construction and concealment of emplacements and fox holes. He dispatches the prime mover to a nearby covered and concealed location, and insures that the vehicle, emplacement, and fox holes are properly concealed and camouflaged. He insures that sufficient ammunition to meet the estimated needs in the particular situation is stored at the firing position, and is so placed as to avoid interference with the employment of the gun.

c. The squad leader issues his order to all members of the squad at the earliest practicable moment after occupation of the position. If practicable, he selects a vantage point from which to orient the squad and issue his orders. Such a point must afford observation of the area to be covered by the fire of the squad. When it is impracticable to issue the order to all members of the squad, the leader insures that it is issued to the gunner, and to such other members as the situation permits.

The order should include all items of the platoon leader's order which pertain to the squad (see pars. 110 and 126).

d. In moving to firing positions, squads make full use of cover and concealment in order to get their weapons into action without being discovered by the enemy. Ammunition bearers usually remain in cover positions when not delivering ammunition.

144. LOCAL SECURITY. *a.* When the gun is advancing by prime mover through areas where hostile patrols and other small enemy groups or individuals, such as snipers, may be encountered, members of the squad may move on foot to the front and flanks of the vehicle for more effective close-in defense. When halted, protection is provided by rifles, carbines, and rocket launchers, supplemented, if necessary, by the antitank rifle grenade fire of the truck driver. The machine gun (one per platoon) may be used for protection against either ground troops or aircraft.

b. For close-in defense against mechanized attack, see paragraph 15.

c. For local security when the squad is in a firing position, see paragraph 103.

145. ACTION AGAINST HOSTILE MECHANIZED ATTACK. *a.* Guns occupy cover positions until armored attack becomes imminent, and its direction is determined. They are then moved to their primary or supplementary positions, depending on the direction of the attack. If the primary or supplementary positions cannot be occupied because of hostile fire, alternate positions will be occupied.

b. During the fire fight, there is a strong tendency for all members of the squad to concentrate their attention on the tank at which the gun is firing. The squad

leader, by prior orders and supervision, must insure that some member (s) of the squad maintain continual all around observation to prevent a surprise attack by tanks approaching from the flanks or rear, or from immobilized tanks which are still able to fire. (See par. 103.) Any sign that immobilized tanks are preparing to continue the fight, such as rotation of the turret, should be brought to the immediate attention of the squad leader; additional fire should be directed at such tanks at the earliest practicable moment.

c. Fire, once opened, is not interrupted while hostile tanks remain within range. When movement to an alternate position becomes necessary, this should be effected during lulls in the fire fight.

d. The squad leader must at all times keep himself informed of the status of ammunition supply, and arrange for timely replenishment.

146. DISPLACEMENTS. ***a. General.*** The platoon leader's order usually prescribes whether the platoon will displace as a unit or by squad echelon, whether the displacement is to be made coupled or by hand, and, if by hand, the disposition of the vehicles. Unless the squad is detached from its platoon, the squad leader commences each displacement on the order of the platoon leader. The time, conditions, or signal for the displacement are prescribed by the platoon leader prior to his reconnaissance for new firing position areas. When a signal is to be used, the squad leader is informed of the locality from which to expect such signal, and either watches for it personally, or designates a member of the squad to do so. Frequently, the platoon leader requires that the squad advance along a specified route or to a designated point while he is engaged in reconnaissance. In such a case, he will, upon completion of the reconnaissance,

send a guide to meet the squad, or mark the route in order to insure that the squad will reach its new position area. (See par. 114.)

b. During Marches. In displacements during the route or approach march, the squad leader precedes the squad. He reconnoiters for crossings or minor detours by which the prime movers may pass obstacles. (See figs. 9 and 20.) He detours the squad around gassed areas and areas being shelled. In order to cross dangerous areas, such as roads or ridges, which are exposed to hostile observation or are being shelled, he may direct that members of the squad dismount and cross the area by infiltration or by a single rush. The prime mover follows at high speed. Movements of the squad are usually controlled by arm-and-hand or other prearranged signals.

c. During Combat. In displacements during the fire fight, advantage is taken of all available covered routes. Upon arrival at the uncoupling position, the squad leader directs that the gun be moved immediately into the firing or cover position. If the platoon leader has designated only a firing position area, the squad leader will select a temporary cover or firing position for the gun, and direct the gunner to move the gun thereto and to post an air-antitank guard, while he (the squad leader) makes a reconnaissance of the area. He then directs the gun to be moved, if necessary, into a more suitable position, and completes all other preparations to meet a hostile mechanized attack.

d. Detached Squad. When the squad is detached from the platoon, or on other occasions when the time and method of displacement are to be determined by the squad leader, he should precede the squad and conduct a reconnaissance similar to that conducted by the platoon leader (see also pars. 106, 109, 113, and 124).

147. REORGANIZATION. *a.* The squad leader must reorganize his squad whenever disorganization prevents its further effective employment as a fighting unit. He

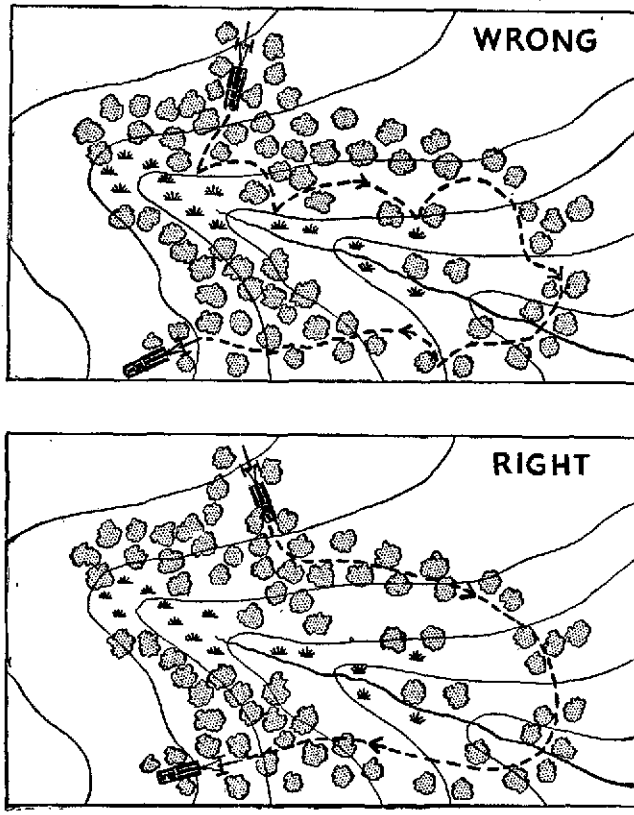


Figure 20. Reconnaissance of route. Failure to reconnoiter causes delay while searching for passable routes. Prior reconnaissance results in prompt movement.

replaces key men who have become casualties. He reports the strength of the squad and ammunition requirements to the platoon leader, or, if the squad is detached from the platoon, to the commander of the unit to which

it is attached. He may call on the truck driver, if within signaling distance, to assist in the operation of the gun; if the squad becomes so reduced by casualties that it can no longer keep the gun in action, he calls on nearby rifle units for assistance.

b. After issuing his orders for reorganization, the squad leader makes a brief reconnaissance to the front and flanks to observe the area over which the squad may be ordered to advance or withdraw, in order to select the best available routes.

148. COVERING AN OBSTACLE. **a.** An antitank squad (reinforced if necessary) is frequently detailed to cover an obstacle with fire. (See fig. 22.) The gun is located to cover the avenue of approach of hostile tanks, as well as adjacent areas into which they are likely to be diverted by the road block, mines, or gun fire. Rocket teams supplement gun fire on these targets, and also protect the gun and crew from tanks approaching from the flanks and rear. Grenadiers of any reinforcing rifle elements supplement this local protection; riflemen and machine guns cover the obstacle and its flanks, to prevent dismounted personnel from removing the obstacle. They also protect the gun and crew from attacking foot troops. If security vehicles accompany or precede the hostile tanks, they are engaged by rocket teams, riflemen, machine guns, and, if within range, by grenadiers.

b. The riflemen covering the obstacle are concealed from hostile observation and placed at such distance from the obstacle as to be outside the zone of dispersion of artillery fire or dive bombing directed at the obstacle (200 to 400 yards). After dark, the men occupy positions closer to the obstacle; such positions must be beyond hand-grenade throwing distance from the obstacle.

c. When the squad is protecting a mine field, the squad leader establishes guards over the mined area to prevent casualties to friendly troops and vehicles.

CHAPTER 9

ANTITANK MINE PLATOON

SECTION I

GENERAL

149. COMPOSITION. **a.** The antitank mine platoon consists of a command group (headquarters) and three antitank mine squads.

b. Command Group. The command group consists of the platoon leader, platoon sergeant, surveyor, topographic draftsman, and three truck drivers.

c. Antitank Mine Squad. The antitank mine squad consists of a squad leader and seven pioneers.

d. Armament, Equipment, and Transport. For armament, equipment, and transport, see Table of Organization and Equipment.

150. DUTIES OF PERSONNEL. ***a. Command Group.*** (1) PLATOON LEADER. The platoon leader commands the antitank mine platoon and is responsible for its training, discipline, and control. He employs it according to instructions from the company commander or other officer under whom the platoon or its elements may be operating. In combat, he is responsible for the preparation and prompt transmittal to the company

commander of reports, based upon accurate surveys, which record the locations of all mines laid by the platoon. He also submits reports when mine fields or mine road blocks are removed by the platoon. Until relieved of responsibility by higher authority, he is responsible for maintaining traffic guards near mine dumps and mines laid or taken over by the platoon, in order to prevent casualties to friendly troops or vehicles.

(2) PLATOON SERGEANT. The platoon sergeant, the second-in-command, assists the platoon leader and replaces him if he becomes a casualty; he may be directed by the platoon leader to supervise the resupply of mines to the platoon, or the recovery of previously laid mines.

(3) SURVEYOR AND TOPOGRAPHIC DRAFTSMAN. The surveyor and the topographic draftsman, under the direction of the platoon leader, stake out on the ground the designated lines along which mine fields are to be laid; make accurate surveys, prepare sketches, and keep records of all antitank mine fields laid by the platoon. They also determine on the ground, from maps or reports furnished to them, the precise location of mines previously laid by other units.

(4) TRUCK DRIVERS. The truck drivers operate the trucks assigned to platoon headquarters. They are responsible for driver maintenance of their vehicles, for their camouflage and concealment when halted, and for their protection against attack.

b. Antitank Mine Squad. (1) SQUAD LEADER. (*a*) The squad leader is responsible, under the direction of the platoon leader, for the training, discipline, and control of his squad, and for the proper execution of all missions assigned to it. He employs the squad under the direction of the platoon leader or the commander of a unit to which it is attached. He indicates to the members of the squad the area in which they are to be employed, and supervises their work. He must be

familiar with the safety factors which limit the distance at which mines should be located from friendly personnel (see also par. 166).

(*b*) When the squad is attached to a unit, he must be prepared to act as an advisor to the commander of that unit on matters concerning the employment of antitank mines.

(2) PIONEERS. The members of the squad, classified as pioneers, are employed in laying, marking, and registering mine fields; in disarming, lifting, and destroying activated antitank and antipersonnel mines and booby traps of all types used by friendly and enemy troops; and in gapping extensive mine fields. They are trained as riflemen in order that they may be used to protect mine fields, road blocks, and other obstacles.

SECTION II

ANTITANK MINE EQUIPMENT AND SUPPLY

151. ANTITANK MINES. An antitank mine is a type of land mine designed for use against mechanized vehicles. An antitank mine which has been fuzed and the safety devices released is *armed*. An antitank mine is *activated* when it is equipped with a supplementary firing device which explodes the mine either by movement of the mine or by disturbance of a tripwire. For a description of antitank mines, including assembly, disassembly, care in handling, burying and camouflaging, and packing and marking, see FM 5–30.

152. OTHER MATERIEL EMPLOYED AS ANTITANK MINES. **a.** In addition to its use as a projectile when

fired from the launcher, the antitank rocket, 2.36 inch, may be prepared for firing electrically and used as an improvised mine. For preparation of the rocket for firing, see FM 23–30. The rocket may be placed in a roadbed, or set horizontally in the side of a cut or bank.

b. Bangalore Torpedo. For use of the Bangalore torpedo as an antitank mine, see FM 5–30.

153. EQUIPMENT FOR LAYING MINES. The following items of equipment are available within the infantry regiment for use in surveying mine fields and preparing reports of mine field locations, and as pioneer tools for burying, camouflaging, or recovering the mines, and for clearing lines of sight for the surveyor:

a. Sketching Equipment. For description, see FM 21–35.

b. Aiming Circle, M1 (or M1916 or M1916A1). This instrument is used for measuring azimuths and angles in the surveying of mine fields.

c. Protractors. Used in plotting angles.

d. 50-foot Metallic Tape.

e. Tape, White Tracing, and Flag Sets. Used in marking the outline of mine fields and gaps in mine fields.

f. Pioneer Equipment. Axes, picks, shovels, sandbags, saws, brushhooks, machetes, and demolition equipment sets.

154. ANTITANK MINE SUPPLY. ***a.*** When the regiment receives a supply of antitank mines, a running account of receipts and expenditures is maintained by the regimental munitions officer, under the supervision of S–4, and coordinated with S–3. The mine platoon leader keeps a similar record. This is to insure against failure to account for any mines which have been laid and subsequently ordered to be recovered, since each unre-

covered mine may endanger friendly troops and vehicles. The account should show at all times the number of mines on hand, together with the dates of receipts and expenditures thereof. Since mines are repeatedly laid and recovered in combat, the account should explain by suitable notation any difference between the number laid and the number reclaimed.

b. The initial supply of antitank mines for the regiment is carried in the transport of the antitank mine platoon. For details of replenishment, see paragraph 21b (6).

c. The removal and recovery of previously laid mines may cause a unit to have more mines than it can transport. When this occurs, the regimental munitions officer should be informed at once of the situation and the location of the surplus mines. Pending receipt of instructions as to their disposition, they should be placed in small piles, well dispersed.

SECTION III

MINE FIELDS AND ROAD BLOCKS

155. DELIBERATE MINE FIELDS. A deliberate mine field is one which is laid when time permits of extensive preparation. The mines are buried and carefully camouflaged. The field is deep in pattern and normally includes, in addition to armed mines, activated and antipersonnel mines. The platoon performs the function of laying and removing deliberate mine fields under the supervision of engineers only, or when operating as part of a specially trained infantry unit for this type of operation. For deliberate mine field patterns, organization for laying, duties of personnel and operations of

antitank mine details, camouflage, and removal of deliberate mine fields, see FM 5–30.

156. HASTY MINE FIELDS. A hasty mine field is one which is laid in expectation of immediate attack. The field is shallow in pattern. Generally, no provision is made for burying mines, for activating selected mines, or for installing antipersonnel mines. The mines should be concealed to the extent that time permits; leaves, weeds, or grass are often used for this purpose Laying hasty mine fields for its own protection is a primary responsibility of the infantry. Each infantry regiment and battalion must be able to furnish trained details for this purpose (see app. III). For the hasty mine field pattern, drills for laying the pattern, organization of an antitank mine detail, and duties and methods of operation of the lay-out party, surveying party, and laying party or parties, see FM 5–30.

157. DUMMY MINE FIELDS. A dummy mine field is an area not actually mined, but so prepared that it will appear to be mined to an observer, or on an aerial photograph. Its primary purpose is to deceive the enemy. Mine fields can be simulated by installing either practice mines, or imitation mines consisting of circular wooden or concrete blocks about eight inches in diameter. Clods dug up in a standard mine field pattern and then replaced, thus giving an area the appearance of a mine field, require no dummy mines. Dummy mine fields should not be too obvious; they should, however, permit of detection by hostile observers.

158. ROAD BLOCKS. ***a. General.*** A road block is an obstacle or group of obstacles used to deny enemy vehicles along a road at and around the block. In a mined road block, mines alone may be quickly placed across

a road and sufficiently beyond to block the movement of enemy vehicles, or the road itself may be blocked by other obstacles, while the mines are used on one or both flanks to prevent vehicles from detouring around the road block. (See FM 5–30.)

b. Installation. (1) A road block established with antitank mines should have a density twice that of a normal mine field. The mines may be laid directly on the road surface. If the nature of the roadbed and time permit, mines are buried. Mines laid on the surface should be covered with brush, sandbags, or a strip of cloth or canvas, so as to require personnel of an approaching hostile vehicle to dismount in order to determine the nature of the block by close inspection. If the enemy has become accustomed to encountering road blocks of this type, the mere placing of the camouflaged material, without mines, may suffice to cause enemy vehicles to halt, thus exposing them to the fire of the defenders. (See fig. 21.)

(2) In some cases, an antitank mine laying detail may be called upon to prepare to block roads at previously designated points, the actual blocking to be effected upon order, or upon the approach of the enemy. In such instances, the necessary personnel and antitank mines are left at the designated location (s), the mines being held in readiness. This action permits the uninterrupted use of the road by friendly troops until the moment arrives for placing the block.

159. BARRIERS. A barrier is defined as a large system of bands and zones of obstacles. (See FM 5–30.) Barriers are especially useful in creating relatively impassable regions over large ground areas. From the viewpoint of the antitank mine platoon, a barrier consists of mine fields and road blocks laid in gaps between natural or other artificial antitank obstacles so as to offer a con-

tinuous obstruction to the passage of hostile armored vehicles.

160. PROTECTION AGAINST HOSTILE INTERFERENCE. **a.** A mine field must be defended by fire to be effective. Undefended mine fields delay the enemy only

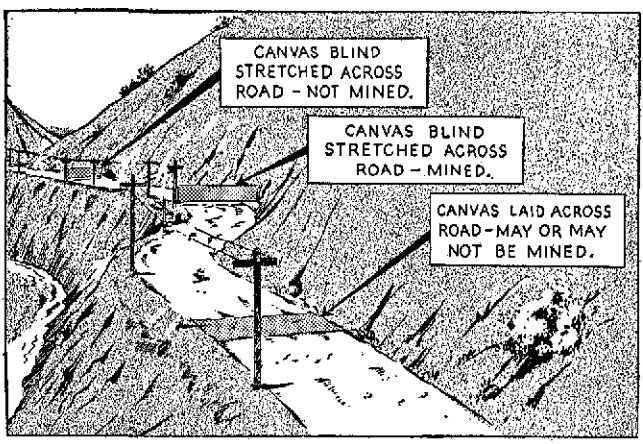


Figure 21. Hasty road blocks and simulated road block. Distances are schematic.

for the relatively short time it takes to bypass them or to remove enough mines to permit passage.

b. The leader of an antitank mine platoon or squad is responsible for the defense against enemy interference of each mine field or mined road block installed or taken over by his element, until relieved of this responsibility by higher authority (see par. 150). The defending personnel occupy covered and concealed positions from which they can observe the mined area and prevent by fire any attempt to remove or destroy the mines (see fig. 22). When practicable, antitank gun elements should be available to destroy or neutralize hostile armored

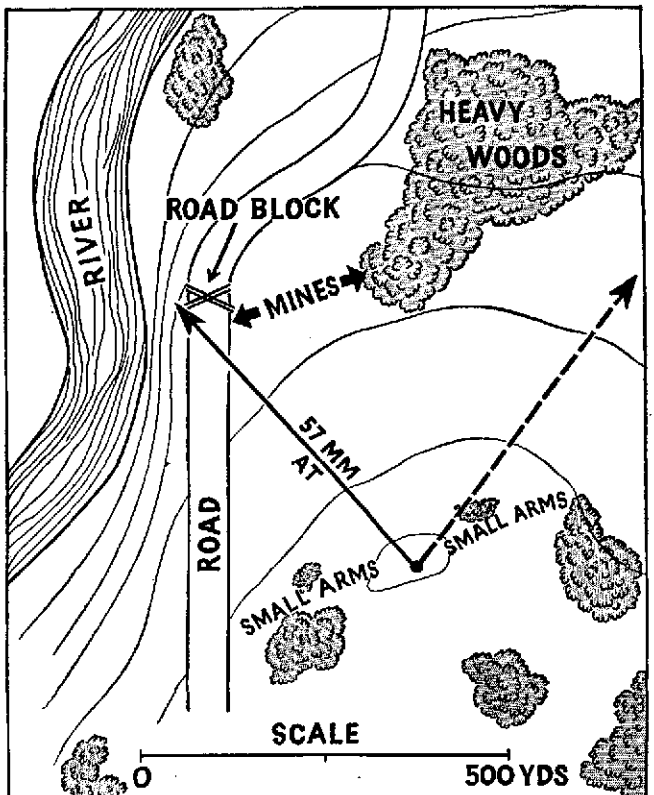


Figure 22. Road block covered by gun and small-arms fire. Gun covers road and other tank approaches. Small-arms fire covers road block and mines, preventing their removal, and also protects gun and crew from enemy foot troops. Rocket teams, located in or near small-arms positions supplement the gun fire and also protect the gun and crew against hostile tank attacks from the flanks and rear. Rifle grenadiers, if employed, supplement such protection.

vehicles disabled or slowed down by mine fields or mined road blocks. (See FM 7–20.)

161. SAFEGUARDING FRIENDLY TROOPS OR VEHICLES. An antitank mine field, mined road block, or other barrier is potentially as dangerous to friendly troops and vehicles as to those of the enemy. Safeguards must be provided by posting guards and marking the mined areas.

a. Guards. (1) As soon as the antitank mine platoon begins the laying of mines, the platoon leader causes observers to be posted to warn of enemy approach while the work is in progress. When the work is completed, or danger of enemy interruption thereto is no longer likely, the observers function as guards to warn friendly troops of the presence of the mines, and, when necessary, guide them through mine-free gaps. These guards are maintained until the platoon leader is relieved of this responsibility by higher authority. Normally, this responsibility will be transferred by higher authority to the commander of a unit assigned the mission of covering the mined area or road block with fire.

(2) When contact with the enemy appears to be imminent, the officer or noncommissioned officer of the platoon or lesser element charged with protecting mines against hostile interference, directs the removal of any signs or markers which might disclose the location or extent of the mined area. He may substitute guards therefor when such action appears necessary. (See (*c*) below.)

(3) In tactical situations requiring the opening of mine-free gaps through friendly or hostile mined areas, each passageway must be guarded, in addition to being sign-posted, and outlined by guide wire, tracing tape, or luminous buttons. On dark nights, when outline markers are difficult to see, it is especially important that guides

be provided to lead friendly troops and vehicles through the passageways. These guides must be carefully selected for their dependability, and must be thoroughly acquainted with the boundaries of the passageways.

b. Mine Field Marking. (1) GENERAL. Mine field marking is the responsibility of the unit which lays the field. All mine fields are marked as they are laid.

(2) STANDARD MARKING SIGNS. (*a*) Standard mine warning signs and notices will be used.

(*b*) The sign MINES DANGER is used to warn whenever mines are present which are not otherwise marked. The sign SAFE LANE is used to mark safe passages through mined areas.

(*c*) The standard method of marking mine fields is to use a barbed wire fence on which triangular-shaped red signs are suspended by one apex at 25-yard intervals. If tactical wire fences, such as double-apron or concertina types, serve also as mine field marking fences, the markers are placed on them.

(*d*) Warning signs should habitually be placed along only those parts of a mined area where friendly approach is likely and hostile approach unlikely. At times, to obtain surprise and deception, warning signs may be placed to mislead the enemy. Dummy areas, or passages through actual mined areas, may be marked to indicate that they are mined. When such deceptive measures are resorted to, care must be exercised to see that the markings are not too obvious, and that friendly troops are fully informed of the special marking means used. The use of warning signs is especially important for the mined areas located around command posts and supply installations within friendly lines.

(3) MINE FIELD MARKING FENCE. The type of mine field marking fence erected will vary according to current local conditions.

(*a*) A forward mine field is marked with a fence be-

hind its rear edge. Since the location of the field must not be disclosed to the enemy, its forward edge is not marked. Isolated inconspicuous markers, such as gasoline tins or piles of stones, may be placed forward of the field to warn friendly patrols.

(*b*) Whenever practicable, all mines laid in rear of friendly front lines should be completely enclosed by a marking fence consisting of several strands of barbed wire.

(*c*) Mine field fences must be strong, so they do not collapse and leave the mine field unmarked. Concertina wire fencing for a mine field must be fastened firmly to the ground so that the wind cannot shift sections of it. Mine field marking fences must be regularly inspected and maintained. The higher command fixes areas of responsibility for such maintenance.

(*d*) Marking fences completely inclosing mine fields are erected around an area larger than that actually covered by the mine field so as not to disclose its actual boundaries. The boundary fence wire must have changes of direction different from the mine field traverses. To mislead the enemy, additional wire fences may cross the mine field from front to rear in various directions.

(*e*) The fence should be so placed with relation to a mine field that after friendly troops encounter it there will still be sufficient time and room for vehicles and personnel to alter their direction of movement before encountering the mines.

(*f*) In a defensive situation, the tactical barbed wire in front of the main line of resistance may also serve as part of the marking fence around a mine field. In such employment, the mine field and the tactical wire each protect the other against the actions of the enemy. In other situations, such as when mines are laid in an outpost area or on an exposed flank where complete fencing would aid hostile troops to locate the mined area, a

low, camouflaged fence to the rear of the field may be employed.

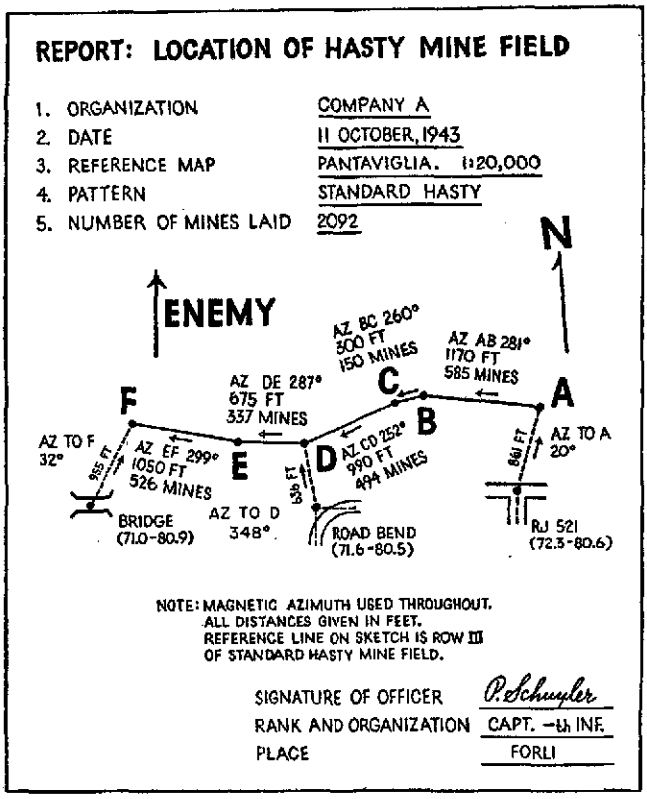


Figure 23. Report of location of mine field.

(4) Lanes breached through an enemy mine field are carefully marked so that our troops and vehicles may pass rapidly and safely. A mined road which has not been cleared will be blocked by a strong, improvised barrier, made from materials such as tar barrels or logs.

Signs, visible at night, indicating that the road is mined must be displayed conspicuously on the barrier. Such signs should be hooded to shield them from acrial observation.

162. RECORDS OF ANTITANK MINE INSTALLATIONS. ***a.*** Records of the location and extent of mined areas must be maintained in order to inform higher commanders of the location of the field, prevent casualties to friendly personnel and vehicles, and facilitate removal operations by friendly troops.

b. The platoon leader must insure that the location of any mine field or mined road block laid by the platoon is recorded with such accuracy that personnel, other than those laying the field, can locate each mine with a minimum of hazard. A report, usually in the form of a sketch, of each mine field or mined road block, is promptly transmitted to the company commander for his information and that of higher headquarters. Units, other than the antitank mine platoon, which may lay mine fields, submit similar reports. For a suggested form for such a report, see figure 23. Removal of each mine field or mined road block is also reported.

SECTION IV

TACTICAL EMPLOYMENT

163. GENERAL. The antitank mine is used tactically in almost all types of operation, offensive as well as defensive. It must be regarded as a mobile weapon to be readily placed, removed and placed again, in any situation where there is a threat of armored attack.

164. CHARACTERISTICS OF MECHANIZED ATTACK. Open terrain, where fires of antitank guns and howitzers are likely to be encountered, will usually be avoided by mechanized units. For routes of approach, tanks seek defiladed or concealed corridors which serve to restrict or prevent the use of the defender's antitank weapons. Antitank mines, by blocking those corridors, force the hostile tanks into the open, and reduce the number of antitank guns required to protect the area.

165. MISSIONS. ***a.*** The missions which may be assigned to the platoon or its elements include—

(1) Laying of antitank mine fields or preparing mined road blocks. This includes the accurate surveying, recording, reporting, protecting, guarding, and marking of such installations.

(2) Preparation or laying of dummy mine fields, or dummy sections of mine fields, and road blocks.

(3) Removal of mines laid by the platoon or by other friendly units, when no longer needed, salvaging unexploded mines, and camouflaging the mine field after removal of mines.

(4) Reconnaissance for enemy mine fields, or furnishing technical experts to accompany patrols dispatched for such reconnaissance.

(5) Removal or gapping of enemy mine fields, or assisting in such operations when so directed.

b. Elements of the platoon attached to subordinate units of the regiment are assigned missions by the commanders of these units. At other times, the mission assigned to the platoon by the company commander may require the delivery of mines to the subordinate units of the regiment in quantities prescribed by the regimental commander, and the laying, or assisting in laying, of the mines in accordance with orders issued by the commanders of the units to which the mines are

allotted. The platoon may also be ordered to function under the direction of the division engineer. If not specifically employed on missions as above described, the platoon operates under the direction of the company commander in accordance with the regimental plan of antimechanized defense.

166. SELECTION OF LOCATIONS FOR MINED AREAS. ***a.*** At least the general areas in which mines are to be laid are prescribed by the company commander or other officer from whom the platoon or its elements receive their missions. At times, the exact location (s) for the mines will be prescribed. When permitted some latitude in selecting the exact site, the platoon leader (or the leader of a detached element of the platoon) must choose a location affording the highest practicable degree of coordination with adjacent obstacles, nearby antitank guns, and the dispositions of troops able to cover the mines with small-arms fire. Care will be exercised that mines are not installed too close to positions occupied by friendly personnel. (See par. 75d.)

b. In broken terrain, mine fields should be placed across narrow tank approaches in such a way as to block further direct advance, and force the hostile tanks which continue the advance to emerge from cover to open areas within effective range of antitank guns. It is always desirable that mine fields be laid so as to force the hostile tanks to expose themselves to the flanking fire of friendly antitank guns (see fig. 24). In open terrain, where there are few or no obstacles to tank approach, the mine field should extend completely around the area to be protected, so far as the available number of mines permits. Where there are insufficient mines to accomplish complete encirclement, mine fields are laid so as to canalize attacking tanks into areas where they will en-



① *Hostile tanks advancing under cover of edge of woods.*



② *Tanks are forced into open, and come under antitank gunfire.*

Figure 24. Use of mine field in woods.

counter the concentrated fire of the defender's antitank weapons.

167. EMPLOYMENT DURING ROUTE MARCHES AND MOTOR MOVEMENTS. ***a. Route Marches.*** (1) During daylight route marches (see par. 27), members or elements of the antitank mine platoon may be attached to security units in order to assist in the installation of road blocks and local mine fields, or in the removal of mines from enemy road blocks. The bulk of the platoon, however, ordinarily moves with the main body or motor echelon of the regiment, prepared to install mine fields or mined road blocks as directed by the company commander. The platoon leader, accompanied by his surveying detail, moves with the company commander unless otherwise directed.

(2) During a night route march (see par. 28), the platoon usually moves with the remainder of the company in the motor echelon of the regiment.

b. Motor Movements. During motor movements (see par. 29), elements of the platoon may be attached to advance, flank, or rear guards; the remainder of the platoon, if any, moves with the main body of the regiment, as directed by the company commander. When the route is flanked by natural tank obstacles with but few openings, mines may be employed to block these openings before the main body passes them. These mines are ordinarily defended by antitank gun elements of the company and attached rifle elements. Details from the platoon may be left with these forces to assist in removing the mines after the column has passed.

168. EMPLOYMENT IN DEFENSE OF BIVOUAC OR ASSEMBLY AREA. When mines are used in the defense of a bivouac or assembly area (see fig. 10), members or elements of the platoon may be employed to

assist in their installation. Mines may also be issued to antitank platoons for close-in protection of the guns. (See pars. 32, 42, and 52.).

169. EMPLOYMENT IN OFFENSE. ***a. Approach March.*** During the approach march, members or elements of the platoon may be attached to security units as in the route march. Mines employed are removed when no longer necessary to protect the regiment. The platoon, less detached elements, usually moves with the second echelon of the regiment, prepared to establish mine fields or road blocks in any location which may be prescribed by the company commander. (See par. 38.) Protection of the flanks and rear of the regiment is of primary importance.

b. Attack. (1) (*a*) In the attack, the mine platoon is used principally to protect the flanks and rear of the attacking echelon of the regiment by establishing hasty mine fields or road blocks across likely avenues of approach for hostile armored vehicles conducting a counterattack, as such avenues are uncovered by the progress of the attacking echelon. (See par. 48.) The platoon leader initiates timely reconnaissance of the rear and the flanks of the attacking elements, and selects locations for such mine fields and road blocks. He dispatches elements of the platoon to install the mine fields and road blocks when so ordered by the company commander.

(*b*) The mine platoon is also employed to remove or gap enemy mine fields, and assist in such operations when so ordered. The platoon leader initiates a reconnaissance for enemy mine fields, or furnishes personnel to accompany patrols dispatched for that purpose.

(2) Roads entering the flanks or rear of the regimental zone of action will usually be the only feasible routes by which hostile armored vehicles can interfere with a night advance of the regiment to positions from which it can

launch a dawn attack. During the attack, such roads, particularly those leading to, or toward, regimental command posts and administrative installations, must be blocked to halt such armored vehicles as may have effected penetrations through friendly units on the flanks of the regiment. Roads extending in the direction of the attack may require blocking to halt hostile counterattacks on forward elements. The regimental plan of antimechanized defense may stipulate that the platoon block these roads, or that it be prepared to do so either upon order or upon the approach of the enemy. As in the case of flank and rear approaches, the platoon leader initiates early reconnaissance for likely locations for road blocks.

(3) As the attack progresses, the platoon moves by bounds from one terrain feature to another.

c. Reorganization. The platoon or elements thereof may be directed to employ mines to assist in protecting the reorganization of the regiment. (See par. 57.) During this period, if time permits, reorganization of the platoon is effected, otherwise, at the earliest favorable opportunity. A report of the situation, strength, and mines and ammunition status of the platoon is transmitted to the company commander.

170. EMPLOYMENT IN DEFENSE. ***a.*** The use of antitank mines by a regiment occupying a sector of a battle position in defense is discussed in paragraph 75. Elements of the antitank mine platoon which deliver the mines to front-line battalions are frequently required to assist units engaged in laying them. Unless the exact sites for mine fields are prescribed by front-line battalion commanders, or by other commanders from whom the platoon may receive its instructions, the antitank mine detail leader should ascertain the exact location of planned defensive fires of supporting artillery and mor-

tars, in order to avoid placing mines in these areas.

b. Mine fields may be laid not only across probable avenues of tank approach to the main line of resistance, but also in depth, to prevent the free maneuver in the regimental sector of tanks which succeed in effecting penetration. Wherever practicable, mine fields within the defensive position should be so placed in relation to natural obstacles as to provide all around protection for company or battalion defense areas. The responsibility for laying these fields, as well as for those in front of the position, may be delegated to one or more battalions.

171. EMPLOYMENT IN RETROGRADE MOVEMENTS.

a. General. In retrograde movements, mines are particularly valuable in blocking flank approaches, and delaying pursuit. They are used freely in both day and night operations. Mines used to delay pursuit are generally left in place.

b. Night Withdrawal. During a night withdrawal, mines are extensively employed to block roads which intersect the route of withdrawal of the regiment. (See par. 88.) Such road blocks are frequently established and defended by gun elements of the antitank company or battalion antitank platoons, reinforced by rifle units. Mine platoon personnel may be attached to such elements to assist in laying and removing the mines, and to assist in their protection. Precautions to prevent casualties to friendly troops and vehicles are especially important under such conditions. Traffic warning guards must be maintained until the last vehicles and troops of the covering force have cleared the area, unless the road blocks are removed earlier by regimental order.

c. Daylight Withdrawal. In a daylight withdrawal, all or part of the mine platoon is usually attached to the regimental covering force; a part of the platoon may be attached to a flank guard, if established by the regi-

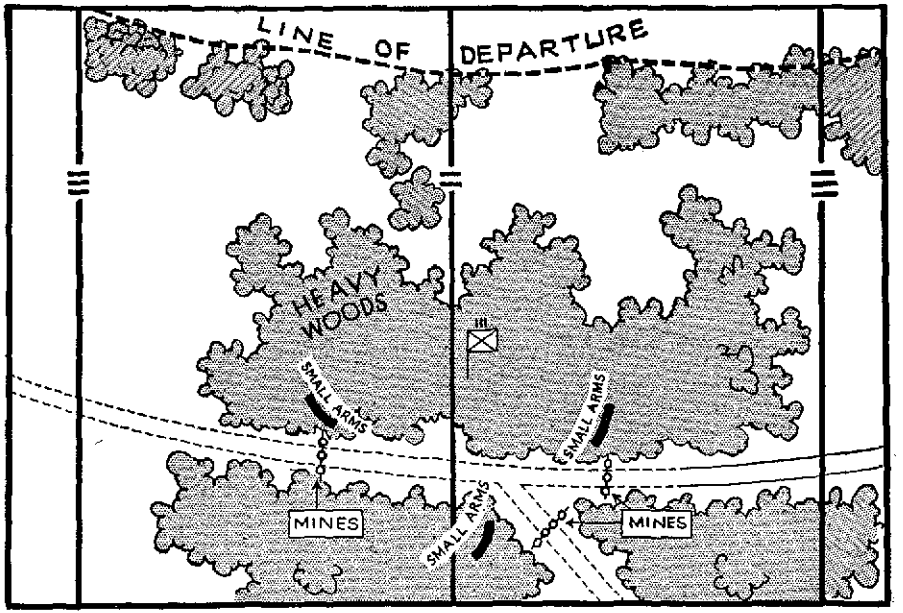


Figure 25. Use of mines to protect a command post.

ment. (See par. 89.) After joining the units to which they are attached, these elements of the platoon are employed as in a delaying action. Any part of the platoon not so attached may be used to assist in establishing and defending road blocks, as described in a above.

d. Delaying Action. In a delaying action, the entire platoon is usually attached, by elements, to front-line battalions. (See par. 90.) The wide frontage occupied by the regiment, and the limited number of mines available, usually restrict the use of mines to the blocking of roads and defiles. Road blocks located to protect the flanks of the regiment during withdrawal to rear delaying positions, or to slow down direct pursuit by the enemy, are frequently installed by the platoon before the regiment commences its withdrawal from the forward delaying positions. When the supply of mines is inadequate to perform all tasks desired, dummy mine fields or road blocks may be constructed to deceive the enemy.

172. PROTECTION OF COMMAND POSTS AND ADMINISTRATIVE INSTALLATIONS. Command posts and administrative installations, such as the regimental ammunition supply point, may be furnished antitank protection by the placing of mines across likely avenues of tank approach when the number of available mines permits such action without depriving the combat elements of the regiment of essential mine protection (see fig. 25).

PART TWO

ANTITANK PLATOON INFANTRY BATTALION

CHAPTER 1

GENERAL

SECTION I

COMPOSITION

173. GENERAL. ***a.*** In strength and composition, the battalion antitank platoon is identical with the antitank platoon of the antitank company. (See par. 97.)

b. For armament, equipment and transport, see Table of Organization and Equipment.

174. DUTIES OF PERSONNEL. ***a. Command Group.*** (1) PLATOON LEADER.

(*a*) The platoon leader commands the platoon and is responsible, under such orders as he may receive from the battalion headquarters company commander, for its

training and discipline.

(*b*) As the battalion antitank officer, his duties, so far as applicable, are similar to those of the regimental antitank officer, described in paragraph 8b. He assists the battalion commander in the planning and execution of the battalion antitank defense, and keeps him informed of any changes in the situation. He accompanies the battalion commander on reconnaissance, or makes a separate reconnaissance, and submits recommendations for the employment and coordination of battalion and attached antitank weapons. He receives his orders from the battalion commander, unless his platoon is detached from the battalion and placed under the control of another commander.

(2) PLATOON SERGEANT. The duties of the platoon sergeant are similar to those of the platoon sergeant in the antitank platoon, antitank company (see par. 98).

(3) MESSENGER. The messenger transmits oral and written messages. He may be directed to act as observer, assist in performance of security missions, and operate the signal equipment issued to the platoon. He drives the vehicle assigned to platoon headquarters, and is responsible for driver maintenance.

b. Squad Personnel. The duties of squad personnel are similar to those of the personnel of the antitank squad, antitank company (see par. 137 and FM 23–75).

SECTION II

SUPPLY, MEDICAL SERVICE AND EVACUATION

175. SUPPLY. ***a.*** The battalion commander is responsible for the initial procurement and replenishment of all supplies in combat. The platoon leader is responsible,

under the battalion commander, for ammunition supply. (See par. 183.) He is also responsible for initiating the resupply of gasoline and oil for platoon vehicles. He is assisted in these duties by the platoon sergeant. The ammunition and pioneer platoon of the battalion headquarters company may assist in ammunition supply. (See FM 7–20.)

b. Since the platoon or its elements will frequently be at a considerable distance from the mess location of the battalion headquarters company, the company commander must insure, by prior planning and coordination with other units, that the men will be fed adequately and on time. The battalion commander must insure that all company commanders understand their responsibility for feeding these men when operating nearby, whether attached or not, in the absence of facilities for their being fed by their own company.

176. MEDICAL SERVICE AND EVACUATION. For a description of medical service and evacuation, see chapter 2, part one.

SECTION III

TACTICAL EMPLOYMENT

177. REFERENCE. For a discussion of the operations of the infantry battalion in troop movements and bivouacs, in offensive and defensive combat, and in retrograde movements, and for directives for the tactical training of the battalion antitank platoon, see FM 7–20.

178. MISSIONS. *a. Primary Missions.* The primary mission of the battalion antitank platoon is to provide antimechanized defense to the battalion. To provide all

around security, its guns must be coordinated with the other antimechanized means of the battalion and the regiment. Frequently, the antimechanized defense of the battalion is supplemented by elements of the regimental antitank company. Exceptionally, it is detached for special missions. The antitank company commander, as regimental antitank officer, will frequently include the employment of the battalion antitank platoon in his plan for regimental antimechanized protection, particularly in defense. Ordinarily, the platoon will be employed within the area of its own battalion.

b. Secondary Missions. Secondary missions include firing on hostile antitank guns and other located crew-served weapons, emplacements, pill boxes and other point targets. Secondary targets will be many and frequent when a battalion is employed as a front-line unit or on an exposed flank, or is engaged in a special operation, such as an attack against a town or fortified position.

179. READINESS FOR ACTION. The guns of the battalion antitank platoon are kept in a state of readiness for action in the same manner as described for the guns of the antitank company in paragraph 6e. They are held mobile less frequently than are the latter guns.

180. COORDINATION WITH OTHER ANTITANK MEANS. The platoon leader makes timely recommendations to the battalion commander for the employment of his platoon. His plan must insure that the combination of antitank guns, antitank rifle grenades and rockets, and mine fields and other obstacles provides the best possible antimechanized protection to the battalion. He also effects coordination with the commander of any other antitank elements which may be located in the immediate vicinity of his firing position area (s).

181. SECURITY. ***a. Warning System.*** (1) The battalion antimechanized warning system is included in that of the regiment. (See par. 13.) Information of hostile mechanized threats received by radio is transmitted by the battalion commander to the leader of the antitank platoon. The latter must be prepared at all times to relay such information promptly to the elements of his platoon. When these elements are widely separated, he may request that he be provided with additional technical means of communication; or, if available means within the platoon are inadequate, that elements of the platoon receive such warning direct from the battalion command post.

(2) In addition to the above measures, the platoon provides its own air-antitank guards. For details, see paragraph 13c and d.

b. Other Security Measures. (1) The platoon and squad leaders are responsible for security measures and close-in protection against hostile air and ground attack. For details, see paragraphs 13–16.

(2) As battalion antitank officer, the platoon leader is responsible that a traffic warning guard is maintained over any mines laid by elements of the battalion in the battalion area, and that these mines are protected by small-arms fire and also, if possible, by antitank guns, antitank rifle grenades, and rockets.

182. COMMUNICATION. With the exception of radios, which may not be available, the means of communication employed are similar to those in the antitank platoon, antitank company (see par. 99). While it is the responsibility of the battalion commander to maintain contact with the platoon, the platoon leader should assist him in this respect by the utilization of all means of communication at his disposal.

183. AMMUNITION SUPPLY. **a.** The platoon leader is responsible, under the battalion plan, that sufficient ammunition is available at gun positions, and that expended ammunition is promptly replenished. He usually delegates supervision of ammunition replenishment to the platoon sergeant, who keeps himself informed of the status of ammunition within the platoon.

b. Upon arrival of the platoon, or a squad, at its uncoupling position, sufficient ammunition to meet contemplated needs is unloaded from the squad prime mover and hand carried to the firing position. The amount unloaded will depend on the strength of the probable mechanized threat, as indicated by the number of hostile tanks believed to be within striking distance, and the likelihood of firing on emplaced enemy automatic weapons, pill boxes, or other secondary targets.

c. (1) Because of the limited mobility of the antitank gun when moved by hand, the prime mover should normally remain under cover near the gun position. The platoon headquarters truck may be used in emergencies to replenish the ammunition supply. If replenishment in larger quantities becomes necessary, and battalion transportation is not available, arrangements must be made by the battalion commander to secure a vehicle from the regimental train. The normal ammunition loads of prime movers should be maintained as continuously as possible.

(2) In a rapid forward movement, such as with an advance guard, or in pursuit, the system of ammunition supply is similar to that in attack. When distances from supply points are so great as to make replenishment difficult, needs must be anticipated, and additional quantities of ammunition and transport secured from higher headquarters.

d. The hand carry of ammunition from the location of the prime mover is controlled by squad leaders, under the general supervision of the platoon leader and platoon sergeant.

e. In defensive situations, the battalion commander will prescribe the amount of ammunition to be unloaded in the battalion defense area of the battle position. Frequently, after the enemy has established contact, replenishment of ammunition from the rear is practicable under cover of darkness only. Provision must be made, however, for the immediate resupply of elements of the platoon whose ammunition becomes seriously depleted. This is accomplished by keeping a proportion of the ammunition at a platoon supply point established near the gun positions. Basing his estimates on the record of ammunition expenditure maintained by the platoon sergeant, the platoon leader plans and effects the distribution to the squads of the resupply of ammunition brought forward after dark. Ammunition is distributed among primary, supplementary, and alternate emplacements and stored in ammunition shelters dug in the sides of the emplacements. Additional ammunition may be stored in other nearby shelters. The requirements of an ammunition shelter are that the ammunition be kept dry, protected, and concealed.

f. During retrograde movements, replenishment of ammunition will be held to the minimum necessary for antimechanized defense. Amounts estimated to be sufficient for the contemplated action are left with each unit. Regimental or battalion ammunition carrying vehicles may be released to the platoon on rear positions, or resupply may be effected by the establishment of ammunition supply points by higher headquarters, either on rear positions or en route thereto. The battalion commander will inform the platoon leader as to the location of such supply points.

SECTION IV

MARCHES AND BIVOUACS

184. MARCHES. The battalion may form a part of the main body of the regiment, may be detailed as a security force of the regiment or of a larger unit, or may march as an individual unit. (See FM 7–20.)

a. When the battalion forms a part of the main body of the regiment, the antitank platoon may be employed under regimental control for the protection of the column as a whole; its conduct is then similar to that of an antitank platoon of the antitank company as described in paragraph 104. When not employed in the protection of the column as a whole, the platoon is disposed by the battalion commander for the protection of the battalion, either by distributing squads throughout the column, or directing them to occupy successive firing positions along the flanks.

b. With Advance Guard. (1) When the battalion constitutes the advance guard of the regiment, the action of the antitank platoon is coordinated with that of any attached antitank guns. (See par. 104a (2) (*a*).) If called upon for recommendations, the platoon leader must consider the employment of both his own and the attached weapons. Antitank squads may be advanced from one suitable firing position to another, to afford continuous antimechanized protection to the marching column. In such movements, antitank units are given priority on roads and move rapidly to successive positions. The platoon leader or other personnel designated by him accompanies the leading foot elements in order to select cover and firing positions. Only the amount of ammunition required for immediate needs is unloaded

at the gun position. If such employment of the antitank platoon is impracticable, as in a motorized movement, the guns are distributed in the support and reserve, usually by squads, so as to afford protection throughout the advance guard.

(2) Speed in going into action is essential. When guns are in cover or firing positions, members of the crews are posted to observe in all directions. Gun crews must at all times be on the alert for warning signals from air-antitank guards. When contact with the enemy is established, the platoon is employed as in offensive or defensive combat, depending upon the action of the advance guard.

c. With Flank Guard. When the battalion constitutes a flank guard of the regiment, the employment of the antitank platoon is generally the same as with an advance guard. When several dangerous tank approaches must be passed during the progress of a march, elements of the platoon move by bounds from one position to another (see fig. 11). If there is a single avenue of approach from a threatened flank, the battalion commander may direct the platoon leader to move to a single feature which may be utilized as an initial delaying position, or defended until the mission is accomplished.

d. With Rear Guard. See paragraph 104a (2) (*c*).

e. Battalion Marching Alone. When the battalion marches alone, it details its own advance, flank, and rear guards. A squad of the battalion antitank platoon is usually attached to the advance guard. (See FM 7–20.) A squad of the battalion antitank platoon may be attached to a flank or rear guard having a strength of not less than a rifle platoon. The remainder of the battalion antitank platoon marches in the main body of the battalion, prepared to move promptly in any direction to meet a hostile mechanized threat.

f. Night Marches. Elements of the platoon are seldom employed with security elements of the battalion during a night march. Ordinarily, the platoon marches as a unit in the motor column of the battalion. If the battalion is marching alone, the platoon may be employed, usually by squads, to protect road blocks established along the flanks of the route of march. Exceptionally, when the battalion marches as part of the regiment, the platoon may be employed in a similar manner under regimental control.

g. Motor Movements. In motor movements, the battalion antitank platoon is usually distributed by squads throughout the battalion column, irrespective of whether the battalion is moving in the main body, as a security element of a larger force, or is moving independently. When the route is enclosed by natural tank obstacles with but few openings, elements of the platoon may be sent forward to cover these openings prior to the advance of the main body, and join the rear of the column as it passes. Such employment usually occurs only when the battalion is moving independently, or as a security element. (See par. 29.)

185. BIVOUACS. ***a. Battalion Operating as Part of Regiment.*** (1) The battalion bivouac area is usually designated by the regimental commander. The distribution of units in the area should be made so as to facilitate the succeeding operation.

(2) (*a*) A battalion detailed as a bivouac outpost is ordinarily reinforced by the attachment of antitank company elements. Its defense may be supplemented by the employment of engineers for construction of mine fields and other obstacles.

(*b*) Antitank elements are disposed to cover tank approaches to the outpost position; reserve elements may be held mobile, prepared to move rapidly to any one

of several previously reconnoitered positions. Each antitank squad organizes its position as for defense on a wide front. An air-antitank guard is constantly on duty at each gun position. Gun crews construct emplacements and fox holes and prepare camouflage in a manner similar to that in the organization of a defense area of a battle position.

b. Battalion Operating Alone. (1) When the battalion bivouacs alone, the battalion commander details the bivouac outpost. He prescribes the necessary measures for antimechanized defense, and for close-in protection against attacks by infiltrating enemy groups.

(2) The antitank platoon is usually attached to the bivouac outpost. It may be employed to assist in establishing road blocks, or to cover by fire likely approaches for hostile armored vehicles. Rocket teams cover approaches to the bivouac area not covered by antitank guns. Exceptionally, the lack of sufficient guns to provide adequate all around protection may require that the platoon be held mobile ready to occupy prepared firing positions.

CHAPTER 2

OFFENSIVE COMBAT

SECTION I

APPROACH MARCH AND ASSEMBLY AREA

186. DAYLIGHT APPROACH MARCH. *a. General.* (1) For the dispositions and conduct of leading and rear battalions in a daylight approach march, see FM 7–20.

(2) The development order of the battalion commander prescribes the locations of the antitank platoon in the battalion formation. The rear of the battalion ordinarily is protected by regimental antitank guns, and, in the case of a leading battalion, by those of battalions in rear. For this reason, the antitank platoon is usually directed to move between the first and second echelons of the battalion with the primary mission of furnishing frontal and flank protection to the leading echelon.

(3) The battalion order may prescribe whether the platoon is to move as a unit, or is to be distributed by squads under platoon control; however, this decision may be left to the judgment of the platoon leader. When the battalion is advancing on a narrow front, or

when only one flank is exposed to mechanized attack, the platoon usually marches as a unit. Distribution by squads is ordinarily essential when an extensive front must be covered, or when tank attacks against both flanks of the battalion are possible. When the nature of the terrain is such, or the frontage of a leading battalion is so extensive, that the fires of the battalion antitank platoon are insufficient to furnish adequate antimechanized protection, a platoon or lesser element of the antitank company may be attached to the battalion.

b. Platoon Marching as Unit. (1) When the antitank platoon marches as a unit, the platoon leader may dispose it in line of squads, in column, with squads echeloned, or in a triangular formation. For a discussion of these formations, see paragraph 106e(2).

(2) The platoon leader, accompanied by the messenger, usually moves with the leading echelon of the battalion, the platoon sergeant remaining with the platoon. The platoon leader conducts constant reconnaissance as described in paragraph 106. When heavily shelled areas cannot be avoided, the platoon leader may direct that squads cross the area individually; the unit, under the supervision of the platoon sergeant, reforms on a designated terrain feature on the opposite side. The platoon may be directed to cross any dangerous area, such as a road or ridge exposed to hostile observation, in a single rush with vehicles abreast and as widely separated as is practicable. When the terrain affords long fields of fire and wide observation to the front and flanks, the platoon of a leading battalion moves by bounds to successive terrain features. Depending upon the need for maintaining protection at the initial position, displacement may be made by squad echelon—two squads displacing, with one squad in place, or vice versa—or the platoon may displace as a unit. The platoon leader selects forward firing position areas prior to the arrival

of the leading squad (s). If a platoon from the regimental antitank company is attached to the battalion, the platoons may advance by bounds, leapfrogging each other.

c. Squads Marching Separately. (1) Each squad may be given the mission of providing antitank protection in a zone covering approximately one-third of the battalion zone of advance. If the battalion moves with two rifle companies abreast in its leading echelon, one squad may be assigned the mission of protecting each of the leading rifle companies. The remaining squad may be employed to supplement the antitank defense of the more vulnerable of the leading rifle companies, or held mobile in a central location prepared to move to the assistance of either company as the situation requires. If necessary, an additional gun (s) of the antitank company may be attached (see also a (3) above).

(2) The squad leader precedes his squad by a sufficient distance to perform reconnaissance similar to that of the platoon leader (see b (2) above). He selects tentative firing positions, unless these are designated by the platoon leader.

(3) When squads march separately, the platoon leader utilizes the members of his command group to assist in maintaining control. Necessary instructions for changes in the dispositions or conduct of the squads are transmitted by signals or messengers.

d. Employment of Prime Movers. Prime movers are employed to tow the gun and to carry the crew, ammunition, and accessories whenever the situation permits. At halts, each gun is placed in a cover position (uncoupled, when necessary) located near a tentative firing position. Squads must be in a state of readiness for action or resumption of movement at all times.

187. NIGHT APPROACH MARCH. For a night approach march, the battalion is generally divided into a foot echelon and a motor echelon. All vehicles in the battalion, except those required for command and security purposes, form the motor echelon, which is held in a concealed bivouac in the rear, and moves forward in time to reach the new assembly area shortly after the arrival of the foot elements. The antitank platoon usually moves with the motor echelon. It may move as a unit or be distributed in the motor column by squads. The platoon, or elements thereof, may form part of a motorized detachment sent ahead to block possible avenues of tank approach which threaten the foot echelon of the battalion. It may also form part of a motorized detachment sent ahead to block possible talion assembly area or other march objective. (See par. 107.)

188. ASSEMBLY AREA. ***a.*** At times, the regiment may enter the attack directly from the approach march. Whenever practicable, however, it interrupts its approach march to occupy assembly area (s), preliminary to deployment for attack, under protection of a covering force established by higher headquarters or of a regimental outpost. If the battalion has been the advance guard, or the leading battalion of the main body during the approach march, it ordinarily establishes the regimental outpost. For employment of the battalion antitank platoon, see paragraph 108.

b. When the battalion occupies an assembly area which is protected by an outpost established by higher authority, the antitank platoon leader will usually be directed to occupy one or more firing position areas and provide local antimechanized protection for the battalion. These orders will ordinarily be received in time for the platoon to move directly from the approach

march to its firing position area (s) without halting. The designated firing position area (s) will frequently have been selected from a map only; the prompt selection and occupation of firing positions on the ground is the responsibility of the platoon leader.

SECTION II

EMPLOYMENT IN ATTACK

189. GENERAL. **a.** The battalion antitank platoon is employed primarily for the antimechanized protection of the front and flanks of the attacking echelon of the battalion. For deeper protection on the flanks, and to the rear, the battalion is frequently reinforced by a platoon of the antitank company. (See par. 48b.) At times, the platoon may also be employed on secondary missions of firing on point targets. (See par. 178b.)

b. The battalion commander will ordinarily designate an initial firing position area for the platoon or for each squad, from which it will protect the attacking echelon against armored attacks from specified directions or avenues of approach. The order will usually designate the location of at least the next firing position area (s), and the time at which the displacement is to be effected. The time is usually fixed by prescribing that displacement be made immediately upon capture by the attacking echelon of certain specified terrain features. The mission (s) to be accomplished in the new location are included. (See FM 7–20.)

c. When it is impossible to designate in advance the location of subsequent positions, the battalion commander may direct the platoon to continue its mission of protecting the attacking echelon, and leave the details

of execution to the platoon leader. As the attack progresses, the latter designates a new firing position area (s), and orders such changes in the employment of the platoon as changes in the situation and the terrain require.

d. Exceptionally, the battalion commander may attach the platoon or elements thereof to attacking rifle companies, or direct that the platoon or its elements follow and protect these companies. In such cases, the responsibility of the squad leader include those described in c above, so far as they pertain to a squad.

190. RECONNAISSANCE PRIOR TO ATTACK. a. When time permits, the platoon leader may be directed to accompany the battalion commander while the latter makes his reconnaissance, or he may be required to make a separate reconnaissance and submit recommendations to the battalion commander, prior to the issuance of the battalion attack order. Such recommendations include initial missions of the platoon.

b. Prior to leaving on reconnaissance, or when summoned to receive the battalion attack order, the platoon leader informs the platoon sergeant of his planned route and destination. The platoon leader is usually accompanied by the messenger. When a platoon of the regimental antitank company is attached, the platoon leaders should, if practicable, make their reconnaissance together.

c. During his reconnaissance preparatory to submitting recommendations to the battalion commander, the platoon leader seeks information concerning –

(1) Likely avenues of approach for hostile mechanized units.

(2) Location of enemy mine fields.

(3) Natural or artificial tank obstacles.

(4) General dispositions of friendly troops already in position in the battalion zone of action, the line (or

areas) of departure, units of the attacking echelon, and boundaries of the battalion zone of action.

(5) Cover positions for the squads.

(6) Primary and alternate firing positions (see par. 6) for the squads which will enable the platoon to cover the most likely avenues of hostile mechanized attack against the front and flanks of the attacking echelon of the battalion.

(7) Supplementary and alternate firing positions. When time is pressing, the selection of these positions may have to be deferred until after the platoon attack order has been issued and squads have occupied their firing position areas.

(8) A platoon observation post providing observation over the front and flanks of the battalion, and from which the platoon leader can observe all elements of the platoon or, if this is impracticable, one from which he can observe the most probable area for hostile tank attack.

(9) Uncoupling positions as far forward as concealment and defilade for the prime movers permit, and concealed or covered routes therefrom to firing or cover positions.

(10) Covered routes for forward displacement from the initial firing position area (s).

d. Frequently time will not permit reconnaissance by the platoon leader prior to receipt of the battalion commander's attack order. In such a case, the scope of the reconnaissance is similar to that described in c above, except that the platoon leader must select firing positions and sectors of responsibility for each squad which will permit fires to be executed in the principal direction (s) of fire assigned to the platoon in the battalion commander's order.

191. ORDER OF PLATOON LEADER. ***a.*** When practicable, the platoon leader issues his orders to squad

leaders at a point from which they can see the terrain over which they are to advance. Ground which is favorable for tank action, as well as existing tank obstacles, should be pointed out.

b. The platoon leader may direct that squads occupy temporary firing positions, and that the leaders report to him at the point where the order is to be issued, as soon as the guns are in their temporary positions. If time permits, he may direct that squad leaders go forward to receive the order while the squads are in the assembly area. In such a case, squad leaders, after receiving the order, return, or send a messenger, to guide the squads into their firing or cover positions.

c. The platoon leader's order covers—

(1) Necessary information of the enemy and friendly troops, to include—

(*a*) Types of enemy tanks operating in the vicinity.

(*b*) Locations of known or suspected enemy mine fields or mined road blocks; information as to passages and warning signs.

(*c*) Proposed movement and plan of action of friendly tanks operating in the vicinity, together with their identifying marks and signals.

(*d*) Challenge signal (if prescribed) to be used in requiring that tanks believed to be friendly identify themselves.

(*e*) Location of nearby antitank guns of other units, and of known mine fields and antitank obstacles.

(*f*) The following details of the battalion plan of action, so far as they affect the action of the squads:

1. Initial location, scheme of maneuver, and objective of rifle companies.

2. Location of battalion supporting weapons; prearranged fires of heavy weapons units and supporting artillery.

3. Location and mission (s) of supporting or attached elements of the antitank company.

(2) Mission (s) of the platoon.

(3) Instructions for each squad, to include—

(*a*) Location of cover, primary, and alternate positions, principal direction of fire, and sector of responsibility.

(*b*) Conditions governing opening of fire (see par. 102c).

(*c*) Locations of supplementary and alternate positions, and conditions under which they are to be occupied.

(*d*) Employment of rocket teams.

(*e*) Construction of emplacements; concealment and camouflage.

(*f*) Instructions which can be given at this time concerning displacement to more advanced firing position areas.

(*g*) Establishment of liaison with nearby units.

(4) Location of battalion ammunition supply points; location of battalion aid station.

(5) Location of platoon leader; location of battalion and platoon command posts and observation posts; any warning signals, or other pertinent details of the warning service, not covered in standing operating procedure; pertinent extracts from signal operation procedure, such as call names, prearranged message code, map coordinate code, and pyrotechnic signals.

192. OCCUPATION OF INITIAL FIRING POSITION AREA. ***a. General.*** The movement from the firing position area occupied to protect a battalion assembly area, to that occupied during the initial phase of the attack, must be so conducted as to provide uninterrupted protection to the attacking echelon of the battalion during its movement to its attack positions. This may require that the movement be conducted by bounds. If time permits, the platoon leader returns and leads the

platoon forward. Otherwise, it is moved forward either by means of prearranged signals or by a guide sent back by the platoon leader. In effecting this change of firing position areas, guns are moved by prime movers as close to cover or firing positions as the terrain and hostile fires permit. They are then uncoupled and the movement completed by hand.

b. Occupation of Primary Firing Positions. Upon arrival at the designated primary firing positions, each squad leader posts an air-antitank guard and initiates the construction of emplacements. The procedure is similar to that described for the antitank company platoon (see par. 111b).

193. ACTION AGAINST HOSTILE MECHANIZED ATTACK. ***a.*** For action of the platoon against hostile mechanized attack, see paragraphs 102 and 112.

b. For action of squads, see paragraph 145.

194. RECONNAISSANCE DURING ATTACK. ***a.*** Reconnaissance for new firing and cover positions, and covered routes thereto, is continuous throughout the attack. The platoon leader initiates this reconnaissance at the earliest practicable moment. An enemy who is on the defensive and possesses armored vehicles will ordinarily employ them in counterattacks to restore his position. Such counterattacks are most likely to occur immediately after the attacking echelon has captured a terrain objective masking the fire of antitank guns which have not displaced to that objective. If the battalion antitank platoon is to perform its mission of providing protection to the attaching echelon during this critical period, it must occupy new firing position areas on the objective at the earliest possible moment after the latter has been captured. Rapid movement to the objective will be possible only when routes have been reconnoitered in advance, and either marked or described to squad leaders in sufficient detail for ready identification.

Similarly, after the guns have reached the vicinity of the objective, rapid occupation of firing positions ordinarily is possible only when at least the approximate locations of suitable firing positions have been determined in advance.

b. Before leaving a firing position area on reconnaissance, the platoon leader issues fragmentary orders concerning displacement to his platoon sergeant and squad leaders. These orders are similar to those issued by the leader of an antitank platoon of the antitank company on a similar mission. (See par. 113a and b.)

c. The conduct of reconnaissance during the attack is similar to that of the platoon leader of the antitank platoon of the antitank company. (See par. 113c.) When an antitank platoon of the antitank company is supporting or attached to the battalion, this reconnaissance should, if practicable, be coordinated with the leader of that platoon.

195. PROTECTING REORGANIZATION OF BATTALION. When the battalion halts for reorganization following a successful assault, or at any other time during the attack, the platoon leader disposes his guns so as best to protect the front and flanks of the attacking echelon of the battalion. He directs any necessary reorganization of the platoon, and arranges for replenishment of ammunition.

196. REORGANIZATION OF ANTITANK PLATOON. Whenever a leader or other key man becomes a casualty, he is promptly replaced. During a fire fight, guns whose crews have been seriously depleted by casualties are kept in action by temporary readjustment of duties among the other members of the platoon. Complete reorganization usually is postponed until the final objective has been reached. The platoon leader then equalizes strength

by reallocation of men among the squads. If squads are seriously depleted, he requests the battalion commander or nearest company commander to detail riflemen as replacements. During reorganization, platoon and squad leaders insure that their units are in a state of continual readiness for immediate action.

197. PURSUIT. During pursuit of an enemy, the antitank platoon is usually sent forward in close support of the leading elements of the battalion. The platoon advances by bounds to cover likely avenues of approach for hostile armored vehicles. (See par. 117.)

198. EMPLOYMENT AT NIGHT. ***a.*** If an attack is interrupted by darkness, the platoon leader promptly disposes the platoon to cover the most favorable routes of approach for armored vehicles leading into the battalion position, and contacts the battalion commander for further instructions.

b. For conduct of a night movement preparatory to a daylight attack by the battalion, and employment in a night attack, see paragraph 118.

SECTION III

SPECIAL OPERATIONS

199. ATTACK IN WOODS. ***a.*** For the general principles governing the employment and conduct of an infantry battalion during an attack in woods, see FM 7–20.

b. The attack against the near edge of a woods is frequently made under cover of smoke or darkness; the battalion antitank platoon is then employed in a manner

similar to that during a night attack. When the attack is made in daylight, the platoon protects the front and flanks of the attacking echelon of the battalion as in any other attack over open terrain.

c. During the advance through the woods, the employment of the antitank platoon depends primarily on the density of the woods. In fairly open woods, one squad is usually directed to follow closely each flank of the attacking echelon, and provide protection against attacks from the front and flanks. When a platoon of the antitank company is attacked, flank guns may be reinforced with guns from this platoon. Where the woods are so dense that hostile tank attack is practicable only through such avenues of approach as roads or small clearings, guns are advanced by bounds to cover these approaches. If guns must be moved by hand, the attachment of additional personnel will be necessary.

d. The battalion is rapidly reorganized before reaching the far edge of the woods. It then continues its attack in a manner similar to that for an attack over other open terrain. During the reorganization and the initial phase of the subsequent attack, the firing positions of the guns should be located as far within the edge of the woods as is practicable, since the edge is a favorable target for hostile artillery. Firing lanes may be hastily prepared if time permits. All guns should be displaced to new positions outside the woods as soon as practicable.

e. For further details, see paragraph 62.

200. ATTACK OF TOWNS. For a discussion of the attack of a battalion within a town, see FM 7–20. For employment of antitank weapons in the attack of towns, see paragraph 63.

201. ATTACK OF RIVER LINE. a. A battalion which is to force a crossing of a river defended by the enemy

usually makes its preparations in an initial assembly area located far enough from the river to be out of range of the hostile light artillery. It moves from this assembly area to a final assembly area near the river under cover of darkness. The actual crossing may be made at night, at dawn, or in full daylight. In the latter case, the crossing is usually made under the cover of smoke or fog. (See FM 7–20.)

b. When an attack by hostile armored forces on the near side of the river is possible, protection is usually provided by antitank units under the control of higher headquarters.

c. (1) While leading rifle units are assembling on the hostile shore and initiating their advance from the river, the antitank guns of a leading battalion are placed initially in firing positions on the near bank in order to provide antitank protection for the rifle units across the river. Such employment of the guns is ordered by the battalion commander whenever the river is narrow; when the leading rifle units are to cross just before dawn or during daylight, and when suitable firing positions are available. If the river line is strongly held by the enemy, these antitank guns may also be used to destroy hostile automatic weapons by direct fire. They open fire only when the crossing has been discovered.

(2) When not initially employed as described in (1) above, the platoon is held under cover near the river until crossing time.

(3) When antitank company guns are attached to a leading battalion, the battalion antitank platoon may be employed as a unit to provide protection on one part of the front and on one flank of the battalion, while the antitank company guns provide protection on the remainder of the front and on the other flank.

d. In order to afford subordinate leaders the maximum time for reconnaissance (preferably by daylight)

and planning, the battalion commander issues warning orders as soon as practicable. The attack order is usually issued in fragmentary form, and covers the movement from rear assembly areas on the near side, to the initial battalion objective on the far side of the river. The order should be specific, and as detailed as practicable. Orders for the antitank platoon should prescribe the platoon firing position area (or its final assembly area near the river, if the guns are to be held initially under cover); disposition of its motor transport, its missions prior to, and after crossing the river; the points on the near bank at which it will embark for the crossing; its landing points on the far bank; and the route and other details for the movement from the initial assembly area to its firing position area (or final assembly area). In the interest of secrecy, restrictions on reconnaissance are frequently imposed. At the initial objective, the battalion commander must usually issue additional orders for the continuation of the attack.

e. The platoon leader (accompanied by his squad leaders and such other key personnel as the battalion commander's instructions will permit) makes a thorough reconnaissance, marks the route from the point where the platoon will leave the battalion column, and marks all positions to be occupied. Before the platoon leaves the initial assembly area, the platoon leader issues orders which cover in detail the conduct of all subordinate elements, to include their initial firing positions and missions after reaching the far bank of the river. For contents of these orders, so far as applicable, see paragraph 64.

f. If the enemy possesses armored vehicles, antimechanized protection may become necessary at any time after the battalion reaches the far bank of the river. The platoon must therefore be moved across at the earliest practicable moment after the leading units have seized

and cleared the far bank. Engineer means, such as ponton rafts, may be made available sufficiently early to permit timely crossing by the platoon. Frequently, however, it will be necessary for the platoon to improvise means for ferrying its guns and vehicles, if it is to cross in time to perform its mission. The advance by the attacking echelon from the first objective must be well protected by antitank weapons. For a description of improvised means of effecting a river crossing, see appendix II.

202. ATTACK OF FORTIFIED POSITION. For a discussion of the employment of antitank units in the attack of a fortified position, see paragraph 65 and FM 7–20.

203. RAIDS. ***a.*** (1) Raids are classified as supported and unsupported. Supported raids may be made in daylight or darkness. They depend for protection on surprise and the fires of supporting weapons. Unsupported raids are conducted without the fires of supporting weapons, and depend primarily on surprise, and on darkness, fog, or smoke, for protection. (See FM 7–20.) (2) The battalion as a unit engages only in supported raids. Each plan must be devised to fit the existing terrain and situation. A simple plan, thoroughly understood by all the raiding troops, and thorough reconnaissance are essential. Subordinate commanders should make at least one night reconnaissance in addition to that made in daylight.

b. The battalion antitank platoon may be employed in support of raids, both to provide all around antimechanized protection to the raiding force, and to neutralize located point targets by direct fire. When the limitations of effective range prevent these missions from being accomplished from firing positions within the friendly front lines, it may be necessary to occupy posi-

tions in advance of the lines. Such positions should be within supporting distance of friendly troops. Displacement of guns and ammunition by hand may be necessary; when this is the case, the platoon leader should request the attachment of additional personnel to assist in such displacement. The attachment of riflemen for close-in protection will also often be required. During the withdrawal of the raiding force, the platoon usually operates as in a delaying action. (See par. 219.)

204. BEACHHEADS. **a.** In the establishment of a beachhead, prompt measures are taken to provide a strong and vigorous antimechanized defense. Mines are issued to the battalion antitank platoon prior to landing. Additional personnel may be attached to assist in movement of the guns by hand.

b. As in the attack of a river line, antitank guns should by landed as soon as the beach has been secured by the leading elements of the battalion.

c. Reconnaissance is immediately undertaken for likely avenues of hostile tank approach and for suitable firing positions for antitank guns and rocket teams. Antitank guns and rocket launchers may also be employed against point targets which are holding up the advance of foot troops.

d. Close coordination must be established promptly between antitank elements and the units which they support.

205. DESERT OPERATIONS. For a discussion of the employment of antitank units in desert operations, see paragraph 67.

206. MOUNTAIN OPERATIONS. For a discussion of the employment of antitank units in mountain warfare, see paragraph 69.

CHAPTER 3

DEFENSIVE COMBAT

SECTION I

EMPLOYMENT IN DEFENSE

207. GENERAL. a. Primary Mission. The primary mission of the antitank platoon of a front-line battalion is the antitank defense of the main line of resistance. (See FM 7–20.) The guns of the platoon are emplaced to cover, in conjunction with mines and other obstacles, the most likely avenues of hostile mechanized approach, and to fire effectively on each hostile tank before it can reach the main line of resistance. Positions which permit flanking fire on approaching tanks are most desirable. Positions near the first terrain feature in the rear of the main line of resistance should be selected, provided they permit the desired fire in front of the main line of resistance. Guns are emplaced within the forward platoon defense areas if fire support of the main line of resistance can be delivered only from such positions. The guns are emplaced so as to be mutually supporting. Thus, when a hostile tank attempts to overrun one gun position, it will be engaged in flank by another gun. (See fig. 12.) The guns of the regimental antitank company add depth

to the antitank defense of the battalion, and protection to the flanks and rear (see par. 72).

b. Support of General Outpost. When a battalion is assigned to the general outpost, the antitank platoon will be assigned the mission of covering roads or other likely avenues of approach for armored vehicles. (See FM 7–20.) If the outpost order prescribes that the area will be held for a specified time, or until other further orders, the platoon occupies and organizes its firing position in a manner similar to that described in paragraph 127 for a platoon of the antitank company. Prime movers are held close to the gun positions.

c. Support of Combat Outpost. The platoon or elements thereof may be attached to the combat outpost of a defensive position. Employment is similar to that in the support of a general outpost. Upon withdrawal, the combat outpost usually withdraws directly to the battle position without occupying an intermediate position. The antitank guns withdraw directly to previously selected positions in the battalion defense area.

d. Employment of Antitank Platoon of Reserve Battalion. The antitank platoon of a battalion in regimental reserve may be assigned missions by the regimental commander. When the platoon remains under battalion control, its primary mission is the all around protection of the battalion assembly area. (See FM 7–20.) When the reserve battalion occupies a defensive position, its antitank platoon is disposed to limit the penetration of tanks beyond forward positions, protect the flanks and rear of the battalion, and, if fields of fire permit, supplement the fires of leading battalion antitank guns in protection of the main line of resistance.

208. RECONNAISSANCE AND FIRE PLAN. ***a.*** The antitank platoon leader receives his orders directly from the battalion commander, and is usually included in

the latter's reconnaissance party. He may be assigned independent antitank reconnaissance missions. He may be directed to report on natural obstacles in front of the position, and likely avenues of hostile mechanized approach, and to submit recommendations for the method of employment of the platoon, locations for mines and other obstacles, and any additional support required from the regimental antitank company.

b. The platoon leader formulates his fire plan and submits it to the battalion commander for approval, usually in the form of an overlay or sketch. Such an overlay or sketch should show the location of all nearby mine fields and other antitank obstacles, the sector of responsibility, principal direction of fire, and primary, supplementary, and alternate positions of each gun, and the primary and supplementary positions and principal directions of fire of nearby antitank guns and rocket teams of other units. It should also indicate the conditions established for the opening of fire, including designation of guns which are to engage hostile reconnaissance or decoy vehicles. The plan is revised and modified as necessary by the battalion commander. (See FM 7–20.)

209. RECONNAISSANCE PRIOR TO OCCUPATION OF POSITION. ***a.*** Upon receipt of the battalion order, the platoon leader makes such additional reconnaissance as is necessary to select cover positions and primary and alternate firing positions for each squad. He also selects supplementary and alternate firing positions, observation posts from which to observe the more important avenues of hostile tank approach, and covered routes of approach for the movement of the platoon into position. Supplementary positions should be near enough to primary firing positions for the guns to be moved thereto by hand.

b. If the defensive position is to be occupied during darkness, the selected positions and routes thereto should be reconnoitered and marked during daylight. If possible, the platoon leader issues his orders in time for squad leaders to make their reconnaissance; otherwise, he designates guides, and insures that they familiarize themselves with the routes and the selected positions.

c. When a platoon of the antitank company has been assigned a firing position area within the defense area of the battalion, the leader of the battalion antitank platoon furnishes him with any necessary data, and assists him in effecting necessary coordination. (See par. 124b.)

210. ORDERS. See paragraph 126, except that the orders of the platoon leader of the battalion antitank platoon cover the locations of the battalion ammunition supply point, the battalion aid station, and the battalion command post, rather than those of the corresponding installations used by the platoons of the antitank company.

211. OCCUPATION AND ORGANIZATION OF FIRING POSITIONS. Occupation and organization of firing positions are conducted as described for the antitank platoon, antitank company (see par. 127).

212. CONDUCT OF DEFENSE. During combat, the platoon leader takes position where he can best observe and control the action of his platoon. This position should permit of easy communication with the battalion commander. If the width of the platoon sector of responsibility is great, he may assign a portion to the platoon sergeant for supervision and control. For further details, see paragraph 128b.

213. ANTIAIRCRAFT SECURITY. For antiaircraft security, see paragraph 53.

214. LOCAL SECURITY. For local security, see paragraphs 15 and 16.

215. AMMUNITION SUPPLY. For ammunition supply, see paragraph 183.

216. SPECIAL OPERATIONS. For discussion of the employment of the battalion antitank platoon in defense in woods, of towns, of a river line, against airborne operations, in desert operations, and in mountain operations, see paragraphs 91–96.

SECTION II

RETROGRADE MOVEMENTS

217. NIGHT WITHDRAWAL. a. For the conduct of a night withdrawal by the battalion, see FM 7–20. The battalion commander may direct that one or more guns be left in position with the battalion covering force to cover avenues of approach suitable for use by mechanized forces at night. The platoon, less such guns as may be left with the covering force, is withdrawn with the battalion. Daylight reconnaissance of routes of withdrawal is initiated by the platoon leader. The platoon sergeant, assisted by other available personnel, may be used for such reconnaissance. The platoon leader usually remains with the platoon.

b. The forward limit of transportation is prescribed by the battalion commander. For a front-line battalion, this is usually not farther forward than the first terrain

feature in rear of the main line of resistance. Prime movers are ordered forward to positions as near the guns as this limit will permit.

c. The withdrawal is made quietly and without lights. Guns are moved by hand from the emplacements to the location of the prime movers. For the withdrawal from the coupling position to the battalion assembly area, elements of the platoon will usually be attached to the rifle companies in whose areas the guns are emplaced. Guides are posted to meet the squads as they withdraw and lead them to the prime movers. Guns may be dispatched and guided individually from the coupling position to the battalion assembly area, where, upon arrival, they are guided to the platoon assembly area. When all elements of the platoon have arrived in the assembly area, the platoon is reformed and prepared to move to the rear. Further action is conducted as for a night route march (see par. 184f).

d. Elements remaining with the battalion covering force withdraw under the control of the covering force commander, and rejoin the platoon as directed.

218. DAYLIGHT WITHDRAWAL. a. In the daylight withdrawal of a front-line battalion (see FM 7–20), the antitank platoon is used to protect it against pursuit by hostile tanks. Guns emplaced in the areas of front-line rifle units are attached to such units during the initial phase of the withdrawal. Upon reaching the location of the battalion reserve, these guns may be attached to the battalion covering force (battalion reserve) and operate directly under the commander of that unit, or they may be given a mission order to protect an exposed flank of the battalion. The platoon leader promptly dispatches available personnel, usually headed by the platoon sergeant, to reconnoiter and select firing positions from which to carry out the assigned mission and guide ele-

ments of the platoon to these positions. If the platoon is attached to the battalion covering force, the reconnaissance personnel contact the commander of that force for instructions prior to leaving on reconnaissance. The platoon leader regains control of elements attached to rifle companies as soon as they are released from such attachment. Vehicles are sent forward as far as practicable to permit prompt displacement of the guns. The battalion covering force withdraws under the protection of the regimental covering force. The antitank platoon is employed during further movement to the rear as in a route march (see par. 184e).

b. A reserve battalion usually acts as the covering force of a regiment or larger unit. It occupies a position from which it can stop, delay, or divert the advance of the enemy in order to permit the front-line battalions to disengage themselves, move to the rear, and assemble. Antitank guns must be prepared to move laterally to threatened areas. When the battalion withdraws, it executes a delaying action or acts as a rear guard; the conduct of the antitank platoon is as described for a delaying action (see par. 219a).

219. DELAYING ACTION. ***a. On One Position.*** The antimechanized protection of a battalion which is conducting a delaying action on one position is not materially different from that of a battalion occupying an organized position in sustained defense, except that the battalion may be extended over a frontage much greater than that ordinarily occupied. (See FM 7–20.)

b. On Successive Positions. (1) Upon arrival at the first delaying position, the platoon leader, in company with the battalion commander, or independently, as the latter may direct, reconnoiters for the disposition of his platoon, the location of mine fields, and the construction or improvement of other antitank obstacles. Upon com-

pletion of the reconnaissance, he submits his recommendations. In general, the dispositions recommended for the guns of the platoon will be similar to those for defense of an organized position (see pars. 209–212), except that firing positions should, if possible, be located near a topographic crest, with prime movers near the gun positions, and concealed behind the crest, in order to facilitate withdrawal. Firing is opened at long range at the earliest moment that promises effect against the type of hostile armored vehicle employed.

(2) Early reconnaissance of delaying positions in rear of the first position, and routes of withdrawal, must be initiated by the platoon leader. The platoon sergeant, accompanied by other available personnel, may be employed for this reconnaissance. Prompt reconnaissance and selection of supplementary positions to cover the flanks, and of covered routes thereto is essential.

(3) Vehicles are held as close to firing positions as is practicable. Ammunition is kept on vehicles; only a sufficient amount to meet estimated immediate needs is placed at gun positions. Fire is opened at maximum effective ranges. Withdrawals to rear positions are usually made by leapfrogging squads, so that part of the platoon is constantly ready to engage hostile armored elements.

APPENDIX I

INDIVIDUAL PROTECTION AND EMPLACEMENTS FOR ANTITANK WEAPONS

1. GENERAL. It must become a habit of all soldiers to seek individual protection when halted. When the halt is expected to be brief, troops take advantage of natural protection afforded by the terrain, such as ditches or holes in the ground. Whenever the situation becomes stabilized temporarily, they dig intrenchments for their individual protection and emplacements for the protection of their weapons. Intrenchments and weapon emplacements are located so as to cover a selected area with fire and, at the same time, provide maximum concealment and protection from air and ground observation and fire. In order to confuse the enemy, judicious use must be made of decoys or dummy positions.

2. CONSTRUCTION. ***a.*** Full advantage should be taken of all existing natural features. Many terrain features may be used in their natural state to provide concealment and protection from fire; frequently, a little labor can convert them into strong defensive positions.

b. Intrenchments and emplacements are usually laid out and constructed by the troops who are to utilize them.

c. As far as practicable, tasks are undertaken concurrently, so that the position will have progressive over-all defensive strength during its development.

3. FOX HOLES. *a. Use.* The fox hole is the intrenchment normally dug for individual protection when contact with the enemy is imminent or in progress. Fox holes provide excellent protection from small-arms fire, artillery shell fragments, airplane fire or bombing, and the crushing action of tanks. Fox holes at intermediate stages of construction afford limited protection, depending upon the depth to which the excavation has progressed. In some situations, where the need for rest is paramount, commanders may permit soldiers to cease excavation before full depth has been reached. For units within the battle position, fox holes are sited with the longer side generally parallel to the front; they are distributed around weapon emplacements to provide for all around defense. Troops remain in their fox holes only when an attack is imminent or in progress. The one-man and the two-man fox holes are basic types. Often both are employed in a given situation. If a choice of type is not made by higher authority, it is made by the squad leader.

b. One-man Fox Hole (see fig. 26). (1) Considerations affecting the size and shape of the fox hole are as follows:

(*a*) It is as small as practicable in order to present the minimum target to enemy fire.

(*b*) It is wide enough to accommodate the shoulders of a man sitting on the fire step.

(*c*) It is elongated to the extent necessary to permit the use of large size intrenching tools in digging it.

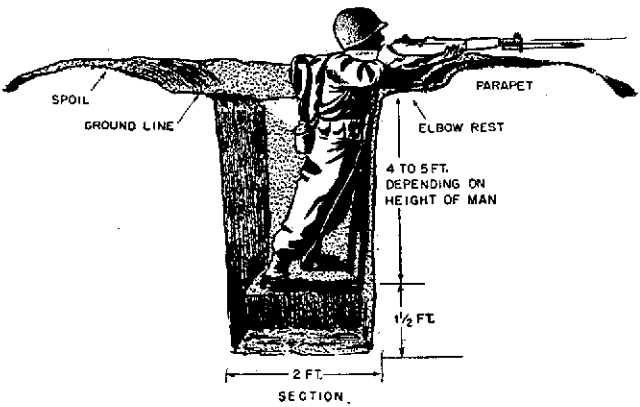
(*d*) Its depth from the surface of the ground to the fire steps depends upon the height of the man who is to occupy it, but under no circumstances is it less than 4 feet. It should permit him to fire his rifle or other weapons while standing on the fire step.

(*e*) Additional depth for a sump at one end provides for collecting water so that it may be bailed out and to

provide space for the occupant's feet so that he may sit comfortably and have adequate clearance. An additional benefit derived from the sump is that a soldier crouched in the fox hole with his feet in the sump is able to push himself up through debris thrown on top of him by the crushing action of a tank.

(2) In most types of soil the fox hole as thus constructed gives positive protection against the crushing action of tanks which pass directly over it in any direction, provided that the soldier crouches down in the hole so that there is a 2-foot clearance between him and the ground surface (see fig. 27). If the soil is very sandy or very soft, it may be necessary to revet the sides of fox holes to prevent caving. The spoil excavated from the fox hole is piled all around the hole as a parapet, leaving a shelf wide enough for the soldier to rest his elbows upon while firing his weapon. It should be spread low, so that the parapet is at least 3 feet thick, in order to provide protection against small-arms fire. An all around parapet made of the spoil excavated from the fox hole will be approximately ½ foot high. If turf or topsoil is to be used to camouflage this parapet, the soldier must, before commencing to dig, skim off the topsoil over an area 10 feet square and set the material aside for later use. Upon completion of the fox hole, he places this camouflage material over the spoil in a manner to imitate the surrounding ground.

c. Fox Hole with Camouflage Cover. In some situations, it may be practicable for the soldier to remove the spoil entirely to an inconspicuous place and to improvise a camouflage cover for his fox hole. In this manner, a fox hole position may be rendered practically invisible from either aerial or ground observation (see fig. 28). This manner of camouflaging a fox hole position finds special application in defense against a mechanized attack supported by foot soldiers. Individual riflemen oc-



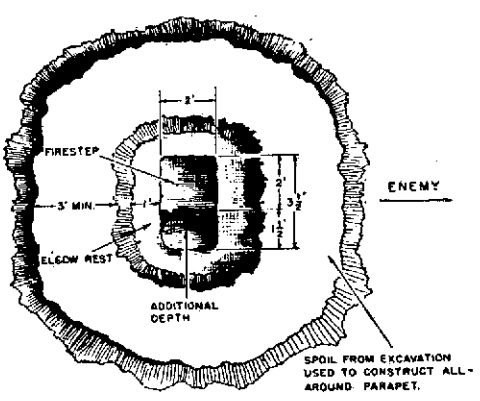


Figure 26. One-man fox hole.

cupying fox holes remain concealed until the tanks have overrun the position, whereupon they rise in the fox holes and combat the enemy foot soldiers following the tanks.

d. Two-man Fox Hole (see fig. 29). The two-man fox hole is essentially two one-man foxholes dug ad-

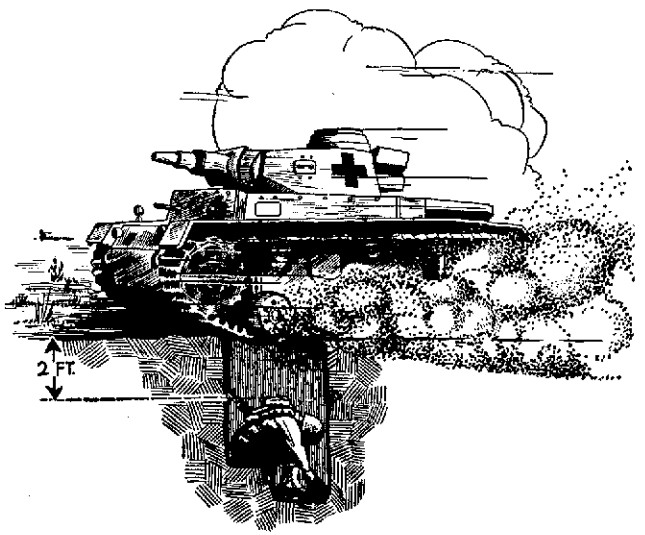


Figure 27. One-man fox hole affording protection against tanks.

jacently. It is used when the mission requires men to work in pairs, or when, for psychological reasons, battlefield comradeship is desirable. The two-man fox hole, in most types of soil, gives protection comparable to that afforded by the one-man fox hole, except that it provides somewhat less protection against the crushing action of a tank's treads applied longitudinally, and slightly less protection against airplane strafing and bombing and artillery shell fragments. Figure 38 shows a two-man fox hole revetted in soft or sandy soil.

4. OBSERVATION POSTS. When observers are located in exposed positions, they should be well protected and concealed.

a. Both the one-man and the two-man fox hole with camouflage cover, are suitable for use as observation posts.

b. The covered observation post (see fig. 30), although an excellent type, takes considerable time to build. The

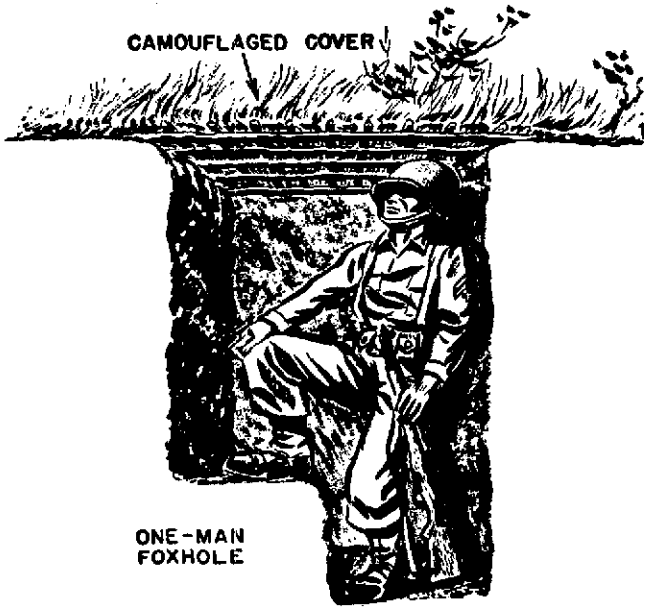


Figure 28. One-man fox hole with camouflage cover.

overhead cover provides splinter-proof protection only. It is valuable only when well concealed. It requires 21 cubic feet of excavation per foot of length or a total of 105 cubic feet per 5-foot section.

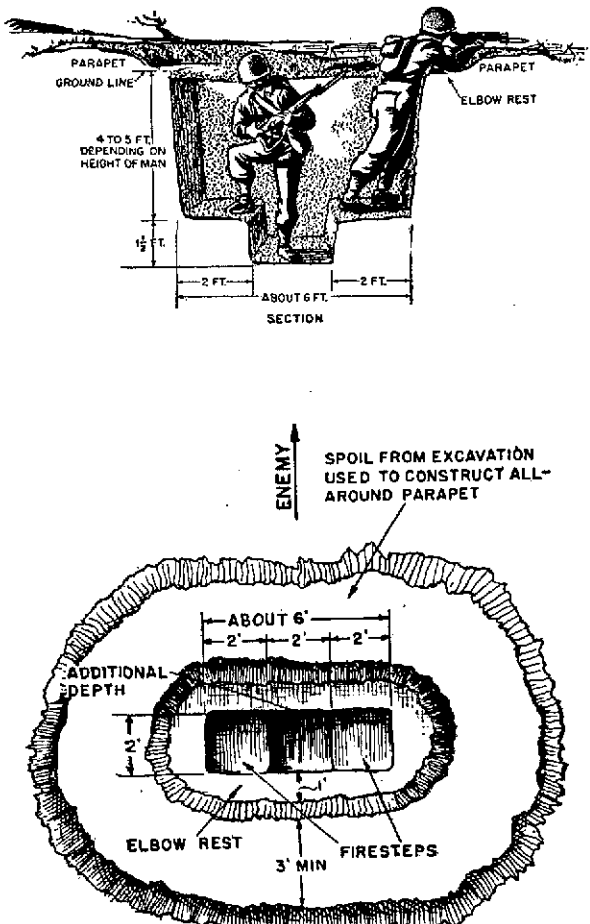


Figure 29. Two-man fox hole.

5. FAN TYPE EMPLACEMENT FOR 57-MM GUN. Figure 31 illustrates the fan type of emplacement for the 57-mm gun. It permits fire through an arc of approximately 110°. If desired, larger sectors of fire may be obtained by modifying the parapet accordingly. This, however, decreases the protection afforded the gun crew.

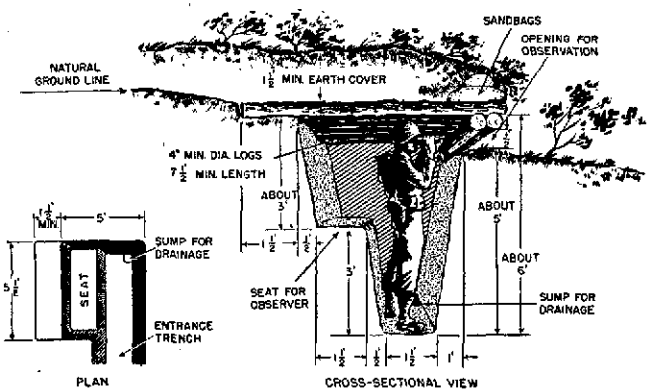


Figure 30. Covered observation post.

The ramp by which the gun is moved into and out of the emplacement is normally in the rear of the emplacement, but may be in the forward part if terrain conditions require. Fox holes for the gunner and the assistant gunner are dug within the emplacement. Additional fox holes for other members of the crew are dug in the immediate vicinity. The spoil is piled to both sides of the emplacement to form a parapet approximately 2½ feet high and 3 feet thick.

6. EMPLACEMENTS FOR ROCKET LAUNCHERS. There are two types of emplacement for the rocket launcher — the pit fox hole type and the pit type.

a. Pit Fox Hole Type (see fig. 32). This emplacement is a circular pit, 3 feet in diameter and about 3½ feet deep. It is large enough for two men. It permits the assistant rocketeer to rotate as the rocketeer traverses

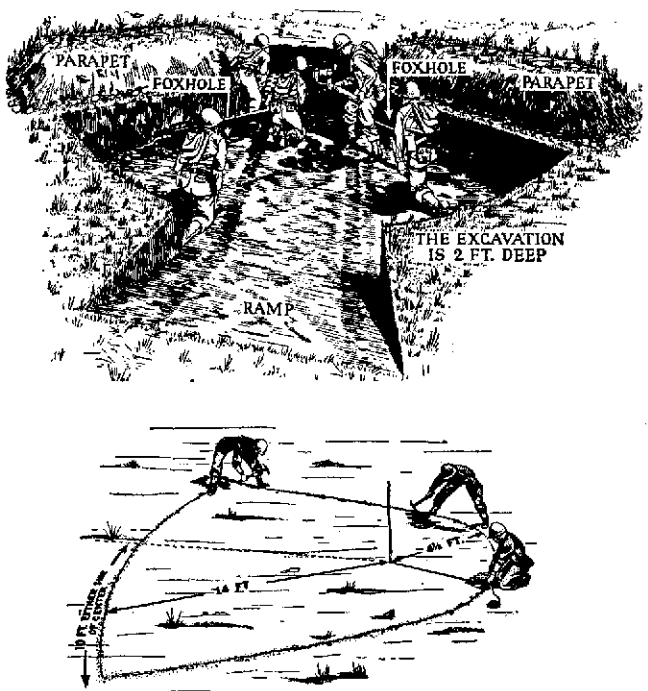
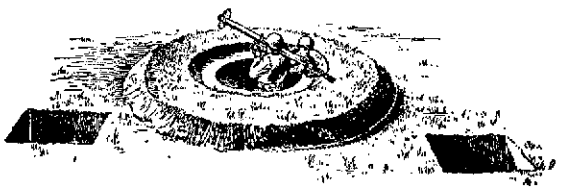


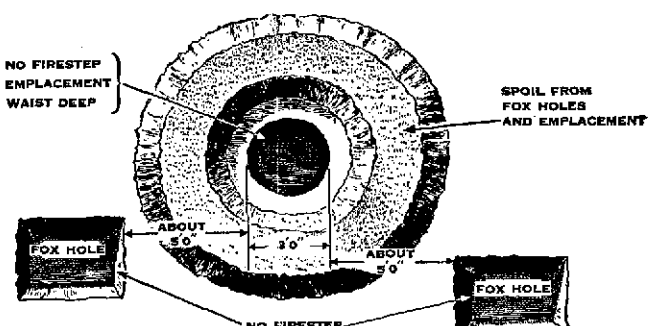
Figure 31. Fan type emplacement for 57-mm antitank gun.

the weapon in order that the former will never be in rear of the weapon when it is fired. Its depth is such that the rear end of the rocket launcher at maximum elevation in any direction will be clear of the parapet, in order that the back blast from the rocket will not be deflected into the emplacement and burn the occupants.

Except in firm soil, this requirement can be met only by an emplacement which is too shallow to give protection against the crushing action of tanks; in such a case, fox holes for the rocketeer and assistant rocketeer are dug



PERSPECTIVE VIEW



PLAN

Figure 32. Pit fox-hole type emplacement for rocket launcher.

nearby. *As the antitank mission of the rocket launcher requires that it be kept in action against hostile tanks until the last possible moment, these fox holes will be occupied only as a last resort when a tank is about to overrun the emplacement.*

b. Pit Type (see fig. 33). In firm soil, the circular pit of the pit fox hole type emplacement (fig. 32) can be enlarged from 3 to 4 feet in diameter, with an additional circular pit 2 feet deep and 2 feet in diameter excavated

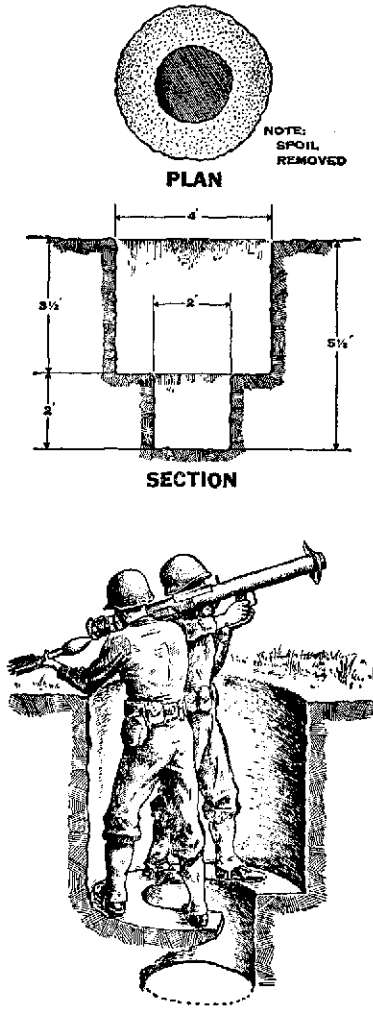
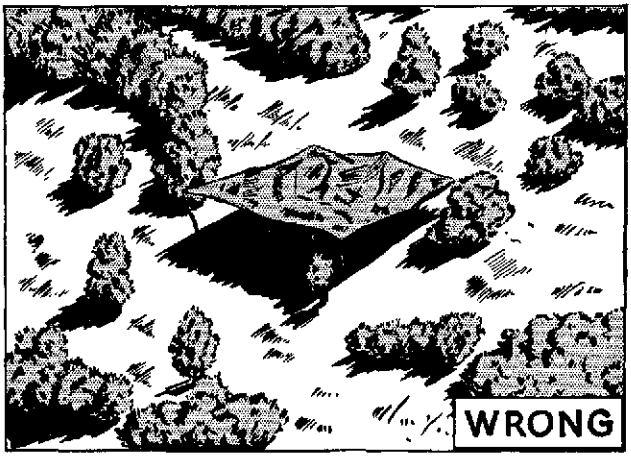


Figure 33. Pit type emplacement for rocket launcher.

in the center. This provides a circular fire step 1 foot wide and about 3½ feet below the surface. When tanks appear about to overrun the position, the rocketeer and assistant rocketeer crouch down into the lower pit. When the tanks have passed, the rocket launcher is quickly returned to action.

7. CONCEALMENT AND CAMOUFLAGE. **a.** Concealment and camouflage are of prime importance in constructing defensive works. Measures for concealment from aerial observation must be planned from the beginning and carried on continuously throughout the work. Over both the area to be excavated and that on which soil is to be piled to form a parapet, all turf, sod, leaves, or forest humus are removed carefully, set aside, and replaced over the soil when finally completed. The table in paragraph 11 shows the area to be camouflaged in the construction of each type of intrenchment described in this appendix.

b. In order to prevent discovery of the work during the process of excavation, camouflage nets should be suspended from stakes or trees before any excavation is undertaken. Excavation should be confined to the area beneath the camouflage net. The net is suspended at such a height above the ground as to permit the workers to excavate the emplacement without snagging equipment or intrenching tools on the net. After the excavation has been completed and the spoil covered with sod or other natural camouflage material, the net should be lowered close to the ground so as to be inconspicuous from ground observation. Nets are kept in position to conceal the emplacement when the weapon is not being fired. Arrangements must be made to lift or withdraw the camouflage net during action in order not to interfere with firing. In the figures showing construction of fox holes and emplacements, camouflage nets have been



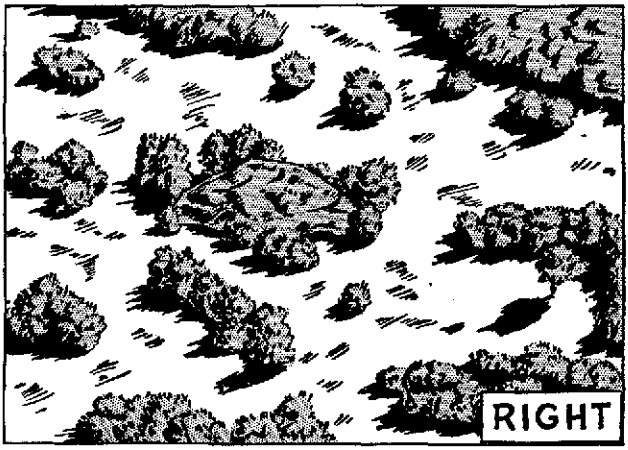


Figure 34. Gun covered by camouflage net. Unless net is properly garnished, or its edges drawn down, it may throw a strong shadow easily distinguishable from the air.

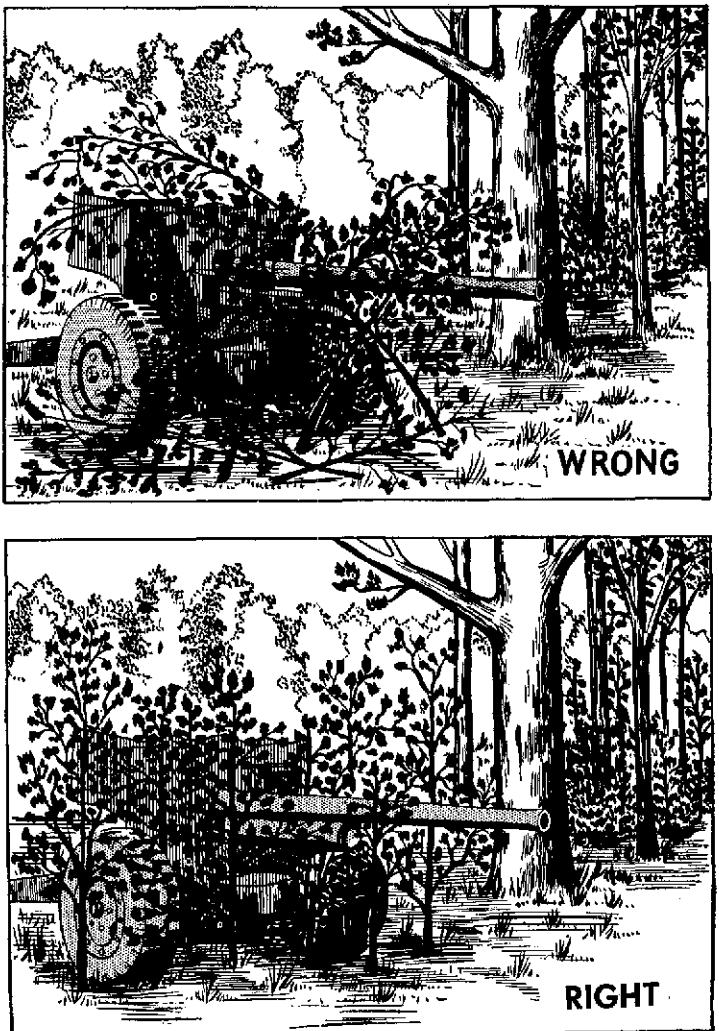


Figure 35. Use of camouflage. Unnatural camouflage betrays, rather than protects, a position. Material used should blend readily with the surroundings.

omitted, and the effect of natural camouflage materials subordinated in order to permit the details of construction to be easily seen.

c. Personnel, weapons, and equipment are camouflaged whenever this will assist in concealing them from the enemy, or misleading him as to their true nature. For detailed discussions of camouflage, see FM 5–20 and TM 5–267.

8. DISPOSAL OF SPOIL. The concealment of excavation is facilitated by the complete removal of spoil from the site, if this is practicable. When this is done, the excavation must be made somewhat deeper in order to obtain the same protection that is given when the spoil is used to construct a parapet. In disposing of spoil, care must be taken not to create paths or vehicle tracks which might disclose the position; the spoil must be dumped in inconspicuous locations such as along natural drainage ditches, or along hedge rows, and at the base of trees.

9. DRAINAGE. Provision must be made for taking care of rain water, surface drainage, and seepage. In general, a shallow ditch a few inches deep around the excavation will carry off surface water. Water which falls into an excavation or seeps in through the ground must be removed by bailing.

10. REVETMENT. Revetment may be necessary in soft or sandy soil to prevent caving. It may consist of lumber, wire netting, small branches, brush, sandbags filled with earth, or other available materials (see fig. 38). The dimensions of the excavation will have to be modified slightly to provide for the space occupied by the revetment.

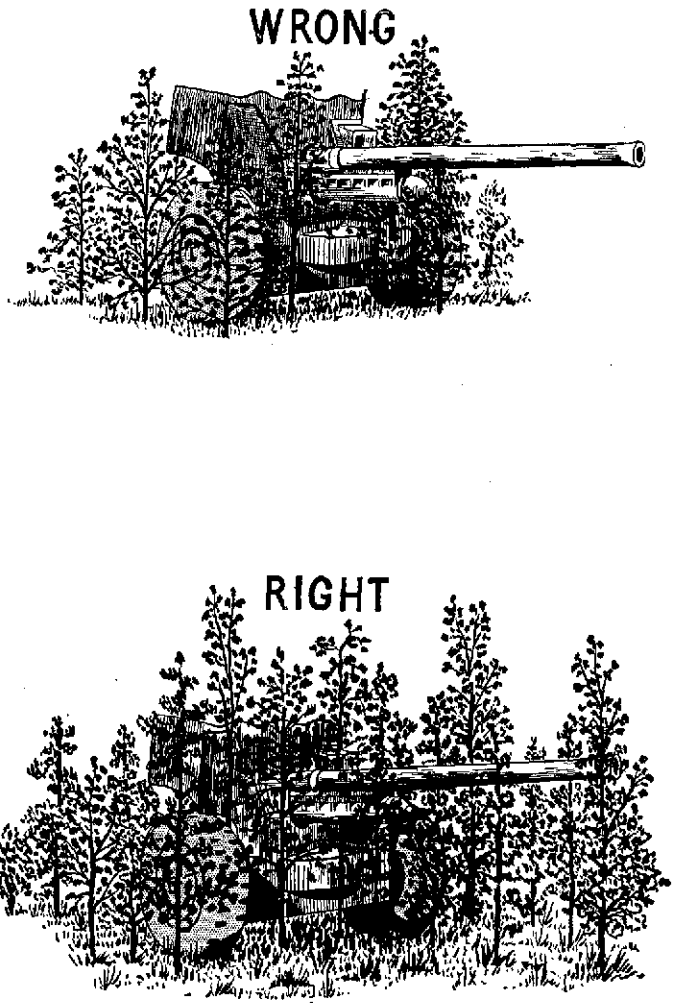


Figure 36. Use of camouflage. Good camouflage breaks the outline of the gun and shield. When the outline is broken, concealment is facilitated in relatively open terrain.

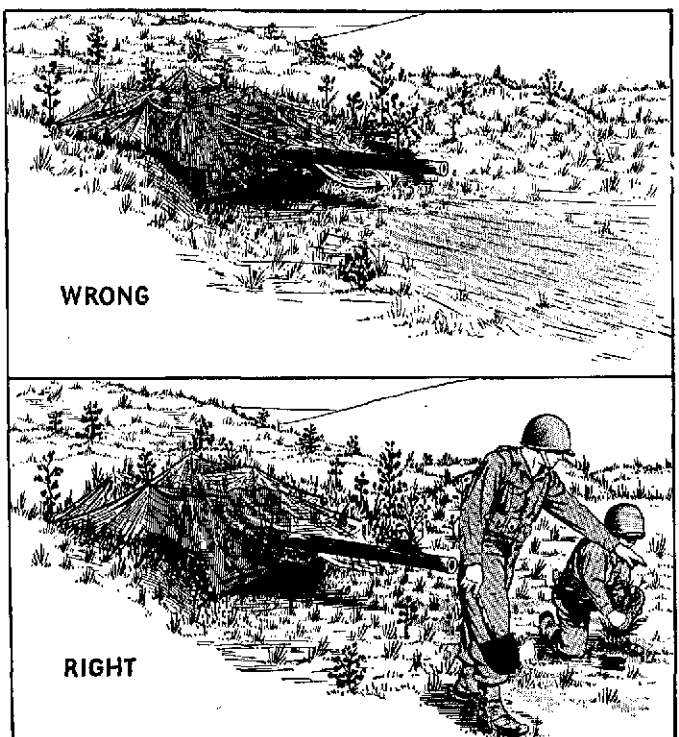


Figure 37. Removing blast marks. Blast marks will disclose to air observation an otherwise carefully camouflaged gun. They should be removed and the natural appearance of the ground restored whenever opportunity arises.

11. ESTIMATES OF EXCAVATION. The table below gives estimates of the quantity of excavation and the man-hours required to construct the emplacements de-

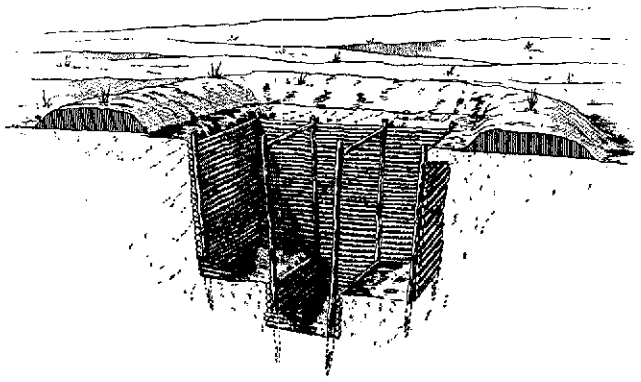


Figure 38. Revetment of two-man fox hole.

scribed in this appendix. The over-all dimensions of the area which must be camouflaged in order to conceal each type of intrenchment should be especially noted.

TABLE

Weapon	Type of emplacement	Area to be camouflaged (feet)	Excavation (cubic feet)	Man-hours to construct in medium soil
Rifle	Fox hole..	10 by 10..	37	1½
Rocket launcher	Pit fox hole.	10 by 10..	25 without fox holes.	1
			87 with fox holes.	4½
	Pit	5 by 5..	50	3
57-mm AT gun.	Fan	24 by 39..	410	21

APPENDIX II

STREAM CROSSING EXPEDIENTS FOR ANTITANK GUNS AND VEHICLES

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1. GENERAL. It is frequently of vital tactical importance to furnish antitank protection on the far bank of an unfordable stream when no bridges are available, and before engineer troops can establish bridges or vehicular ferries. The expedients described herein may be employed in such a situation.

2. FLOTATION OF 57-MM ANTITANK GUNS—GENTLY SLOPING BANKS (see fig. 39). ***a.*** If both stream banks are gently sloping, the 57-mm gun can be floated and towed across a stream by the use of brush rafts. The procedure is as follows:

(1) The canvas cover of a 1½-ton truck is used for each of two large rafts. The canvas cover of a ¾-ton truck is used for each of two small rafts. Brush bundles are built of sufficient size so that, when laid side by side in the center of the canvas, the canvas will extend beyond them about 18 inches on all four sides. The sides and ends of the canvas are raised in order to form side walls, and are secured by tie ropes. The walls of the canvas should be as nearly vertical as possible.

(2) It is desirable to tie the brush in separate bundles of convenient size for movement by one man, before placing on the canvas. To build such a bundle, the following steps are taken: stakes are driven into the ground

to outline the desired size of the brush bundle. Either green or dry brush is piled between the stakes and bound with rope, marline or old telephone wire. The ends of the brush are trimmed by cutting with a machete or

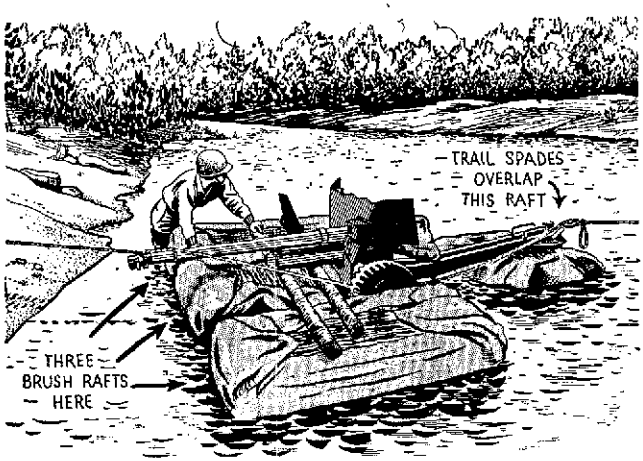


Figure 39. Flotation of 57-mm antitank gun on brush raft.

other cutting tool so as to provide a square end to the bundle.

(3) The gun is prepared for flotation by depressing the muzzle to horizontal and locking the trails. It is moved to the edge of the water by hand, trail leading, using sufficient personnel to control it with safety, and the trail placed on one of the smaller rafts, with spades extending beyond the raft. The gun is moved a short distance into the water, and a large brush raft placed beside each wheel. The other small brush raft is placed under the barrel and recoil cylinder of the gun. Two poles, 6 inches in diameter, and about 12 feet long, are placed beneath the recoil cylinder of the gun. The ends of the poles should rest on the brush rafts beside the wheels,

and the centers on the small brush raft under the recoil cylinder. When the entire raft is floated, it is towed across the stream. A winch truck crossed early in the operation may be used, or the raft may be towed by hand. (See par. 4 of this apendix.) When the water at

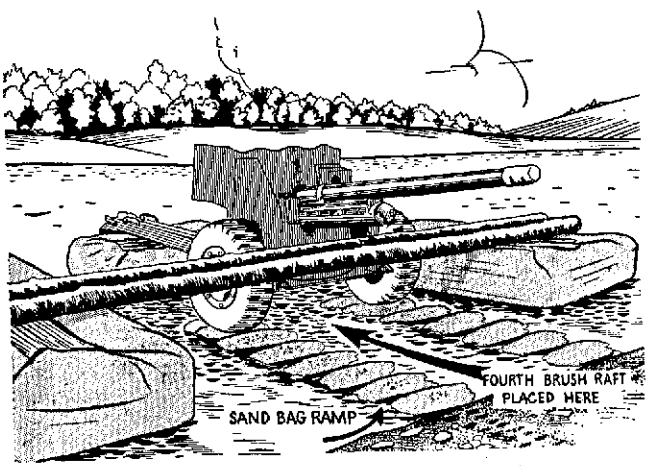


Figure 40. Method of placing gun on raft by use of sandbag ramp.

the stream's edge is not deep enough to allow the rafts to be inserted under the pole supporting the recoil cylinder, it may be necessary to construct a temporary sandbag ramp. Running the gun out over this ramp will allow the rafts to be placed beneath the poles. (See fig. 40.) In the figure, the large rafts are shown at a distance from the wheels in order to illustrate the method of placing the various items. In actual use, they are placed close to the wheels, as shown in figure 39. In using rafts, care must be exercised to insure that the brush runs parallel with the barrel of the gun (perpendicular to the supporting poles).

b. If available, rubber boats of the five-man reconnaissance type are used instead of the two small rafts. Otherwise, the arrangement is similar to the above method. Somewhat higher flotation is thus provided.

c. Ammunition and personnel must be separately crossed, utilizating brush rafts or boats, if available.

3. FLOTATION OF ¼-TON TRUCKS—GENTLY SLOPING BANKS. If both stream banks are gently sloping, a ¼-ton truck with three men and its normal load of ammunition and equipment can be floated across the stream by the use of four small brush rafts employing the canvas covers of ¾-ton or 1½-ton trucks. (See fig. 41.) Two poles, each 16 or 18 feet long, are cut. One is securely fastened with wire or rope to the front bumper of the truck so that it projects approximately equally on each side; the other is similarly fastened to the rear bumper. Two brush rafts are spotted in the water so that the truck can be driven between them. The fan belt of the truck is disconnected to avoid flooding the motor with water. The truck is then moved under its own power until the front pole rests on the center of the rafts. This will float the front end of the truck. It is then moved, under its own power, still farther into the stream until the other two brush rafts can be placed in like manner under the ends of the pole fastened to the rear bumper. If the banks shelve so rapidly as to make the above method impracticable, the brush rafts may be lashed to the ends of the saplings before the vehicle is moved into the water. With the entire load floating, the truck is towed across the stream by one of the methods described for the gun. (See par. 2 of this appendix.) On arrival at the opposite bank, the brush rafts are removed from the front end of the vehicle and the truck is pulled out of the stream or run out under

its own power. The poles are then removed and placed on the rafts and returned to the near shore.

4. FLOTATION OF ¾-TON TRUCKS — GENTLY SLOPING BANKS. The ¾-ton truck can be ferried across a stream in a manner similar to that described

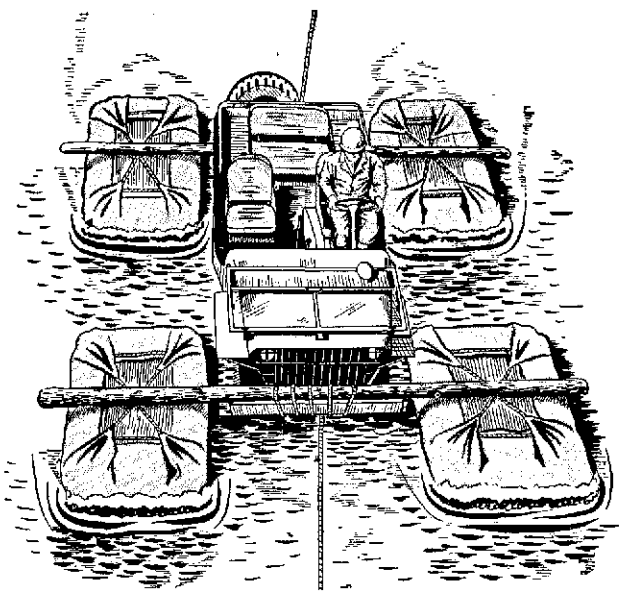


Figure 41. Flotation of ¼-ton truck on brush raft.

for the ¼-ton truck. Brush rafts employing canvas covers of 1½-ton or larger trucks are used, constructed as described for the flotation of the 57-mm antitank gun. The poles fastened to the front and rear bumpers of the truck must be somewhat longer than those used for the ¼-ton truck, and not less than 8 inches in diameter. The method of placing the brush rafts under the sap-

lings, and of propelling the truck across the stream, is similar to that described for the ¼-ton truck.

5. FLOTATION OF LARGER VEHICLES. Flotation by rafts of vehicles larger than the ¾-ton truck is usually impracticable. However, flotation of such vehicles, as well as ¾-ton trucks, may be effected by the employment of canvas tarpaulins. Although infantry units are not equipped with tarpaulins of suitable size for this purpose, large tarpaulins, 20 feet, 6 inches by 40 feet, are issued to each field artillery battalion in the division. These tarpaulins may be used to float trucks as follows:

a. A launching site is selected which provides access to the stream at a point where the drop-off is free from stumps, rocks, and roots, and deep enough under the center of a tarpaulin (placed as described in b below) to float the vehicle. Empty vehicles float with the water line approximately 6 inches below the top of the fender. It may be necessary to deepen the stream at the launching and beaching points.

b. The tarpaulin is spread at the water's edge and dragged over the water with a few feet of one end resting on the bank. (See fig. 42.) Men should be stationed about every 3 feet around the tarpaulin to hold the edges out of the water.

c. A piece of canvas or a folded truck cover should be stretched underneath the truck from bumper to bumper to prevent **U**-bolts, spring shackles, and other sharp projections from tearing the tarpaulin.

d. Except with an extremely sharp drop-off, the truck should be driven onto the canvas front end first, using rear drive only. Men hold the sides and end of the tarpaulin out of the water as the truck is driven onto it. After the front wheels are afloat and the rear wheels lose traction, the tarpaulin is folded about the vehicle; the corners are tied diagonally. The tie ropes along the

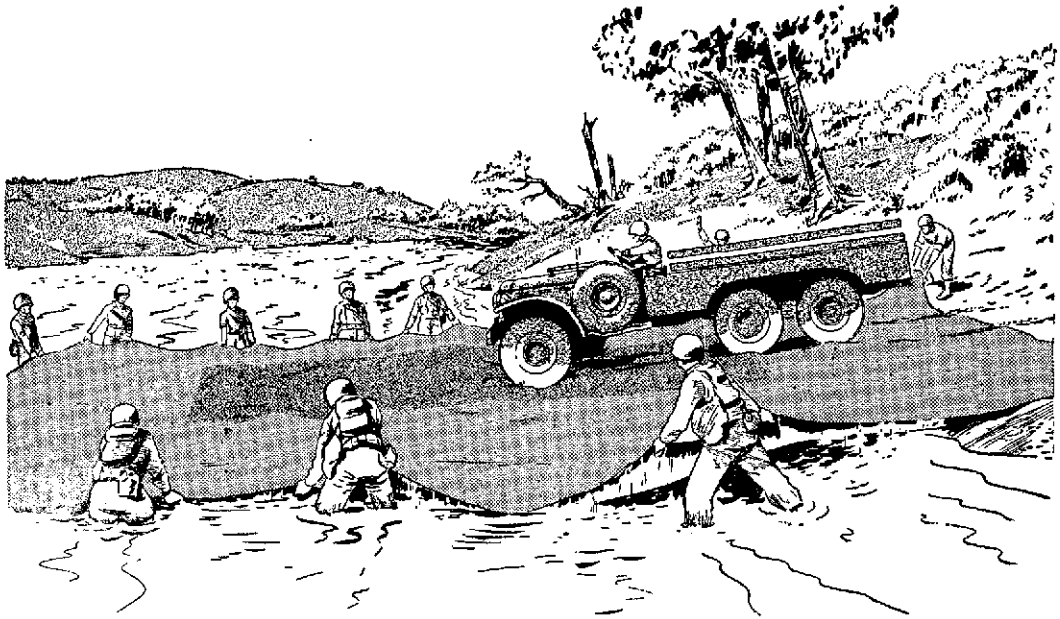


Figure 42. Flotation of 1½-ton truck by use of tarpaulin.

sides and ends of the tarpaulins are tied to convenient points of the body of the vehicle.

Caution: If the front wheel drive is engaged and the front wheels slip, there is danger of tearing the tarpaulin.

e. When wrapped in the tarpaulin, the truck can be pushed outward by the crew until it floats. The truck may then be towed across the stream by a truck winch or by hand.

f. Flotation of the ¼-ton truck in the cover of a 2½-ton truck may be effected in a manner similar to that described above.

6. USE OF AERIAL CABLEWAYS. ***a. General.*** When the banks of a stream are high and steep, it is impossible to launch or land heavy flotation equipment. For such streams and for ravines, up to widths of 200 feet, an aerial cableway may be used to make a crossing. Ordinarily, this is prepared by attached engineers or members of battalion ammunition and pioneer platoons.

b. Equipment. The following equipment will be required:

Two 2½- or 1½-ton winch trucks.
Four 8-inch steel snatch blocks suitable for use on winch truck cables.
300 feet ¾-inch manila rope.
Two towing chains from 2½- or 1½-ton trucks.

c. Selection of Site for Aerial Cable Crossing. The best type of site for an aerial cable crossing is one in which the loads can be taken from a high bank to a low bank, or between banks of equal height. To go from a low bank to a high bank is very difficult, and should not be attempted unless absolutely necessary. For a double-cable crossing, the site should have two large trees on each bank to support the cables; for a single-cable crossing, it should have one large tree on each bank. For a double-cable crossing, each pair of trees

should be located approximately 12 feet apart, and in such a place that the cables can be rigged directly in line with the winches on the trucks. The trees on the near bank should be not less than 30 feet and those on the far bank not less than 50 feet from the edge of the

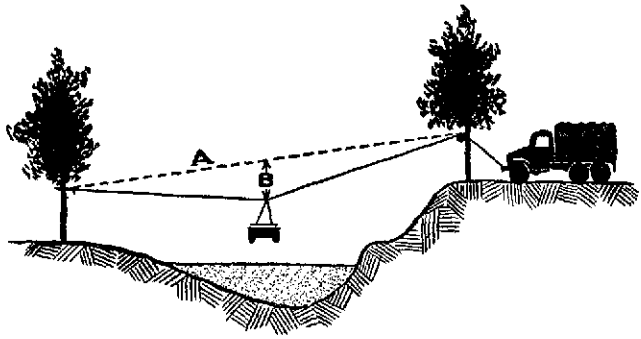


Figure 43. Method of measuring slack. Amount of slack, B, is measured at center of cable.

water. The farther away from the edge of the water the cables can be rigged on the far bank, the easier will be the crossing. In a crossing between banks of equal height, cable anchor trees should, if practicable, be located so that the point at which the load is landed is at the midpoint of the cables. This is an ideal condition, because the load will run by gravity to the center point, and if this center point is the point at which the equipment is to be landed, the crossing will be quickly effected and very easily controlled.

d. Safety Precaution. It is possible to overload the cables. For this reason, it is essential that they be properly rigged to keep the loads within their carrying capacity. To be sure that they are properly rigged to carry loads up to 2,750 pounds (the weight of the gun) in double-cable crossings, allow 5 feet of slack for every

100 feet of cable. Slack must always be measured at the mid-point of the cables. (See fig. 43.) Additional slack in the cables will decrease the load thereon, and increase the factor of safety for the crossing.

e. *Rigging.* (1) Drive the winch trucks into position so that their winch drums are in line with the cable-

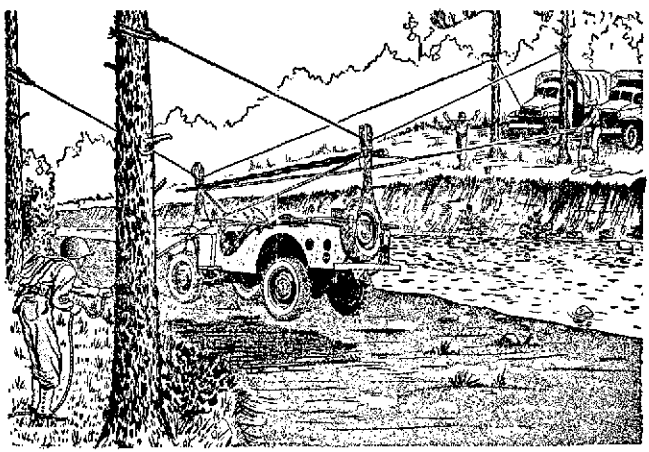


Figure 44. Aerial cableway showing movement of ¼-ton truck by double-cable crossing.

ways. Anchor both winch trucks firmly in place. Trucks can be anchored by butting them against trees, or by installing dead men or other suitable anchorages. For each cable, place a snatch block well up on the two trees on the bank of the stream where the trucks are located. These snatch blocks should be located high enough on the trees to allow for the slack required for the crossing. Place the cables through the snatch blocks, take them to the far bank and fasten them well up on the anchor trees which have been selected on that bank.

(2) To carry the ¼-ton truck place one snatch block on each cable. Take a pole 4 inches in diameter, 12 feet long, and notched near each end, and fasten one end to the hook of each snatch block. This is the spreader pole, and should be wired to the hooks at the notches in order

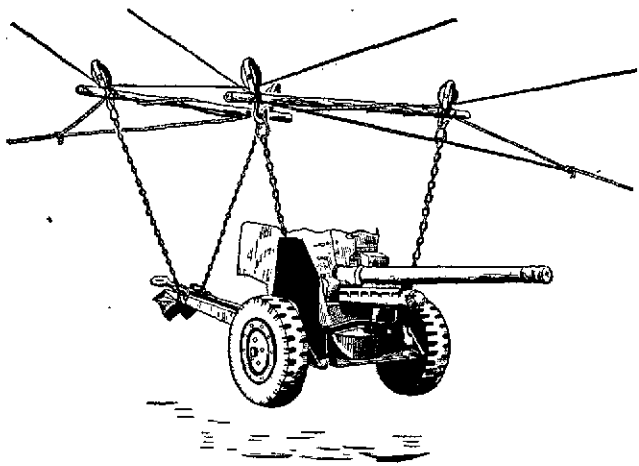


Figure 45. Aerial cableway showing movement of 57-mm antitank gun by double-cable crossing.

to keep the blocks from sliding together. (See fig. 44.) Fasten a hold-back line to the snatch blocks by tying the rope around them with a bridle. Fasten another rope in a similar manner and carry the free end to the far banks, where it is used to pull the load across the stream. A 57-mm gun, in which the weight is distributed unevenly, will require two pairs of snatch blocks and two spreaders. With this rigging the hold-back line is fastened to the near snatch blocks and the pulling rope is fastened to the far snatch blocks. (See fig. 45.)

***f.* Suspension.** Place the load beneath the cables between the trees and the edge of the stream. Rig this load to the snatch blocks, using the towing chain of the truck. (See fig. 44.) The load is picked up by tightening the two cables. When the winches are used to pick up loads as heavy as the ¼-ton truck, care must be taken to see that the winch trucks are operated together as a team, so that the load will be picked up uniformly and without jerking the cables. A sudden jerk may give an instantaneous overload which will be sufficient to break the cables. Make sure that the hold-back line is snubbed around a suitable snubbing post, such as the towing hooks of the winch trucks.

***g.* Crossing.** Release the hold-back line gradually, so that the load will cross the stream on the cables at a uniform rate of speed. In some installations, it will be necessary to continue to pick up the cables all during the crossing. This will be true when a crossing is made from a very high bank to a low bank.

***h.* Lowering.** When the load reaches the far bank, lower the cables to permit the load to reach the ground, then unhook the chains and return the snatch blocks to the starting point for additional loads.

***i.* Loads.** Suitable loads to be crossed on the aerial cable-ways are ¼-ton trucks and 57-mm guns. Lighter loads may be crossed by constructing a platform of logs and suspending it from the snatch blocks in the same manner as the ¼-ton trucks. Personnel, weapons, and other loads can be crossed by this means. Equipment available within the infantry regiment is inadequate for crossing loads as heavy as 1½-ton trucks. When such loads must be crossed, assistance from engineers will be necessary.

***j.* Rigging of Single-Cable Crossings.** Single-cable crossings are suitable for loads as heavy as 1,000 pounds, when rigged with the amount of slack specified for

double-cable crossings. For loads as heavy as the ¼-ton truck (2,500 pounds) and the 57-mm gun (2,750 pounds), a single-cable crossing requires a minimum of 10 feet of slack for every 100 feet of cable. Although the ¼-ton truck and 57-mm gun may thus be crossed on a single cable, it is recommended that the double-cable be employed. It will be the exception to find a site which will permit of sufficient slack for a single-cable crossing.

k. Cable and Winch Capacity. The above limits are for both double- and single-cable crossings based on a cable and winch capacity of 7,500 pounds. Care should be exercised that the cable is in good condition, and free from kinks or snarls.

APPENDIX III

GENERAL TRAINING

1. SCOPE OF TRAINING. All members of the antitank company are given basic training as infantry soldiers. To permit flexibility in assignment of personnel, thus insuring the ability of the company to carry out its missions in spite of casualties, all members of the company are trained in the operation of the gun, rocket launcher, and grenade launcher, in the technique of laying and removing antitank mines, in the identification of friendly and hostile armored vehicles, in the operation of the caliber .50 machine gun against air or ground emergency targets, and in the operation of organic motor vehicles.

2. TRAINING OF ANTITANK SQUADS. The antitank squad is the basic fire unit of the antitank platoon. The successful operation of the antitank gun against hostile armored vehicles is the goal toward which all training is directed. To achieve this goal, members of each squad receive intensive and diversified training. This includes—

a. Thorough knowledge by every man of the use and capabilities of the antitank gun and of all other weapons within the platoon.

b. Training each member of the gun crew in the duties of all other members (see FM 23–75), with emphasis on prompt and sound decisions on the following points:

(1) The time at which the gun should be moved from a cover position to a firing position to engage hostile armored vehicles.

(2) Positive recognition of hostile and friendly mechanized vehicles.

(3) The conditions which justify moving the gun into a supplementary position to engage a target which cannot be engaged from the primary firing position. Vehicles may be employed to represent hostile tanks. Varied situations should be presented, including those in which prompt decision to move into a supplementary position is necessary in order to engage tanks before they can reach cover. The maintenance of observation in the assigned principal direction of fire should be stressed. This training should be continued at frequent intervals to insure that the action of the squad will not be hampered by indecision on the part of the observer, irrespective of which member of the squad is acting in that capacity.

c. Constant practice in putting the gun into action, including moving from cover to firing positions, to supplementary and alternate positions over difficult terrain, and in shifting the trails to place fire quickly over widely separated areas. Training should be carried out with time as an important factor; as in b (3) above, it may be conducted by using vehicles to represent hostile tanks. These should simulate attacks in such a way as to require many short, quick movements of the gun to place fire in different areas, and presenting the squad with the most difficult situations to show clearly the penalties for failure to manhandle the gun properly and promptly.

d. Instruction covering conditions limiting the opening of fire, in order to prevent premature disclosure of the gun position. Instruction in enemy tank tactics in order that gun crews may detect feints, decoys, or dummy

tanks employed to cause antitank guns to open fire prematurely, thus disclosing their positions.

e. Thorough training in tracking and firing on moving targets.

f. Training in fire orders and fire control by the squad leader, and in keeping the gun in action, even though one or more members of the squad have become casualties.

g. Constant practice in rapid displacements.

h. Placing the gun in position under cover of darkness or smoke. This may be particularly applicable in open terrain, when nearby cover and concealment are limited, and a suitable natural cover position is not available.

i. Instruction in the operation of the rocket launcher. Each man should be trained to serve as both rocketeer and loader in the rocket team.

j. Evaluation of terrain for the selection of positions affording cover and concealment and good fields of fire.

k. Continuous emphasis on the importance of camouflage and camouflage discipline when in uncoupling, cover, and firing positions, including means of reducing the effects of muzzle blasts. (See figs. 26 to 29, incl.) Precautions must be taken against over-camouflage which tends to disclose the gun position to air observation, or prevents the gun, when in firing position, from going into instant action against ground targets.

l. Instruction concerning local security for the squad by the use of personnel, weapons, observation, and intrenchments.

m. Rigid physical conditioning to insure sufficient manhandling of the antitank gun, its accessories, and ammunition.

3. MINES AND BOOBY TRAPS. As members of the regiment, all individuals of the antitank company are trained in the basic mine and booby trap subjects pre-

scribed for all personnel of the regiment. (See a below.) As platoons of combat units of the regiment, all platoons of the antitank company are trained in the subjects prescribed for all platoons of regimental combat units. (See b below.) The antitank mine platoon of the antitank company is trained in the additional subjects prescribed for all ammunition and pioneer platoons and the antitank mine platoon. (See c below.) All leaders in the antitank mine platoon and selected leaders of the other platoons of the antitank company are given the detailed training prescribed for selected leaders in all platoons of the regiment. (See d (1) below.) All leaders of the antitank mine platoon are given the additional training prescribed for selected leaders of all ammunition and pioneer platoons and all leaders of the antitank mine platoon. (See d (2) below.) For methods and principles of training in the employment of mines and booby traps, see FM 5–30, TM 5–325, and TM 11–1122.

a. All Personnel. Precautions to be taken in the vicinity of mines and booby traps; use of the portable mine detector; locating mines by probing, and marking mines to be picked up later by a clearing party; method of removing mines and traps by the use of wire or ropes.

b. All Platoons. In addition to the training prescribed in a above, all platoons of the antitank company will be trained in technique of mine laying; passage of mine fields (to include the use of portable mine detectors, probing methods, and wire or ropes); initial road clearance.

c. Antitank Mine Platoon. In addition to the training prescribed in a and b above, the antitank mine platoon will be trained in methods of laying, marking, and registering mine fields (see fig. 23); recognition of all types of mines and booby traps used by friendly and enemy troops; technique of disarming, lifting, and des-

troying activated antitank and antipersonnel mines and booby traps of all types used by friendly and enemy troops; gapping extensive mine fields.

d. Training of Unit Leaders. (1) ALL PLATOONS. In addition to the training prescribed in a and b above, all officers and noncommissioned officers of the antitank mine platoon and selected officers and noncommissioned officers of all other platoons of the antitank company should receive extended and more detailed training in the technique of gapping mine fields to qualify them as leaders of mine field gapping details.

(2) ANTITANK MINE PLATOON. In addition to the training prescribed in a, b, and c above, the platoon leader and all noncommissioned officers of the antitank mine platoon will receive the following additional training to qualify them as leaders of lay-out, survey, and laying parties (elements of a detail charged with laying a hasty mine field), and as leaders of gap clearance parties for gapping extensive mine fields: tactical use of antitank mines; tactics of enemy mechanized attack so far as they influence the tactical use of mines; reconnaissance and evaluation of terrain for suitable location of antitank mine fields; sketching; surveying with compass (or aiming circle) and tape; preparation of reports of location of antitank mine fields; map and aerial photograph reading, with particular emphasis on the appearance of mine fields on aerial photographs; supply and transportation of antitank mines.

e. Concurrent Training. In addition to the training during periods provided for antitank mine training in training schedules, concurrent training in the use of antitank mines, the gapping of enemy mine fields, and precautions against booby traps should be incorporated in all other appropriate phases of unit training. Offensive phases should include the gapping of enemy mine fields, precaution against booby traps, and use of antitank

mines for protecting installations and in establishing road blocks. Defensive phases should include the laying of hasty mine fields, the protection of rear areas by mines, and the use of antitank mine road blocks.

f. Training of Instructors. To attain maximum efficiency of instruction, it is desirable that one or more selected officers or noncommissioned officers of each platoon be given thorough preliminary training in all of the phases of antitank mine and booby trap training which are to be included in the training of their respective platoons. This can best be given in division schools, under the supervision of the division engineer. If such schools are not available, regimental schools should be conducted under the supervision of the regimental antitank officer. Instruction in appropriate subjects should also be included in the curriculum of officers' and noncommissioned officers' schools.

4. COMMUNICATION TRAINING. ***a.*** The first sergeant, reconnaissance sergeant, transportation sergeant, bugler, and company and platoon messengers are trained in the following subjects:

(1) Panels (types and uses).
(2) Pyrotechnics.
(3) Use of radiotelephones, and radiotelephone procedure.
(4) Use of sound-powered telephones.
(5) Wire splices and ties.
(6) The communication sergeant, bugler, and messengers should receive such training in code practice as time permits.

b. The radio operators are trained in the installation, operation, and maintenance of the company radio set. They may receive this training with the regimental headquarters platoon. They are also trained in the use of radiotelephones and in radiotelephone procedure.

c. The supply sergeant is trained in the use of the radiotelephones and sound-powered telephones, and in radiotelephone procedure.

d. All members of gun squads are trained in the following:

(1) Use of sound-powered telephones.

(2) Wire splices and ties.

e. All personnel of the command group of the antitank mine platoon, as well as selected personnel of the antitank mine squads, are trained in the use of radiotelephones and radiotelephone procedure, sound-powered telephones, and visual signaling. Selected personnel within the platoon are trained as messengers.

5. MOTOR MAINTENANCE. The bugler, messengers, and truck drivers are trained in driving and in driver maintenance. The transportation sergeant and automobile mechanic are trained in company maintenance. (See par. 24, and AR 850–15.)

APPENDIX IV

DIRECTIVES FOR TACTICAL TRAINING OF ANTITANK COMPANY, INFANTRY REGIMENT

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1. GENERAL. ***a.*** The directives which follow are designed to assist the company commander of the antitank company and his subordinates in the preparation and execution of tactical exercises in which the company will participate with the regiment as a part of its field training. The directives are based on the tactics prescribed for the company in this manual and in FM 7–40. They are to be considered as guides only, and may be expanded or modified as local situations and the particular needs of individual units may warrant. However, an antitank company will not be considered as being fully trained until it has participated in exercises covering all phases of each type of operation outlined in these directives.

b. In addition to serving as guides for the tactical training of units, the directives cover essential points which should be included by higher commanders in testing the tactical efficiency of antitank companies.

2. PREPARATION AND CONDUCT. ***a.*** For a general discussion of the preparation of field exercises and field maneuvers, and for their control and conduct, see FM 21–5.

b. The company should be allowed to solve each exercise as its commander sees fit. The officer conducting the exercises should have in mind solutions to the various situations which will confront the company, but he should not force it, or any of its components, to follow his preconceived ideas as to what actions should be taken. Umpires may assess penalties or inject events which will cause the company or its components to act in a suitable manner should the need arise. However, these control measures must be logical and appropriate.

c. Unit umpires must strive to make the exercise as realistic as possible and to provide impressions similar to those actually experienced on the battlefield. For the duties, responsibilities, and conduct of umpires, see FM 105–5. Full use should be made of noncommissioned officers.

3. GENERAL PRINCIPLES. ***a.*** Ample time should be given each unit to solve its problems logically. Reconnaissances must be made, subordinate leaders assembled when necessary, and orders issued. Full use must be made of such concealment and cover as the terrain provides. If troops are rushed through preparatory measures and are permitted to move freely over terrain under hostile observation and assumed hostile fires, they will acquire unnatural impressions which later may bring disastrous results.

b. Throughout this series of directives it will be noted that the company commander, as regimental antitank officer, is required to submit recommendations for the antimechanized defense of the regiment. While this procedure may be followed in many instances, the company commander must realize that the regimental commander may direct his plans and training officer (S–3) to submit recommendations, or he may arrive at his decision inde-

pendently, without requiring the company commander to submit his recommendations. (See FM 7–40.)

4. CRITIQUE. For a discussion of the critique which is always a part of each field exercise, see FM 21–5. Critiques may be held at any stage of the exercise. However, it is usually best for the officer conducting the exercise and his assistants to make notes to be used at the termination of the exercise.

5. DIRECTIVES-ANTITANK COMPANY (see FM 7–20, 7–40, and 100–5).

a. Route March.

Scope

A problem involving the antitank company of a regiment during a route march in one column.

Situation to be drawn so as to require—

(1) Recommendations for the antimechanized protection of the regiment during the march.

(2) Employment and conduct of the company, in accordance with the regimental march order, during a march over varied terrain—

(*a*) Where occupation of successive positions along the route of march is practicable.

(*b*) Where such occupation is impracticable.

(3) Reconnaissance along the route of march.

Execution

The recommendations of the company commander, made prior to the start of the march, should include the attachment of elements of the company to security forces and the disposition and missions of that portion of the company held under his control. Recommendations should be such as to provide the maximum protection to the regiment in coordination with the antimechanized measures of the battalions and of adjacent and higher units.

The company commander's orders to the leaders of platoons held under his control should be clear and concise, and should, when practicable, direct the occupation by platoons of successive firing positions along the route of march. Otherwise, elements should be distributed in the column and coordinated with elements of the cannon platoons and the battalion anti-

Scope

(4) Security against air attacks and local attacks by small ground units.

(5) Communication and liaison.

Execution

tank platoons. Coordination involving employment of cannon company elements should be effected with the howitzer officer, through the regimental S–3.

When displacing by bounds to successive firing positions, the distance to the next position and the need for continuing protection at the old position determine whether the platoon should move as a unit or by squad echelon. In moving by squad echelon, one squad may displace forward, leaving two squads at the old position, or vice versa; or squads may displace successively, leapfrogging the squads remaining in position.

The company commander should employ his reconnaissance personnel, moving with the advance guard, to locate the most likely avenues of hostile tank approach, together with suitable firing positions and routes thereto, as well as locations for antitank mines. If a definite threat of hostile tank attack arises during the march, the company commander should recommend that antitank mines be laid in localities where they will serve to canalize or block such attack.

Air-antitank guards and rocket teams should be designated. Full advantage should be taken of available cover and concealment, both while in movement and while halted. Subordinate elements of the company should

Scope

b. Approach March.

Scope

A problem involving the antitank company in a daylight approach march by an interior regiment; protected to the front by covering forces which are inadequate to prevent mechanized attack.

Situation to open with the regiment marching in route column, with elements of the antitank company attached to the advance guard battalion. An oral regimental order is issued requiring the immediate development of the regiment for approach march. The order directs the advance guard (leading) battalion to advance on a broad front, relieves elements of the antitank company from attachment to the advance guard, and assigns to the antitank company

Execution

be constantly prepared to protect themselves with their individual weapons and organic machine guns in case of attack by aviation or small ground forces.

The company command group should march with the regimental command group; the company commander should be with the regimental commander or, when necessarily absent, should maintain contact with him through a liaison agent, usually the second-in-command. All available facilities should be utilized to maintain communication within the company and with higher headquarters.

Execution

Clear, concise orders to platoon leaders should prescribe the initial positions and methods of movement of all platoons, and should assign definite mission (s) to each antitank platoon. When an antitank platoon is assigned the mission of protection against attack from successive areas or likely avenues of approach, the time (or conditions) of release from each successive location, and a definite statement as to whether the platoon leader or the company commander is responsible for the reconnaissance of successive location, should be included in the initial or in subsequent orders.

When platoons are assigned to protect against attack from successive areas or likely avenues of

Scope

the mission of reinforcing the antimechanized protection of the leading battalion, and of protecting the flanks and rear of the regiment, during the march.

Situation to be drawn so as to require—

(1) Movement on an extended front with both flanks exposed to tank attack.

(2) Prompt issuance of orders by the company commander in accordance with the regimental development order.

(3) Employment and conduct of the company during the approach march.

(4) Reconnaissance of the zone of advance by antitank company personnel.

(5) Security against air attacks and local attacks by small ground units.

(6) Communication and liaison.

Execution

approach, displacement is effected as described in the preceding directive for route march.

The company commander should employ his platoons, and platoon leaders their squads, in such manner as to achieve maximum coordination with the activities of the battalion antitank platoons, and insure continuous all around protection.

The reconnaissance officer, with a reconnaissance detail, should accompany the leading rifle elements. He should locate and report tank obstacles, likely avenues of tank approach, obstacles to motor movement (and necessary detours), suitable firing positions, and suitable locations for antitank mines.

Assisted by available members of their command groups, platoon leaders should reconnoiter for favorable routes of advance, the best method of crossing or avoiding dangerously exposed areas, and possible uncoupling, cover, and firing positions. Similar reconnaissance should be made by squad leaders. Rocket teams should be designated. Platoon leaders should closely supervise the conduct of their squads, and promptly issue any necessary instructions for changes in their dispositions or conduct. Maximum use should be made of cover and concealment.

As successive firing position areas are occupied, air-antitank guards should be posted. Guns

Scope

Execution

may be kept coupled or may be uncoupled, depending on the terrain and the probability of mechanized attack. If uncoupled, guns should occupy cover positions when available; otherwise, they should move directly into firing positions. If guns are uncoupled, ammunition should be placed at the firing positions.

The same measures for security against attacks by aviation or small ground forces, and for maintenance of communication and liaison, should be taken as are prescribed in the preceding directive for route march.

c. Defense of Regimental Assembly Area.

Scope

A problem involving the antitank company in the daylight defense of a regimental assembly area. This problem is a continuation of the preceding directive.

Situation to be drawn so as to require—

(1) Recommendation by the company commander for the antimechanized defense of a regimental assembly area the location of which is announced during the approach march.

(2) Preparatory measures to expedite establishment of the antimechanized defense of the area.

(3) Occupation by platoons of the firing position areas assigned by the company commander.

Execution

When directed to submit recommendations, the company commander should make an immediate study of available maps, or aerial photographs, and of any available reconnaissance reports of the area. After coordination with the regimental howitzer officer, he should recommend the areas, or sectors, on the perimeter of the assembly area to be protected by battalion antitank guns, together with firing position areas and principal directions of fire for his own platoons and cannon company howitzers (if used) which will complete the defense provided by the antitank platoons and rocket teams of the battalions. He may recommend that any antitank guns and cannon company howitzers which are not required to be

Scope

(4) Inspection by the company commander to insure coordinated antimechanized defense of the area.

Execution

emplaced initially, be held mobile at a central location. He may recommend the laying of antitank mines if his knowledge of the situation and terrain is sufficient to warrant such action at this time.

Upon receiving the regimental commander's decision, the company commander should issue fragmentary orders directing antitank platoons to occupy specified firing position areas upon their arrival at the regimental assembly area, and assigning their principal directions of fire. If mines are to be laid, these should be issued to antitank platoons, or elements of the mine platoon attached to such platoons.

Each antitank platoon should proceed rapidly to its assigned firing position area as soon as it reaches the immediate vicinity of the regimental assembly area. The firing position area should be promptly reconnoitered, being divided between selected leaders if extensive. Air-antitank guards should be posted, cover positions occupied, and firing positions selected.

Upon completion of his reconnaissance, the platoon leader should meet squad leaders for the issuance of orders. Orders should be brief and definite, prescribing the firing position, principal direction of fire, sector of responsibility for each squad, and the employment of rocket

Scope

Execution

teams in the protection of the guns. Each antitank platoon leader should inspect his firing positions and make any necessary adjustments.

The company commander should promptly initiate an inspection of the antimechanized defense, employing his second-in-command to assist him. This inspection should determine—

(1) Whether all tank approaches to the area are adequately covered by observers, and by antitank guns, rocket teams, and cannon company howitzers.

(2) Whether changes in the locations or missions of any antitank guns, rocket teams, or cannon company howitzers are required to provide a coordinated and effective protection to the area.

(3) Whether additional mine fields should be laid or mined road blocks established.

Any changes in the dispositions of subordinate elements of the antitank company required for the proper carrying out of their assigned missions should be effected by the company commander at once. Immediately following his inspection, he should recommend to the regimental commander any changes required in the locations or missions of his own or battalion antitank platoons, in the employment of battalion rocket teams, or, after consultation with the howitzer officer, in the employ-

Scope

Execution

ment of cannon company howitzers necessary to provide effective antimechanized defense. If the situation is urgent, recommendations should be dispatched by messenger during the course of the inspection.

d. Protection of Night Advance to Line of Departure, Preparatory to Daylight Attack.

Scope

A problem involving the antitank company in protecting the advance of the regiment, at night, from an assembly area to the line of departure, preparatory to a daylight attack; the attack to be made by the regiment, as part of a larger force, against a hastily-intrenched enemy known to possess armored strength.

Situation to begin with the company disposed for defense of the assembly area. Situation to be based on regimental orders and to be drawn so as to require—

(1) Reconnaissance and recommendations of the company commander for the employment of all regimental antitank means to protect the night movement of the regiment and the initial phase of the attack.

(2) Establishment by the antitank company of antimechanized protection of the regiment during the night movement.

(3) Movements of elements of the antitank company to initial firing position areas.

(4) Reconnaissance by platoon

Execution

To protect the night movement of the regiment, the company commander should reconnoiter suitable locations for road blocks, mined and otherwise, and for firing positions from which guns will cover them, on all roads leading from the flanks into the regimental zone of action. The reconnaissance should also cover firing position areas and antitank mine field locations for the initial phase of the attack. Routes to firing positions and antitank mine field locations should be marked, and guides familiarized therewith. Whenever practicable, the company commander's recommendations should be submitted, and his orders issued, in time to permit subordinates to reconnoiter their positions in daylight.

The antitank company commander should insure coordination of all antitank means, conferring with battalion commanders or antitank officers, if necessary.

Road blocks for protection of the night movement should be established, and firing positions

Scope

leaders for the employment of their platoons.

(5) Orders of platoon leaders to execute missions assigned in the company order.

Execution

to cover them occupied by designated elements, after dark. All movements after dark should be made quietly and without lights; they should be completed without confusion or loss of time. Radio silence should be enforced. All mined road blocks or antitank mine fields should be guarded to prevent casualties among friendly troops or vehicles. Movements to initial firing position areas should be completed prior to daylight.

Platoon leaders, accompanied by their squad leaders, should reconnoiter assigned firing position areas both for the protection of the night movement and for the initial phase of the attack, including routes thereto. Routes should be marked. In addition, if time permits, guides should be posted.

The orders of platoon leaders should be clear and concise, and should assign definite missions. Each squad should be assigned a firing position covering a road block or mine field, or be directed to protect one or more elements of the attacking battalions. When firing positions and sectors of responsibility are assigned, they should be occupied after dark. Firing positions should be protected by designated rocket teams.

By questioning, platoon leaders should insure that all members of their platoons understand their duties. By inspection,

Scope

e. Daylight Attack.

Scope

A problem involving the antitank company in the antimechanized defense of a regiment during the initial stages of a daylight attack.

Situation to be drawn so as to require—

(1) At least one displacement by platoons to new positions, to include—

(*a*) Reconnaissance by platoon leaders to facilitate displacement to new positions.

(*b*) Displacement to provide continuous antitank protection to the attacking echelon, upon capture of a terrain mask.

(2) Gapping of hostile mine fields.

(3) Replenishment of ammunition.

(4) Reconnaissance and control by the company commander, assisted by his command group.

Execution

both en route and after occupation of initial firing positions for the attack, they should insure that all guns can perform their assigned missions, and so inform the company commander.

During the initial phase of the attack, platoon leaders should issue tentative instructions for displacement and other matters outlined in the next directive.

Execution

After issuing tentative instructions for displacement to squad leaders, leaders of platoons designated to protect leading battalions, accompanied by messengers, and assisted by the platoon sergeants if the squads are widely separated, should follow the attacking echelon closely and reconnoiter for the displacement of their platoons. Reconnaissance should cover the location of the attacking echelon, and nearby antitank weapons, likely hostile tank approaches, routes for displacement, firing and cover positions, and locations where trucks may be held under cover. Routes should be marked, or squad leaders informed of their location.

Displacement should be made rapidly, as soon as the first hostile terrain mask has been captured. Depending upon the need for maintaining protection at the initial position, displacement should be made by squad echelon—two squads displacing, with

Scope *Execution*

one squad in place, or vice versa —or by platoons as units, under the control either of platoon leaders or platoon sergeants. Squads should be met on nearing new firing position areas and guided into position. Preparations to repel mechanized counterattack should be completed without delay.

Platoons operating under mission orders should displace at the earliest practicable moment when the mission can no longer be accomplished from the positions occupied. The company commander should issue timely orders for displacement of platoons held under his immediate control.

The company commander should direct elements of the antitank mine platoon to assist in the gapping of hostile mine fields which delay the advance of front-line battalions. When extensive mine fields are encountered, he should designate gap clearance parties to be employed under the supervision of engineers, if the latter have been made available.

The company commander should provide personnel for the operation of the company ammunition supply point, require platoon leaders to keep him informed of the status of ammunition supply, and insure timely replenishment.

The reconnaissance personnel should closely follow the attack-

Scope

Execution

ing echelon, reconnoiter areas previously indicated by the company commander, and report the location of tank obstacles and likely avenues for hostile tank approach, and locations for antitank mine fields and covered routes thereto. Information pertinent to platoons should be promptly relayed to platoon leaders; reconnaissance personnel should, when appropriate, guide platoons to new locations. The company commander should retain control of his company by personal observation and timely orders, and by employing his command group; as the situation changes, he should promptly recommend any required changes in the disposition or missions of the elements of his company.

Communication between elements of the company and with the regimental command post should be maintained.

f. Reorganization and Continuation of Attack.

Scope

A problem involving the antitank company during a reorganization of the regiment and resumption of the attack.

Situation to be drawn so as to require—

(1) Selection and occupation of firing positions to protect the reorganization of the regiment.

(2) Reorganization of the company and replenishment of ammunition.

(3) Reconnaissance, orders, and

Execution

The company commander should promptly dispose his platoons to protect the reorganization of the regiment. He should recommend the laying of antitank mine fields when the situation and terrain warrant such action. These dispositions should be coordinated with those of the cannon company, battalion antitank platoons, and adjacent units, and should insure adequate protection for the flanks

Scope

occupation of firing positions to protect the regiment when the attack is resumed.

(4) Ammunition supply.

(5) Communication.

Execution

and rear of the regiment.

The company commander should replace casualties among his command group and platoon leaders, make any necessary adjustments of strength among platoons, and insure that ammunition is promptly replenished. Platoon leaders should direct the necessary reorganization of platoons, replace leaders or key men who have become casualties, and equalize the strength of squads, where necessary, by transfer among squads.

The company commander should initiate early reconnaissance for new firing position areas to protect the regiment when the attack is resumed. After securing the regimental commander's approval, he should issue the necessary orders and insure that movement is so conducted as to maintain continuous protection for the regiment.

Platoon leaders should promptly displace their guns so as to carry out their assigned missions. They should initiate an early reconnaissance for new firing positions from which to protect the attacking echelon when the attack is resumed, and should issue appropriate orders to platoons. Movement to new positions is made as directed. Platoon leaders are responsible that a sufficient amount of ammunition is available at gun positions for completion of fire missions.

g. Occupation of Regimental Sector of Battle Position in Daylight.

Scope

A problem involving the antitank company during the occupation of the regimental sector of a battle position, in daylight, by a regiment which is part of a larger force.

Situation to be drawn so as to require—

(1) The company commander's reconnaissance and recommendations for the antimechanized security of the regimental sector of the battle position, to include laying of antitank mine fields.

(2) Coordination of antimechanized security measures within the regimental sector and with those of adjacent and higher units.

(3) Issue of orders by the company commander.

(4) The platoon leaders' reconnaissance during movement to the battle position, and during its organization.

(5) Orders of platoon leaders, and dispositions of platoons.

(6) Construction of primary, supplementary, and alternate gun emplacements, in accordance with the regimental defense order. The regimental defense order prescribes the positions and missions of the platoons and the quantity of ammunition to be placed on the positions.

(7) Establishment of anti air-antimechanized warning system.

(8) Ammunition supply.

Execution

Following a reconnaissance of the regimental sector of the battle position, either independently or in company with the regimental commander as the latter may direct, the company commander should submit recommendations to the regimental commander covering—

(1) Locations for antitank mine fields, and construction or improvement of other antitank obstacles, natural or artificial.

(2) Employment of platoons, including any elements with an outpost established by the regiment, to provide all around antimechanized protection.

(3) Plans for the coordination of elements of the cannon company with antitank units in the antimechanized defense of the regiment.

The employment of all elements of the antitank company should be coordinated with battalion antimechanized plans, primarily for defense of the forward portion of the battle position, but with provisions for meeting attacks from flank or rear as well. Guns should be located so that their fires are coordinated with antitank mine fields and other obstacles, and with the dispositions of the cannon company, adjacent units, and any antitank elements of higher units reinforcing the antimechanized defense of the

Scope

Execution

regiment. Antitank mine fields may be laid by engineers, the antitank mine platoon, or by details from the troops occupying the position, assisted by the mine platoon. They should be covered by small-arms fire to prevent their removal by the enemy, and guarded and marked to prevent casualties to friendly personnel and vehicles. If practicable, all antitank obstacles should also be covered by the fire of antitank weapons.

Clear, concise, company orders, usually oral and frequently in fragmentary form, should be issued to platoon leaders in time to enable them to reconnoiter assigned firing position areas, make dispositions, and initiate without delay the work of emplacing guns. The company commander should inspect the area and supervise the carrying out of his orders.

Depending upon the assigned mission, platoon leaders promptly initiate reconnaissance for primary, supplementary, and alternate firing positions in forward battalion defense areas or in rear areas where their platoons are likely to be employed. Reconnaissance of supplementary and alternate positions should be conducted while primary positions are being organized.

Clear, brief, oral orders should be issued to squad leaders in time to enable them to

Scope	*Execution*
	reconnoiter assigned firing position areas, make dispositions, and initiate work of emplacing guns without delay. For platoons emplaced in front-line battalion defense areas, ammunition should be placed at each emplacement; platoons which are to be held mobile should retain their ammunition on their vehicles. When ammunition is placed at firing positions, empty transportation should be assembled under control of high authority in the rear area. Emplacements for rocket launchers should be constructed in locations from which guns in firing positions can be given close-in protection. Provision should be made to insure prompt relay of any anti-air-antimechanized warning to all elements of all platoons, by proper utilization of available means of communication. The company commander should provide personnel for the operation of the company ammunition supply point. He should also provide means for replenishing ammunition, either from the company ammunition supply point, or by transfer of ammunition from one platoon to another whose expenditure has been greater. All ammunition should be placed under cover in ammunition shelters.

h. Occupation of Regimental Sector of Battle Position at Night.

Scope

A problem involving the antitank company during the occupation of the regimental sector of a battle position, at night, by a regiment which is part of a larger force.

Situation to be drawn so as to require—

(1) Daylight reconnaissance by the company commander, and his recommendations for the antimechanized defense of the regimental sector of the battle position, to include laying of antitank mine fields, all to be accomplished during darkness.

(2) Orders of the company commander issued prior to darkness, and before contact with the enemy has become imminent.

(3) Daylight reconnaissance by platoon leaders.

(4) Platoon leader's orders. Daylight reconnaissance by squad leaders. Marking of routes and primary, supplementary and alternate positions for quick recognition at night. Movement to assigned locations, construction of gun emplacements, and installation of mines during darkness.

(5) Establishment of antiair-antimechanized warning system.

(6) Ammunition supply.

(7) Readiness by daylight to meet a mechanized attack from any direction.

Execution

The company commander should make a thorough reconnaissance of the regimental sector of the battle position during daylight, either independently or in company with the regimental commander as the latter may direct. He should employ his reconnaissance personnel to amplify and expedite this reconnaissance. He should then submit recommendations covering the matters outlined in the preceding directive.

The company commander should issue clear, concise orders to platoon leaders at the earliest practicable moment following announcement of the regimental commander's decisions on antimechanized defense. Orders should be fragmentary whenever essential to permit platoon and subordinate leaders time for daylight reconnaissance and other necessary preparations.

Platoon leaders should reconnoiter assigned firing position areas, formulate their fire plans, and submit them to the company commander. When time does not permit submission of plans to the company commander, platoon leaders will issue orders to squad leaders without delay. Orders may be issued to assembled squad leaders, or successively to squad leaders in the respective firing

Scope

Execution

position areas. In any case, platoon leaders should issue their orders in time to permit squad leaders the maximum amount of daylight in which to reconnoiter and mark the exact positions to be occupied.

The platoon leaders' orders should assign each squad a primary firing position; when time is limited, they should direct squad leaders to select supplementary and alternate positions as well as cover positions. Principal directions of fire and sectors of responsibility should be pointed out on the ground whenever practicable. Positions for rocket teams in each squad should be indicated. If the conditions under which fire is to be opened have not been prescribed, platoon leaders should themselves prescribe the conditions. Wherever practicable, firing positions should be so located that they will not endanger other nearby installations because of hostile fires directed against the guns. Provision should be made to insure local protection of weapons and installations against hostile infiltration.

Prior to darkness, gun positions, antitank mine field location(s), and routes thereto, should be marked and guides familiarized therewith.

The occupation and organization of positions should be conducted quietly and without

Scope

Execution

lights, and in strict compliance with any other measures for secrecy prescribed by the regimental commander. All positions should be reached without confusion or loss of time. Work on emplacements or obstacles, and laying of antitank mines, should be so organized as to accomplish the maximum results in the time available, consistent with the nature of the terrain and conditions of visibility. Provision should be made to insure prompt relay of antiair-antimechanized warning to all elements by proper utilization of available means of communication.

Provisions for ammunition supply should be similar to those prescribed in the preceding directive.

By personal inspection, the company commander should supervise the carrying out of his orders and insure that all elements of the company are prepared by daylight to meet a mechanized attack from any direction.

i. Conduct of Defense.

Scope

A problem involving the antitank company in the defense by the regiment of an interior sector of the battle position.

Situation to be drawn so as to require—

(1) Employment of the company, in coordination with the antitank platoons of the front-

Execution

Platoon leaders should designate terrain features which hostile armored vehicles must cross, or pass, before guns open fire. Only such guns as have been designated in the company order should open fire on hostile vehicles or tanks apparently engaged on reconnaissance.

Scope

line battalions, against hostile mechanized forces attempting to penetrate the main line of resistance.

(2) Employment of the company in coordination with elements of the cannon company and the antitank platoon of the reserve battalion against a hostile armored attack which has penetrated an adjacent regimental sector.

(3) Action against attack by hostile air and foot elements.

(4) Ammunition supply.

(5) Communication and liaison.

Execution

Other guns should open fire only when the hostile tank attack is definitely committed and within effective range. The company commander should closely supervise the action and promptly order any changes in the conduct of platoons which are necessary to repulse the hostile attack.

In order to protect the regiment against attack by tanks which have penetrated an adjacent sector, the company commander should promptly recommend any necessary changes in the regimental plan for antimechanized defense to include employment of elements of the cannon company (after consultation with the howitzer officer) and any available antitank guns and rocket teams of the reserve battalion. If the situation warrants the laying of additional antitank mines, he should recommend such action. Any use of the antitank platoons of front-line battalions, or of elements of the antitank company, which would unduly weaken the defense against a renewal of the frontal attack of the main line of resistance should not be recommended. Upon receipt of the regimental order, the company commander should issue fragmentary orders by the most expeditious means available. By active supervision, he should coordinate and expedite the movement of all units

Scope

Execution

displacing to repel the attack and should insure that their fires are so coordinated as to cover effectively the regimental flank.

Security against hostile air attack should be provided by concealment, dispersion, and use of fox holes. Additional security may be provided by nearby heavy machine-gun and rifle elements.

Security against hostile foot elements should be provided by adjacent rifle units. When attacked by hostile foot elements, personnel other than that operating the gun should take cover in fox holes and open fire with individual weapons.

The company commander should keep himself informed of the status of ammunition supply at all times. He should insure prompt replenishment of ammunition of any elements of the company whose supply becomes seriously depleted.

By utilizing all available means of communication, and by employment of his command group, the company commander should maintain constant communication with all elements of the company. Liaison should be continuously maintained with the regimental commander and the company command post.

j. Night Withdrawal.

Scope

A problem involving the antitank company in a night with-

Execution

Upon receipt of the regimental warning order, the company

Scope

drawal, by an interior regiment of a larger force, from a defensive position to a new defensive position located several miles to the rear.

The regimental warning order to prescribe the location of the company assembly area and attach all elements of the company which are located in the defense areas of front-line battalions to those battalions for withdrawal to the vicinity of the company assembly area.

Situation to be drawn so as to require—

(1) Daylight reconnaissance of routes of withdrawal and of the regimental sector of the rear defensive position.

(2) Recommendations by the company commander for the antimechanized protection of the regiment (less the covering force) during the withdrawal.

(3) Execution of the withdrawal by all elements of the company.

Execution

commander should promptly dispatch the second-in-command or reconnaissance officer, assisted by other selected personnel, to reconnoiter the routes of withdrawal, the company assembly area, and the new defensive position, and to act as guides. Fragmentary warning orders should be issued to platoon leaders without delay; upon receipt of these orders, platoon leaders should dispatch personnel to reconnoiter routes to the company assembly area. The company commander and platoon leaders should remain with their units during the defensive engagement.

The company commander's recommendations for the protection of the withdrawal of the regiment, based on a map study and on reports received from reconnaissance personnel, should be submitted in time to be acted upon prior to commencement of the withdrawal. Ordinarily, these recommendations should contemplate the protection of defiles and the establishment of local mine fields and road blocks on approaches intersecting the route of withdrawal.

Daylight activities which might disclose the intention to withdraw should be avoided. Vehicles should be brought forward after dark to the company assembly area; prime movers only should be brought farther

Scope

(4) Construction and occupation of firing positions at the rear position before daylight, and the preparation of mined road blocks and laying of local antitank mines.

Execution

forward, if practicable, to locations behind the first crest in rear of firing positions. All movements after dark should be made quietly and without lights; regimental restrictions on the use of radio should be enforced. Elements attached for withdrawal to front-line battalions should withdraw as directed by the commanders of those battalions; other elements should withdraw under orders of the company commander. The latter should regain control of the entire company in the company assembly area. The company should move to the rear in compliance with regimental orders and carry out its assigned protective missions en route in a controlled and orderly manner.

At the new defensive position, the second-in-command or reconnaissance officer, assisted by other members of the company reconnaissance party, should, prior to arrival of the company, select firing positions for the platoons and locations for road blocks and local mine fields, and secure approval of these dispositions by the repreesentative of the regimental commander. They should mark these locations, and routes thereto, meet the company on its arrival, and guide the elements of the company to their positions. The occupation and construction of firing positions, and

Scope

k. Daylight Withdrawal.

Scope

A problem involving the antitank company in a daylight withdrawal by an interior regiment. The situation to be drawn with the entire battle position under severe hostile pressure, following an unsuccessful counterattack by the reserve battalion against a penetration on the right flank; the rifle company formerly constituting the battalion reserve of the left front-line battalion has been designated as the new regimental reserve.

The regiment is ordered to withdraw promptly to a new defensive position several miles to the rear. The regimental commander designates the newly constituted regimental reserve, under the command of the left front-line battalion commander, as the regimental covering force. A rifle platoon of the reserve is ordered to establish and defend a road block on an important

Execution

the laying of antitank mines, should be conducted as prescribed for occupation of a battle position. The guns should be in their new firing position areas, ready for action against mechanized attack, by daylight.

Execution

The antitank platoon attached to the right front-line battalion should withdraw under orders and control of the battalion commander. Upon arrival in the vicinity of the covering force and release from battalion control, it should be met by guides who lead the respective elements to positions designated by the company commander.

The platoon attached to the reserve battalion employed in the unsuccessful counterattack should reorganize and withdraw in accordance with the battalion commander's orders. It should provide antitank security to the battalion throughout its withdrawal and rearward movement, using the remaining gun and available rocket teams, in coordination with the weapons of the battalion antitank platoon.

Instructions should be issued for the immediate forward movement of prime movers by infiltration. Release of vehicles to platoons attached to battalions should be as far forward as the situation and hostile fires

Scope

highway entering the zone of action of the regiment from the critical (right) flank.

The antitank company is disposed with one platoon in positions protecting the reestablished defense area of the right front-line battalion, one platoon attached to the battalion committed in the counterattack (platoon now badly disorganized, with two guns out of action), and the company, less two platoons, in the vicinity of the regimental reserve, with guns in firing positions.

Action to be initiated by a regimental order directing—immediate withdrawal by the regiment; attachment of the antitank platoon in the defense area of the right front-line battalion to that battalion for withdrawal to the location of the covering force only, thereafter to revert to company control; the continued attachment of the platoon with the battalion committed in the counterattack throughout its withdrawal, and the attachment of one antitank mine squad to that battalion; the attachment of one antitank squad and one

Execution

will permit. Movement and release of vehicles should be under supervision of designated personnel of the company command group.

Firing positions for all antitank elements to be attached to the covering force should be occupied promptly and without confusion. Ammunition sufficient only for estimated needs should be unloaded from vehicles. Prime movers should be retained near the gun positions.

The company commander should initiate early reconnaissance, in accordance with orders of the covering force commander, to protect the further retrograde movement of the regiment. Such protection should provide security against hostile armored elements attempting pursuit.

Scope

antitank mine squad to the rifle platoon defending the road block; the attachment of the company, less detachments, to the covering force. It is assumed that smoke is available to facilitate the initial phase of the withdrawal.

I. Delaying Action.

Scope

A problem involving the antitank company in delaying action on successive positions. The situation to be drawn with the regiment (reinforced) conducting independent delaying action as a general covering force for a larger unit and required to arrive at the first delaying position approximately 1 hour before the enemy can make contact.

Situation to be drawn so as to require:

(1) Recommendations of the company commander for the antimechanized protection of the first delaying position.

(2) Employment of the elements of the company which may be attached to the outpost, and their withdrawal to the first delaying position.

(3) Reconnaissance of positions on the flanks and rear.

(4) Employment of the company on at least two delaying positions, to include use of antitank mines.

(5) Employment of some or all elements of the company, protected by riflemen, on intermc-

Execution

Execution

Upon arrival at the first delaying position, the company commander, assisted by his reconnaissance personnel, should make a rapid reconnaissance. This should be made independently or in company with the regimental commander, as the latter may direct. He should then recommend the initial dispositions of platoons and any locations where antitank mines should be laid in front, on the flanks, or closely in rear of the first delaying position. Ordinarily, recommendations should contemplate the attachment of the bulk of the company to battalions and security elements, and the holding mobile of the remainder of the company, if any, under regimental control, for protection of the flanks and rear.

Elements initially attached to the outpost should disrupt, canalize, and delay hostile armored forces. If practicable, they should withdraw, when directed by the outpost commander, by the leap-frog method, and continue their delaying

Scope

diate delaying positions.

(6) Ammunition supply.

Execution

action en route. These elements may revert to regimental control upon withdrawal to the first delaying position. Upon withdrawal, any antitank mines previously laid should be left in place to delay the enemy advance.

When any elements of the company are to be held under regimental control, the company commander should promptly dispatch reconnaissance personnel to reconnoiter the flanks of the first delaying position for tentative firing positions. Locations for antitank mines should also be sought. As time permits, this reconnaissance should be extended to the rear to include the flanks of the next delaying position. Similar reconnaissance to the rear should be initiated promptly by leaders of elements of the company attached to battalions or security detachments. These elements should either be reinforced by members of the company command group in order to facilitate this reconnaissance, or should be furnished by the company commander with information secured by his reconnaissance personnel.

Elements of the company attached to subordinate units of the regiment usually will operate initially as for defense, opening fire at maximum effective ranges. Firing positions should be located near topographical crests, and prime

Scope

Execution

movers held close to gun positions. Positions on forward slopes should be avoided. Any units held under regimental control should be able to move, without delay or confusion, to selected positions on the flanks or to the rear. Withdrawal to a rear position should be made rapidly and without loss of control.

Leaders of antitank elements attached to subordinate units of the regiment should initiate early reconnaissance of succeeding delaying positions and routes of withdrawal.

During movement between positions, antitank elements should be constantly prepared to go into action in any direction without delay. Rapidity of decision and action is essential.

Ammunition should be kept mobile; a sufficient amount for estimated needs only should be placed at firing positions. Organic machine guns and truck drivers' individual weapons are used for protection of vehicles. The platoon sergeant should supervise the resupply of ammunition, if resupply is required. The company commander should make an early estimate of additional antitank mines and ammunition required, request S–4 to procure them, and employ members of his command group to insure delivery of ammunition at the proper times and places to all elements of the company.

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