

# FM 17-30

DEPARTMENT OF THE ARMY FIELD MANUAL

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## THE ARMORED BRIGADE



HEADQUARTERS, DEPARTMENT OF THE ARMY  
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FIELD MANUAL

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HEADQUARTERS  
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## THE ARMORED BRIGADE

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## CHAPTER 1 INTRODUCTION

### Section I. PURPOSE AND SCOPE

#### 1-1. Purpose

This manual provides doctrinal guidance for the employment of the divisional armored brigade and the separate armored brigade.

#### 1-2. Scope

*a.* This manual covers the capabilities, limitations, command, planning, operations, intelligence, and training that are particularly applicable to the combat, combat support, and combat service support elements employed by the armored brigade.

*b.* The procedures described herein are intended as a guide reflecting current Department of the Army doctrine and are not to be considered inflexible. Each situation in combat must be resolved by an intelligent interpretation and application of the doctrine set forth herein.

*c.* This manual is designed to be used in conjunction with FM 17-1 and FM 61-100. Other appropriate manuals are listed in the appendix.

*d.* Unless otherwise specified, the material presented herein is applicable without modification to:

(1) General war, to include a consideration for the employment of, and protection from, nuclear munitions and chemical, biological, and radiological agents; and operations in nuclear, chemical, or biological environments.

(2) Limited war.

(3) Cold war, to include stability operations.

*e.* Tactical operations as discussed in this manual

are considered to be inclusive of periods of limited visibility and night operations. Except as stated herein, the armored brigade directs and controls tactical operations on a 24 hour a day basis. Detailed implementation of night/limited visibility operations is accomplished by subordinate units of the brigade and is discussed in FM 17-1.

*f.* This manual is in consonance with the following International Standardization Agreements which are identified by type of agreement and number at the beginning of each appropriate chapter in the manual:

	<i>NATO</i> <i>STANAG</i>	<i>CENTO</i> <i>STANAG</i>	<i>SEATO</i> <i>SEASTAG</i>	<i>ABCA</i> <i>SOLOG</i>
Relief of Combat Troops	2082	2082	2082	49R
Battlefield Illumination	2088	2088		108
Friendly Nuclear Warning to Armed Forces Oper- ating on Land	2104	2104		130

*g.* Users of this manual are encouraged to submit recommended changes or comments to improve the manual. Comments should be keyed to the specific page, paragraph, and line of the text in which the change is recommended. Reasons should be provided for each comment to insure complete understanding and evaluation. Comments should be prepared using DA Form 2028 (Recommended changes to Publications) and forwarded direct to the Commanding Officer, U.S. Army Combat Developments Command, Armor Agency, Fort Knox, Kentucky 40121. Originators of proposed changes which would constitute a significant modification of approved army doctrine may send an information copy, through command channels, to the Commanding General, U.S. Army Combat Developments Command, Fort Belvoir, Virginia 22060, to facilitate review and followup.

## Section II. GENERAL

### 1-3. Mission

The mission of the brigade headquarters is to command and control assigned and attached combat, combat support, and combat service support elements in both training and tactical operations independently or as part of a larger force.

### 1-4. Brigade Headquarters

The divisional brigade headquarters is a tactical headquarters. The separate brigade headquarters is both a tactical and administrative headquarters. Chapter 3 discusses the separate brigade's organization and functions in detail.

### 1-5. Capabilities

*a.* Commanding attached elements of the division's combat and combat support elements in sustained offensive and defensive combat operations.

*b.* Accepting or releasing attached elements on short notice.

*c.* Conducting brigade operations on a sustained basis.

*d.* Supervising the movement and security of attached or supporting administrative elements.

*e.* Establishing liaison with higher and adjacent headquarters.

*f.* Supervising tactical training of attached elements.

*g.* Acting as an emergency alternate operational headquarters for the division in event of destruction of division headquarters.

*h.* The brigade headquarters and headquarters company is capable of controlling up to five maneuver battalions for extended operations.

## Section III. ORGANIZATION

### 1-6. General

The divisional brigade has no organic units other than the brigade headquarters and headquarters company. The separate brigade has an organic brigade base which is discussed in chapter 3. Higher headquarters determine the composition of the brigade after the requirements of the specific brigade mission have been determined; that is, combat, combat support, and combat service support elements are attached to, or are placed in support of, each brigade as necessary. During operations, the initial brigade organization for combat is modified as required.

*a.* Attachments to the brigade are made by higher headquarters to provide the brigade the means to accomplish assigned missions. In rapidly moving situations, changes in the organizational structure of the brigade may be made frequently and on short notice. The brigade commander and his staff develop standing operating procedures (SOP) and operational techniques which permit attachments and detachments to be made expeditiously and efficiently.

*b.* Combat units are normally attached but may be placed under operational control if dictated by the situation.

*c.* Combat support and combat service support units may be attached to or placed in direct sup-

port of the brigade, depending on the circumstances of employment. In most situations, they are placed in support. When the divisional brigade is organized for independent or semi-independent operations, usually they are attached.

*d.* The brigade organizes its combat, combat support, and/or combat service support elements for combat by combining these elements to accomplish certain tasks. The major headquarters around which the brigade organizes for combat are the battalion headquarters, normally resulting in the creation of battalion task forces. The task forces normally are organized with not less than two and not more than five major subordinate units as mutually supporting combined arms teams.

### 1-7. Organization for Combat

*a.* Organization of the brigade for combat is based upon the mission, enemy, terrain and weather, and troops available (METT), as well as time and space. The adopted command relationship imposed by a higher headquarters is guided by consideration of the most effective employment.

*b.* The brigade commander usually organizes attached tank and mechanized infantry battalions into task forces, each grouping under one com-

mander, formed to carry out a specific operation or mission. However, the factors of METT may dictate the use of pure tank or mechanized infantry battalions without attachments.

(1) Field artillery support is provided battalion task forces by field artillery units placed in direct support of, or attached to, the divisional brigade; and by the separate brigade's organic field artillery battalion. Supporting field artillery provides liaison officers to brigade and battalions (or task forces), and forward observers to each committed company. See chapter 5 for a discussion of fire planning.

(2) Engineer support is normally provided for the battalion task forces from an engineer unit assigned to (in the case of the separate armored brigade) or placed in direct support of the brigade. Engineer support usually consists of one engineer platoon per maneuver battalion (task force). The engineer unit should be disposed well forward so as to be immediately available for essential tasks that enable the brigade to maintain the momentum of its attack.

(3) The battalion task forces are provided Army aviation support from the brigade aviation section or from aviation elements of higher headquarters.

(4) Armored cavalry and air cavalry units assigned or attached to the brigade are employed in accordance with FM 17-36 and FM 17-37.

(5) Air defense units, when attached to the brigade, are normally retained under brigade control and are employed in an air defense role based on appropriate priorities. Vulcan fire units may be used in a ground fire support role when enemy air threats are minimal or nonexistent.

(6) Maintenance, medical, and supply support are provided to divisional armored brigades by the support command. Chapter 3 provides information on combat service support organic to the separate armored brigade. For details concerning the employment of combat service support units, see FM 54-2.

*c. Tactical versus administrative roles.*

(1) The divisional brigade is basically a tactical command echelon. The brigade commander or his designated representative enters the administrative chain of command in a control, coordinating, and supervisory role only. Combat and combat support units attached to the brigade receive combat service support directly from the division support command, although units of the support command may be attached to, or placed

in support of, the brigade for this purpose. Whenever the brigade is employed in a separate or independent role, necessary combat support and combat service support elements are normally attached.

(2) The nondivisional (separate) brigade is organized on a more permanent basis. Whether such a brigade consists basically of organic maneuver battalions or includes other organic combat support and combat service support units depends upon its mission and the proximity of required support. In these events, the brigade commander and staff become responsible for combat service support operations for all assigned or attached units. The separate brigade is discussed in chapter 3.

*d.* Field artillery support is provided by placing artillery in direct support of, or attached to, the divisional brigade and by the separate brigade's organic artillery battalion. In nuclear warfare, attachment of field artillery units to the brigade may be necessary due to dispersal of forces. The commander of the direct support, attached, or organic field artillery is the fire support coordinator (FSCoord) for the brigade who is responsible for the preparation of the brigade fire support plan.

*e.* Air defense for the brigade is provided by the area air defense system, the divisional Chaparral/Vulcan battalion, Redeye sections organic to the maneuver battalions and the separate brigade headquarters company, or by attached or supporting air defense artillery units. The commander of the attached or supporting air defense elements is the air defense advisor for the brigade who is responsible for preparation of the brigade air defense plan.

*f.* Engineer support for the brigade is normally provided by placing an engineer company in direct support of, or attached to, the divisional brigade and by the separate brigade's organic engineer company. The commander of the divisional engineer company serves in the capacity of engineer staff officer for the brigade. The separate brigade has an engineer section organic to its headquarters.

*g.* Brigade trains include elements of the brigade S4 section, the field trains of the maneuver battalions and combat support units, combat service support units, and the necessary security forces. The brigade trains are under the tactical control of the brigade S4. For details on brigade trains and the support command operations, see chapter 6 of this manual, FM 17-1, and FM 54-2.

## CHAPTER 2

### DIVISIONAL BRIGADE HEADQUARTERS AND HEADQUARTERS COMPANY

#### Section I. GENERAL

##### 2-1. Functions

The brigade headquarters of the armored division brigade is organized to provide command and control for the training and combat employment of attached units. The brigade headquarters company provides personnel and equipment to operate and support the brigade headquarters.

##### 2-2. Organization

Organization of headquarters and headquarters company, armored division brigade, is shown in figure 2-1. Organization of the headquarters and headquarters company, separate armored brigade is discussed in chapter 3.

##### 2-3. Headquarters

Brigade headquarters consists of the brigade commander, the executive officer, unit and special staff officers, and the sergeant major. The composition of the brigade staff is shown in figure 2-2. For a complete discussion of staff functions, areas of responsibilities, and interrelationships, refer to FM 17-1 and FM 101-5.

##### 2-4. Company Commander

The brigade headquarters company commander exercises normal command authority over personnel assigned to the headquarters and headquarters company except the brigade commander and his

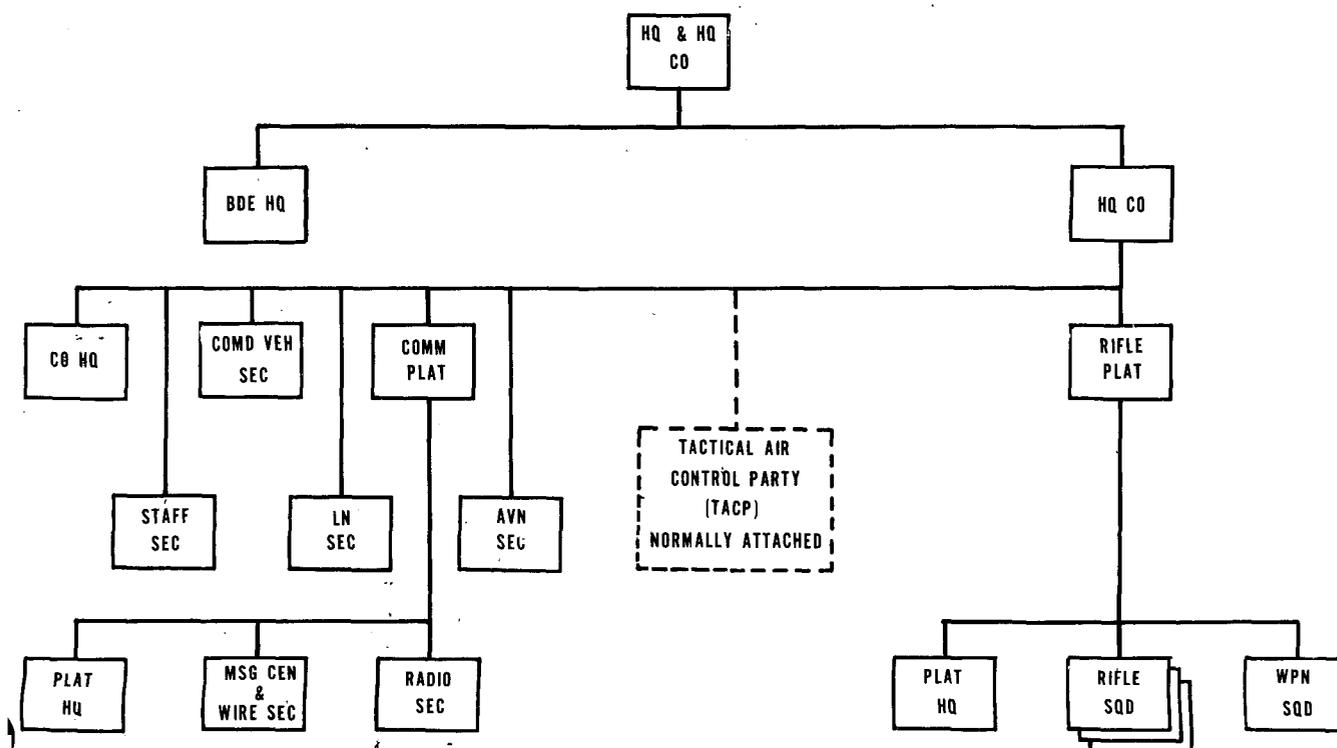
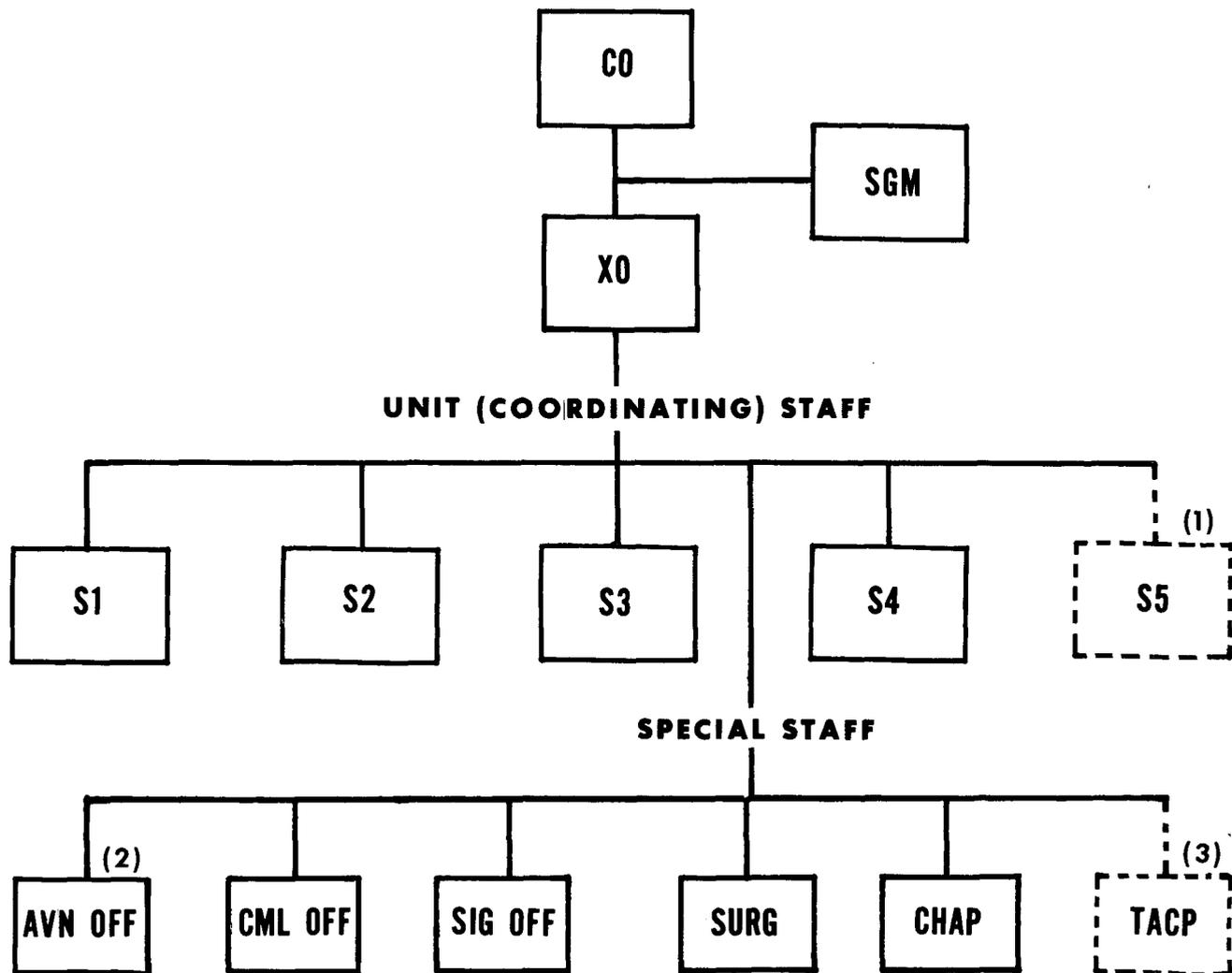


Figure 2-1. Headquarters and headquarters company, armored division brigade.



(1) WHEN AUTHORIZED

(2) AVIATION SECTION COMMANDER

(3) NORMAL ATTACHMENT

## BRIGADE STAFF, ARMORED DIVISION BRIGADE

Figure 2-2. Brigade staff, armored division brigade.

staff officers. He is responsible for their training, except those aspects related to duty performance in their staff sections. In addition, he is responsible for company administration and training.

### 2-5. Company Headquarters

Company headquarters provides administration, mess, supply, and maintenance for brigade head-

quarters and the company. It provides the means for command of the company.

### 2-5. Staff Section

The staff section contains the personnel and equipment necessary for brigade command and staff operations. Operationally, staff section personnel are responsible to the headquarters staff sections to which they are assigned.

## 2-7. Liaison Section

The duties of the liaison officers are as outlined in FM 17-1. The liaison section consists of two officers, two drivers, a 1/4-ton truck, an armored command and reconnaissance carrier, and essential FM radios. It normally operates under the supervision of the brigade executive officer. One liaison officer, during tactical operations, habitually maintains liaison with division headquarters. The other liaison officer establishes liaison as directed. Liaison officers may be provided aircraft, if available, to accomplish their missions.

## 2-8. Aviation Section

The aviation section provides observation helicopters and aviators, together with a limited aircraft maintenance capability, to support the command, control, communications, liaison, reconnaissance, and security efforts of the brigade. The helicopters may be employed under brigade control in any of these functions or they may be placed under operational control of subordinate units of the brigade.

*a. Command and Control.* The aviation section has the primary mission of providing air transportation to the brigade commander, brigade staff, and subordinate commanders and their staffs for the purpose of command and control. Aircraft permit the commanders and their staffs to move rapidly to areas where their presence is required to influence the action, thereby reducing the reaction time to the demands of the battlefield.

*b. Liaison.* The aircraft in the aviation section provide a means of rapid transportation to higher, lower, and adjacent tactical units.

*c. Reconnaissance and Security.* For a detailed discussion of the aviation section in reconnaissance and security roles, see FM 1-5 and FM 1-100.

*d. Other Missions.* The aviation section may be used to lift small quantities of men and supplies and to evacuate wounded on an emergency and limited basis.

## 2-9. Command Vehicle Section

The command vehicle section is composed of two armored command and reconnaissance carriers. It provides armor-protected transportation for the brigade commander and members of his staff.

## 2-10. Communication Platoon

The communication platoon consists of a platoon headquarters, a message center and wire section, and a radio section. It is commanded by a platoon leader and is under the staff supervision of the brigade signal officer. The platoon headquarters consists of the platoon leader, a communications chief, and a messenger. The message center and wire section has personnel and equipment to establish and operate the brigade message center, messenger service, and switchboard. The section installs and maintains the wire systems within the brigade command post and the brigade trains, and installs wire lines to subordinate and attached units when time and the tactical situation permit. The radio section has the radioteletype equipment and operators to operate one RATT station. This station is the net control station in the brigade operations-intelligence net. The communication platoon performs organizational maintenance of the communication equipment of the brigade headquarters and headquarters company only. For details of brigade communication organization and employment, see chapter 4.

## 2-11. Rifle Platoon

The rifle platoon is organized into a platoon headquarters, three rifle squads, and a weapons squad. It is commanded by a platoon leader and normally moves in four armored personnel carriers. Each squad leader, the platoon leader, and the platoon sergeant have radios for mounted and dismounted use. The platoon can perform the following missions:

- a. Security of the command post and command group.
- b. Route reconnaissance to, and area reconnaissance of, assembly areas or CP locations.
- c. Traffic control.
- d. Provide part of the quartering party.
- e. Limited pioneer and demolition work.
- f. Chemical detection and radiological monitoring and survey.
- g. Damage control operations.

## 2-12. Tactical Air Control Party (TACP)

The brigade normally will be augmented by the attachment of a TACP. FM 17-1 discusses the TACP organization, capabilities, and employment.

## Section II. COMMAND POSTS

**2-13. Brigade Command Post**

*a. General.* The brigade command post is the principal command installation of the brigade and it functions using organic vehicles. It is highly mobile and capable of rapid and frequent displacement and can operate on a sustained 24-hour basis. It relies heavily on radio communication and has the capability for operation while moving. A typical brigade command post is shown in figure 2-3.

*b. Composition.* The following are normally located at, or operate from, the brigade command post:

(1) Brigade commander.

(2) Brigade executive officer.

(3) Brigade unit staff members with their respective sections, except the S1 and S4 sections. The S1 and S4 usually operate from the command post, but most of the personnel from their sections are usually located in the brigade trains area.

(4) Brigade special staff.

(5) FSCoord or his representative and representatives of other combat support units.

(6) Company headquarters of the brigade headquarters and headquarters company.

(7) Brigade communication platoon.

(8) The TACP.

*c. Location.* The brigade S3 recommends the general location of the command post after coordination with the signal officer and other appropriate staff officers. The S1, in conjunction with the headquarters company commander and the signal officer, selects the actual site and plans the internal arrangements of command post elements. The primary considerations in command post location are the ability to command and control the brigade and the brigade's mission. Additional desirable characteristics for the site include:

(1) Optimum conditions for efficient communication.

(2) Proximity to attached combat units and installations for added security.

(3) An area which has sufficient space for the proper dispersion of command post elements.

(4) Sufficient landing space in the vicinity for brigade aircraft.

(5) Adequate concealment and cover; firm and well-drained ground, access roads, and parking area.

(6) Terrain which facilitates both ground and air defense of the command post.

*d. Security.* The S1 has staff responsibility for local security of the command post. The headquarters company commander plans and implements the local command post security plan using command post personnel and the rifle platoon. Additional security is gained by placing the command post near combat units of the brigade, by using other personnel attached to the brigade, and in exceptional circumstances, by using squads or platoons from attached maneuver battalions.

*e. Displacement.*

(1) Rapid and efficient displacement of the main command post is accomplished by—

(a) Thorough understanding by all concerned of the brigade SOP for command post displacement.

(b) Effective coordination.

(c) Use of radio and motor messengers to maintain contact with key personnel during the move.

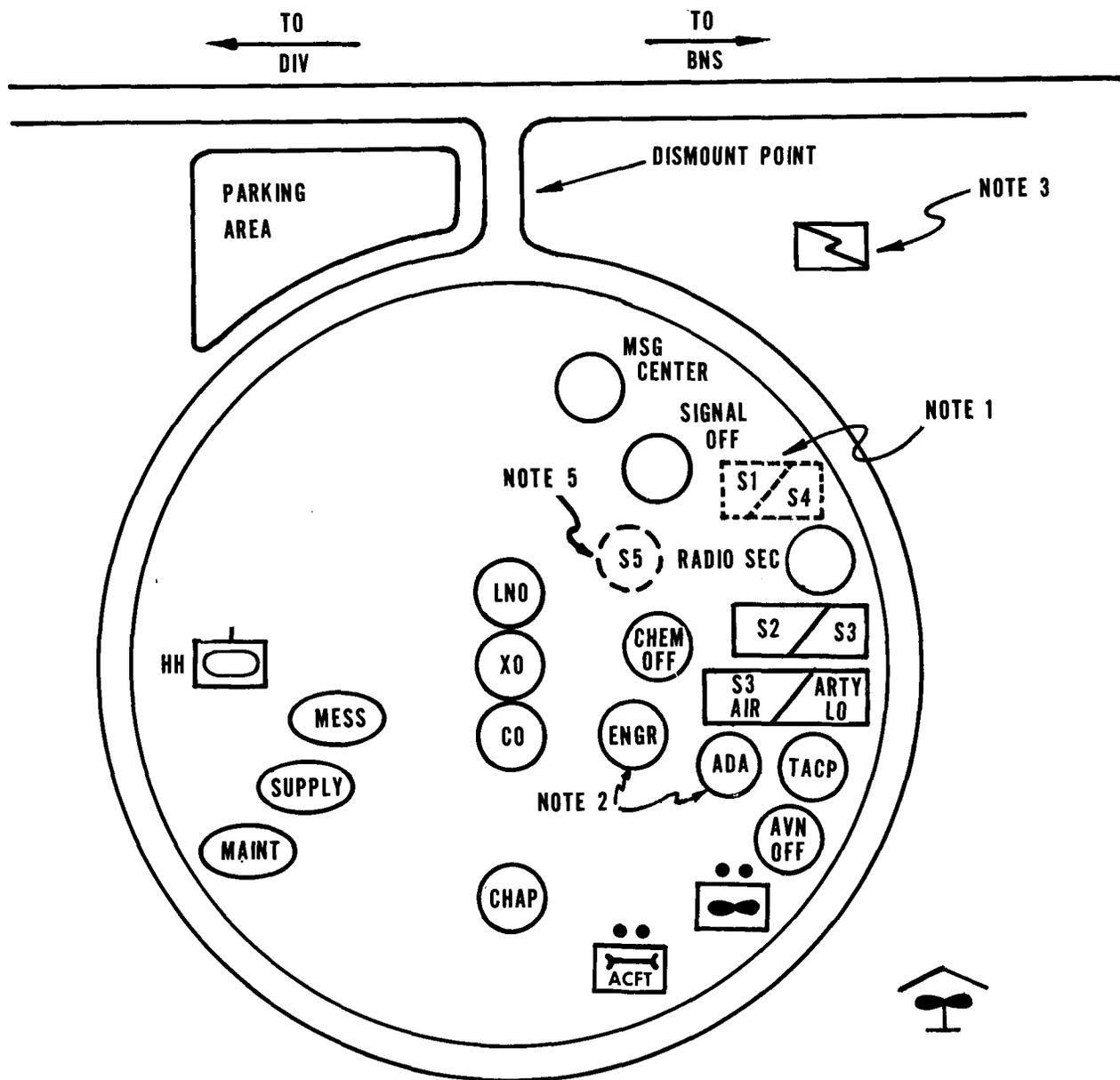
(2) Brigade headquarters is not large enough to establish two command posts and establish security at two locations at the same time. Since the brigade has the capability of operating while moving, there is no necessity to displace in two echelons. In addition, the brigade commander and the command group will normally be out during the movement of the command post so as to preclude loss of contact or control. At this time, the command group is, in effect, the forward command post.

**2-14. Brigade Command Group**

A command group is a command and control facility consisting of the commander and selected staff officers, signal means, and a security detachment. This group enables the commander to operate away from his command post to obtain personal knowledge of the situation, exercise leadership, and closely control the operation during critical periods, often utilizing a command and control aircraft.

**2-15. Alternate Command Post**

The limited size of the brigade headquarters and headquarters company precludes organization of



1. S1 & S4 ARE NORMALLY AT CP BULK OF S1/S4 SECTIONS ARE IN TRAINS.
2. CO OR A REPRESENTATIVE ENGINEER CO AND AIR DEFENSE ARTILLERY PLATOON OR BATTERY. WHEN APPROPRIATE.
3. FORWARD COMMAND TERMINAL TEAM AND ADDITIONAL RADIOS NEEDED TO ENTER DIVISION NETS.
4. MAY BE USED TO PROVIDE SECURITY WHEN AVAILABLE. MP PERSONNEL WILL BE USED ONLY TO PROVIDE SECURITY FOR THE OPERATIONS CENTER AND OPERATE THE DISMOUNT POINT.
5. WHEN AUTHORIZED.

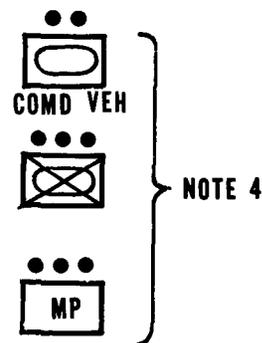


Figure 2-3. Type armored division brigade command post.

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an alternate command post. Normally, all the battalion task force command posts will be designated as alternate brigade command posts in predetermined sequence.

## 2-16. Brigade Trains

*a. Organization.* The exact composition of the brigade trains will vary in accordance with the tactical situation and the disposition of the tactical units attached to, or in support of, the brigade. Normally, the brigade trains will include—

(1) Field trains of attached maneuver battalions.

(2) Elements of company headquarters of the brigade headquarters and headquarters company.

(3) Brigade staff section personnel not required at the command post.

(4) Elements of the aviation section.

(5) Elements from the division support command.

(6) Service elements of other units attached to, or in support of, the brigade.

(7) A water point from the division engineer battalion.

*b.* The general location of the brigade trains is selected by the S4 in coordination with the S3. The specific location is selected by the assistant S4.

*c.* The S4 has staff responsibility for the operation, security, and displacement of the brigade trains. Generally, brigade trains displace by echelon.

*d.* To facilitate control, the brigade S4 may establish a brigade trains radio/wire net. Stations in this net should include all elements operating from the brigade trains area. This net will be used to assist the S4 in maintaining control while the trains are displacing and to enhance control and security within the brigade trains area. This system may also be used to expedite transactions between support command elements and brigade units.

## CHAPTER 3

### SEPARATE ARMORED BRIGADE

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#### Section I. GENERAL

#### 3-1. Introduction

The separate armored brigade can be assigned to corps or field army, or it may be employed independently as determined by the theater commander. It has sufficient organic combat, combat support, and combat service support elements to conduct independent operations.

#### 3-2. Mission and Capabilities of the Separate Armored Brigade.

*a. Mission.* To destroy enemy military forces and to control land areas, including populations and resources.

*b. Capabilities.* The separate armored brigade has the organic capability to—

(1) Command and control attached maneuver battalions in independent offensive and defensive operations in nuclear and nonnuclear warfare.

(2) Engage in sustained combat operations against any type of opposing ground forces in areas where a military force of less than division size is required, or as part of a larger force.

(3) Engage in mobile offensive operations characterized by rapid movement and wide dispersion to include deep penetration, exploitation, and pursuit.

(4) Engage in operations requiring armor shielding against small arms, tanks, artillery, and nuclear fires.

(5) Operate as part of a larger force in covering force operations or to serve as a mobile counterattack force.

(6) Engage in operations as part of a joint amphibious force.

(7) Control enemy populations.

(8) Restore order.

(9) Be attached to, and operate as part of, a division.

#### 3-3. Organization

Unlike the armored division brigade, the separate armored brigade has assigned to it a considerable number of organic units. The organic units are referred to as the brigade base. They provide the separate armored brigade with the capability to conduct sustained independent operations. The brigade base provides the necessary command and control, combat support, and combat service support to sustain operations of up to five attached combat battalions. The brigade base consists of—

*a.* Headquarters and headquarters company.

*b.* Support battalion.

*c.* Armored cavalry troop.

*d.* Engineer company.

*e.* Field artillery battalion.

Figure 3-1 illustrates the separate brigade base.

#### 3-4. Brigade Headquarters and Headquarters Company

*a. General.* The brigade headquarters is organized to command and control assigned and attached combat, combat support, and combat service support units in both training and operations. The brigade headquarters company provides personnel and equipment to operate, transport, and protect brigade headquarters. Figure 3-2 illustrates the headquarters and headquarters company, separate armored brigade.

*b. Brigade Headquarters.* The brigade headquarters consists of the commander, the unit staff, and the special staff. The functions, procedures, authority, and responsibilities of the staff are the same as those shown for the brigade and armored cavalry regiment in FM 17-1. Briefly, the headquarters includes—

(1) *Command section.* The separate armored brigade is commanded by a brigadier general. His

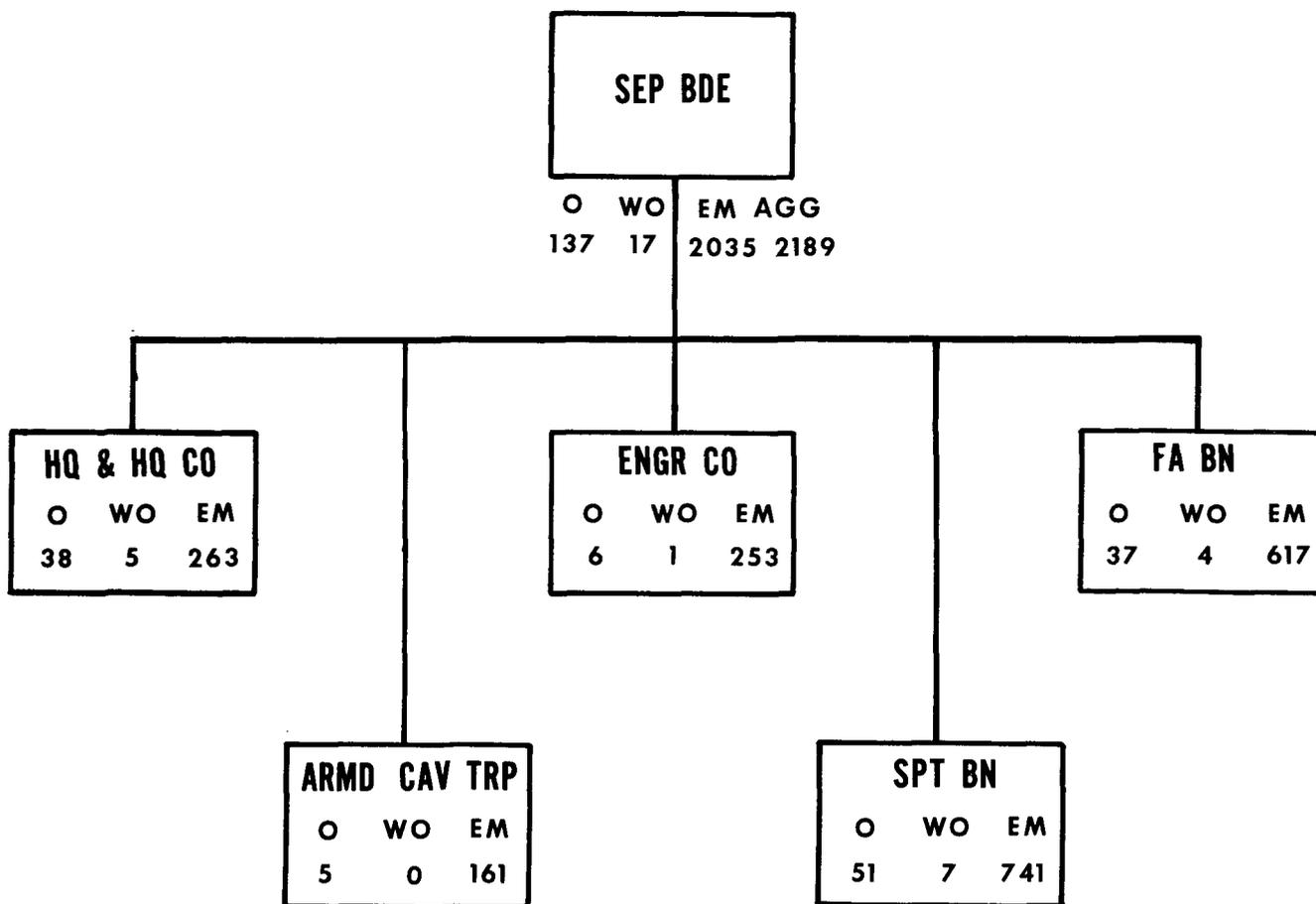


Figure 3-1. Separate brigade base.

principal assistant is his deputy commander who performs tasks assigned to him by the brigade commander and acts for the brigade commander in his absence. The command section also includes the brigade sergeant major, the commander's personal staff, drivers, and the necessary equipment and vehicles to support the section.

(2) *Executive officer section.* This section includes the executive officer and two liaison officers. The executive officer has essentially the same functions as the executive officer of the armored division brigade, except that in the separate armored brigade he is not second in command.

(3) *S1, S2, S3, S4, and S5 sections.* These staff sections are organized in a manner similar to the armored division brigade staff. The functions and duties of personnel, intelligence, operations, logistics, and civil-military operations are the same as in the armored division brigade, and are discussed in detail in FM 17-1 and FM 101-5.

(4) *Artillery section.* The artillery section consists of the brigade artillery officer and an

artillery liaison section who advise the commander on artillery matters. The artillery officer commands the organic field artillery battalion and is the fire support coordinator (FSCOORD) for the brigade. He is responsible for the preparation of the brigade fire support plan.

(5) *Aviation section.* The aviation section includes the brigade aviation officer who advises the commander on aviation matters. He also commands the organic command aviation section.

(6) *Engineer section.* This section includes the brigade engineer and an enlisted assistant. The brigade engineer advises the commander on engineer matters but does not command the organic engineer company.

(7) *Adjutant general section.* This section consists of the brigade adjutant general who advises the commander on personnel, administrative, and related matters. He is assigned to the administration company.

(8) *Signal section.* The signal section includes the brigade signal officer who advises the commander on signal matters and controls and co-



ordinates brigade signal activities. A warrant officer is assigned to the section as a crypto technician.

(9) *Finance section.* This section consists of the brigade finance officer who controls and supervises the finance activities of the brigade. He is assigned to the administration company.

(10) *Chemical section.* This section includes the brigade chemical officer and his enlisted assistants. The chemical officer advises the commander on chemical, biological, and radiological (CBR) operations. In coordination with appropriate staff sections, he supervises CBR training and operations to insure that units and individuals of the brigade meet the standards of proficiency set forth in FM 21-40. When conditions require the operation of a CBR center, the chemical officer is responsible for its operation.

(11) *Surgeon section.* The surgeon section includes the brigade surgeon who plans, advises, supervises, and coordinates medical matters for the brigade. He is assisted by a preventive medicine officer.

(12) *Provost marshal section.* This section includes the brigade provost marshal who enforces the commander's policies with regard to law and order in areas not assigned to subordinate commanders and advises in matters pertaining to law and order, traffic control, enemy prisoners of war and civilian internees, and temporary confinement facilities.

(13) *Chaplain section.* The chaplain section includes the brigade chaplain who advises and assists the commander on religious matters.

(14) *Judge advocate section.* This section consists of the brigade staff judge advocate who advises the commander on legal matters and supervises the administration of military justice in the brigade. He is assigned to the administration company.

(15) *Information section.* The information section consists of the brigade information officer who advises the commander in troop information, public information, and public relations matters. He is assigned to the administration company.

(16) *Inspector general section.* This section includes the brigade inspector general who inquires into and reports upon matters by conducting inspections, investigations, surveys, and studies as directed by the brigade commander and as prescribed by law and Army regulations. He is assigned to the administration company.

*c. Brigade Headquarters Company.* The brigade headquarters company contains the necessary personnel and equipment to support the brigade headquarters and the headquarters company. The headquarters company is composed of—

(1) *Company headquarters.* Company headquarters includes the company commander, company executive officer, first sergeant, and other enlisted personnel required for control, administration, and supply of the headquarters company.

(2) *Maintenance section.* This section contains the necessary personnel and equipment to maintain the vehicles assigned to the headquarters company.

(3) *Mess section.* The mess section contains the personnel and equipment to feed the brigade headquarters and headquarters company.

(4) *Military police platoon.* This platoon contains the necessary personnel and equipment to provide the brigade an organic means for enforcement of law and order, traffic control, operation of the brigade PW collecting point, operation of the brigade CP dismount point, and security for the brigade operations center.

(5) *Communication platoon.* This platoon contains the required personnel and equipment to establish and maintain brigade headquarters communication with subordinate units and communication within the brigade headquarters.

(6) *Medical platoon.* This platoon contains the necessary personnel and equipment to operate an aid station and limited medical evacuation for the brigade headquarters and headquarters company.

(7) *Command aviation section.* This section provides helicopters and aviators, together with a limited aircraft maintenance capability, to support the command, control, liaison, and reconnaissance efforts of the brigade. Its primary mission is to provide air transportation to the brigade commander and the brigade staff. The aviation section commander also acts as the brigade aviation officer.

(8) *Air defense section.* This section provides defense against enemy air attack for the brigade headquarters and for brigade units not provided an organic Redeye section. FM 17-1 describes the employment of this section.

(9) *Rifle platoon.* This platoon contains the necessary personnel and equipment to provide for the security of the brigade headquarters area. In

addition, it comprises the headquarters area ready reaction force.

### 3-5. Armored Cavalry Troop

The principal reconnaissance and security unit of the brigade is its organic armored cavalry troop. It is designed to provide security and perform reconnaissance for the brigade or unit to which it may be attached. It can be used in offensive, defensive, and delaying actions, or in an economy of force role. Its organization is the same as that of the armored cavalry troop of the armored division cavalry squadron. Employment of the armored cavalry troop is discussed in FM 17-36.

### 3-6. Engineer Company

The engineer company provides the brigade with fixed and floating assault bridging, field water purification, and combat engineer support. The engineer company can also fight as infantry when required.

*a.* The company organization includes a combat engineer vehicle section, a bridge platoon, and three combat engineer platoons.

(1) The vehicle section has two combat engineer tracked vehicles.

(2) The bridge platoon is organized with either two bridge sections (equipped with M4T6 or class 60 bridge) or two heavy raft sections, one armored vehicle launched bridge section, and a platoon headquarters.

(3) The combat engineer platoons contain three engineer squads.

*b.* The company can provide atomic demolitions (ADM) support when reinforced with an ADM team or when the TOE has been modified by an MTOE authorizing organic ADM personnel.

*c.* The employment of the engineer company is discussed in FM 5-142.

### 3-7. Support Battalion

The separate armored brigade has an organic support battalion which provides brigade level supply, direct support maintenance, medical services, and miscellaneous services for all elements of the brigade, organic or attached. The support battalion is discussed in detail in paragraphs 3-11 through 3-14.

### 3-8. Field Artillery Battalion

The separate armored brigade has one 155mm (SP) field artillery battalion. The field artillery battalion has minor differences in its headquarters and headquarters battery in that it has an organic meteorological section and a surveillance radar section. Otherwise, it is organized similarly to the field artillery battalion, 155mm (SP) of the armored division artillery. Forward observers are organic to batteries of the battalion.

### 3-9. Combat Battalions

The separate armored brigade base is organized and equipped to provide command and control, combat support, and combat service support for up to five combat battalions. Combat battalions may be assigned or attached in any combination of tank, mechanized infantry, and armored cavalry units as required by the mission. However, the majority of the combat battalions will normally be tank battalions.

### 3-10. Signal Communication

*a.* The separate armored brigade will organize its internal signal communications similar to the armored division brigade. Multichannel systems and a high frequency communication link to higher headquarters and adjacent units must be provided by the higher headquarters. The amount and type of equipment and net organization will depend upon the support provided and the requirements of the next higher headquarters.

*b.* The headquarters and headquarters detachment, support battalion, is provided internal FM radio and RATT communication by the communication section; however, it must rely on supporting army communication elements for RATT and VHF communication to higher logistical headquarters, i.e., Army logistical net and Army area communications systems.

*c.* Control between the brigade command post and brigade trains is established by FM radio; however, if the intervening distances become too great, the brigade may require additional army signal support in the brigade trains area to maintain RATT communication.

*d.* A typical separate armored brigade communication system is shown in figure 3-9. Further details on signal communication are contained in chapter 4.

## Section II. COMBAT SERVICE SUPPORT

**3-11. Separate Armored Brigade Combat Service Support**

The separate armored brigade has its own direct support supply, maintenance, medical, and military police support capabilities. It does not have a direct support maintenance capability for aircraft. It has an administration company for direct support level personnel services support.

**3-12. Combat Service Support Personnel**

The organization of the staff in the separate armored brigade is very similar to that of the armored division brigade. Differences found in the separate armored brigade are summarized below.

a. There are surgeon, provost marshal, and chaplain sections in the brigade headquarters.

b. The adjutant general, finance officer, staff judge advocate, and inspector general are members of the administration company but function as special staff officers to the brigade commander.

c. There is a brigade ammunition section and brigade supply office in the headquarters and headquarters detachment of the support battalion.

d. The brigade maintenance officer, who is a member of the maintenance company of the support battalion, is also a special staff officer.

**3-13. Support Battalion**

The support battalion provides separate brigade level (DS category) supply, direct support maintenance, medical services, and miscellaneous services for all elements of the brigade, organic or attached. To accomplish its missions and functions, the support battalion is organized as shown in figure 3-3 and as discussed below.

a. *Headquarters and Headquarters Detachment.* This detachment is designed to provide command and control of all brigade level combat service support units for a brigade consisting of from two to five maneuver battalions and normal supporting units. The battalion commander has the same responsibilities (for example, combat service support, rear area security, and area damage control) as a support command commander of a division. In addition, the same relationship exists between the support battalion commander and the brigade S4 as exists between the support command commander and the G4 of an armored division. The battalion commander has the usual unit staff; however, the S1 must double as the detach-

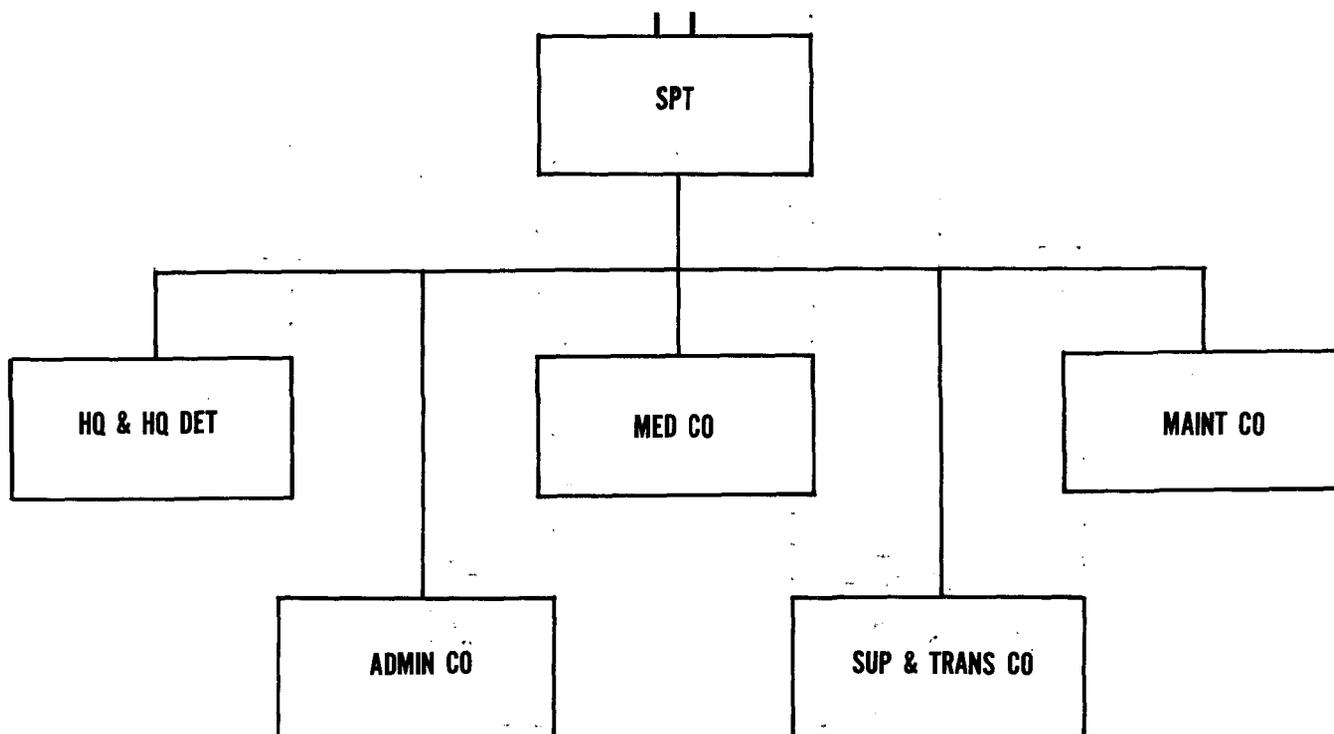


Figure 3-3. Support battalion, separate armored brigade.

ment commander. In addition, the commander has a brigade ammunition section and a brigade supply office that accomplish the same functions as the ammunition section and supply office at division level. The detachment is not administratively self-sufficient and must satellite itself to another battalion element for messing. The elements of the communication section provide the detachment with internal FM and RATT communication, but must rely on supporting army communication elements for RATT and VHF communications to higher logistical headquarters. Figure 3-4 illustrates the headquarters and headquarters detachment.

*b. Administration Company.* The administration company serves as a carrier unit that provides support for certain elements of the special staff. It provides the necessary personnel and administrative support to sustain brigade operations, including a centralized personnel service for all units attached or organic to the brigade and a capability of replacement support. The company can receive, control, and administratively process up to 100 individual replacements at any given time. The unit is dependent upon the support battalion for communication, direct support motor maintenance, and medical care. While located outside of the brigade area, the company is dependent upon army communication support to enter the brigade administration net or area communication system. Figure 3-5 illustrates the administration company.

*c. Medical Company.* The medical company is organized with a company headquarters, one ambulance platoon, and a clearing platoon to provide division-type medical service in a separate brigade by evacuating casualties from organic and attached units; receiving, sorting, treating patients; and returning them to duty or preparing them for further evacuation. Specifically, this company provides short-term medical and surgical treatment for 120 patients. Figure 3-6 illustrates the organization of the medical company.

*d. Supply and Transport Company.* The supply and transport company supports the brigade and attached units by providing all classes of supply except Class V, medical supplies, repair parts, and aircraft parts and supplies. It provides graves registration service, clothing exchange and bath service, map supply service, and classification and disposal of unserviceable equipment. It provides and operates ground transportation, as required, and unit distribution of supplies when requested and authorized. Additionally, it maintains and transports the brigade reserve of supplies for which the unit is responsible. It provides transportation to supplement transportation means available to other elements of the brigade. It also provides unit mess and battalion level maintenance for the headquarters and headquarters detachment. Figure 3-7 illustrates the supply and transport company.

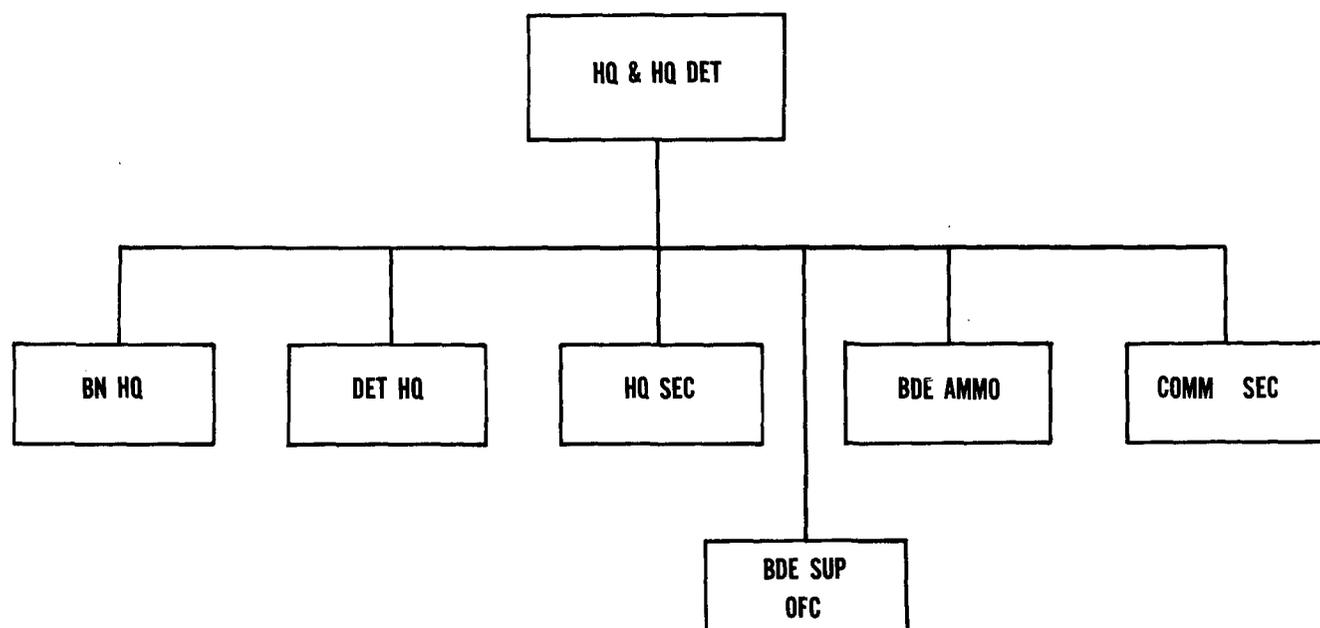


Figure 3-4. Headquarters and headquarters detachment, support battalion, separate armored brigade.

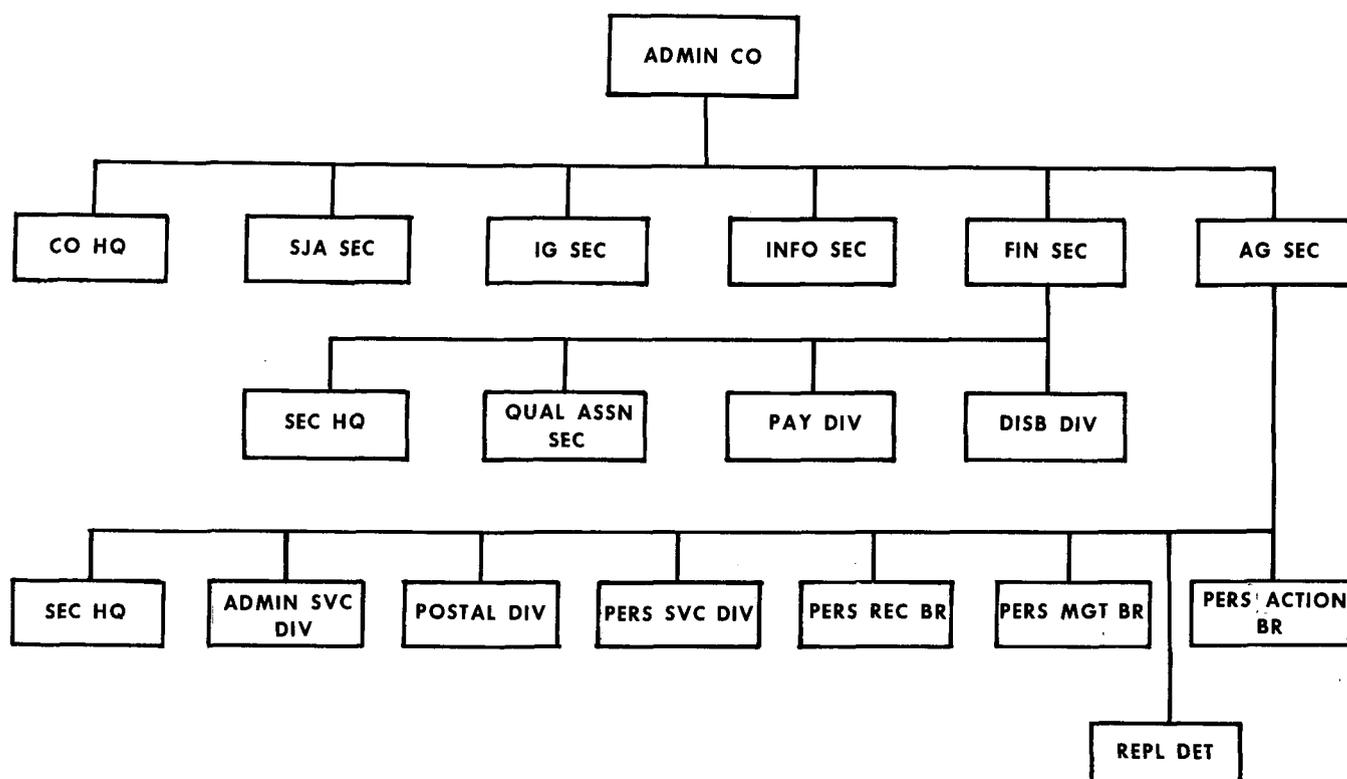


Figure 3-5. Administrative company, support battalion, separate armored brigade.

*e. Maintenance Company.* The maintenance company provides command, administration, and technical supervision of the separate brigade maintenance activities. It provides direct support maintenance and repair parts supply service—excluding aircraft, medical, cryptographic, and quartermaster air items—to all elements of the brigade. Figure 3-8 illustrates the maintenance company.

### 3-14. Combat Service Support Operations

*a.* During tactical operations, the brigade trains normally are controlled by the support battalion commander through his command post which organizes and operates a brigade logistical control point (BLCP). In addition to organizing, securing, and controlling the organic and attached combat service support units in the brigade trains area, he locates and secures the field trains of the maneuver battalions. Security is provided principally through disposition of units, provision of local security by each separate element of the trains, and coordination with the brigade S3 for combat support in the event the trains are subjected to an enemy attack beyond their defensive capability. The brigade S4 and his staff operate in and from the brigade command post.

*b.* When the brigade is required to echelon the brigade trains into a brigade trains and brigade support area, the S4 controls the brigade trains area while the support battalion commander controls the brigade support area. This echelonment is required only in the event that the brigade is forced to operate beyond the effective support range of its logistical support or in the event that the brigade desires to reduce the size of the brigade trains elements in a defensive situation. Whenever echelonment of the trains is proposed, consideration must be given to the added requirements for control, security, and communication for both elements. In this light, the support battalion should be located at the next higher echelon or within the vicinity of the force following the brigade. The brigade trains area should be located to the rear of the brigade command post and employed as in the division. Control between the two echelons is established by FM communication; however, if the intervening distances become too great, the brigade requires additional army signal support in the brigade trains area so that RATT communication can be maintained.

*c.* The provision of combat service support is the same as in the division, with the exception that the combat maneuver battalions direct their

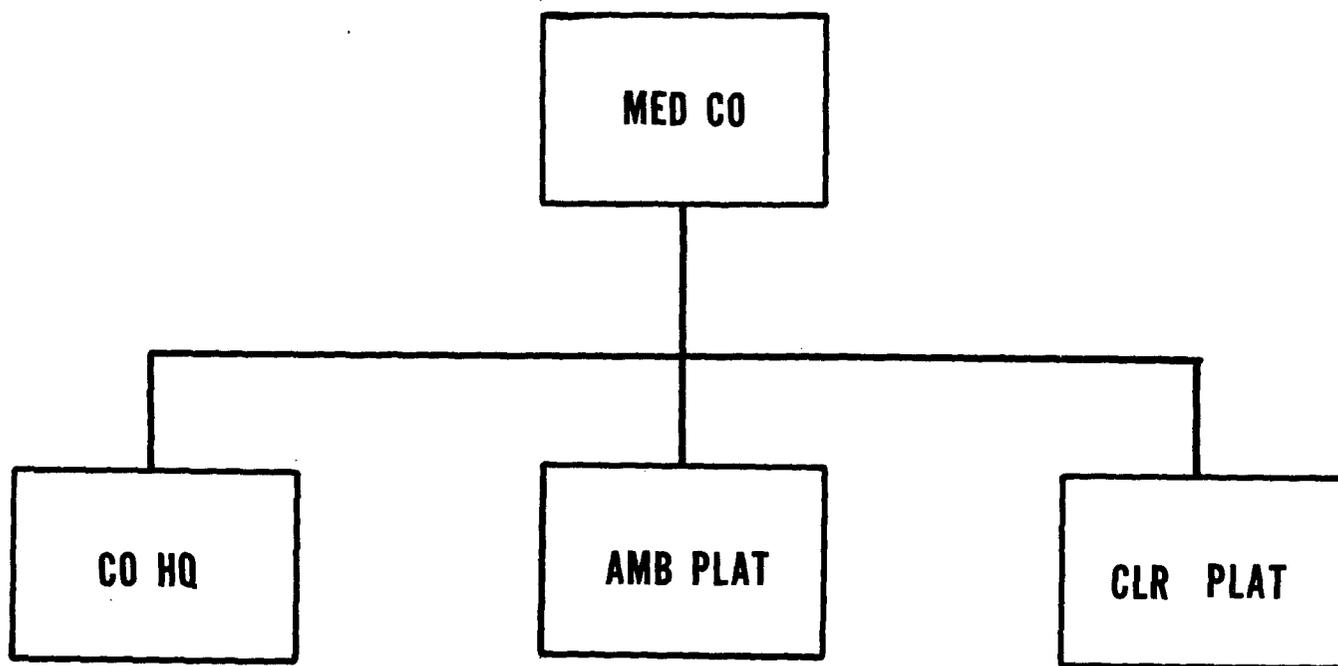


Figure 3-6. Medical company, support battalion, separate armored brigade.

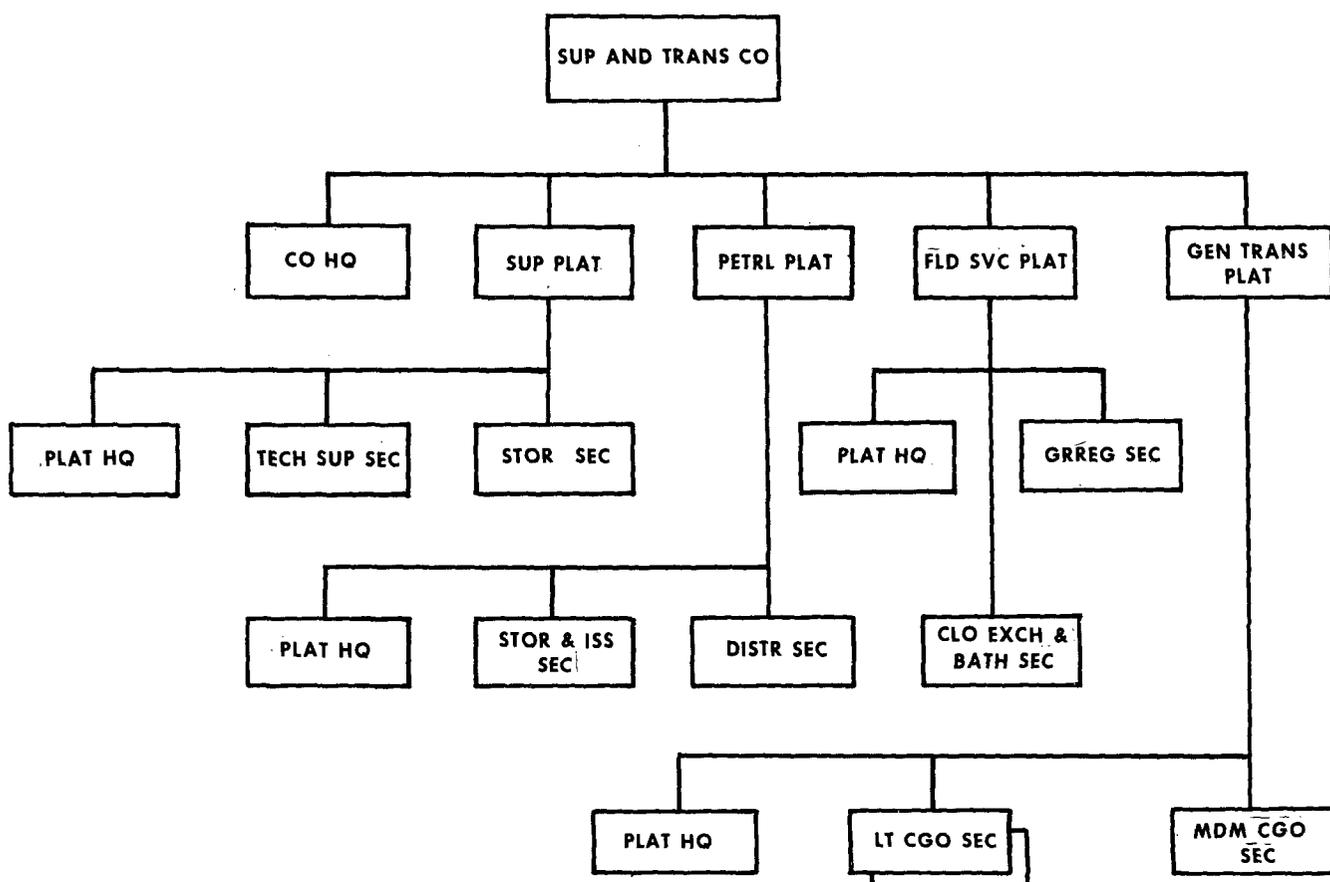


Figure 3-7. Supply and transport company, support battalion, separate armored brigade.

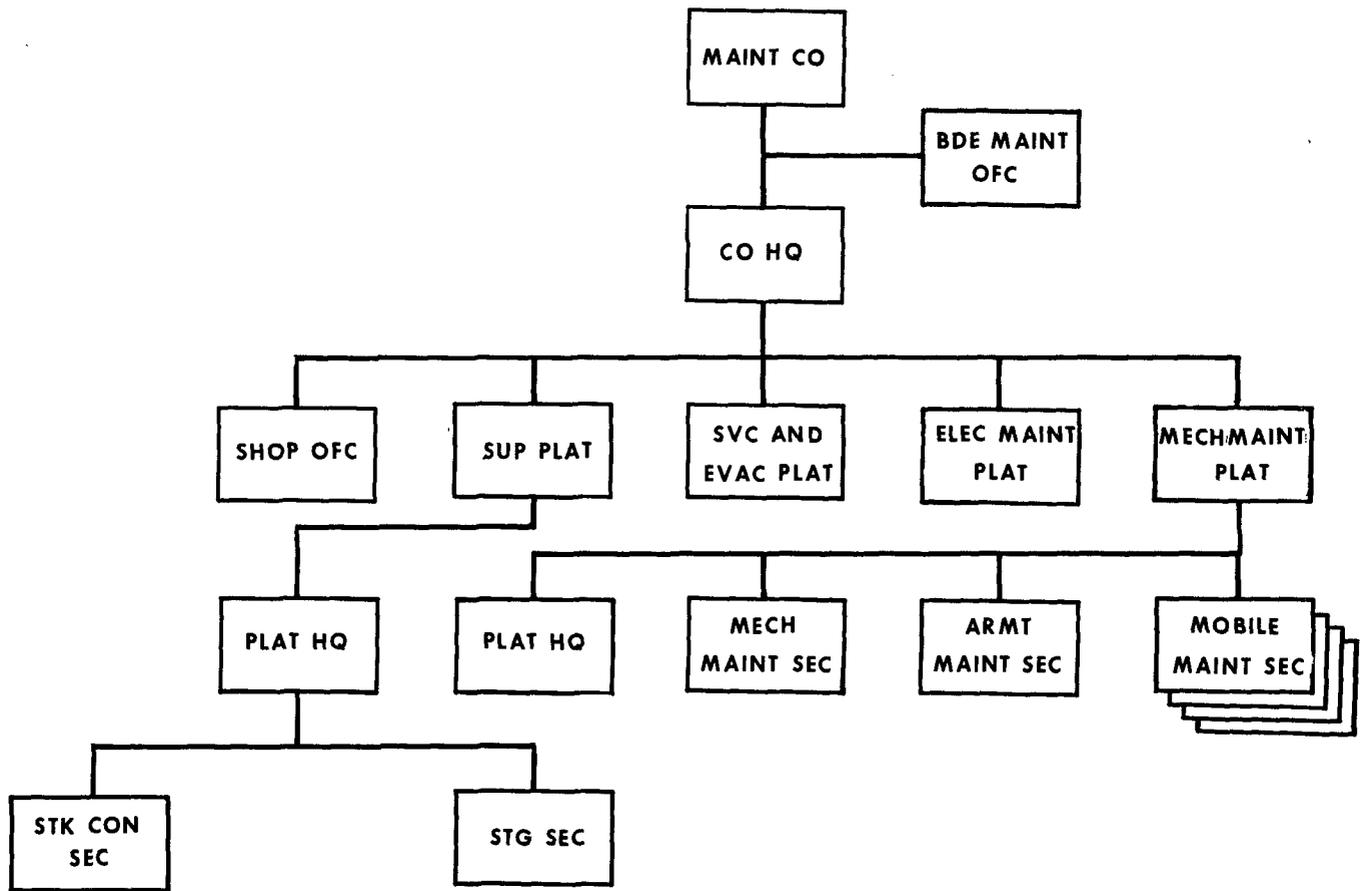


Figure 3-8. Maintenance company, support battalion, separate armored brigade.

requests, requirements, and reports to the support battalion instead of the division support command. Combat maneuver battalions organize combat and field trains as appropriate to the situation.

Provision of combat service support within the combat maneuver units and separate companies is accomplished as discussed in chapter 6.

## CHAPTER 4

### SIGNAL COMMUNICATION

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#### Section I. INTRODUCTION

##### 4-1. General

a. The communication system of the armored brigade must satisfy specific communication requirements. It must be planned and organized to realize the maximum degree of each of the system objectives consistent with the unit mission. The system must provide the versatility necessary for command and control of any conceivable attachment or organization dictated by the commander's concept and plan. Commanders and their staffs must integrate communication considerations into all aspects of operational planning.

b. This chapter discusses communication requirements and capabilities of the brigade.

##### 4-2. Responsibility

a. The brigade commander is responsible for the installation, operation, and maintenance of his communication system and for its efficient operation as a part of the system of the next higher headquarters. He is responsible for insuring that adequate means of communication are available to all subordinate units for planned operations of the brigade. The brigade commander is assisted in the discharge of these responsibilities by the brigade signal officer.

b. The responsibility for communication between units is based on the following principles:

(1) Communication between higher and subordinate units is the responsibility of the higher unit.

(2) A unit supporting another unit establishes communication with the supported unit and maintains communication with its parent unit.

(3) A unit attached to another unit must operate in the communication system of the unit to which it is attached. Except for the air defense

artillery units, the attached unit is not required to maintain communication with its assigned parent unit.

(4) Communication between adjacent units is established and maintained from left to right, unless otherwise directed by the next higher commander.

(5) When communication between units is lost or disrupted, each unit involved is responsible for taking immediate action to restore communication.

##### 4-3. Brigade Communication Platoon

The communication platoon is the brigade commander's organic means of discharging communication responsibilities. Chapter 2 discusses the organization and capabilities of the platoon.

##### 4-4. Signal Battalion Forward Command Terminal Teams

The divisional signal battalion normally provides the brigades with forward command terminal teams which give the brigades entry into the multichannel communication system of higher headquarters. These teams are tailored to meet requirements generated by the brigades' missions and will normally possess sufficient radio equipment to establish a multichannel communication system including the brigade command post, the division main and alternate command posts, and the nearest forward area signal center. The team operates as part of the division multichannel communication system which is installed and operated by the division signal battalion. They are normally placed in support of the brigade but remain under the operational control of the division signal officer.

Section II. BRIGADE COMMUNICATION SYSTEM

4-5. Brigade Communication

a. The brigade headquarters generally operates in two echelons—a command post, composed of the commander and members of the staff as required, and the brigade trains, where support elements from division and the field trains of attached and supporting units of the brigade are located. Organic communication of the brigade headquarters provides the means for command and control of these groupings and the combat elements of the brigade. A typical brigade communication

system is shown in figure 4-1. A typical separate armored brigade system is shown in figure 4-2.

b. Command and control of units subordinate to the brigade is accomplished primarily by radio communication.

4-6. Brigade Radio Nets

a. *Brigade Command Net (FM Voice).* This net is the primary means of command control of major subordinate elements of the brigade. The

HEADQUARTERS AND HEADQUARTERS COMPANY, ARMORED DIVISION BRIGADE

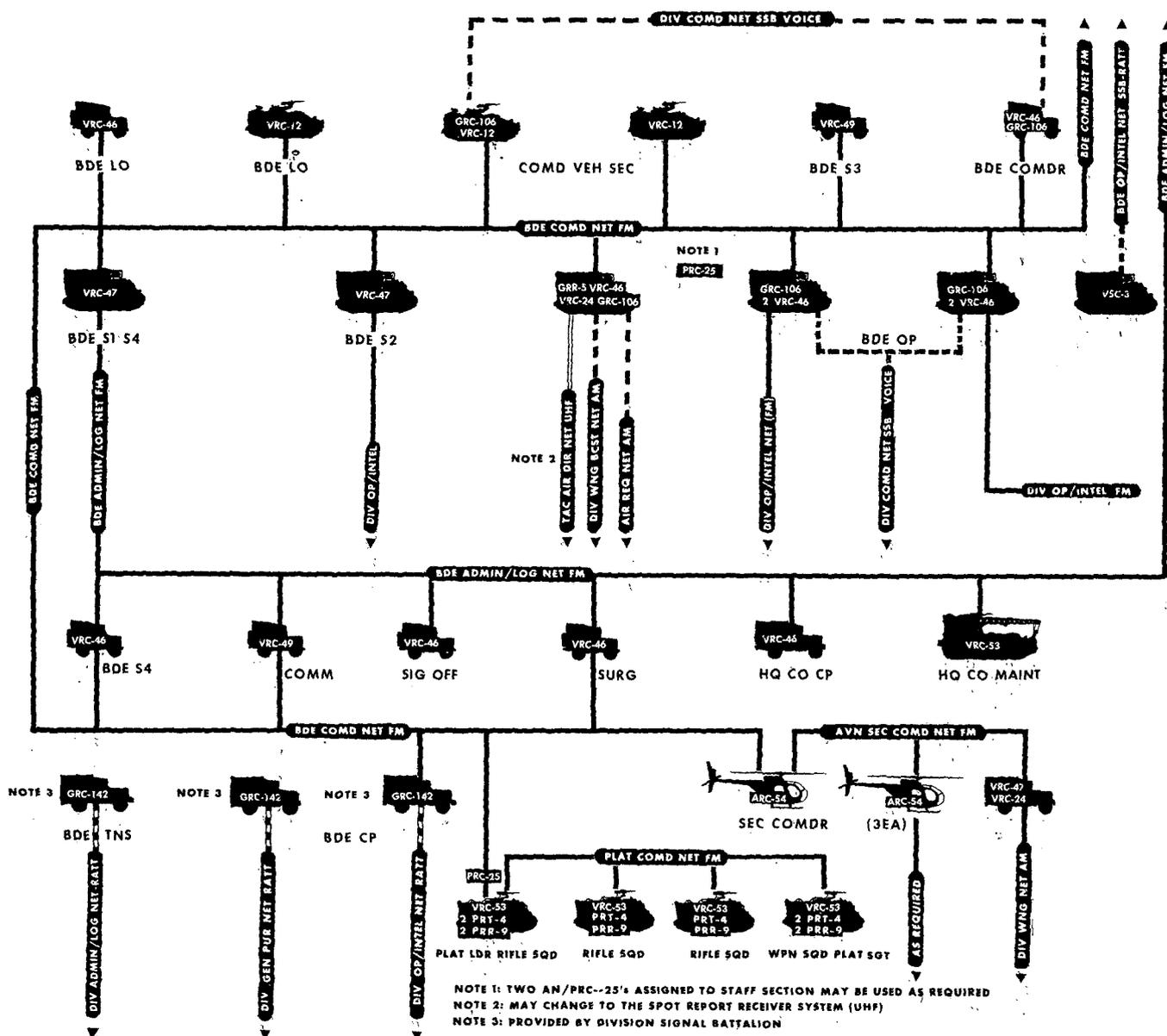


Figure 4-1. Type radio net diagram, headquarters and headquarters company, armored division brigade.

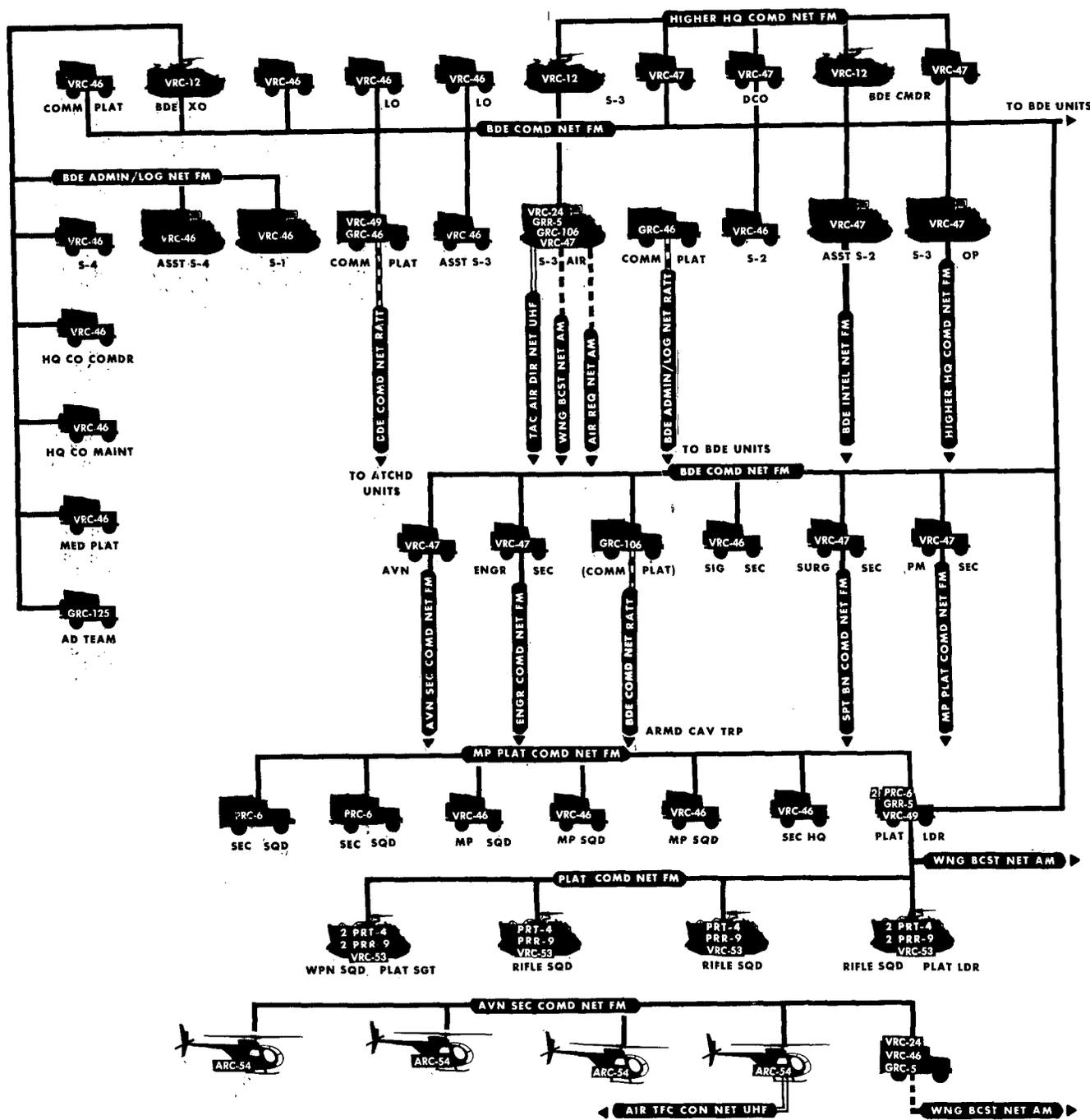


Figure 4-2. Type radio net diagram, headquarters and headquarters company, separate armored brigade.

net control station (NCS) for this net is normally located in the brigade operations command post vehicle. Brigade staff members also operate in this net. Supporting elements of the brigade, such as field artillery, air defense artillery, engineer, and tactical air representatives, will enter this net as required.

b. *Brigade Operations/Intelligence Net (SSB-RATT)*. This net provides a secure means of

rapidly transmitting hard copy operational and intelligence data between the command posts of the brigade and its attached battalions. Equipment and operating personnel for this net are organic to the brigade headquarters company.

c. *Brigade Administrative/Logistical Net (FM Voice)*. This net is used to coordinate logistics and administrative activities of the brigade. It provides a means for handling only high priority

traffic in this area and must be supplemented by wire and courier for full support of routine operations. The brigade S4 operates the net control station from the S1/S4 command post vehicle located in the command post. The battalion S1/S4 sections operate in this net for coordination of high priority administrative or logistical matters as required.

*d. Aviation Section Command Net (FM Voice).* This net provides for internal command and control of both ground and flight operations of the aviation section. Normally, the NCS is in the vehicular ground station. The section commander's aircraft will habitually monitor the brigade command net (FM Voice).

#### 4-7. Communication to Higher Headquarters

*a. General.* The brigade maintains communication to higher and adjacent headquarters by operating subordinate stations in division radio nets, and over telephone and teletypewriter circuits of the division multichannel communications system installed and operated by the division signal battalion.

*b. Radio.* Radio communication facilities consist of—

(1) *Division operations/intelligence net (SSB-RATT).* This net is used to receive orders from, and exchange secure hard copy operational and intelligence information with, the division tactical operations center. When authorized, it may be used for communications with other brigade headquarters, division artillery, and other divisional units in the net. Personnel and equipment to operate the brigade station in this net are provided by the division signal battalion.

(2) *Division administrative/logistics net (SSB-RATT).* This net is used for processing administrative and logistical traffic between the brigade trains area and the support command, the division main command post, and the division rear command post. Personnel and equipment to operate the brigade station in this net are provided by the division signal battalion.

(3) *Division general purpose net (SSB-RATT).* This net is used for processing general purpose traffic, to include overflow traffic from the division operations/intelligence net and the division administrative/logistics net. The brigade station in this net is located in the command post area. Personnel and equipment to operate it are provided by the division signal battalion.

(4) *Division air request net (AM).* This net is used for requesting preplanned tactical air support. Immediate requests are transmitted by tactical air control parties on the Air Force air request net. The brigade S3 (Air) operates a station in the division air request net from the command post.

(5) *Division warning net (SSB-Voice).* This net is used by the division to transmit emergency warnings of enemy air attack; enemy and friendly chemical, biological, and radiological (CBR) attack warnings; effective wind messages; fallout predictions; and similar messages of an urgent operational nature. The brigade S3 (Air) and each subordinate S3 (Air) operate receivers in this net.

(6) *Division command net (SSB-Voice).* This net is used for command and control purposes by the division commander and staff. The brigade stations in this net include the brigade commander and the operations center. Equipment required to operate these stations is organic to the headquarters and headquarters company.

(7) *Division operations/intelligence net (FM-Voice).* This net is used for the control and direction of tactical and intelligence functions. The brigade station in this net is located in the operations center. The radio set used to operate this station is organic to the headquarters and headquarters company.

*c. Wire and Radio Relay.* Telephone and teletypewriter communication between the brigade and the echelons of division headquarters is conducted over the multichannel communication system installed by the division signal battalion. A forward command terminal team of the signal battalion forward communications company is placed in support of the brigade. This team connects the brigade command post into division main and alternate over the division multichannel communication system. In addition, this team establishes one twelve-channel system to the nearest forward area signal center to provide the brigade command post a secondary link into the division multichannel communication system. A forward area signal center is normally located in the vicinity of the brigade trains area. The brigade trains are furnished entry into the division multichannel communication system through the facilities of this signal center.

#### 4-8. Supplemental Communications

Use of wire, messenger, visual, and sound means of communication must be employed to supple-

ment and complement each other to provide the desired degree of reliability.

#### **4-9. Signal Maintenance and Supply**

*a.* The brigade communication platoon performs organizational maintenance of communication equipment assigned to the brigade headquarters and headquarters company. A forward support company of the division maintenance battalion is normally placed in support of each brigade and moves as a part of the brigade trains. The same support is provided to the separate armored brigade by the maintenance company organic to the brigade support battalion. These companies perform direct support maintenance of all brigade signal equipment except cryptographic equipment.

Direct support maintenance of cryptographic equipment is performed by the division signal battalion. All cryptographic material requiring DS maintenance should be evacuated to the nearest forward area signal center.

*b.* A supply section of the maintenance battalion forward support company performs direct exchange and signal repair parts supply functions for the supported divisional brigade. Supply of other signal items (except cryptographic) is provided by the forward support section of the supply and service company. Supply of cryptographic equipment is a responsibility of the division signal battalion. Similar support is provided to the separate armored brigade by the maintenance company organic to the brigade support battalion.

## CHAPTER 5

### COMBAT SUPPORT

(NATO STANAG 2104, CENTO STANAG 2104, ABCA SOLOG 130)

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#### Section I. FIRE SUPPORT

##### 5-1. General

*a.* The brigade commander is responsible for the effective employment of all available firepower and maneuver elements under his direct control or in support of his unit, and for the coordination of supporting fires with the plan of maneuver. He integrates the plan of fire support with the scheme of maneuver to insure that each complements and supports the other.

*b.* The most flexible and responsive fire support available to the brigade is furnished by an artillery battalion normally attached to or placed in direct support of it. The fires of this battalion are augmented by other division and corps artillery units, tactical air, naval gunfire, and direct aerial fire support delivered by Army armed/attack helicopters. FM 6-20-1 and FM 6-20-2 contain details of artillery fire support.

##### 5-2. Integration of Nuclear and Nonnuclear Fires

*a.* The brigade commander insures that nonnuclear fires are completely integrated with the nuclear fires used in his planned operations. He does this whether the nuclear fires are specifically controlled or requested by him or are planned and directed by higher headquarters.

*b.* The capabilities of nuclear and nonnuclear fires must be carefully considered to insure their most effective use. The decision to use nuclear or nonnuclear fires, or both, is the result of the commander's estimate of the situation which takes into consideration the mission, scheme of maneuver, characteristics of weapons and targets, and availability of munitions. Nuclear and nonnuclear fires are most effective when employed to complement each other. Nonnuclear fires include chemical and biological fires. When chemical or biological munitions are included in the fire plan, close coordination is required to insure that the

initial effects of other fires do not destroy agent cloud buildup prematurely. The use of munitions containing quick acting lethal chemical agents should be considered for attacking selected personnel targets and those in the buffer zone of a nuclear weapon attack. Munitions containing persistent chemical agents should be considered for use on targets or key terrain which are not in the path of friendly maneuver and which the commander wants to bypass and/or restrict from enemy use. The use of munitions containing incapacitating chemical or biological agents provides an additional means of neutralizing enemy forces with minimum loss of life. They are particularly well suited for situations where the enemy is intermingled with, or in close proximity to, friendly or neutral forces or populations. FM 3-10 contains detailed information concerning the employment of chemical and biological agents.

*c.* Nonnuclear fires may be used to attack close-in targets which escape damage from nuclear attack, to prevent or delay reorganization in areas of lesser damage, and to increase the damage caused by nuclear fires. They may be placed to interdict enemy routes of reinforcement and withdrawal. They may also be the sole means employed against a target area.

*d.* In planning the integration of fires, the brigade commander considers the possibility that the planned nuclear fires may not achieve the expected results or that they may be unavailable because of operational or technical conditions. As far as possible, he plans other courses of action for these eventualities. The success of the overall operation plan cannot be based solely on the availability and employment of certain nuclear fires. The brigade commander will alter, revise, or discard the plan entirely if the nuclear fires are not employed. He prepares to make these changes rapidly or make specific recommendations to

FM 17-30

higher headquarters concerning alternate courses of action.

### 5-3. Special Nuclear Considerations

*a.* In nuclear warfare, conditions and restriction of employment of nuclear weapons are announced by division and higher headquarters. Within the framework of their operational guidance and existing SOP for nuclear weapons employment, commanders may employ them. Commanders who have the authority to fire nuclear weapons must consider the tactical advantages or disadvantages that result from the radioactive fallout of surface or subsurface bursts.

*b.* Division or higher headquarters normally allocates nuclear weapons to the brigade for planning. In exceptional circumstances, for example, when a battalion task force is operating under division control, an allocation of nuclear weapons may be made directly to a maneuver battalion.

*c.* Nuclear fires fall into two general categories: targets of opportunity and planned fires. Planned fires are either scheduled or on-call. The frequency with which planned fires are used may be limited by the availability of intelligence concerning suitable targets. Targets selected for scheduled nuclear fires must be kept under constant surveillance to insure necessary adjustment or cancellation of the fires. Nuclear fires are included in the fire support plan. Priorities are assigned to nuclear fires according to their relative importance to the accomplishment of the mission, and to avoid delay in delivery of fire.

*d.* The target analysis and weapon delivery data, exclusive of employment time, are calculated for on-call fires and included in the fire support plan. On-call fires may be planned for areas where suitable targets are likely to develop, such as possible enemy reserve assembly areas or known unoccupied defense areas.

*e.* Targets of opportunity are analyzed and the employment data calculated as rapidly as possible consistent with the need for accuracy and the time available. In planning nuclear fires on targets of opportunity, the fastest means of delivery consistent with troop safety and maximum contribution to the accomplishment of the mission should be utilized. Nonnuclear fires may be used to fix fleeting targets until nuclear fires can be employed.

*f.* The responsibility for issuing a nuclear strike warning rests with the executing commander.

Commanders authorized to release nuclear strikes affecting the safety of adjacent units or other commands must coordinate with those commanders in sufficient time to permit dissemination of warnings to force personnel and the taking of protective measures. However, warning of impending strikes will be initiated no earlier than is necessary to accomplish the above.

(1) Any available means of communication—land lines if possible—will be utilized to insure that all force personnel requiring warning are notified.

(2) Subordinate and adjacent headquarters whose units are likely to be affected by the strike will be warned. The brigade's next higher headquarters will be warned when units not under the command of the releasing commander are likely to be affected by the strike. Each unit must notify its next lower element of the protective measures to be taken.

(3) Any conflicts pertaining to troop safety arising from the nuclear strike warning must be submitted to the next higher commander for resolution.

### 5-4. Selection of Nuclear Weapons

*a.* In determining what nuclear weapons to use, the commander considers the number, type, and characteristics of the available weapons; available delivery means; extent of damage desired; troop safety requirements; permanence of target; and available means to exploit the effects.

*b.* The number and type of weapons available to the brigade are determined by higher echelons of command. This does not preclude requests for specific weapons not included in such allocations. From the weapons allocated to him, the brigade commander must make best use of available warheads by proper target analysis, selectivity in the choice of targets, and maximum exploitation of the effects of the strikes.

*c.* Army nuclear delivery systems are generally preferred because of their greater accuracy, all-weather capability, and responsiveness to the will of the supported commander. Air delivery, if properly planned, permits a fuller use of a nuclear weapon's potential in some situations. Such situations arise when the supported unit is beyond the range of ground delivery units, when enemy action prevents ground units from delivering fire, or when ground delivery means within range of the target are inadequate because of yield or other limitations.

*d.* The commander who plans or requests nuclear fires determines the extent of damage required. This is normally an SOP item. To establish the amount of damage desired, he considers his mission, the enemy situation (to include state of combat training and defenses against nuclear weapons); the terrain and weather, and troop safety. His decision constitutes the basis for weapons planning.

*e.* Troop safety is a prime consideration in planning the employment of nuclear weapons and is normally SOP. The commander determines the safety criteria desired for each nuclear strike, and informs the nuclear weapons employment officers and other operational planners during the planning stage.

*f.* The fleeting nature of a target may preclude the use of a nuclear weapon. Intelligence processing and confirmation of reports concerning the target are expedited to the maximum.

*g.* A linear target is usually less remunerative to a single weapon attack than is a circular target. The use of more than one small-yield nuclear weapon may provide better results than a single large-yield weapon against a linear target.

*h.* To deny the enemy an area (which will not be occupied subsequently by friendly forces), a surface or subsurface burst may be used to contaminate the area with residual radiation when the area of predicted fallout is within the brigade's area of responsibility. This may be particularly useful in areas where routes for movement are few or pass through defiles. Wind velocity and direction with respect to the location of friendly forces are critical to a decision to employ a surface or subsurface burst. The authority to employ surface or subsurface bursts is normally retained at higher headquarters.

### 5-5. Chemical/Biological (CB) Fires

*a.* Regardless of the echelon delegated fire authority, when use of CB fires is probable, the brigade initiates and coordinates planning and recommendations for the integration of these fires with other fires and with the scheme of maneuver.

*b.* Chemical and biological agents are particularly suitable against hard, dug-in targets and ill-defined targets. In both offensive and defensive operations, quick acting chemical agents may be employed to produce rapid casualties among personnel. In defensive operations, persistent type

chemical agents may be employed in minefields and barriers to contaminate and restrict enemy use of important terrain features such as crossroads, bridges, and defiles. Chemical and/or biological munitions may be employed when delayed casualty effects are desirable and/or acceptable, for example, in advance of amphibious, airborne or airmobile operations, or in retrograde operations if sufficient planning is conducted pertinent to friendly entry or reentry into any contaminated area.

*c.* There are generally no restrictions on the initial employment of chemical agents such as flame, smoke, and tactical riot control agents.

*d.* Artillery is capable of establishing smoke screens, blinding enemy observation posts, and signalling by means of smoke ammunition.

*e.* The division engineers furnish technical advice and assistance to the division in laying and clearing composite minefields which include chemical landmines.

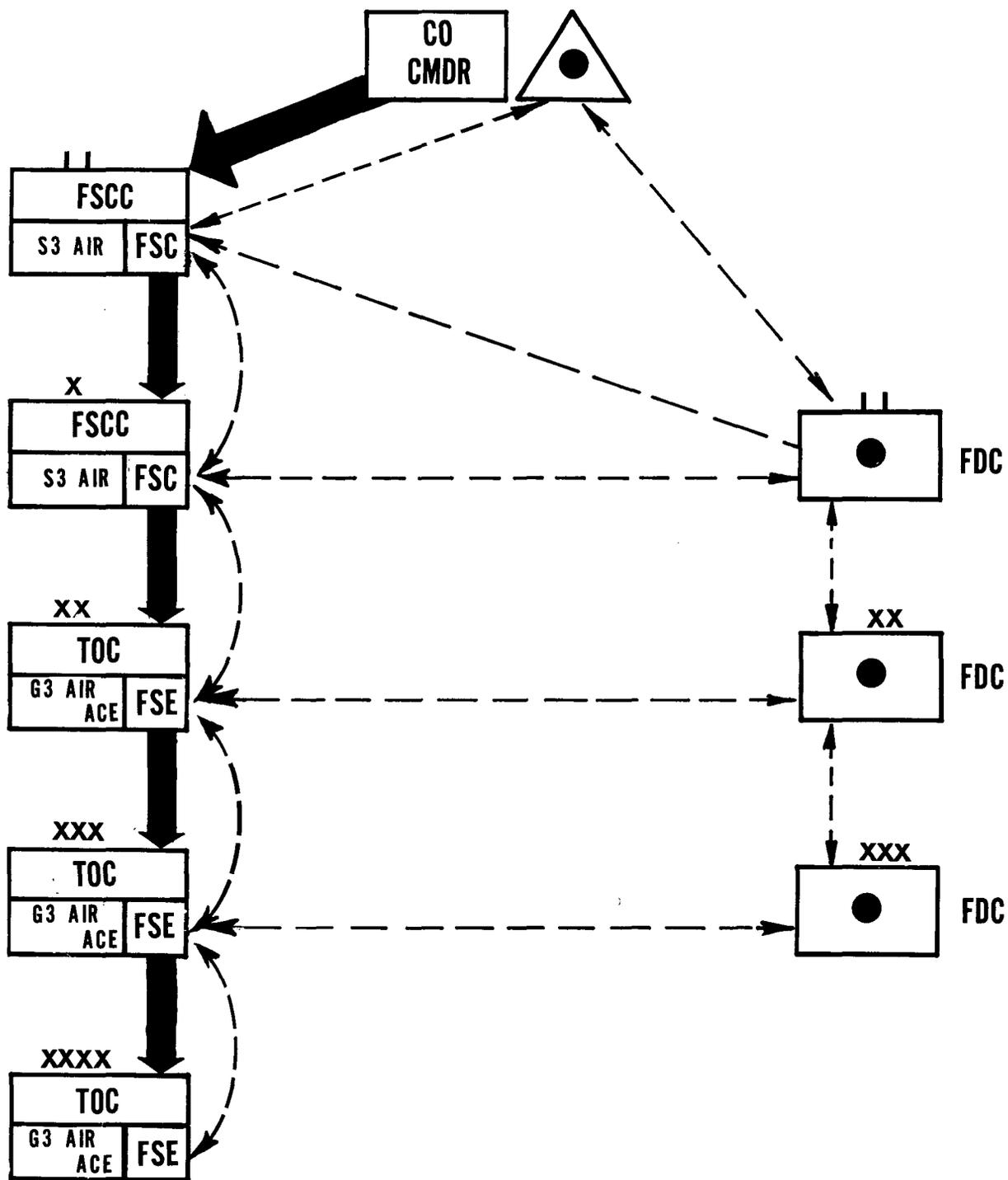
*f.* Maneuver units can deliver lethal and incapacitating chemical agents, flame, smoke, and irritant chemical agents, and can emplace chemical landmines.

*g.* Chemical and/or biological agents can be delivered by artillery units, by naval gunfire, or by aircraft.

### 5-6. Fire Support Annex

*a.* The fire support annex to the brigade operations order (OPORD) implements the commander's concept for the employment of supporting fire and contains the details required for the coordination, integration, and delivery of fire. It may consist of a single document with details of air, artillery (to include ADA in the ground fire support role), chemical, and naval gunfire included in appropriate paragraphs, or it may have appendixes for some or all of the weapons fire plans.

*b.* The fire support annex is prepared by the fire support coordinator (FSCoord), who is the supporting artillery commander. In his absence, the artillery liaison officer prepares the fire support plan. The S3 has staff responsibility for integrating the fire support plan with the scheme of maneuver or defense plan. The representatives of all fire support means and the S3 work jointly to insure this integration. The basis of the fire support plan is the commander's guidance and concept of operation. In both, he includes a state-



**LEGEND**

**—————>** Fire Support Planning

**- - - - ->** Artillery Fire Planning

Figure 5-1. Fire planning channels.

ment of his desired employment of supporting fires and specifies (in general terms) general target areas, scheduling of fires, and priorities of fires. His guidance on nuclear employment specifies the results he expects to achieve with nuclear fires, the results he does not want, troop safety, and the way these fires are to be integrated with his plan of maneuver.

c. The exchange of fire support planning data between attached maneuver units and the brigade and between brigade and division must be timely and continuous. Figure 5-1 illustrates fire planning channels.

### 5-7. Artillery Fire Planning

a. The artillery fire plan for the brigade is prepared by the artillery battalion attached to or in direct support of the brigade. It is based on requirements for planned fires—

(1) Submitted by the brigade commander and staff.

(2) Submitted by brigade maneuver units.

(3) Imposed by higher headquarters, e.g., to support an attack by an adjacent brigade.

b. Requirements for nuclear, chemical (except nonpersistent CS), and biological fires to be delivered by artillery units are processed through command channels. The commander with approving authority will, if he approves the request, refer it to his fire support element (FSE) in the tactical operations center (TOC) for implementation. If the brigade commander has authority to approve the request, and does so, he passes the fire request to his FSCOORD and notifies higher headquarters through command channels.

c. The completed brigade artillery fire plan becomes the approved artillery fire support appendix to the brigade fire support annex and is immediately in effect. A copy of the appendix is forwarded to the division artillery fire direction center for coordination with the division artillery fire support plan. The separate brigade, or a divisional brigade on a separate mission, will forward the appendix to the next higher headquarter's FSE.

### 5-8. Fire Support Requests

a. *Conventional Artillery Fires.* Calls for conventional artillery fires are planned by the forward observer and approved by the committed company commander. They are then transmitted directly to the fire direction center (FDC) of the

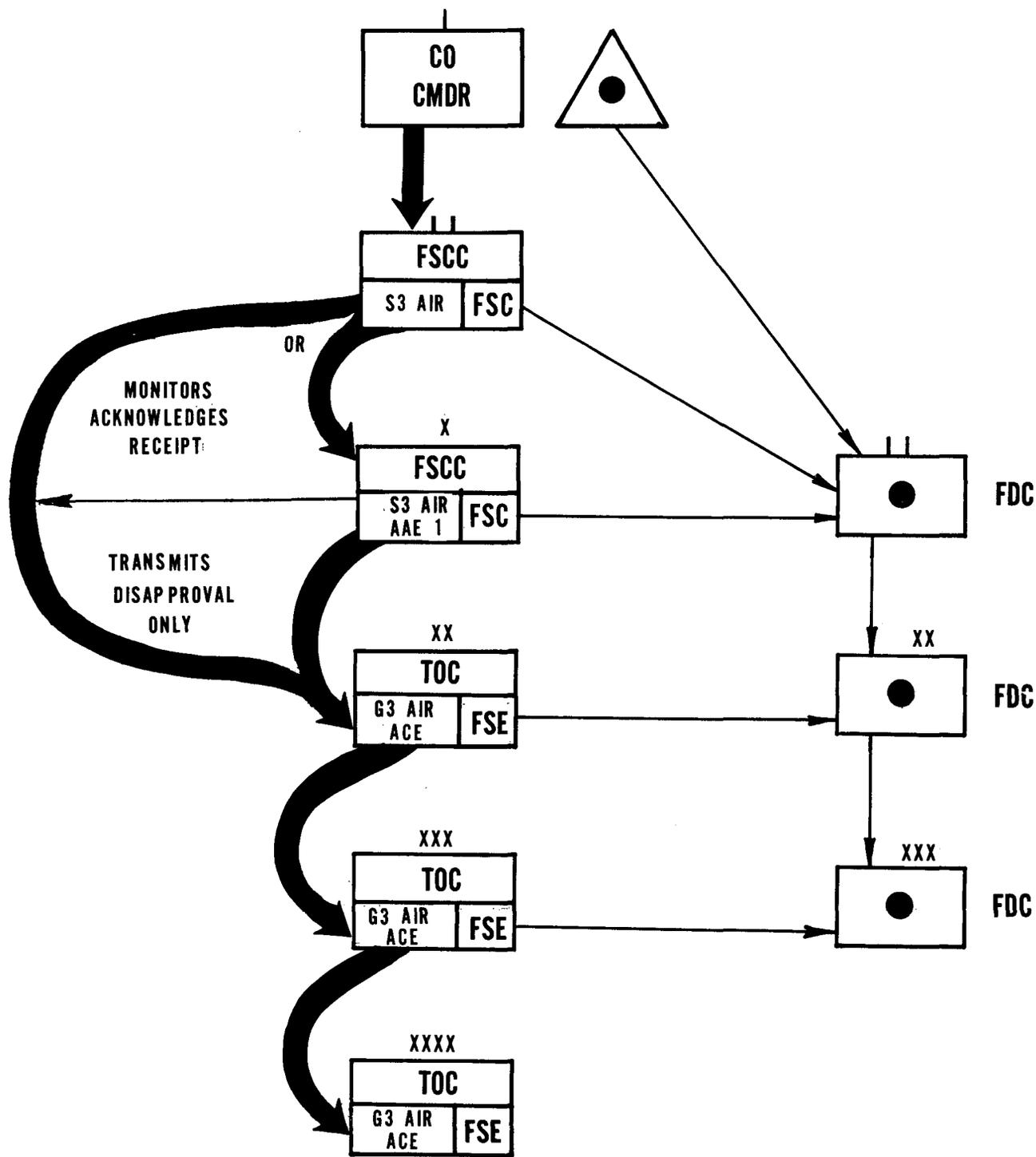
supporting artillery battalion. Artillery fire requests originating at battalion and brigade are sent directly to the direct support artillery battalion FDC. This FDC will request any additional fires required from a reinforcing artillery unit, if appropriate, or from the FDC of the next higher echelon. Figure 5-2 illustrates conventional artillery and armed/attack helicopter fire request channels.

b. *Nuclear, Biological, and Chemical Fires.* When their use has been authorized, decisions to employ these fires rest with the commander to whom the weapons are allocated. Authority to employ fallout-producing bursts is normally retained at division level. Authority to employ chemical agents normally is delegated to the lowest commander whose area of operations can be expected to encompass the probable area of predicted contamination to include the downwind hazard. Requests for fires are processed through command channels to the next higher command. Procedures are designed to insure rapid transmission and delivery of requests to the commander or his representative authorized to act on the request. Notification of the request may also be sent through fire support channels to alert the fire direction center and to insure prompt delivery by using a concurrent transmission through fire support channels. Figure 5-3 illustrates nuclear, biological, and chemical fire request channels. Nonpersistent CS delivered by mortars, artillery, or air should be cleared directly by brigade with the unit having the delivery system. Maneuver units employing nonpersistent CS munitions such as hand grenades, grenade launchers, and mortars should not be required to obtain clearance, because these munitions will normally be employed against targets of a fleeting nature. If a chemical attack against enemy entrenchments is to be followed by high explosive fires from mortars, artillery, or tactical air strikes, a sufficient pause—approximately three minutes—should be allowed prior to the start of these fires to enable the enemy to leave his positions in an attempt to escape the agent cloud.

c. *Close Air Support Requests.*

(1) Any level can initiate requests for close air support (CAS). These requests may be either immediate or preplanned.

(2) Requests for preplanned CAS missions are submitted through command channels to the TOC at division and higher echelons or to the FSCC at battalion and brigade level. They form the basis for the air fire plan. The TOC and FSCC



1 Aviation section commander

**LEGEND**

- >** Armed helicopter requests
- >** Conventional artillery and illumination requests

Figure 5-2. Conventional artillery and armed/attack helicopter request channels.

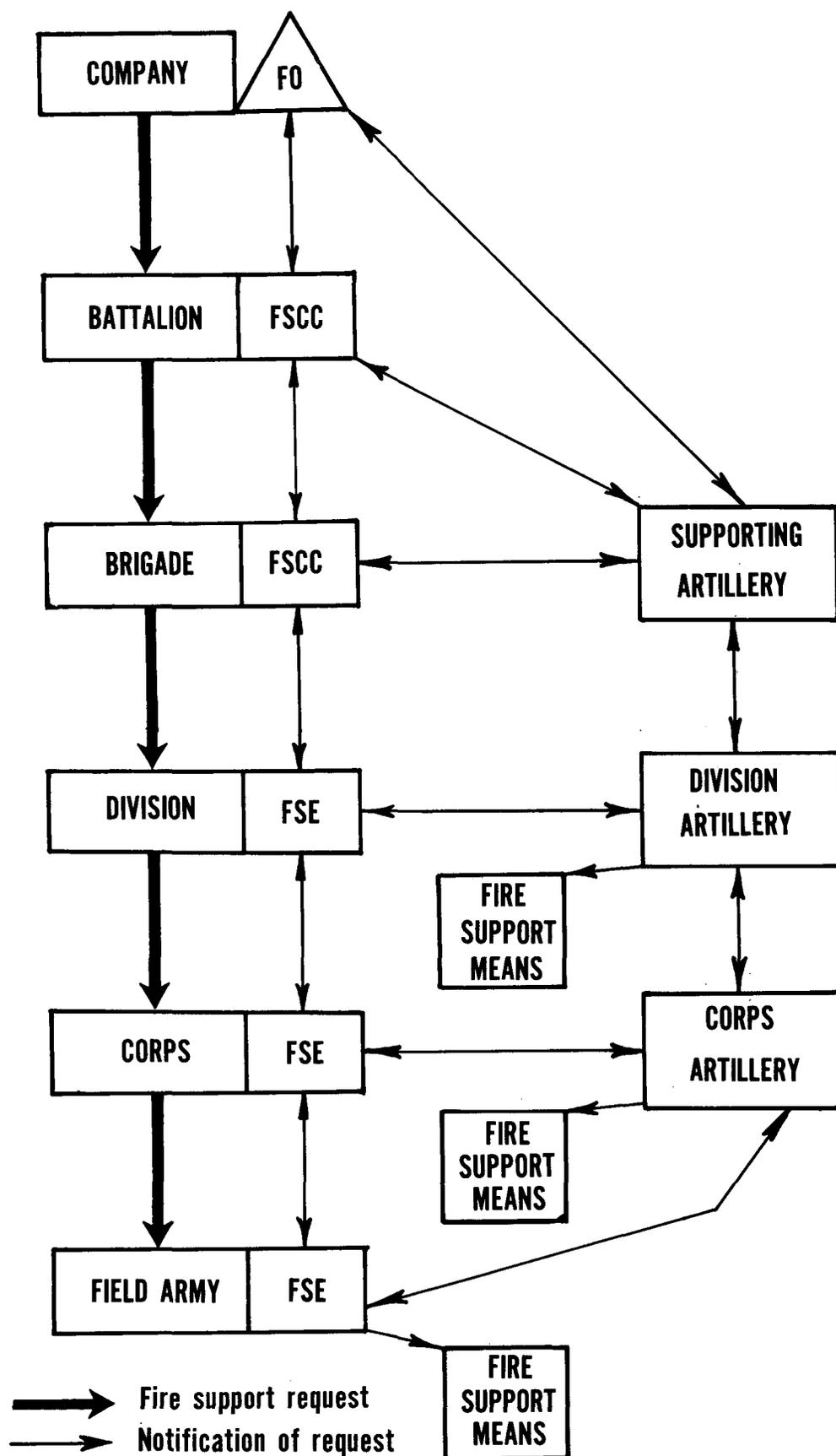


Figure 5-3. Nuclear, biological, and chemical fire request channels.

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at each level of command evaluate, consolidate, and, if approved, assign a priority, and forward the requests to the next higher echelon. The tacti-

cal air support element (TASE) of the TOC at field army level normally makes the final consolidation and obtains approval of the requests. Upon

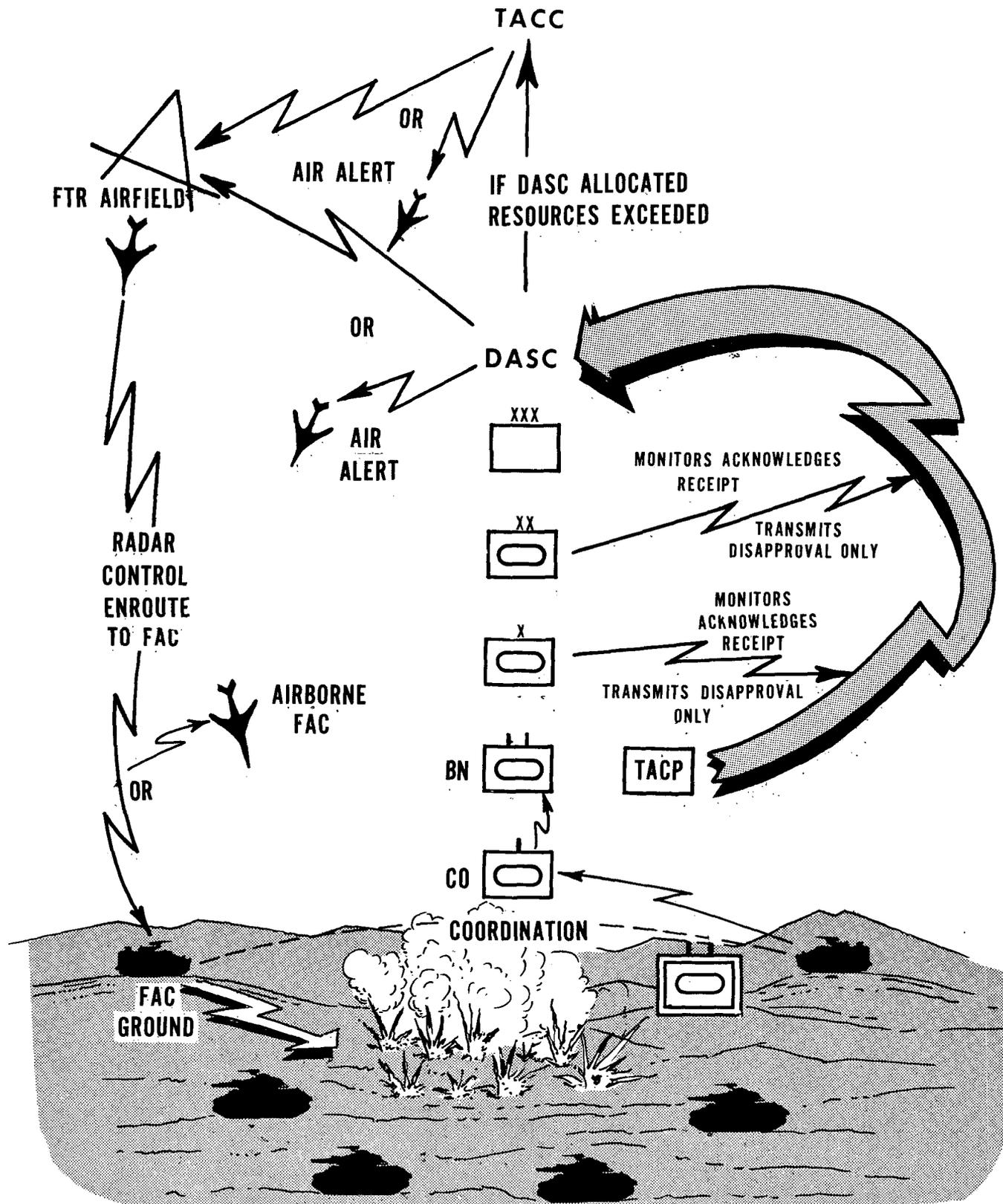


Figure 5-4. Immediate close air support request channels.

approval, the TASE passes the requests to the Air Force tactical air control center (TACC) for execution and notifies the originator of the approval through channels. If the request is disapproved at any echelon, the requestor is notified through channels.

(3) Immediate requests below battalion level are forwarded to the battalion command post by the most rapid means available. At battalion level, requests are validated by the commander or his representative and passed to the tactical air control party (TACP). The TACP transmits the requests directly to the direct air support center (DASC) normally collocated with corps tactical operations center (CTOC). TACP's at intermediate headquarters monitor the request and may acknowledge receipt. Normally, acknowledgment of the request or silence by intermediate TACP's indicates approval by the associated headquarters; unless, within a specified period of time, a disapproval is transmitted. If a commander desires that approval be stated by specific transmission, the procedure is normally contained in the unit SOP. The DASC passes the requests to the corps TACP's for coordination. Meanwhile, the intermediate TASE pass the requests to the associated headquarters for action and coordination. All echelons coordinate simultaneously. If any echelon above the initiating level disapproves a request, the TACP at the disapproving headquarters notifies the DASC and the initiating TACP, and the request is canceled. If headquarters where the DASC is located or a higher headquarters disapproves the request, the DASC notifies the originator and the request is canceled. If the request is approved by the commander at the DASC level, the DASC orders the mission to be flown from allocated sorties. If all allocated sorties are committed, the DASC obtains additional sorties or forwards the request to the TACC supporting the field army for completion.

(4) Requests may be forwarded directly from company level to the DASC if a forward air controller (FAC) with adequate communications is present. If this occurs, the battalion TACP functions in the same manner as the TASE of intermediate headquarters described above.

(5) The supported ground commander or his representative approves or disapproves all requests. Members of the TACP providing CAS act in an advisory capacity.

(6) Figure 5-4 illustrates immediate close air support request channels.

*d. Naval Gunfire.* Requests from combat units for naval gunfire are submitted through naval gunfire liaison personnel attached to the division. When naval gunfire is employed to attack a target, it is fired by direct or general support ships using naval gunfire procedures.

*e. Armed/Attack Helicopter Fire Support Requests.*

(1) Any level can initiate requests for armed/attack helicopter fire support. These requests are either immediate or preplanned.

(2) Requests for preplanned armed/attack helicopter fire support are submitted to the fire support coordination center at battalion and brigade level or the tactical operations center at division and higher echelons. They form the basis for the armed/attack helicopter fire support plan. Requests are satisfied at the lowest echelon possessing the organic, attached, or supporting aircraft capable of fulfilling the requestor's needs. If the requests are not within the capability of aerial resources immediately available, requests are consolidated, assigned a priority, and forwarded to the next command echelon.

(3) Immediate requests below battalion level are forwarded to the battalion command post by the most rapid means available. At battalion level, requests are satisfied with supporting aircraft resources or validated by the commander or his representative and forwarded to brigade or division. Brigade or division satisfies the request from organic or supporting aircraft resources or forwards the request to the next higher echelon.

(4) These procedures do not apply to armed/attack helicopters of air cavalry units. These helicopters habitually operate under the direct control of the unit to which assigned or attached.

## 5-9. Air Defense

*a.* The divisional air defense artillery battalion, Chaparral/Vulcan, consists of a headquarters and headquarters battery, two Vulcan batteries, and two Chaparral batteries. Vulcan fire units are employed to provide local air defense and direct ground fire support for units and installations throughout the division zone. Chaparral fire units are employed to provide area air defense to units and installations throughout the division zone. The battalion is normally retained under division control. If an element of the battalion is attached to or placed in support of the brigade, the at-

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tached or supporting unit commander becomes the air defense coordinator for the brigade commander and prepares the air defense plan. FM 44-1 and FM 44-3 describe the principles governing Chaparral/Vulcan employment.

b. Each maneuver battalion and tube artillery

battalion contains an organic Redeye section to provide defense against low altitude air attack.

c. Brigade and subordinate commanders must plan for the integration of nonair defense weapons employed in the air defense role, as discussed in FM 17-1.

## Section II. INTELLIGENCE SUPPORT

### 5-10. General

Intelligence is a basic requirement for the successful planning and conduct of military operations. The intelligence capabilities of the brigade are supplemented by intelligence agencies of higher headquarters. Detailed intelligence procedures are prescribed in FM 30-5. Information regarding military intelligence support for the separate armored brigade is found in FM 30-9.

### 5-11. Reconnaissance and Surveillance

#### a. Ground Reconnaissance

(1) Each maneuver unit attached to the brigade has an organic ground reconnaissance and surveillance capability. Aggressive ground reconnaissance is a positive means of determining disposition and identification of enemy forces. The greater the dispersion of the battlefield, the greater is the requirement for reconnaissance and the more rapidly patrols can penetrate and develop enemy positions.

(2) The armored cavalry squadron is the principal division reconnaissance unit. Normally this unit is employed under division control, but the squadron (or its elements) may be attached to or in support of the brigade. The separate brigade utilizes its organic cavalry troop for reconnaissance.

b. *Air Reconnaissance.* Air reconnaissance should be continuous and coordinated with ground reconnaissance. The brigade commander (through the S2) must exploit the capabilities of army aviation. Requests for air reconnaissance missions from subordinate units are processed by the brigade assistant S2 to the division G2 air. Request that cannot be accomplished by organic or attached air reconnaissance units are forwarded to higher headquarters. Figure 5-5 illustrates air reconnaissance request channels.

(1) *Army aviation.* Army aviation may be used in a primary air reconnaissance role or in support of ground reconnaissance elements. The division aviation unit's organic aerial surveillance

capability is limited to visual reconnaissance and battle area illumination for night reconnaissance. Photography (day and night), infrared, and radar capabilities are organic at corps and higher levels and may be made available through the procedures outlined above. Helicopters extend the range of patrols by moving them to their starting points and picking them up at prearranged locations.

(2) *Tactical Air Force.* The reconnaissance wings of the tactical Air Force include reconnaissance-type aircraft. These aircraft provide photographic, electronic, weather, and limited visual reconnaissance information.

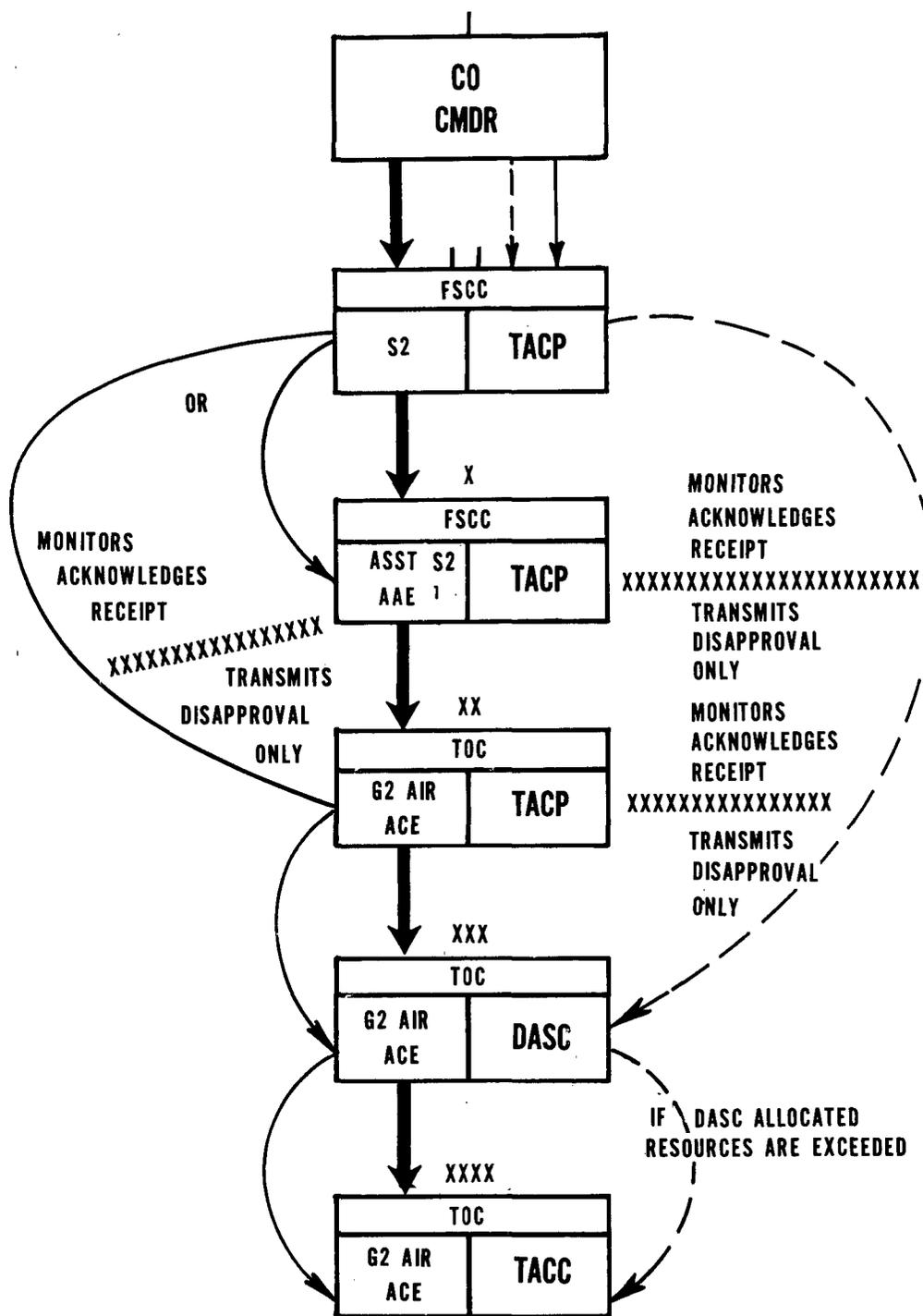
### 5-12. Counterintelligence

a. Effective counterintelligence increases the security of the brigade and aids in the achievement of surprise by denying information to the enemy through active and passive measures. Active counterintelligence measures are designed to block the enemy's attempts to gain information, and they include counterreconnaissance, challenge and password systems, and air and ground reconnaissance to detect and expose the enemy's intelligence effort. Passive measures conceal information from the enemy. They include censorship, secrecy discipline, security of classified documents and materiel, signal communications security, movement control, use of concealment, camouflage, electronic countermeasures, and control of civil populations. Brigade efforts in these areas will be assisted by higher headquarters military intelligence and army security agency personnel.

b. The brigade assistant S2 usually is designated as the brigade counterintelligence officer.

### 5-13. Captured Enemy Materiel

The S2 is responsible for intelligence exploitation of captured enemy materiel in accordance with command policy and FM 30-5.



<sup>1</sup> Aviation section commander  
**LEGEND**

- >** Preplanned Requests
- - - - ->** Immediate Requests-Army Aviation
- · - · ->** Immediate Requests-Tactical Air Support
- XXXXXXXX** Monitoring

REQUESTS ARE SATISFIED AT THE  
 LOWEST ECHELON CAPABLE OF  
 FULFILLING REQUESTER'S NEEDS.

Figure 5-5. Air reconnaissance request channels.

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### 5-14. Intelligence Support of Tactical Cover and Deception Operations

Planning of tactical cover and deception operations is primarily an S3 responsibility. The intelligence aspects of these operations, however, must be coordinated with the S2. Although planning and supervision of tactical cover and deception operations are normally accomplished by division and higher echelons, the brigade plays a major role in executing such plans. Close coordination between the brigade S2 and S3 and the division G2 and G3 is essential to insure successful execution of tactical cover and deception operations. FM 31-40 describes these operations in detail.

### 5-15. Military Intelligence Specialist Support

#### a. Divisional Brigade.

(1) *General.* A military intelligence detachment (MID) normally is attached to the division and provides the division with four basic intelligence support services, i.e., order of battle, prisoner of war interrogation, imagery interpretation, and counterintelligence. Interrogator and counterintelligence personnel of this unit are

deployed with each committed brigade as determined by the division G2.

(2) *Interrogation operations.* Interrogation personnel are normally located at the division forward prisoner of war collecting point located in the brigade trains area. In addition to interrogation, these personnel can also provide limited screening of enemy documents.

(3) *Stability operations.* Due to the nature of stability operations, interrogator and counterintelligence personnel are frequently employed down to battalion and company level.

b. *Separate Armored Brigade.* Military intelligence support to the separate armored brigade is provided by the military intelligence detachment, separate brigade. This detachment provides order of battle specialists who are integrated into the brigade's S2 section; imagery interpretation personnel equipped with a tactical imagery interpretation facility (TIIF) and operating under the staff supervision of the assistant S2 (Air); and interrogator and counterintelligence personnel with operating functions similar to those of the divisional brigade.

## Section III. SUPPORT FROM OTHER UNITS

### 5-16. Aviation

a. With the exception of the air cavalry troop, the armored division's aviation effort is primarily directed to support in a command and control and limited air reconnaissance role.

b. Helicopters for tactical lift of troops and equipment will be provided in general support on a task basis to the division from the aviation resources of higher headquarters (corps) or placed in direct support, or under the operational control of the division. The brigade will in turn be provided a lift capability through direct support of aviation units or elements, be given operational control of aviation units/elements, or be supported on a mission basis as the tactical situation requires.

### 5-17. Chemical

Chemical units are provided by field army and may operate under division control. These units may be further attached or placed in support of the brigade.

a. These units have the capability of providing the following types of support.

- (1) Smoke operations.

(2) CBR survey and reconnaissance to include radiological surveys.

(3) Servicing of flame weapons.

(4) Decontamination.

(5) Chemical technical intelligence.

(6) Mechanized flame operations.

(7) Tactical employment of riot control agents.

(8) Herbicide operations.

b. The initial source of chemical supply, maintenance, and service is provided by elements of the division support command and the support battalion of the separate brigade. This support may be supplemented by units of the field army.

### 5-18. Signal Communication

a. The forward communication company of the division signal battalion establishes signal centers in the forward area of the division. These signal centers provide message center, motor messenger, cryptographic, teletype, telephone, and radio (excluding internal radio nets) service for all units in the vicinity to supplement organic facilities. A signal center is normally located in the area of the brigade trains.

b. Multichannel communication links (radio

relay and/or cable) interconnect the signal center with brigade headquarters. In addition, radio/wire integration facilities are provided in each forward signal center to interconnect mobile FM radio stations with the signal center. This provides a means of communicating between an FM radio station and other elements of the division connected to the signal center by telephone.

#### **5-19. Engineer**

*a.* One engineer company from the division engineer battalion is normally placed in direct support of the divisional armored brigade, but may be attached when distances or the tactical situation preclude centralized engineer control. This unit may be reinforced by additional division engineer units or equipment. Special engineer units and equipment support the brigade when it is employed in river-crossing operations and amphibious operations. The separate armored brigade has an engineer company permanently assigned.

*b.* The commander of the engineer unit attached

to or in support of the divisional brigade functions as the brigade engineer.

#### **5-20. Military Police**

The military police company under the operational control of the division provost marshal provides military police support to the division. A military police platoon from the divisional MP company is normally employed in support of each committed brigade to provide support on an area basis. The brigade S1 coordinates military police support in the brigade. The separate armored brigade has a military police platoon organic to the headquarters and headquarters company.

#### **5-21. Psychological Operations and Civil Affairs**

Psychological operations/civil affairs elements normally are attached to or placed in support of the divisional brigade when it is engaged in stability operations. The separate brigade has an assigned S5 section.

## CHAPTER 6

### COMBAT SERVICE SUPPORT

#### Section I. LOGISTICAL SUPPORT

##### 6-1. Introduction

The brigade S4 is the principal member of the brigade staff involved with logistical support. His role is that of a coordinator between the maneuver battalions and the support command. The separate armored brigade S4 is a coordinator, planner, and supervisor as discussed in chapter 3. The S4 of the armored brigade must keep the brigade commander advised at all times regarding logistical requirements and capabilities within the brigade.

##### 6-2. General

Brigades of the division are tactical echelons and enter combat service support channels only in a control and coordinating role to insure that support is coordinated and adequate to support the brigade tactical plan. Elements of the division support command in support of a brigade provide area support and remain under the command of their parent unit. Brigade may recommend changes in organization, mission, or location of service support elements to support command headquarters, if required. During independent operations of the divisional armored brigade, support command elements are attached. The brigade headquarters then commands the attached elements and supervises their operations. Under these circumstances, the brigade S4 and S1 are service support operators.

##### 6-3. Divisional Armored Brigade Trains

*a. Composition.* The brigade trains usually consist of a brigade S4 representative, the forward area support coordination team (FASCT) of the division support command, field trains of attached units, and a water supply point. The FASCT includes those elements of the division support command which are normally located in the brigade trains area to provide combat service support to the brigade. The division support command usually provides, in addition, a forward area support coordination officer (FASCO) to assist the brigade S4 representative in coordinating the operations of the FASCT. The field trains of

maneuver units attached to the brigade and the FASCT elements normally operate under the control of their parent battalions. Figure 6-1 illustrates a typical organization of the brigade trains area.

(1) *Coordinating element in the divisional armored brigade trains.* The brigade S4 is responsible for the operation of the brigade trains. He establishes a brigade logistical coordination point (BLCP) in the trains area which functions as the trains command post. It is composed of personnel of S1 and S4 sections and supporting communications personnel and equipment. It is normally located at a point where traffic entering the trains area can be properly controlled. The brigade S4 is assisted by the FASCO in all matters concerning FASCT elements. The BLCP—

- (a) Establishes communication and security with and between the units in brigade trains.
- (b) Provides a logistics information center for brigade trains.
- (c) Designates general sites for location of units in brigade trains.
- (d) Disseminates instructions regarding displacement to units in brigade trains.
- (e) Coordinates combat service support operations between FASCT elements and the maneuver battalions.
- (f) Monitors logistical reports from attach battalions.
- (g) Provides RATT communications capability for operation in division nets.

(2) Brigade trains normally displace under control of the brigade S4. The brigade S4 continually studies the tactical situation and makes recommendations to the commander for movement of brigade trains to facilitate support of tactical operations. Upon receiving movement instructions, the brigade S4 coordinates with the brigade S3 and reconnoiters routes to the new area, assigns areas to the units being moved, and issues the order for movement. This order is usually oral.

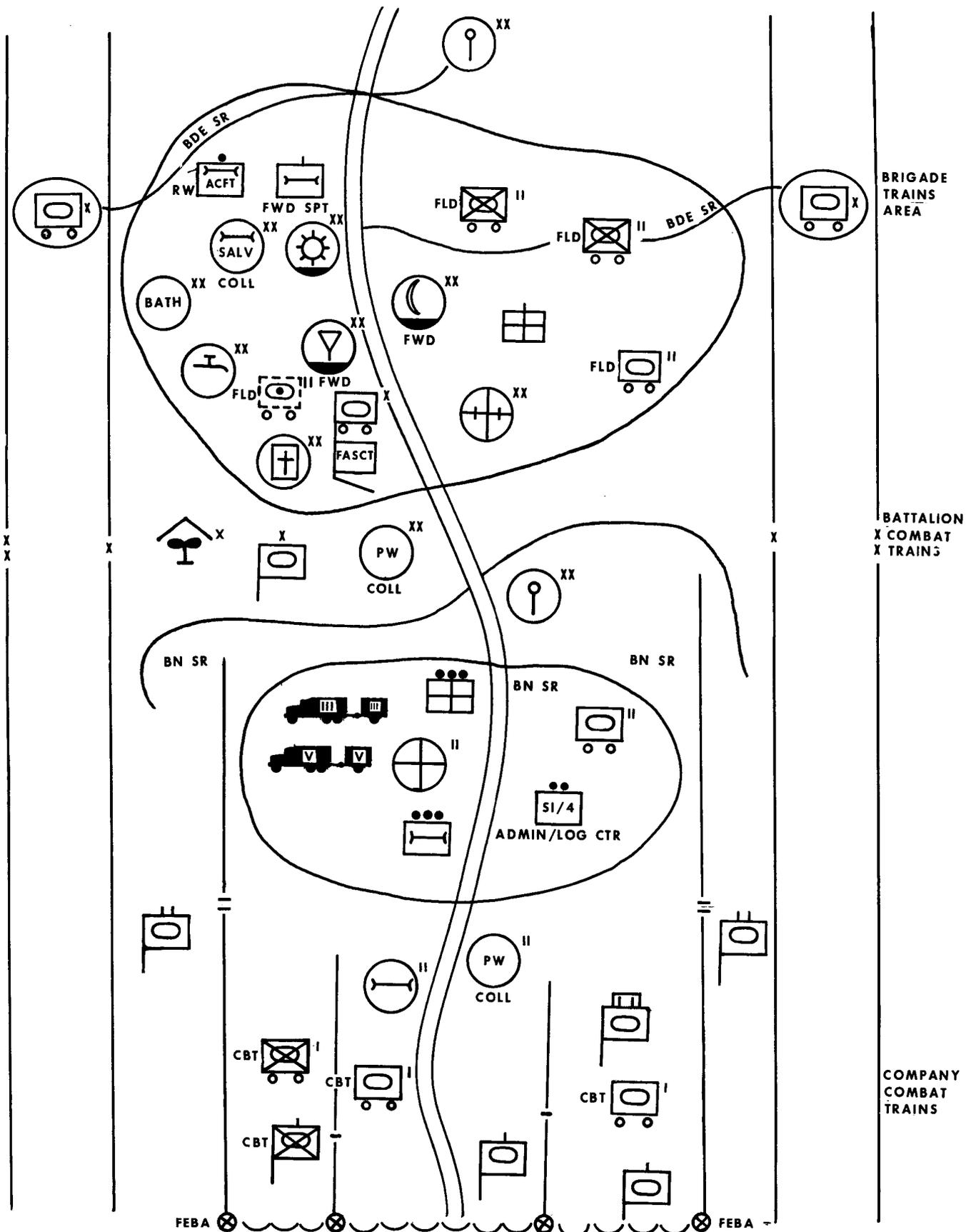


Figure 6-1. Type brigade trains organization.

*b. Operation.*

(1) Although the brigade S4 coordinates the activity and displacement of the brigade trains and supervises the local security of the entire trains area, he does not have the staff nor is it his mission to control all support activities in the brigade trains area. Combat battalions deal directly with support command elements in the brigade trains area for supply, maintenance, and services. The brigade S4 keeps abreast of the logistical situation and may establish priorities when necessary. However, activities of the battalion field trains are normally performed by the battalions without going through or being under control of the brigade S4.

(2) Each battalion support platoon leader, in his capacity as battalion assistant S4, keeps the brigade S4 informed of the general battalion logistical situation. He also keeps the brigade S4 informed of the number of trucks in battalion field trains and the loads on the trucks.

(3) Logistical reports of attached battalions and separate units are submitted to the brigade S4. He forwards them without consolidation to the division G4 or support command. The division administrative/logistics net is normally used for this purpose.

*c. Employment.*

(1) *Offense.* Brigade trains are kept as far forward as practicable. They move by bounds to support the combat elements. Part of the brigade trains must perform organizational and direct support maintenance of equipment, cook rations, and operate a division clearing station as well as other functions that are best performed when stationary. Each move must be evaluated to insure that it will improve, rather than impair, support of combat elements.

(a) In fast moving situations such as an exploitation, the brigade trains follow the combat elements as closely as possible. If the brigade attacks on two or more axes, the bulk of brigade trains normally remains centrally located, with work parties from the maintenance battalion forward support company and battalion field trains displacing along appropriate axes. The medical company in support of the brigade is capable of establishing two clearing stations, if necessary. Control is vital in this type of operation.

(b) If brigades are moving in column, the tactical elements of a following or trailing brigade often have road priority over the trains of the leading brigade. This restricts the movement of the trains in the leading brigade and

requires careful coordination by the division staff and the brigades.

(2) *Defense.* In defensive action, trains are usually held farther to the rear than in offensive operations. The bulk of battalion trains are organized as field trains and normally are located in the brigade trains area where they will not interfere with tactical operations.

(a) *Mobile defense.* In the mobile defense, brigade trains are located in a position that permits maximum support and minimum interference with tactical operations. The fluid nature of the mobile defense normally dictates that brigade trains will be farther to the rear than in the area defense. The nature of the terrain, enemy situation, size of the defensive sector, security of the trains, and scheme of maneuver for this type of operation influence the positioning of the brigade trains. For protection, the trains may be located near elements of the reserve. Supply convoys often require tactical protection. The logistical support plan for the mobile defense is designed to permit quick change from support of a defensive operation to support of a full scale offensive.

(b) *Area defense.* In the area defense, the brigade trains are located well to the rear, but not as far rearward as in the mobile defense, and normally out of range of enemy light artillery. In this type of defense, where the situation is relatively stable, the combat battalions can normally carry sufficient supplies to permit replenishment during periods of reduced visibility only.

(3) *Retrograde operations.* A retrograde movement requires detailed tactical and logistical support plans whose execution is carefully controlled and supervised by each responsible commander. The size of the combat trains with the combat units is held to a minimum. The location and movement of logistical support units are planned carefully so as not to interfere with movements of the combat units.

(a) *Withdrawal.* Whenever possible, brigade trains displace to the rear before the combat elements begin their rearward movement.

(b) *Delaying action.* Protection and control are particularly important in the delaying action. Brigade trains normally are positioned to the rear of the next contemplated brigade delay position and withdraw as the brigade delays, preferably during hours of darkness. Stockpiling on positions helps provide adequate supply. During this type of operation, brigade trains are very large, and the brigade S4 insures that sufficient road space is allotted to move the trains. When

brigade trains are not moving, they are dispersed to reduce vulnerability to nuclear attack.

(c) *Retirement.* The logistical support for a retirement is identical to that normally provided for a tactical march. As in the withdrawal, the brigade trains normally displace to the rear in advance of the combat elements.

#### 6-4. Elements Normally Found in the Divisional Brigade Trains

The support command normally positions portions of its elements in brigade trains locations. It also positions a team to control and coordinate these elements. This is done to facilitate coordination and expedite service. These elements normally include the following:

a. *Medical.* A medical company is placed in support of the brigade and is normally located in the brigade trains area. In addition to supporting the brigade, the medical company provides area support throughout the brigade area of responsibility. When deployed in support of a brigade, a medical company provides the following services:

- (1) Operation of a division clearing station.
- (2) Evacuation of patients from unit aid stations.
- (3) Medical supply and organizational maintenance of medical materiel and equipment.
- (4) Emergency dental treatment.
- (5) Limited psychiatric service.

b. *Maintenance.* Normally, a forward support company from the maintenance battalion is placed in support of each brigade and moves as a part of the brigade trains. Forward support companies

are not attached to brigades except for independent brigade operations. The company provides direct support maintenance for engineer, ordnance, and signal equipment. The forward support company arranges for evacuation and subsequent repair of quartermaster and chemical equipment to the headquarters and main support company of the maintenance battalion. It receives, stores, and issues repair parts for the mission operations of the company and provides repair parts supply service to supported elements. It establishes and operates a division maintenance collecting point in support of the brigade and arranges for evacuation of disabled equipment from the brigade area. It has a limited machine shop capability.

c. *Supply and Services.* A forward supply section from the supply and transport battalion operates class I and III forward distributing points in each brigade trains area and a graves registration collecting point. The class I distribution point in the brigade trains area can process other classes of supply to a limited degree. The supply and transport battalion also operates a salvage collection point in each brigade trains area.

d. *Bath and Clothing Exchange Service.* The divisional supply and transport battalion and the separate armored brigade support battalion provide bath facilities for the brigade. When arrangements are made for additional operating personnel and clothing stocks, these units may establish a clothing exchange service at each bath point. A bath point is normally established in each brigade trains area. Water is provided by supporting engineer water points.

## Section II. ADMINISTRATIVE SERVICES

#### 6-5. Brigade Level

Administrative services at the brigade level generally parallel those at battalion level. The involvement of the divisional brigade S1 is somewhat less than that of the battalion S1; however, it must be remembered that the brigade is a tactical headquarters and enters into the administrative field only when necessary. The separate brigade S1 and AG enter fully into the administrative service function. The brigade S1 has staff responsibility for personnel management, message center operations, publication and distribution of orders and directives (except combat orders), supply and requisition of blank forms, postal services, special service activities, casualty report-

ing, awards and decorations, and all administrative matters not assigned to other staff officers. For a discussion of administrative services in the separate brigade, see chapter 3.

a. *Personnel Management.* The brigade S1 assists the brigade commander and the headquarters commandant by supervising such procedures as classification, assignment, reassignment, appointment, promotion, reduction, reclassification, transfer, elimination, retirement, separation, and rotation within the brigade headquarters. As in the case of the battalion, the records for all personnel assigned to the divisional brigade are maintained by the adjutant general section of the division administration company. The personnel

staff NCO assists the S1 in accomplishing as many of the administrative services as possible, especially personnel management. As at battalion level, the S1 is responsible for all records, documents, correspondence, and personnel statistics that are not maintained by the division administration company.

*b. Awards and Decorations.* The brigade S1 has staff responsibility for an effective awards and decorations program. In this area, he is of significant assistance to the commander and insures that effective, complete instructions for the awards program exist.

*c. Requisition and Supply of Blank Forms and Publications.* The brigade S1 insures that blank forms and publications are requested and distributed for the brigade headquarters and the headquarters company. Upon receipt, he distributes the forms and publications per the requests. He carries sufficient forms and publications for immediate needs (normally a 30-day supply). Forms and publications are requested as the need arises.

*d. Message Center Operations.* The message center at the brigade is organic to the communications platoon of the headquarters company. It operates under staff supervision of the brigade S1. It provides messenger service and transmittal of incoming and outgoing messages by appropriate communication means.

*e. Publication and Distribution of Orders and Directives.* The brigade S1 is responsible for publishing orders and directives as required. Distribution is made in accordance with a distribution schedule to personnel or agencies concerned. The brigade may or may not publish a daily special order. Directives are published as required by the commander and will be distributed in accordance with the distribution schedule.

*f. Postal Service.* The brigade S1 is responsible for postal service to the brigade. He formulates plans for the service within the brigade. Mail for members of the brigade is normally distributed with rations.

## 6-6. Replacements

Replacements are assigned to the divisional armored brigade headquarters and headquarters company from the division replacement detachment. The morning report of the unit serves as the requisition. Replacements are assigned against current TOE vacancies. It is the staff responsibility of the brigade S1 to insure that replacement operations are conducted through close liaison with the personnel staff NCO and the headquar-

ters company commander. The brigade S1 monitors replacement support of separate units attached to the brigade. Units attached to the brigade for operations submit information copies of all requests and/or reports concerning replacements to the brigade S1 to facilitate monitoring of this function.

## 6-7. Chaplain Service

The brigade is responsible for providing chaplain service on an area basis. The brigade chaplain is the senior chaplain assigned to the brigade. He functions under the staff supervision of the S1. He coordinates activities and provides assistance as necessary to insure adequate religious coverage of all units located in the brigade area.

## 6-8. Legal Service

Legal service in the brigade is provided in much the same manner as in the battalion. It is the responsibility of the divisional armored brigade S1 to coordinate with the staff judge advocate at division; or the separate brigade JA section to provide service to members of the brigade as required.

## 6-9. Military Police

*a.* Elements of the division military police company are usually attached to or placed in support of each committed brigade. Attachment is the normal role when the brigade is operating independently. This force usually consists of one military police platoon, but may be larger or smaller depending upon brigade requirements.

*b.* Normally, the primary effort is devoted to ground traffic control operations to facilitate the movement of combat, combat support, and combat service support elements in keeping with the scheme of maneuver. In addition to traffic control operations, and to the extent of its capabilities, the platoon performs, as required, the following functions:

- (1) Operation of a division forward prisoner of war collecting point and limited evacuation of prisoners to the division central collecting point.
- (2) Circulation control of individuals.
- (3) Escort and/or security of critical or key materiel, facilities, movements, and personnel.
- (4) Enforcement of military laws, orders, and regulations in conjunction with other operations.
- (5) Assisting in rear area security operations.
- (6) Collection and disposition of stragglers.
- (7) Collection of police intelligence.

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- (8) Refugee control and displacement.
- (9) Convoy escort and security.
- (10) Route security.

c. The military police platoon which is organic to the separate armored brigade has the same capabilities and is employed in a similar manner.

## CHAPTER 7

### OFFENSIVE OPERATIONS

(NATO STANAG 2088, CENTO STANAG 2088, ABCA SOLOG 108)

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#### Section I. INTRODUCTION

##### 7-1. General

*a.* The armored brigade is organized, equipped, and trained to conduct highly mobile ground warfare, primarily offensive in nature, and is characterized by a predominance of mounted combat.

*b.* The purpose of offensive operations is to accomplish one or more of the following:

- (1) Develop the situation.
- (2) Destroy enemy forces.
- (3) Secure territory or terrain.
- (4) Deprive the enemy of required resources.
- (5) Divert the enemy's attention from other areas.

##### 7-2. Concept of the Offense

Once an offensive operation is begun, the brigade attempts to accomplish its assigned mission in the shortest possible time by applying continuous offensive pressure against the enemy. The philosophy of the employment of the brigade is that bold, aggressive action, capitalizing to the maximum on the characteristics of armor, gains the most effective results with the least losses to

friendly forces. In nonnuclear warfare, the armored brigade seeks to attack the enemy at weak and vulnerable points. In nuclear warfare, enemy strength can be sufficiently neutralized to permit an armor attack where the enemy initially is disposed in strength. In the offense, the brigade masses its firepower and its strength against the enemy, overrunning his defenses quickly and reaching his rear area where his complete disorganization and subsequent destruction are accomplished. In the rear of the enemy positions, the brigade seeks to attain a high degree of freedom of action and to create a maximum of confusion by disrupting enemy communication; destroying command posts, nuclear delivery means, reserves and supplies; and threatening the integrity of the entire enemy defense.

##### 7-3. Types of Offensive Operations

There are five basic types of offensive operations—the movement to contact, the reconnaissance in force, the coordinated attack, the exploitation, and the pursuit. The types of offensive operations are discussed in paragraphs 7-23 through 7-50.

#### Section II. PLANNING FOR OFFENSIVE OPERATIONS

##### 7-4. Basic Considerations

*a.* Combat power in the offense is attained by organizing responsive, combined arms forces that can move rapidly, deliver accurate fire, and maintain continuous communication.

*b.* The attack is planned carefully and executed aggressively. Plans must provide for the exploitation of any favorable advantage that develops during the attack. This may require the commander to retain a mobile reserve of troops and fire support to exploit successes. When an opportunity for decisive action presents itself, the com-

mander commits all necessary resources and demands the ultimate effort from his troops. Pressure applied day and night against a weakening enemy denies him respite from battle, the chance to recoup losses, and the opportunity to gain the initiative. Failure to capitalize on opportunities may result in slow, inconclusive attacks in which the attacker suffers heavy losses.

*c.* After the enemy has been located, there are three principal tasks in the attack—holding the enemy in position, maneuvering to gain an advantage, and delivering an overwhelming attack at the decisive time.

*d.* Once the attack is launched, the commander exploits all available means to accomplish his mission in the shortest possible time.

*e.* Every effort is made to disrupt and neutralize enemy support and reinforcement actions.

*f.* Successful offensive action requires the concentration of superior combat power at the decisive point and time. This requires that the brigade mission be analyzed and, if possible, translated into specific objectives which, when secured, permit control of the area or facilitate destruction of the enemy force. When it can be determined that the securing of a single objective contributes most to the accomplishment of the brigade mission, this objective is called the decisive objective. The brigade main attack is directed against it. The main attack is given priority in the allocation of both maneuver and fire support units. Designation of a main and supporting attack is not mandatory when there is no decisive objective. This occurs infrequently. Supporting attacks, when designated, are normally designed to enhance the success of the main attack.

*g.* Fire superiority is gained early and maintained throughout the attack, permitting freedom of maneuver without prohibitive loss of friendly maneuver units. The effects of fire should be exploited.

*h.* The attacker maneuvers to exploit the effects of his fire and to close with and destroy the enemy by assault. Maneuver may force the enemy to fight on unfavorable terrain or may lure him into creating a target suitable for destruction by fire.

*i.* Terrain is important in offensive combat and provides advantages that can be exploited. Operations often are directed toward the early control or neutralization of key terrain features. This is done to—

- (1) Gain an advantage in observation.
- (2) Provide cover and concealment.
- (3) Obtain better fields of fire.
- (4) Enhance maneuver and support.
- (5) Secure routes used by friendly forces.
- (6) Allow freedom of movement.
- (7) Afford additional security.
- (8) Gain control of routes useful to the enemy.

*j.* Surprise is always sought. It can be gained by deceiving the enemy defense and by choosing an unexpected time, place, direction, and form of maneuver. Cover and deception operations aid in achieving surprise. Night and limited visibility

attacks increase the probability of achieving surprise.

*k.* An aggressive attack inherently provides security by not allowing the enemy sufficient time to react to it.

*l.* The brigade commander insures that the attacks of his subordinate units are coordinated and contribute to the brigade's mission by assigning tasks, allocating means, and applying other controls.

*m.* Forces are dispersed to reduce vulnerability to enemy attack, but only to the extent that the performance of the mission is not impaired.

*n.* Electronic warfare is an integral part of offensive, defensive, and retrograde operations planning.

## 7-5. Plans for Offensive Operations

*a.* Before any offensive operation, the brigade commander must develop a plan of attack. The plan of attack consists of the scheme of maneuver and the plan of fire support, to include special fires. The proper integration of firepower and maneuver is important. The brigade commander may consider special fires as additional firepower to complement other available fire support for maneuvering forces, or he may adjust his maneuver plan to his planned special fires; however, the success of his mission must not depend entirely on his special fires. When the commander uses special weapons, he should rapidly exploit the advantages gained. Section III discusses forms of maneuver. Chapter 5 discusses fire planning.

*b.* In developing his plan of attack, the brigade commander considers his mission and future operations; the strength, composition, disposition, and capabilities of the enemy forces; how he can best use the terrain on which he will operate; the direction in which the attack will be oriented; and the combat power at his disposal. The brigade commander considers the desirability of attacking over less favorable avenues of approach and/or attacking at night to achieve surprise. He must include orders to subordinates as to action to be taken upon reaching objectives.

*c.* Normal troop leading procedures are followed in preparing for brigade offensive operations. When orders are issued, time should be allowed for commanders of subordinate units, to the lowest level, to make estimates, reconnaissance, plans, and to issue orders. Additional orders or changes in the initial plan are issued in the form

of fragmentary orders. Supervision and personal leadership are exercised by all commanders from the start of planning through the completion of the operation. For additional planning techniques, see FM 17-1 and FM 61-100.

## 7-6. Characteristics of Conduct of Offensive Operations

*a.* Attacks by the armored brigade are made violently and aggressively, employing in full measure the firepower, mobility, and shock effect that characterize armor operations. In nuclear warfare, massed fire support is provided by both nuclear and nonnuclear weapons. Supporting elements and reserves are employed to exploit success, maintain or restore the momentum of the attack, and provide for the security of the command. The brigade commander employs available reserves when such action promises favorable results. The attack is pushed aggressively until the mission is accomplished. Rapid changes in plans may be required to maintain the advance. The momentum of the attack must not be permitted to decrease until the objective has been reached, overrun, and secured. The brigade will apply pressure through day and night attacks to retain its momentum. The brigade commander locates himself where he can best control and influence the action.

*b.* Control measures are employed by the brigade commander for the orderly development and conduct of tactical operations. Minimum control measures are imposed on subordinate commanders to preserve as much freedom of action and exercise of initiative by subordinate commanders as practicable. Control measures are discussed in FM 17-1 and FM 61-100.

## 7-7. Brigade Formations for Offensive Action

*a. General.* A study of the mission; terrain and weather; enemy situation; friendly situation, with particular reference to troops available; and rules of engagement will indicate the initial attack formation that offers the best chance for success. After commitment, the brigade is capable of rapidly altering its formation and organization for combat to conform to the changing situation.

*b. Formations in Offensive Operations.* The brigade may employ any of several basic formations in offensive operations. It may attack with battalion task forces in column; in line, with or without reserves; in echelon; or in variations thereof. Figure 7-1 illustrates the basic formations normally employed by the brigade.

### *c. Brigade in Column.*

(1) A column of battalion task forces may be adopted for the initial attack when terrain or enemy defenses force the brigade to attack on a narrow front. In certain situations, the strength, composition, and location of enemy reserves may be such as to require the brigade to adopt this formation to provide the depth necessary for sustained attack.

(2) The column formation is usually adopted initially when the brigade must penetrate organized enemy positions. This formation provides depth to the attack. It facilitates retention of the initiative and permits flexibility because the following battalion task forces are in position to move through or around the leading elements to maintain the momentum of the attack. This formation also provides a degree of security because the following battalion task forces are in position to counter a threat from either flank and thereby support the uninterrupted advance of the leading troops. With this degree of security, leading troops are also provided freedom to react with speed to developments to their immediate front. Passage of the brigade through a given area using this formation requires more time than when other formations are used.

### *d. Brigade on Line With a Reserve.*

(1) When two or more battalion task forces of the brigade are on line, the remaining battalion task force or forces may be designated as the brigade reserve. The brigade reserve, which follows the leading battalion task forces, provides flexibility and security as it provides a major force that can exploit the success or assume the mission of a leading task force and counter enemy threats to the accomplishment of the brigade mission.

(2) In nuclear warfare, a formation with two or more armor battalion task forces abreast and a reserve may be adopted in the attack when successful penetrations have been created by other forces or by nuclear fires, when the enemy is overextended, or when the brigade is executing an envelopment. This formation allows the brigade to attack on a broader front.

(3) In nonnuclear warfare, this formation may be employed against defensive positions in situations when great depth in the attack is not required, such as in a limited-objective attack. Also it may be used in the initial attack against an enemy position which is known to be thin and weak and which can be ruptured by an attack on a relatively wide front. In the envelopment, this formation can be used when the assail-

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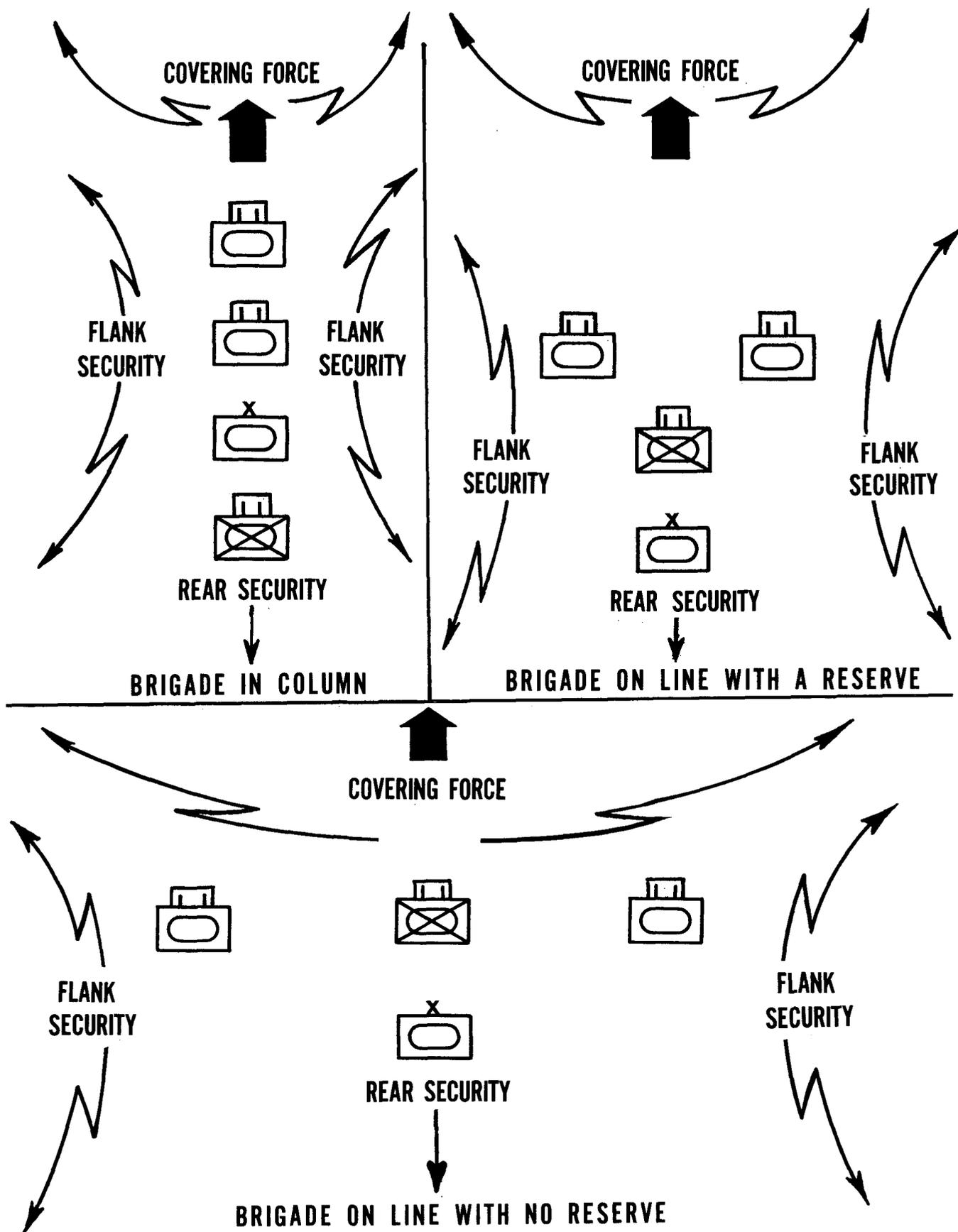


Figure 7-1. Combat formations.

able flank is of such extent that the brigade can envelop on a broad front.

*e. Brigade on Line With No Reserve.*

(1) Normally, the brigade commander will retain some degree of flexibility in his initial attack by withholding part of his force in reserve. However, in a situation when the requirement for speed outweighs that of security, a formation with two or more task forces abreast without a reserve may be used successfully.

(2) In nuclear warfare, an initial attack employing two or more task forces abreast may be used to exploit the effects of friendly nuclear fires on an extended front. This enables the brigade to immediately follow up the massive destructive effects of the nuclear fires; and by advancing on a broad front, vulnerability to enemy nuclear retaliation is reduced; however, terrain must permit the adoption of this formation, and the enemy situation must not initially necessitate a reserve.

(3) In nonnuclear warfare, the fundamental consideration in the use of this formation is whether the mission dictates a rapid advance on a broad front. Prerequisites are adequate maneuver room and avenues of approach, sufficient gaps or weak spots in the enemy line caused by over-extension or friendly offensive action, and the capability of delaying decisive action by enemy reserves through the employment of fire support, screening forces, or appropriate maneuver.

*f. Brigade in Echelon.* The brigade may advance with its task forces echeloned to a flank when the brigade commander considers the flank in question vulnerable to enemy attack. This formation increases the flank security of the brigade and is essentially a variation of the line formation adopted to enhance security.

## 7-8. Assembly Areas and Attack Positions

*a.* An assembly area is an area in which a command is assembled preparatory to further action. Orders are issued, and maintenance and supply are accomplished according to the time available. Assembly areas close to forces in contact should be avoided. The armored brigade must be prepared to launch its attack from widely dispersed battalion assembly areas well to the rear of the line of contact to reduce the vulnerability of the command to nuclear attack. When such areas are far enough to the rear to require fueling before launching the attack, forward fueling areas or points will be designated. Units move by direct routes to attack positions. Further de-

tails on assembly areas are given in FM 17-1 and FM 61-100.

*b.* Brigade attack positions are not employed. However, brigades may designate the general locations of attack positions for subordinate units to facilitate deployment of assault elements. To minimize vulnerability to nuclear fires and to avoid delay, armor units do not normally halt in attack positions. They move into them, deploy into the prescribed formation, and proceed with the attack without halting.

## 7-9. Selection of the Objective

Normally, brigades are assigned only the division objective or a part thereof. An intermediate objective may be assigned to or by a brigade when its capture is essential to the accomplishment of the division or brigade's mission. The seizure of any objective should have a decisive and favorable effect on friendly operations.

## 7-10. Intelligence

The principles governing collection, processing, and use of intelligence in offensive operations, which are covered in FM 17-1, apply generally to brigade level operations. Full use is made of the brigade's organic aircraft, the battalion task force scout platoons, and attached reconnaissance units in this effort. Chapter 5 discusses intelligence support of tactical operations.

## 7-11. Tactical Air Support

During the attack, air support may be provided by the tactical air force by attacking enemy reinforcements and other located enemy targets. Tactical air control parties operate with brigades and battalion task forces for close-in control of air strikes. The provision of column-cover aircraft during daylight hours for attacking units of the brigade should be normal. Air support in the form of both day and night visual and photographic reconnaissance is available on request.

## 7-12. Use of Chemicals

Chemical munitions in the offense are used to increase the effectiveness of supporting fires. Their use should be preplanned and integrated into the fire plan. Principal uses of chemical munitions in armor offensive operations are to hinder the movement of enemy reserves, deny key terrain to the enemy, soften up the enemy area selected for a penetration, and assist in holding the flanks of the gaps created by the armor attack. Smoke can

be effectively employed to screen the deployment of attacking units. For additional information on the employment of chemical munition in the offense, see chapter 5 and FM 3-10.

### 7-13. Night and Limited Visibility Attacks

*a.* Night and limited visibility combat frequently offers exceptional opportunities for success because of the possibility of achieving surprise and capitalizing on the psychological effects of darkness or poor visibility. In the exploitation, or operations against strongly defended objectives, the armor commander may well employ a night or limited visibility attack to maintain the momentum of his advance, achieve success, and complete the enemy's destruction.

*b.* Night and limited visibility combat is applicable to all types of operations. The brigade undertakes it to exploit a success, to gain important terrain for further operations, to avoid heavy losses, to press a disorganized enemy, to achieve surprise and psychological superiority, to use concealment afforded by conditions of darkness or limited visibility, and to compensate for lack of friendly air superiority. In conducting continuous day and night operations, consideration must be given to the rotation of leading elements to provide time for rest and maintenance.

*c.* The fundamentals involved in night and limited visibility attacks are the same as those for any other attack. However, greater stress must be placed on simplicity of plans; careful preparation, including training and rehearsals; use of secrecy, feints, and ruses; surprise, daylight reconnaissance, well-defined and easily identifiable objectives; and carefully prepared fire plans. Maneuver must be simple. Control must be stressed and centralized. It is imperative that the communication plan be kept simple and workable.

*d.* All available means of battlefield illumination, including organic searchlights and night vision and observation devices, may be employed to provide illumination and control for the attacking units. However, sufficient time must be allowed to prepare illumination plans and to integrate them with maneuver and fire plans. Further consideration must be given to loss of surprise, secrecy, and concealment. Battlefield illumination is a command responsibility which should be provided to a supported unit without interruption until the need for illumination is satisfied. Illumination should be provided by the highest level practicable in order to conserve the illuminants at lower echelons. See FM 17-1, FM 20-60, FM 31-36 (TEST), and FM 61-100 for a detailed discussion of battlefield illumination and night operations.

## Section III. FORMS AND MANEUVER

### 7-14. General

Forms of maneuver are the configurations that a commander gives to the movement of his troops in offensive operations to place them and their fires in a better location with respect to the enemy. The three basic forms of maneuver are the penetration, the frontal attack, and the envelopment. The primary forms used by the brigade are the penetration and the envelopment. A double envelopment and a turning movement are variations of the envelopment, and normally are not employed by the brigade except as part of a larger force. Infiltration is a technique of movement. For a detailed discussion of the forms of maneuver, see FM 17-1.

*a. Penetration.* An attacking force utilizes a penetration as a form of maneuver to break through an enemy's position on a narrow front and to widen the created gap. The purpose of the penetration is to destroy or neutralize the enemy's

forces, installations, and control means; and to secure objectives to break up the continuity of his defenses. This maneuver divides the enemy's forces, allows them to be defeated in detail, and normally creates a situation permitting exploitation by friendly forces deep into the enemy's rear areas. Figure 7-2 illustrates a brigade making a division penetration.

*b. Frontal Attack.* An attacking force utilizes a frontal attack as a form of maneuver by employing the most direct route to strike the enemy's entire front within the zone of the attacking force. The zone of the attacking force is defined as that area physically occupied at a given point in time by the attacking force and may be equal to or smaller than the assigned zone of action. The purpose of the frontal attack is to overrun and destroy or capture a weakened enemy in position or to fix an enemy force in position to support another attack. This is the least desirable form of maneuver at brigade level.

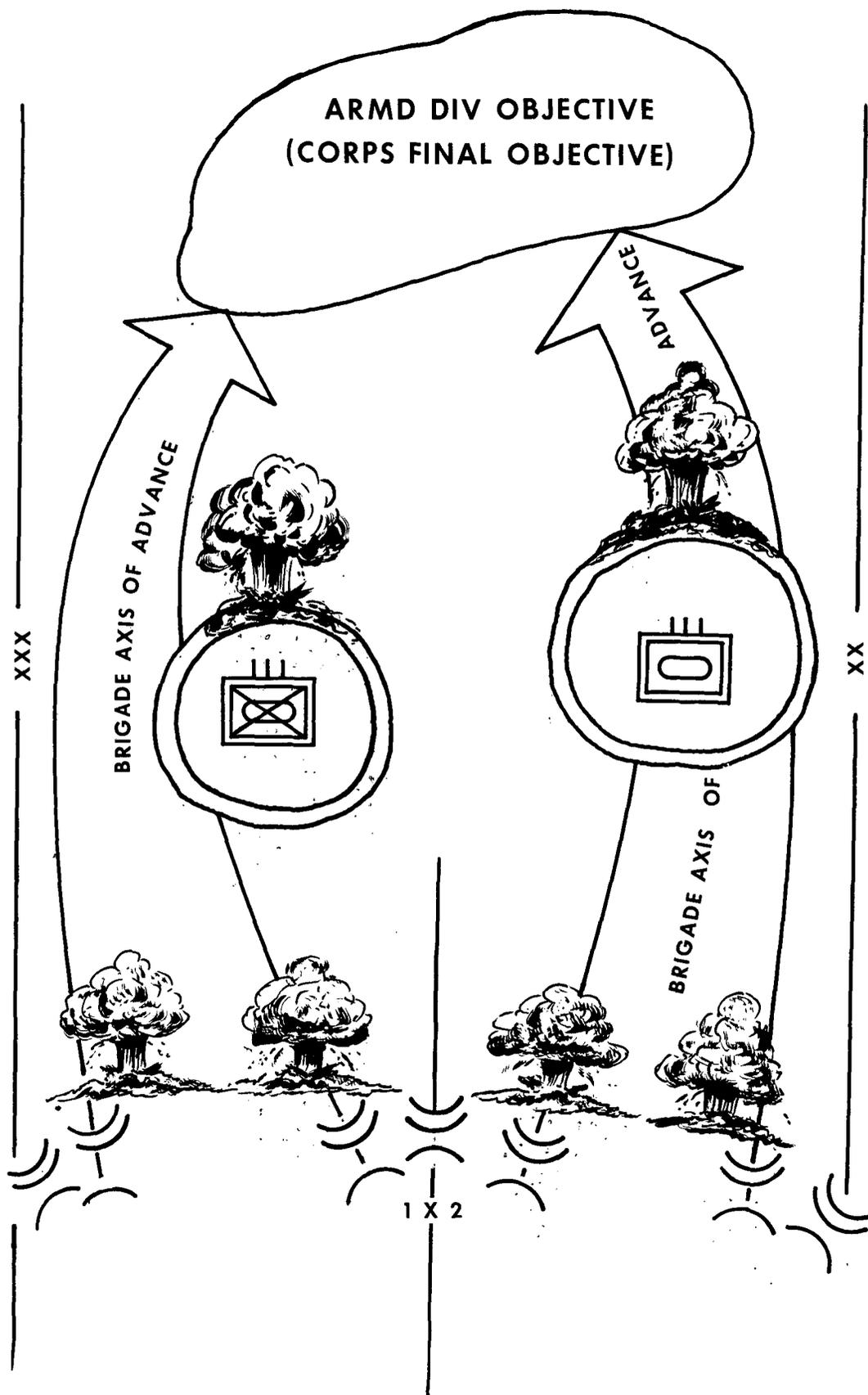
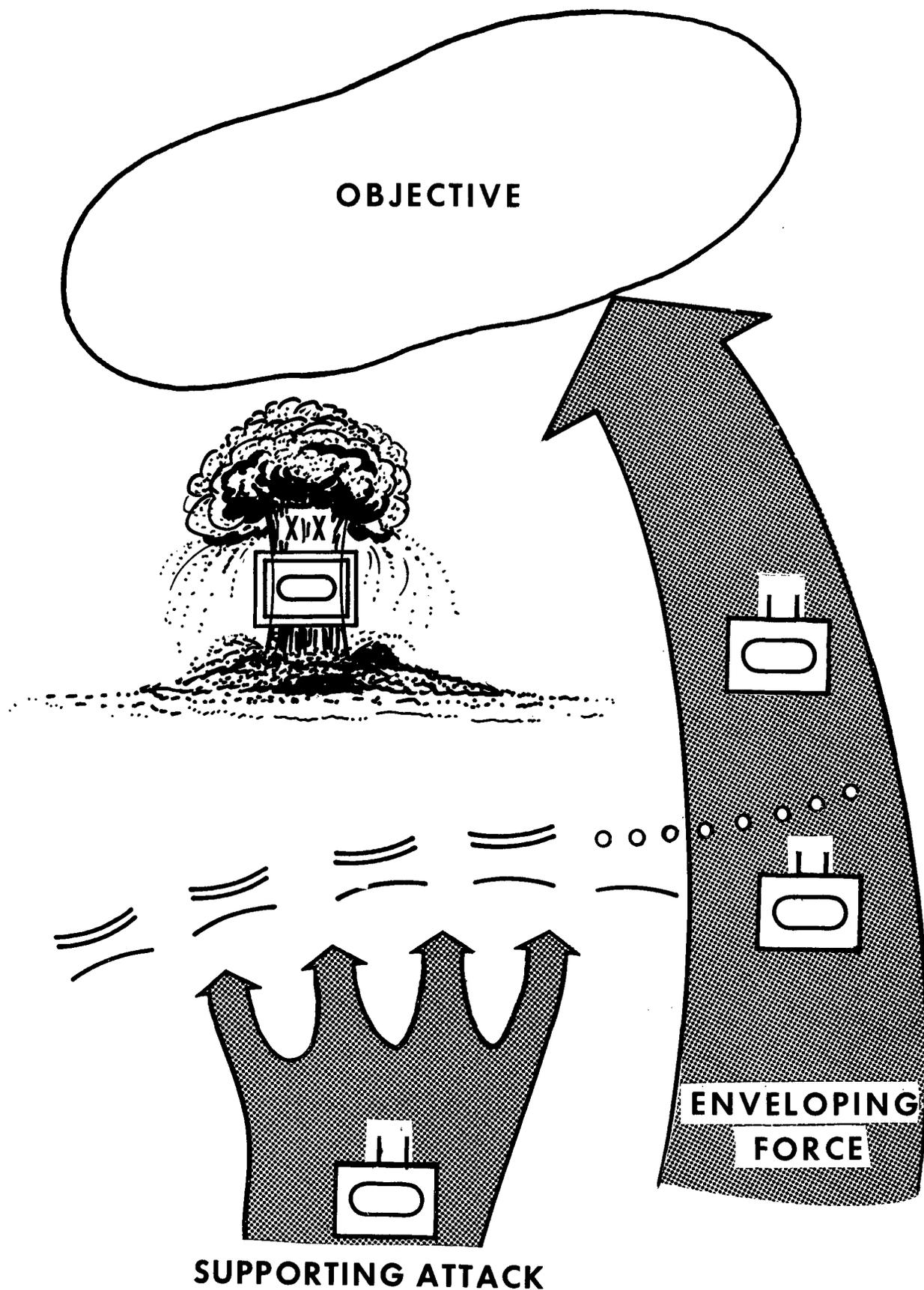


Figure 7-2. A brigade making a division penetration.



**SUPPORTING ATTACK**

*Figure 7-8. A brigade utilizing the envelopment as a form of maneuver.*

c. *The Envelopment.* The envelopment is normally undertaken to cause the enemy to fight from other than his primary orientation or position, and when permitted by the tactical situation it is preferred by armor units to the penetration. An attacking force utilizes a ground envelopment as a form of maneuver to direct its main attack against an assailable flank of the enemy. An assailable flank is one that can be attacked without fighting a decisive engagement. Normally, an envelopment is employed in conjunction with a supporting attack. The purpose of the envelopment is to avoid the enemy's main defensive strength; seize objectives in his rear that cut his escape routes; disrupt his communications; and subject him to destruction in position. A second form of the envelopment is the vertical envelopment. In the vertical envelopment, the attacking force passes over the enemy force utilizing airborne operations. The vertical envelopment accomplishes the same purpose as the ground envelopment. The double envelopment and the turning movement are variations of the envelopment and are discussed in FM 17-1. Figure 7-3 illustrates a brigade utilizing the envelopment as a form of maneuver.

## 7-15. Planning

In planning for the conduct of offensive operations, the brigade commander visualizes the movement of his forces utilizing one or more of the forms of maneuver. Once one or more forms of maneuver have been selected, they normally appear in the concept of the operations portion of the brigade plan or operations order. They may also appear in the mission statements for subordinate units. While considering the forms of maneuver, the brigade commander employs the factors of METT. Additionally, consideration is given to the following:

a. *The Commander's Intent.* The type offensive operation, the assigned mission, and the tactical situation determine the commander's intent. Frequently, the distinction between the forms of maneuver will exist in the intent of the brigade commander. *Normally it will be the basic intent of the brigade commander to attack the enemy at his weakest point to force the enemy to fight from other than his primary orientation or position.* This basic intent normally will eliminate the frontal attack from selection as a form of maneuver

at brigade level.

b. *The Enemy.* Lack of enemy intelligence or enemy reaction to the brigade's attack will normally necessitate the employment of additional or different forms of maneuver. The possible requirement to alter the planned form of maneuver as a result of enemy action must be visualized to accomplish the brigade commander's basic intent. Consequently, all echelons within the brigade must be prepared to change rapidly and repeatedly from one form of maneuver to another and successfully adapt to the changing tactical situation.

c. *Zone of Attacking Force.* The zone of an attacking force is that area physically occupied at a given point in time by an attacking force as an attack unfolds; it may be equal to or smaller than an assigned zone of action. It is an attacking force's movement in this zone that determines the form of maneuver being employed. The basic intent of attacking unit commanders remains the desire to attack the enemy at his weakest point. In planning an offensive operation, the brigade commander takes cognizance of his subordinate commander's basic intent and visualizes the provision of sufficient maneuver room in the assigned zone of action to allow subordinate commanders to change the zone of their attacking forces as the tactical situation develops and utilize the most favorable forms of maneuver. This allocation of maneuver room to subordinate units will normally preclude utilization of the frontal attack as a form of maneuver by subordinate units.

## 7-16. Execution

a. In executing offensive operations, the brigade commander maintains the brigade's orientation on the accomplishment of assigned missions. In planning the employment of forms of maneuver by the brigade's subordinate elements, the brigade commander considers his intent, the enemy, and zones of attacking forces. Due to mobility, firepower, and shock effect, which are inherent capabilities of armored units, the brigade is well adapted to their incorporation into the execution of offensive operations. Figure 7-4 depicts an armored brigade progressing through a coordinated attack employing the forms of maneuver.

b. FM 17-1 contains further detailed discussion of the basic forms of maneuver, their variations, and the technique of infiltration.

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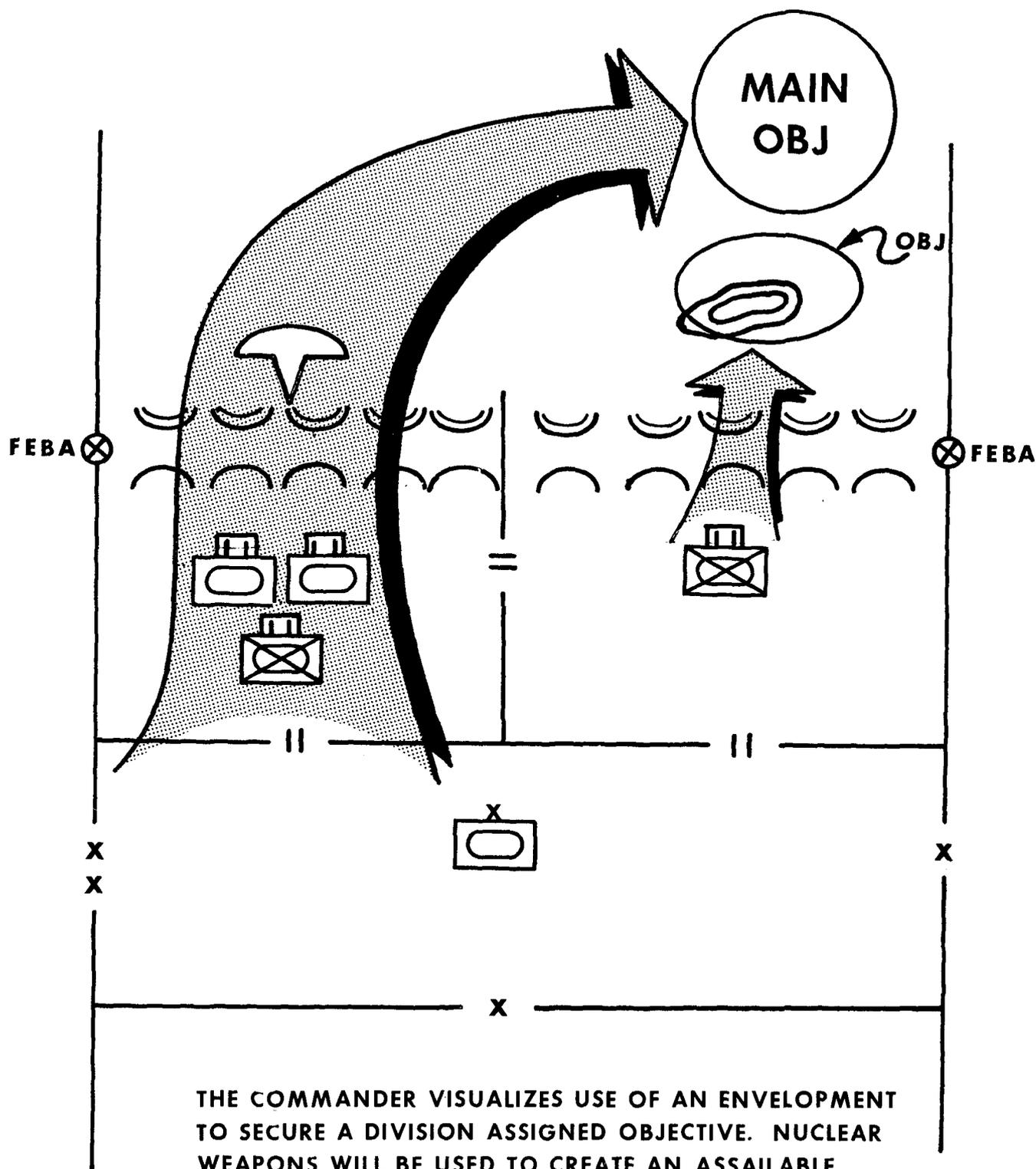
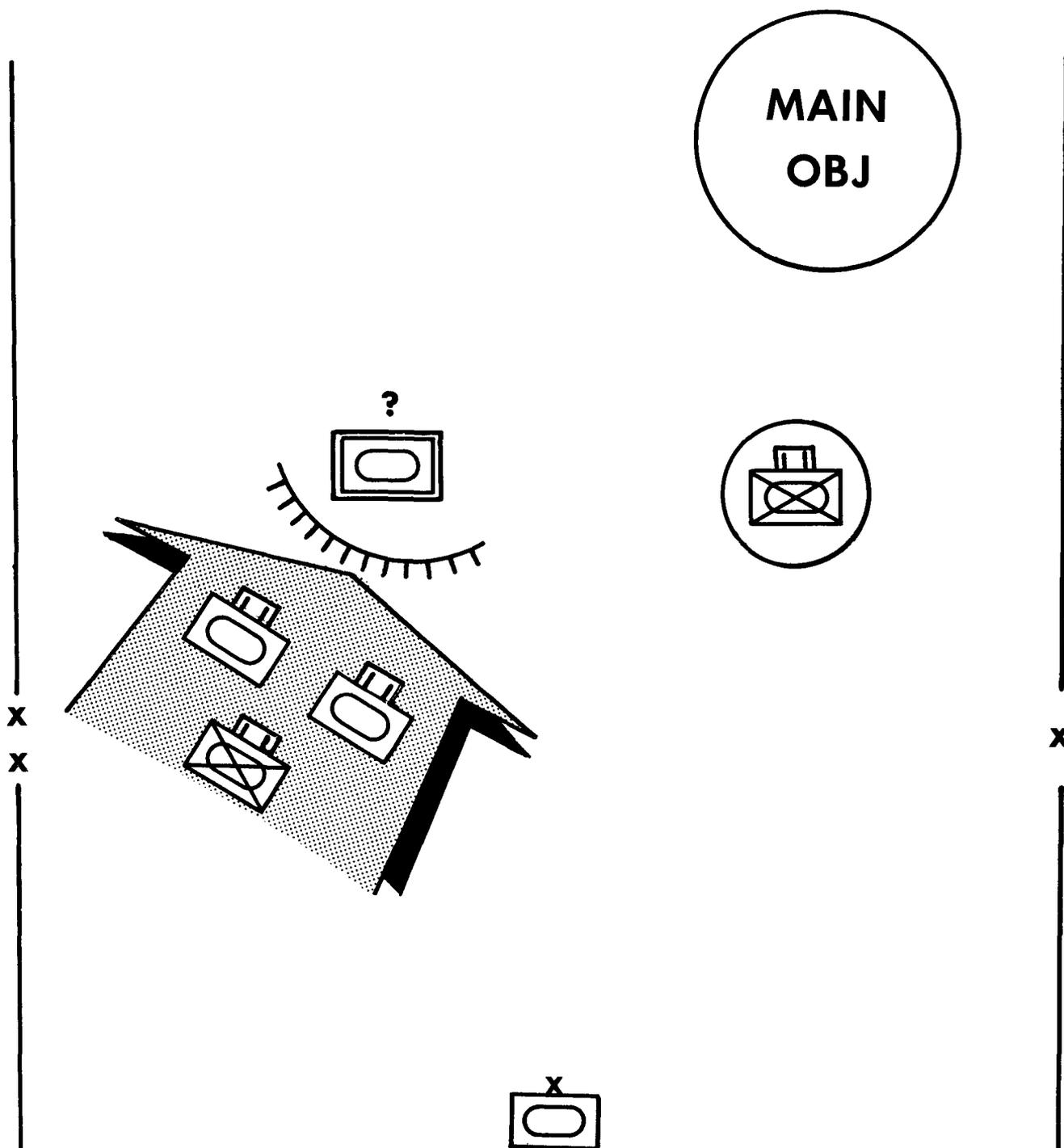
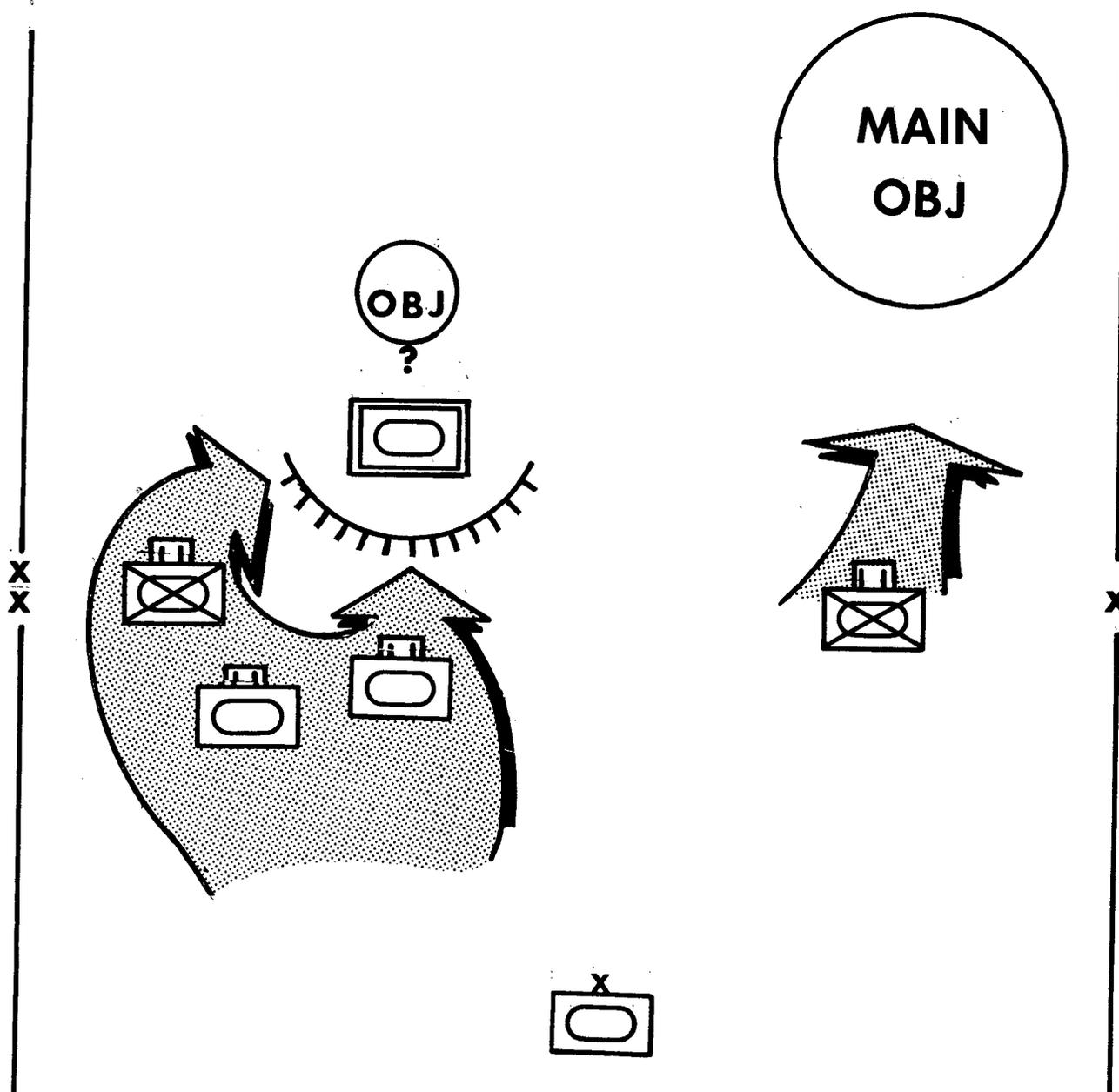


Figure 7-4. Type coordinated attack.



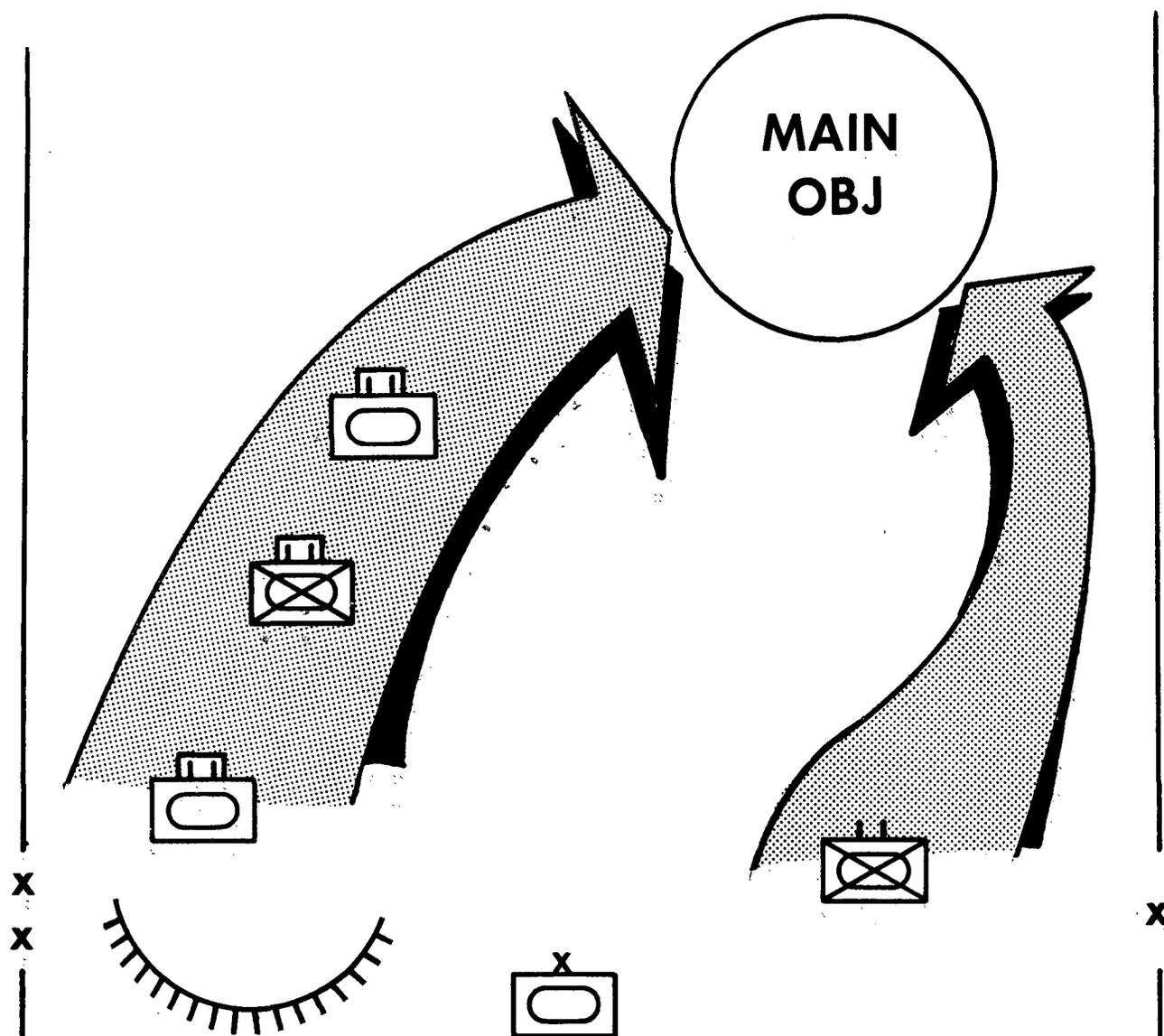
IN EXECUTING THE MAIN ATTACK, AN ENEMY FORCE NOT PREVIOUSLY DETECTED STOPS THE ATTACKING FORCE AND ITS FORM OF MANEUVER TEMPORARILY CHANGES TO A FRONTAL ATTACK. THE SUPPORTING ATTACK HAS BEEN SUCCESSFUL AND SECURED ITS OBJECTIVE.

Figure 7-4—Continued



THE BRIGADE, UNABLE TO OVERRUN OR BYPASS THE ENEMY, ALTERS THE MAIN ATTACK FORM OF MANEUVER FROM THE FRONTAL ATTACK TO THE ENVELOPMENT. THE SUPPORTING ATTACK FORCE, HAVING ACCOMPLISHED ITS MISSION, IS ORDERED TO EXPLOIT ITS SUCCESS AND PROCEED TO THE MAIN OBJECTIVE.

Figure 7-4—Continued



THE BRIGADE MAIN ATTACK FORCE, HAVING OVERCOME THE ENEMY FORCE IMPEDING ITS PROGRESS, CONTINUES TOWARD THE MAIN OBJECTIVE. THE SECONDARY ATTACK FORCE CONTINUES TO EXPLOIT THE SUCCESS OF ITS INITIAL ATTACK AND PROCEEDS TO THE MAIN OBJECTIVE.

Figure 7-4—Continued

## Section IV. MEETING ENGAGEMENTS

### 7-17. Introduction

*a.* A meeting engagement is the combat action that occurs when a moving force, incompletely deployed for battle, engages an enemy force, static or in motion, concerning which it has inadequate intelligence. The action ceases to be a meeting engagement when the enemy's situation is developed and subsequent planned and coordinated operations are undertaken.

*b.* Meeting engagements may occur at all echelons of the brigade in both offensive and defensive situations; however, they occur most frequently when performing a movement to contact.

*c.* The principal characteristics of meeting engagements are a limited knowledge of the enemy and limited time for the commander to develop the situation and to formulate and execute plans.

### 7-18. Conduct of Meeting Engagements

*a.* The basic principle in conducting a meeting

engagement is to seize and retain the initiative. By retaining the initiative, a commander can subsequently adopt the best course of action to accomplish his mission.

*b.* The following actions assist the commander in retaining the initiative:

(1) Make a rapid estimate of the situation and issue fragmentary orders.

(2) Commit units to forms of maneuver from march column.

(3) Organize the advance guard with mobile forces capable of reconnaissance by fire, rapid deployment, and speed in the attack.

(4) Intersperse artillery in the column to insure supporting fires during the initial action.

*c.* The enemy situation is developed vigorously and aggressively. Flanking movements generally will disclose the enemy's configuration more rapidly than will frontal movements and will give more opportunity for tactical surprise and decisive results.

## Section V. MOVEMENT TO CONTACT

### 7-19. Introduction

*a.* Movement to contact is a means of gaining contact or of reestablishing lost contact with the enemy. Its purpose is the early development of the situation to provide an advantage prior to decisive engagement. The brigade conducts its own movement to contact, or conducts a movement to contact as part of a larger force.

*b.* The preferred method of movement is to advance on a broad front using the techniques of the tactical column and approach march. Figure 7-5 illustrates a type organization for this type of offensive operation. The movement to contact is characterized by decentralized control and piecemeal commitment of forces. It terminates when determined enemy resistance requires the deployment and coordinated effort of the brigade.

### 7-20. Basic Considerations

*a.* Primary emphasis is placed on the best use of the road net and terrain. Provisions are made to overcome obstacles and for rapid passage of defiles.

*b.* Primary components are the covering force, advance guard, flank and rear security forces,

and main body. These groupings provide for:

(1) Rapid and uninterrupted advance of the brigade.

(2) Adequate all-round security and the early development of the situation.

(3) Retention of the bulk of the combat power uncommitted during movement to facilitate rapid employment when contact is made with enemy forces.

*c.* Any of the basic formations or combinations of formations may be used. Normally, movement is conducted in multiple columns. Subordinate combat units adopt formations or variations of these formations to accomplish their assigned missions.

*d.* Imminence of contact and the terrain largely determine the degree of control required. Control must permit rapid response by subordinate units to changes in mission, march procedures, organization, and control measures.

*e.* Nuclear and chemical munitions permit more rapid movement because they allow the covering force to eliminate enemy resistance which otherwise might require the deployment of sizable elements. Nuclear fires, to include use of fallout, can provide security by blocking enemy avenues

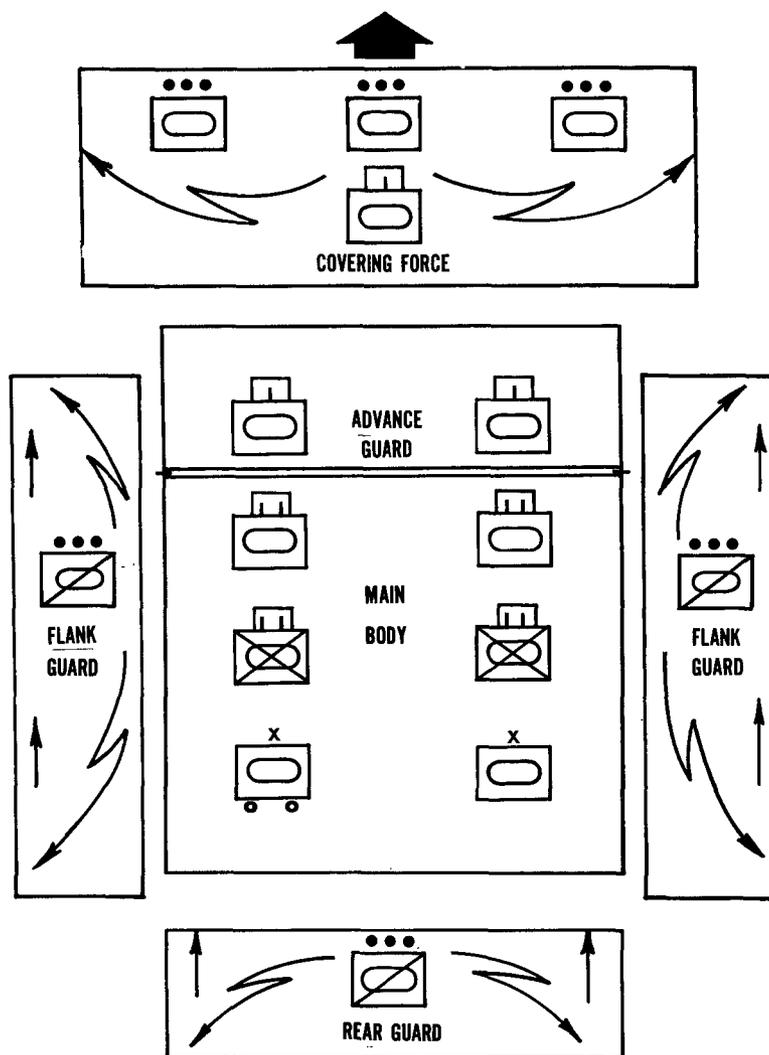


Figure 7-5. Type movement to contact.

of approach or by restricting enemy access to terrain essential to the advance. Persistent chemical agents can be used in a similar manner. The vagueness of the enemy situation normally requires that the bulk of nuclear fires be on-call.

f. Tactical air support aircraft perform reconnaissance missions to assist army aircraft in detecting enemy units, obstacles, ambushes, or movement into the area, and to provide information on the terrain to be traversed. Tactical aircraft reinforce frontal and flank security efforts. The use of column cover or air alert aircraft is habitual when contact is imminent.

g. Airborne and airmobile forces, when available, secure key terrain essential to the uninterrupted advance of the command. The provision of air mobility increases the responsiveness of the reserve to varying situations.

## 7-21. Security Forces

When conducting a movement to contact, the brigade employs security forces. The fundamentals of employment and missions of these security forces are contained in FM 17-1 and FM 61-100. The brigade security forces normally consist of:

a. *The Covering Force.* When the brigade conducts its own movement to contact, the brigade covering force normally operates well forward and under the control of the brigade. When the brigade marches as part of a larger force, the covering force may be furnished and controlled by the higher headquarters. The brigade advance guard is then the contact force between the brigade and the covering forces. Section X discusses the brigade acting as a covering force.

b. *The Advance Guard.* The advance guard is

FM 17-30

organized to insure the uninterrupted movement of the main body. Combat support, such as engineer and artillery, is integrated into the advance guard.

*c. Flank and Rear Security Forces.* The rear and flank guards are similar to the advance guard in strength and composition. They must be strong enough to defeat minor enemy forces or to delay strong enemy attack until the main body can deploy. Their purpose is to protect the main body from ground observation and surprise attack.

## 7-22. The Main Body

The main body comprises the bulk of the brigade's combat power. It is immediately available to attack major enemy forces or the brigade objective. Units of the main body are organized for combat and are positioned in the advancing column to

permit maximum flexibility for employment during movement or after contact with the main enemy force has been made.

## 7-23. Air Defenses

Air defense must be established over both the forward ground combat forces and the main body. This is accomplished by placing air defense elements along the routes of march and employing air defense elements within the moving column to provide low altitude air defense. High and medium altitude coverage is furnished by higher air defense command echelons. Due to the potentially rapid movement inherent in the movement to contact, air defense units may be attached to the brigade and further placed in support of task forces. FM 44-1 and FM 44-3 contain a detailed discussion of air defense procedure applicable to this type of offensive operation.

# Section VI. RECONNAISSANCE IN FORCE

## 7-24. Introduction

The reconnaissance in force is an attack to discover and test the enemy's position and strength or to develop other intelligence. Although its primary aim is reconnaissance, it may discover weaknesses in the enemy disposition which, if promptly exploited, would permit tactical success. The reconnaissance in force may be part of either defensive or offensive operations. The brigade commander may conduct his own reconnaissance in force, or conduct a reconnaissance in force at the direction of a higher headquarters.

## 7-25. Basic Considerations

*a.* The reconnaissance in force normally develops information more rapidly and in more detail than other reconnaissance methods. In arriving at a decision to reconnoiter in force, the commander considers—

- (1) His knowledge of the enemy situation.
- (2) The urgency and importance of additional information.
- (3) The efficiency and speed of other intelligence collection agencies.
- (4) The extent to which his plan of action may be divulged by the reconnaissance in force.
- (5) The possibility that the reconnaissance may lead to a general engagement under unfavorable conditions.

*b.* When the commander desires information about a particular area, the reconnaissance in

force is planned and executed as an attack with a limited objective. The objective should be of such importance that, when threatened, it will force the enemy to react. If the enemy situation along a front is to be developed, the force conducting the reconnaissance advances along its front employing strong aggressive probes to determine the enemy situation at critical points. Securing a terrain objective is not in itself the purpose of the reconnaissance in force. Rather, the operation has the objective of gaining maximum information of the enemy. The depth of any terrain objective assigned depends on the purpose of the reconnaissance in force.

*c.* The reconnoitering force must be of such size and composition as to cause the enemy to react strongly and definitely to the attack, thus disclosing his locations, dispositions, strength, planned fires, and planned use of reserves. The size of the force depends on the mission and the situation. The brigade commander may use a company team or a task force; or he may use the bulk of the brigade, retaining sufficient reserves to exploit enemy weakness.

*d.* The brigade may employ several forces simultaneously or staggered in time and at widely separated points. Such action keeps the enemy off balance, discloses his dispositions over a broad area, and may develop the location and planned use of his reserve. Multiple reconnaissances in force are favored by operations on a wide front,

friendly superiority in armor and mobility, and an inexperienced enemy or an enemy who has weak control and communications.

### 7-26. Conduct of the Reconnaissance in Force

*a.* Although a reconnaissance in force is a type of offensive action, restrictions may be placed on commanders to avoid actions that might precipitate a general engagement. If the reconnoitering force makes a penetration, it disrupts and destroys all possible enemy rear installations and prepares to render all possible assistance to any exploiting force.

*b.* The brigade commander exploits the success gained by a reconnaissance in force primarily to continue the attack or to retain control of terrain seized by the force. When the use of nuclear

and/or chemical munitions is authorized, they are employed against suitable targets discovered by attacking forces. The destruction of these targets is completed during local exploitation by the reconnoitering force.

*c.* The brigade commander assists in the disengagement of the reconnaissance force if it becomes closely engaged.

*d.* If engaged upon completion of its reconnaissance, the force may remain in contact with the enemy or it may withdraw. If the reconnaissance is to be followed by further attack, other units pass through or around the reconnoitering force in the attack, or the reconnoitering force may continue the attack.

*e.* Figure 7-6 depicts a brigade conducting a reconnaissance in force.

## Section VII. COORDINATED ATTACK

### 7-27. Introduction

*a.* A coordinated attack is a planned attack designed to destroy or capture the enemy or to secure key terrain by a combination of fire, maneuver, and close combat.

*b.* A coordinated attack is planned in detail. The two types of offensive operations discussed previously—movement to contact and reconnaissance in force—are preliminary operations. They are conducted either to gain contact with the enemy or develop the situation. The coordinated attack is the next logical step; however, movement to contact and reconnaissance in force are not required before every coordinated attack.

*c.* The coordinated attack is the offensive operation most frequently referred to, or thought of, when the term "attack" is used.

### 7-28. Basic Considerations

*a.* The coordinated attack is undertaken after thorough reconnaissance, methodical evaluation of relative combat power, acquisition and development of targets, and systematic analysis of all other factors affecting the situation.

*b.* A coordinated attack may be made before, after, or in conjunction with other offensive operations.

*c.* A coordinated attack normally involves overcoming major enemy resistance. When a highly organized, well-fortified enemy position must be

destroyed or penetrated, a coordinated attack is normally required.

*d.* This type of offensive operation requires the maximum application of the principles of war; strict adherence to the fundamentals of offensive operations; thorough, detailed planning; and positive, aggressive leadership at all command echelons.

*e.* Such attacks occur frequently in either nuclear or nonnuclear warfare. In warfare involving use of nuclear or chemical munitions, reducing vulnerability and the period of risk of friendly elements are major considerations during the preparation and massing of the attacking force. In a nuclear environment, plans must be developed for rapid dispersal of forces immediately after they accomplish the mission. Mobility is essential in the nuclear environment to accomplish rapid assembly, movement to the objective, speedy dispersion, and reassembly to counter enemy threats.

*f.* Adequate time is required in a coordinated attack to allow for thorough planning, careful reconnaissance, and detailed evaluation.

### 7-29. Organization for Combat

The coordinated attack requires a combined arms force that is organized to provide maximum combat power. The factors of METT influence each situation in which a coordinated attack must be made, and prevent development of a type or

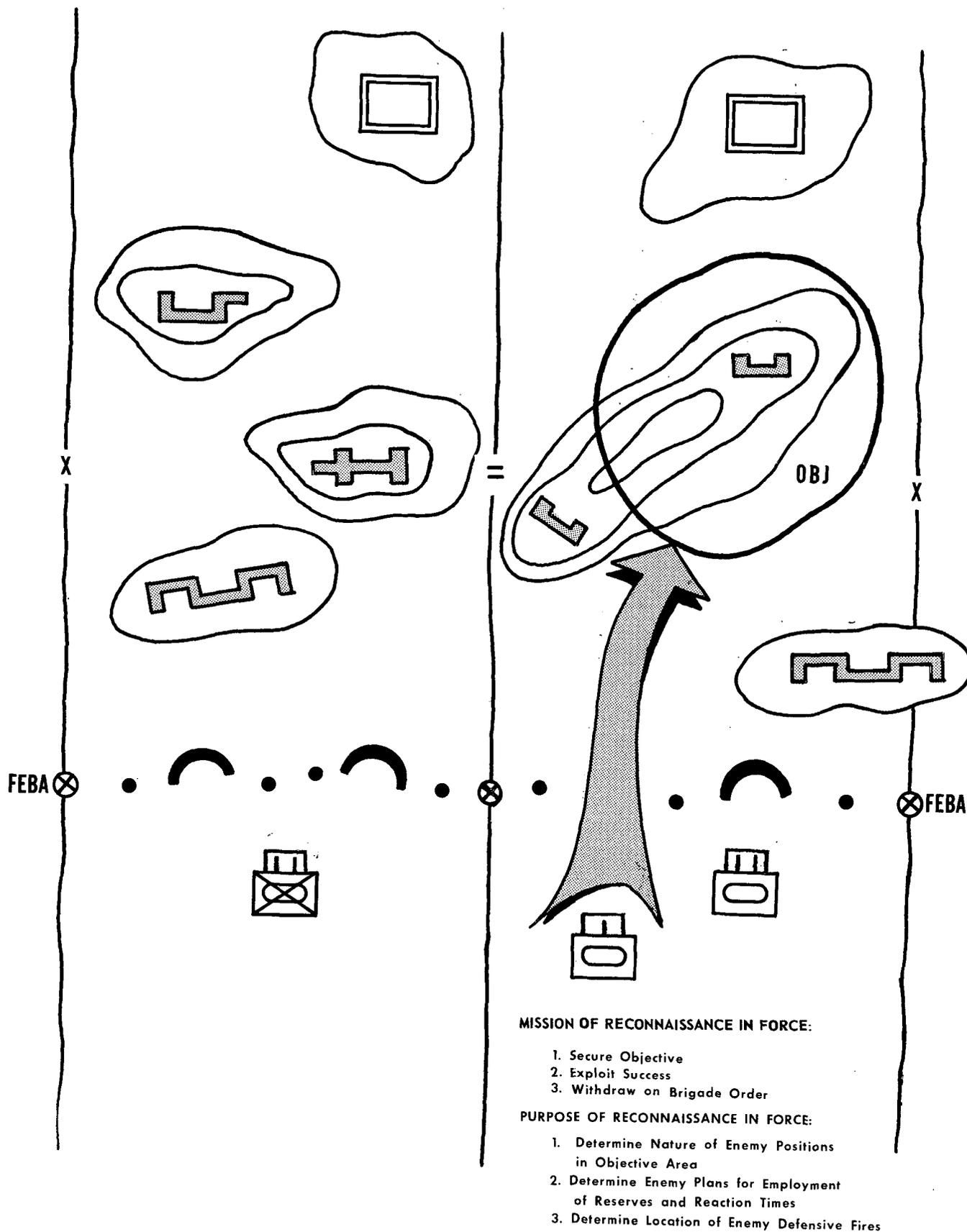


Figure 7-6. Type reconnaissance in force.

standard organization for combat. Each situation is different. The commander must consider the recommendations of his staff, apply the principles contained in this chapter, and use his judgment to develop the best combat organization for each tactical situation requiring a coordinated attack.

### 7-30. Conduct of the Coordinated Attack

a. Considerations, affecting the conduct of the coordinated attack include the factors of METT, as well as time and space.

b. Immediately preceding the attack, a preparation may be delivered. The preparation is coordinated with the movement of attacking units. All units are employed to make the best use of available combat power.

c. Attacking units move rapidly from dispersed locations under cover of preparatory fires and fires in support of the attack. In nuclear conflict, these units maintain their dispersed formations until required to mass to achieve sufficient power to overcome enemy resistance. Once the mission that required the concentration of the force is completed, units again take up dispersed formations.

d. The attack plan is vigorously executed and all favorable developments are exploited, regardless of the time of day in which they occur. If the attack lags in one portion of the zone, the weight of the attack is shifted to another portion offering a greater opportunity for success. The progress of the attack is not delayed to preserve the alinement of units or to adhere to the original plan of attack. Attacking units do not become involved in indecisive action. Follow and support units reduce isolated enemy resistance and mop up as necessary.

e. The attack may be a single rapid advance and assault until the brigade objective is secured, neutralized, destroyed, or overrun, or it may be a series of rapid advances and assaults to obtain the same results. Between areas of opposition, attacking forces move rapidly in a partly deployed formation; infantry and tanks may move forward separately, together, or one may lead the other; mechanized infantry normally remain in their carriers until forced to dismount. As enemy resistance is encountered, the attacking echelons converge, under or following close behind their supporting fires, until they are within assaulting distance of the hostile position. If these fires have neutralized effective antitank opposition, the tanks normally lead the assault, overrun the ob-

jective, and take up overwatching positions on the perimeter while the following infantry mops up. If antitank opposition remains strong, the infantry leads the final assault with the tanks supporting by direct fire. In a situation where there is limited enemy resistance, mechanized infantry may assault while mounted. The decision to keep the infantry mounted rests with the local commander and can rarely be planned in advance. In a situation where it is impossible for the tanks to join in the assault, e.g., when an unfordable river separates them from the objective and deep water fording kits are not available, it may be necessary for the tanks to support by fire while the infantry assaults under the protection of these and other supporting fires. Nuclear and chemical fires may make the assault unnecessary or reduce the friendly casualties during the assault. The assault is a short, well-coordinated effort that overruns or destroys forces on the objective. Supporting fires continue to the last possible moment and then are shifted to the flanks and rear of the enemy position. Following the assault, attacking units disperse as rapidly as possible to preclude forming lucrative targets and continue the attack or prepare for other operations.

f. The reserve is kept dispersed but ready for instant employment. Reduction of the reserve's vulnerability to nuclear attack through dispersion must be evaluated against the requirement for immediate availability. The reserve moves within the overall formation of the brigade and is positioned to permit rapid movement to the point of probable employment and to provide security by its presence. When conditions dictate its use, the reserve is committed without hesitation. The decision to commit the entire reserve or a portion thereof depends on the situation. With the compression of time and distance factors inherent in the mobility of the armored brigade, combined arms teams of the reserve can be assigned a specific short-term mission and the reserve quickly reconstituted. Displacement of fire support means is executed to maintain continuous fire capabilities throughout the attack.

g. The brigade commander keeps himself informed of the progress of the attack, the status of his units, and the enemy situation. Depending on the battle, he is prepared to alter the organization for combat, maneuver his forces, reallocate and shift fires, or use his reserve. Decentralization of control and mission-type orders are normal. During the attack, the brigade commander moves where he can best control and influence his forces.

*h.* During continuous day and night operations, leading elements of the brigade are rotated to provide time for rest and maintenance. This rotation can be accomplished by changing the brigade organization for combat and by standing operating procedures within brigades.

### 7-31. Continuation of the Attack

*a.* Upon securing the brigade objective, reorganization is accomplished rapidly, and all means are used to continue the attack if so ordered. Maximum use of supporting fire is made during this critical period. Minimum forces normally retain control of objectives and remaining units disperse to defend themselves and the objective, prepare to continue the attack, and block enemy avenues of approach, if required. Ground mobile or airmobile units maintain contact with the enemy, keep him off balance, and obtain information.

*b.* Continuation of the attack, a new direction of attack, or exploitation by the reserve may require a passage of lines or a relief in place.

*c.* The continuation of the attack frequently depends on the ability to resupply attacking forces. Large quantities of ammunition, class III, and equipment expended during the attack may have to be replenished. Provision for this logistical

support must be an integral part of the attack plan.

### 7-32. Discontinuance of the Attack

*a.* Contingencies may require the attack to be halted. The commander must anticipate halts and prepare orders to include the time or circumstances of the halt, missions and locations of subordinate units, and command and control measures. To prevent congestion, some units may be diverted into assembly areas prior to the halt of the entire brigade.

*b.* The brigade commander may have freedom of choice in discontinuing the attack. In this event, rear positions are planned to aid defense, to minimize vulnerability to attack, and to facilitate renewal of the attack.

*c.* Brigade actions when discontinuing the attack include:

(1) Establishing a counterreconnaissance screen and necessary local security.

(2) Maintaining contact with the enemy and developing information required to plan future actions.

(3) Redeploying forces based on probable future employment.

(4) Maintaining contact with adjacent units.

(5) Accomplishing reorganization and supply concurrently with the above.

## Section VIII. EXPLOITATION

### 7-33. Introduction

*a.* Exploitation is the following up of previous gains to take full advantage of success in battle. It is a phase of the offensive that destroys the enemy's ability to reorganize a defense or to conduct an orderly withdrawal in the face of threatened destruction or capture.

*b.* The exploitation is initiated when an enemy force is having recognizable difficulty in maintaining its position. Although local exploitations may appear insignificant, their cumulative effects can be decisive.

*c.* Depending upon the situation and its task organization, the brigade can exploit its own success; it can be utilized as an exploiting force for a higher echelon; or it can follow and support another exploiting force. The armored brigade's inherent mobility, firepower, and shock effect make it an ideal exploiting force.

### 7-34. Basic Considerations

*a.* Exploiting forces can have the mission of securing objectives deep in the enemy rear, cutting lines of communications, surrounding and destroying enemy forces, denying escape routes to an encircled force, and destroying enemy reserves.

*b.* Exploiting forces require speed and combat power. Tanks, mechanized infantry, and cavalry normally make up the forward elements. Engineer support is provided to overcome obstacles.

*c.* Preparation for the exploitation entails planning, warning orders, grouping of exploiting forces, planning for combat service support, and establishing communications.

*d.* The commander must be ready at all times to exploit opportunities afforded by the enemy for exploitation as indicated by an increase in prisoners captured; an increase in abandoned materiel; and the overrunning of artillery, command

facilities, signal installations, and supply dumps. The transition from the coordinated attack to the exploitation may be so gradual that it is hardly distinguishable, or it may be abrupt. The abrupt transition occurs most frequently when nuclear and/or chemical munitions are used.

*e.* With adequate nuclear or chemical support, the exploitation can be launched with the initial assault or at any time thereafter depending on the effects of the fires and the desires of the commander.

*f.* Once the exploitation is begun, it is carried out without letup to the final objective. The enemy is given no relief from offensive pressure.

*g.* Decentralized execution is characteristic of the exploitation. However, the commander maintains sufficient control to prevent overextension of the command. Minimum control measures are used. Combat service support and combat support plans are flexible. Combat service support operations are normally decentralized.

*h.* In the exploitation, special and conventional munitions are used principally on targets of opportunity. These munitions are used to eliminate pockets of resistance, destroy hostile reserves, seal enemy escape routes, and destroy enemy nuclear delivery means.

*i.* Tactical reconnaissance and Army aircraft maintain contact with the enemy, locate enemy movements, and keep the command advised of enemy activities.

*j.* Close air support aircraft and armed/attack helicopters inflict maximum damage by attacking enemy reserves and withdrawing columns.

*k.* Petroleum consumption rates are high; therefore, provision for rapid resupply is essential. Security of ground supply columns must be considered since forward elements may be operating to the rear of bypassed enemy forces. Aerial resupply may be necessary.

*l.* Adequate air defense must be provided to the exploiting force. The principles outlined for the movement to contact are applicable to this type of offensive operation. FM 44-1 and FM 44-3 contain detailed procedures.

### 7-35. Anticipation of Exploitation

Entrance into the exploitation type of operation can usually be anticipated well in advance by certain indications; i.e., decisive gains made by friendly forces; lessening of enemy resistance, particularly supporting fires; and increase in the number of prisoners captured and amount of

equipment abandoned. The transition from other operations to the exploitation may occur gradually as the attack progresses; or it may occur rapidly because of the employment of nuclear weapons or reserves. After transition to the exploitation, every effort is made to continue the advance without halting, bypassing enemy resistance when possible, and using available fire support to the maximum when appropriate targets are presented. Following and supporting units clear the overrun area of pockets of resistance and expand the zone of exploitation.

### 7-36. Characteristics

It is in the exploitation that the armored brigade attains full use of its characteristics of armor-protected firepower, shock effect, and mobility. The armored brigade is able to disrupt enemy rear areas by destroying enemy command posts, communication, logistic installations, and nuclear delivery capabilities. Whenever possible, the brigade should be employed in tactical situations that will permit it to exploit previous success so as to maintain momentum and relentless pressure against crumbling resistance.

### 7-37. Scheme of Maneuver

The brigade in the exploitation advances on a wide front—the terrain and the road net permitting—retaining only those reserves that are necessary to insure flexibility, momentum, and security.

### 7-38. Column of Battalion Task Force in the Exploitation

The column formation has the same advantages and disadvantages in the exploitation as those discussed in paragraph 7-7. When forced by the terrain and the enemy situation, the brigade may advance in a column formation in the exploitation. In this formation, neither the leading battalion task force nor those following are restricted to the same route within the brigade axis of advance. Generally, use of a column formation in the exploitation unduly emphasizes flexibility and security at the expense of the prime consideration of speed and the placement of maximum firepower forward.

### 7-39. Battalion Task Force Abreast in the Exploitation

*a. Two or More Task Forces Abreast Without a Reserve.* Under suitable circumstances, the

formation of two or more task forces abreast without a reserve may be employed. This formation is normally used when the situation demands an approach to objectives on as wide a front as possible, for example, in attempting to secure crossing sites over a major river. It is also used against sporadic and weakening resistance and when the enemy capability of interfering with major reserves is lacking or can be blocked by means other than the employment of a reserve. In spite of the lack of a constituted reserve, action can be influenced by the effective employment of nuclear fires and the maneuver of combat elements.

*b. Two or More Task Forces Abreast with a Reserve.* A formation of two or more task forces abreast with a reserve in the exploitation allows the brigade to advance on a reasonably wide front with the bulk of the brigade's direct firepower forward. This formation facilitates the rapid development of gaps in enemy defenses. While the bulk of the brigade is committed, a battalion task force appropriately organized for its contemplated employment is held in reserve to exploit the success of the attacking elements, assume the mission of attacking elements, or to counter enemy threats as they develop.

#### 7-40. Conduct of the Exploitation

*a.* In the exploitation, the brigade is assigned an objective deep in the enemy rear to cut his lines of communication and disrupt his command and control. The exploitation is pushed as vigorously as possible to arrive at the objective in the shortest time and to secure the objective against enemy efforts to retake it. Maximum use should be made of airmobile infantry or airborne forces, if available, to secure key terrain features. Enemy troops encountered are not engaged unless they can interfere with the brigade or cannot be bypassed. The decision to bypass or engage encountered enemy forces rests with the brigade commander, who may delegate this authority to the commanders of the battalion task forces. Normally, freedom of action is delegated to commanders in the exploitation. Nuclear weapons and nonpersistent chemical agents may be em-

ployed against enemy forces when such forces are in a position to threaten the accomplishment of the mission. The leading elements of the brigade habitually attack from march column to reduce roadblocks and small pockets of resistance and to perform the reconnaissance necessary to develop the situation. Actions are characterized by aggressiveness, prompt use of firepower, and rapid and unhesitating employment of uncommitted units.

*b.* During the exploitation, a leading brigade bypasses or blocks enemy forces which are of insufficient strength to jeopardize the brigade or higher command mission. Bypassed forces are reported to the higher commander. Enemy forces that interfere, or can interfere, with the brigade mission are blocked and bypassed or destroyed. If the enemy resistance is such that the brigade cannot block and bypass or destroy it, the brigade reports the situation to its higher headquarters and initiates a coordinated attack to develop the situation.

#### 7-41. Follow and Support Units in the Exploitation

Follow and support units are assigned missions to assist exploiting forces by relieving them of tasks that would slow their advance, such as preventing the enemy from closing the gap in a penetration and securing key terrain gained during a penetration or envelopment. As the exploiting brigade advances farther into the enemy rear areas, the follow and support units secure lines of communication and supply, support the exploiting elements of the brigade, destroy pockets of bypassed enemy, and expand the area of exploitation from the brigade axis. The follow and support units should be mechanized or motorized, giving them the capability to keep up with the exploiting force. They relieve brigade elements blocking or containing enemy pockets, or protecting areas or installations, thereby enabling these elements to rejoin the exploiting force. Liaison must be maintained between lead units and follow and support units to facilitate coordination. Elements of the follow and support units may be attached to the brigade to insure unity of command.

### Section IX. PURSUIT

#### 7-42. Introduction

The pursuit is normally the final phase of the exploitation. Its goal is to annihilate the hostile

main force. As a successful exploitation develops and the enemy begins to lose his ability to influence the situation, the brigade may be ordered

to execute the pursuit. The pursuit differs from the exploitation in that in the exploitation the primary objective of the attack is generally a decisive, physical objective deep in the enemy's rear. To secure this objective, the brigade avoids, bypasses, or breaks through enemy resistance, concentrating only upon seizure of the assigned objective. In the pursuit, while the brigade may still point its advance toward a physical objective, the mission is the destruction of the enemy main force.

### 7-43. Basic Considerations

*a.* A force in the exploitation is alert to indications of enemy collapse which enables pursuit. It prepares for pursuit by issuing warning orders, regrouping forces, and providing for additional logistical support, particularly class III and V.

*b.* The attacker uses all possible means to maintain the continuity of the attack. He launches his attack when the enemy can no longer maintain his positions and seeks to escape. The primary objective of the attacking forces in the pursuit is the destruction of the enemy forces. Prompt exploitation of nuclear fires may permit the pursuit to be launched as an initial offensive operation.

*c.* Successful pursuit requires unrelenting pressure against the enemy to prevent reorganization and preparation of defenses. Friendly troops and equipment are pushed to the limit of their endurance. Commanders are located well forward to insure that the impetus of advance is not lost. Greater risks can be taken by commanders in the pursuit than in other types of offensive operations to achieve decisive results.

*d.* When the brigade conducts pursuit operations, a direct pressure force of sufficient size and composition to maintain continuous pressure on the enemy is organized. The encircling force must have mobility equal or superior to that of the enemy and must be organized for a semi-independent operation. The enemy's inability to react effectively reduces the need for mutual support. Direct pressure and encircling forces require engineer units to clear obstacles to enable advancing columns to move rapidly. Adequate signal communication support must be provided.

*e.* Adequate preparation is made for logistical support. Fuel, lubricant, and ammunition consumption is particularly high. Air transportation can deliver supplies promptly to forward units. Maximum use is made of captured enemy mate-

riel, particularly transportation, and stocks of supplies.

*f.* Security is increased by the speed of advance, the enemy's inability to react effectively, and the dispersion of forces.

*g.* The armored brigade may conduct an independent pursuit operation. However, it usually operates in a coordinated effort as part of a larger force in the pursuit. Figure 7-7 illustrates a type pursuit.

*h.* Army aircraft provide significant assistance in the pursuit. Reconnaissance aircraft continuously observe vital areas in the enemy's rear, attempting with other forces to determine the enemy's zone of retreat, to maintain contact with retreating columns, to locate movement of hostile reinforcements, and to keep commanders informed of the hostile activities and movements in their zones of action. This is done by both organic and supporting aircraft. The air cavalry troop of the armored cavalry squadron is especially effective for this. FM 17-36 contains details on employment of the air cavalry troop.

*i.* Tactical air support inflicts maximum damage on the retreating enemy. This support concentrates on critical points along the enemy route of withdrawal (especially defiles), on his retreating columns, and on hostile reserves endeavoring to reconstitute the defense. Because of the fluid nature of pursuit operations, coordination of tactical air support and maneuver units is vitally important to insure maximum damage to fleeting enemy targets without danger to rapidly moving friendly troops.

*j.* Air transportation may be required to furnish air delivered supplies, particularly class III and V, allowing the brigade commander to maintain the momentum of the pursuit and to maintain relentless pressure on the enemy.

*k.* Nuclear weapons are used in the pursuit primarily on targets of opportunity and escape routes. These weapons are employed to eliminate pockets of resistance, destroy hostile reserves, and, with careful planning, to seal off enemy escape routes in critical localities such as defiles. Conduct of the pursuit should not be slowed in order to employ nuclear weapons unless markedly favorable effects will result.

*l.* Air defense must be provided during the pursuit. Air defense is provided in much the same manner as for the movement to contact. Enemy capabilities will determine the amount of air

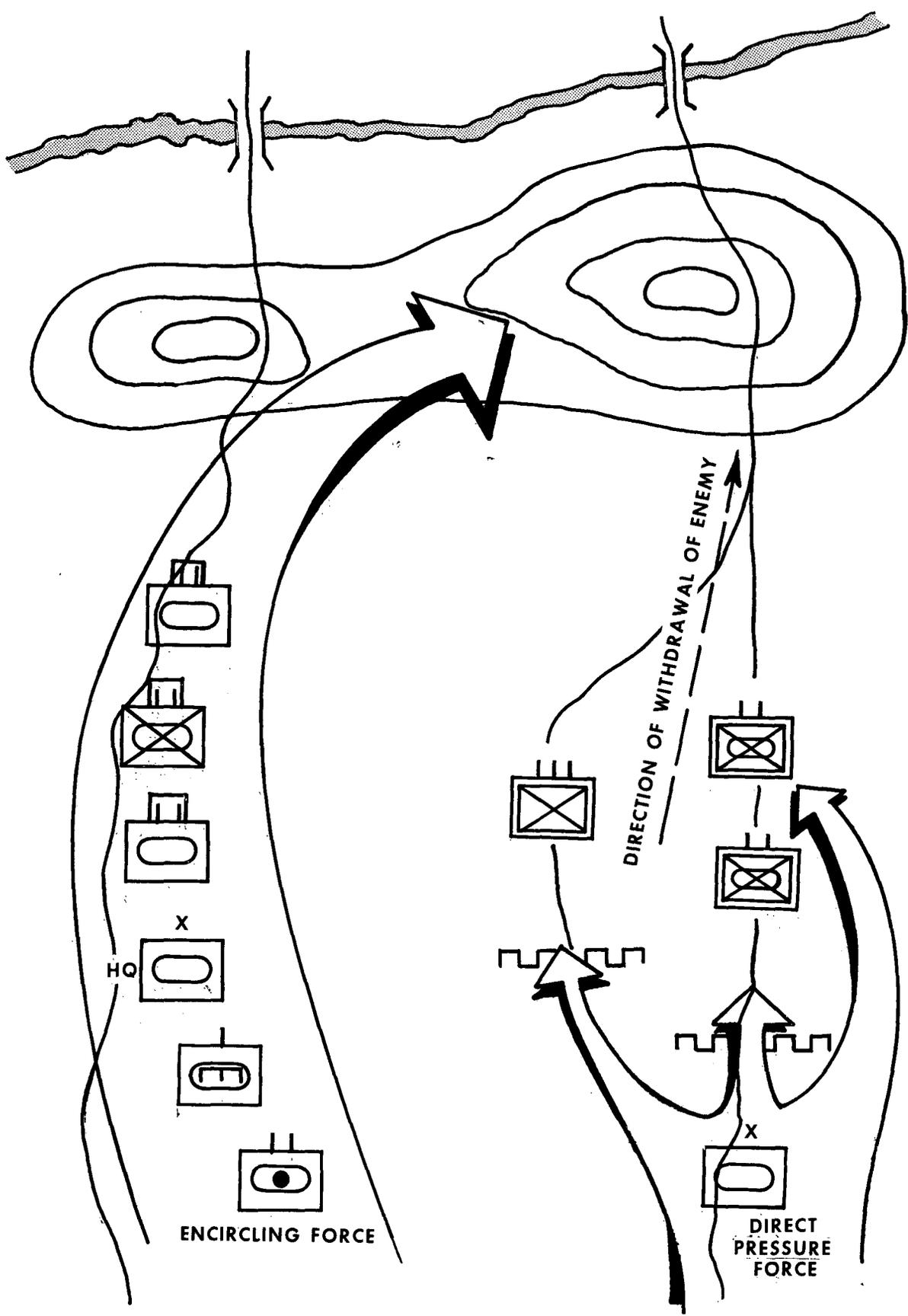


Figure 7-7. Type pursuit.

defense required. Normally, a higher percentage of air defense artillery automatic weapons are employed in the ground fire support role. Due to the rapid rate of advance anticipated, air defense units may be attached to the brigade. FM 44-3 contains a detailed discussion of air defense techniques applicable to the pursuit.

#### **7-44. Launching the Pursuit**

When the enemy is having difficulty maintaining his position, the commander maintains the continuity of the attack and exerts relentless pressure. The pursuit is ordered when the enemy is no longer able to maintain his position and endeavors to escape. At this time, the emphasis of the brigade attack shifts to the destruction of the enemy. Important indications of a weakening enemy are the continued advance in a decisive direction without strong enemy reaction, the capture of critical objectives; the increased number of captured prisoners, abandoned weapons, and unburied dead; diminution or cessation of hostile artillery fire, and the lack of other hostile countermeasures.

#### **7-45. Conduct of the Pursuit**

*a.* The pursuit is conducted on as broad a front as possible. Direct pressure against the retreating forces is maintained relentlessly while an encircling force cuts the enemy's lines of retreat. Double envelopment of the retreating main force or its separate elements is attempted whenever conditions permit and the necessary superiority of force is present.

*b.* The advance in the decisive direction must be maintained. Hostile rear guards or forces on flank positions are not permitted to divert the main force from advancing in the decisive direction. If an attempt to cut the enemy's retreat is unsuccessful, a new encircling force is quickly constituted.

*c.* When the enemy main force succeeds in establishing itself in a position from which it cannot be dislodged quickly, the commander launches an attack immediately, using forces as they become available and all other available means, including nuclear weapons.

*d.* The forces engaged in direct pressure and in encircling actions are controlled by the assignment of deep objectives and broad missions, axes of advance, and zones of action. Maximum latitude for initiative is given subordinate commanders. Decentralization of control of fire support and administrative means may be required.

#### **7-46. Direct-Pressure Force**

*a.* The mission of the direct-pressure force is to attack continuously to prevent enemy disengagement and subsequent reconstitution of his defense and to inflict maximum casualties. The direct-pressure force is constituted to provide relentless attack, day and night.

*b.* No opportunity is given the enemy to reorganize his forces for defense. Under no circumstances is he allowed to break contact. The leading elements of the direct-pressure force push fast moving columns along all available roads. They bypass small pockets of resistance. Following and supporting infantry mop up these pockets. During the night, units continue their attack to keep the enemy off balance. The direct-pressure force also attempts, by maneuver, to cut off the retreat and destroy segments of the enemy when such actions will not jeopardize the force's primary mission.

#### **7-47. The Encircling Force**

*a.* The mission of the encircling force is to block the retreat of the defeated enemy so that he may be destroyed between the direct-pressure and the encircling forces. When means are available, vertical envelopment may be used with great effectiveness, in conjunction with the armor encircling force, to fix the enemy and cut his escape routes. The encircling force consists of a highly mobile force designed to cut off the retreating enemy.

*b.* The brigade in the encircling maneuver advances along routes paralleling the enemy's line of retreat, attempting to reach defiles, bridges, and other key points before the enemy main force. When the encircling forces cannot outdistance the enemy, they engage the enemy's main forces on the flank.

**Section X. COVERING FORCE****7-48. Introduction**

*a.* A covering force is a tactically self-contained security force that operates a considerable distance to the front, flank, or rear of a moving or stationary force. Its mission is to develop the situation early; defeat hostile forces if possible; and deceive, delay, and disorganize enemy forces until the main force can cope with the situation.

*b.* The brigade may participate in a covering force mission as part of an armored division that is in turn the covering force for a corps, or as a complete covering force for a division or corps. Figure 7-8 shows the brigade serving as the covering force for a division in the movement to contact.

**7-49. Control**

Because the brigade as a covering force will be operating on a broad front, a well-prepared, coordinated plan is required. It must reflect centralized, coordinated planning and decentralized execution. Control measures governing the rate and direction of movement are specified. The rate of movement is controlled by successive march objectives, checkpoints, and phase lines. The direction of advance or withdrawal may be controlled by establishment of boundaries between brigades and between battalion task forces. Radio communication provides the immediate means of control at all levels. Army aircraft may be used to provide auxiliary communication, liaison, and other controls between commands.

**7-50. Conduct of Covering Force Action**

*a.* The brigade operates at an extended distance from the main body. It may have up to three task forces abreast.

*b.* Tank-heavy battalion task forces usually lead the advance. Engineers are kept well forward with the task forces. Artillery, including nuclear fire support, is normally attached to the brigade.

*c.* Small tank-heavy reserves may be maintained at both battalion task force level and brigade to provide for influencing local actions.

*d.* Nuclear weapons are used to damage or destroy targets of opportunity, to block enemy avenues of approach, and to deny the enemy use of key terrain. Atomic demolition munitions (ADM) may be effectively employed to block avenues of approach and deny key terrain to the enemy. Persistent chemicals should also be considered for use in assisting the covering force by restricting the enemy's use of key terrain.

*e.* Covering force actions are characterized by speed and aggressiveness—especially in reconnaissance—by developing situations rapidly with strength, by unhesitating commitment of reserves, and by keeping the enemy off balance. The brigade concentrates its attention against enemy forces that are of sufficient size to threaten the main force. Minor resistance is bypassed. Every action is directed toward insuring the uninterrupted advance of the main body.

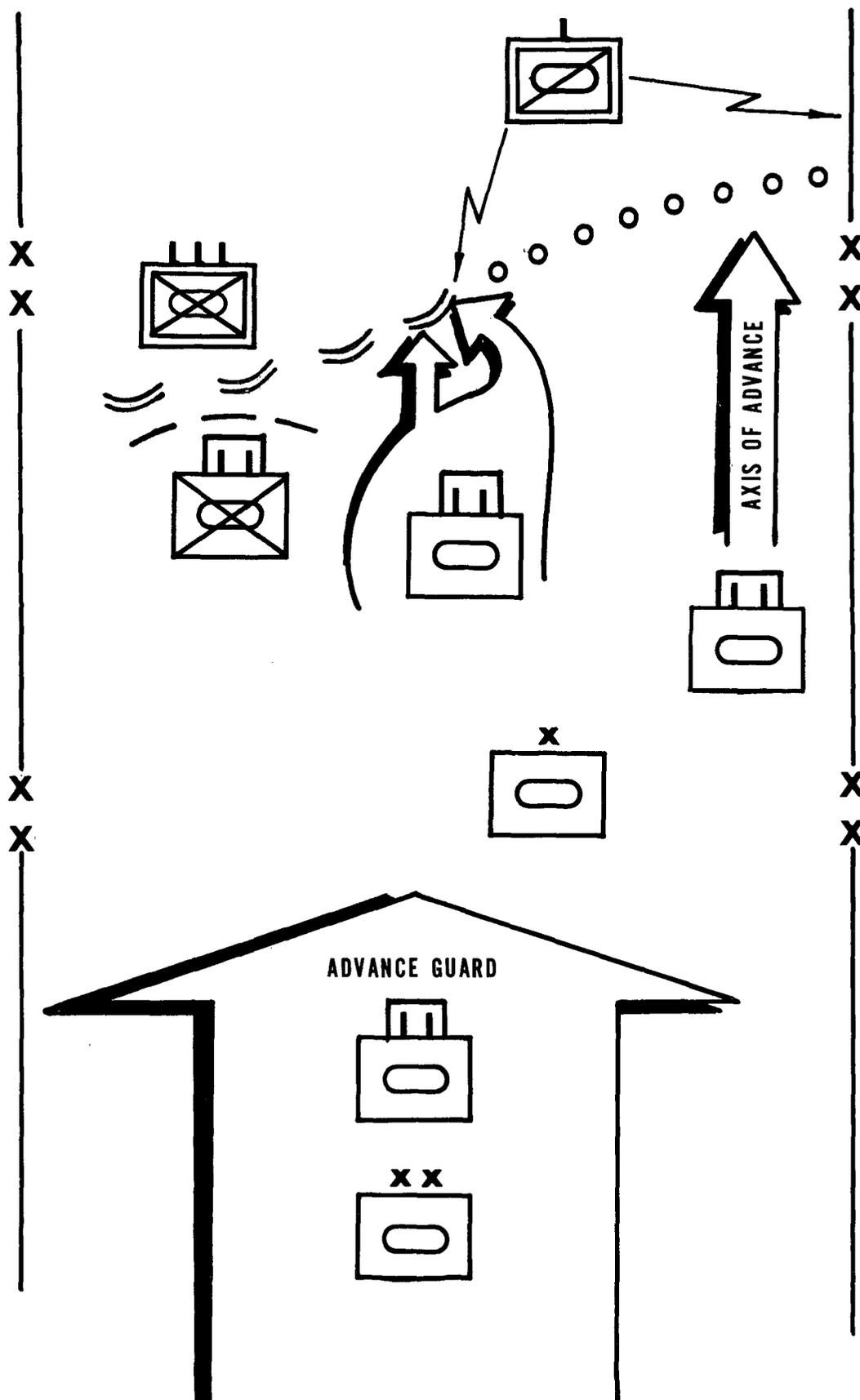


Figure 7-8. Brigade as division covering force in movement to contact.

## CHAPTER 8

### DEFENSIVE OPERATIONS

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#### Section I. INTRODUCTION

##### 8-1. Introduction

a. The defense is a temporary measure adopted until the defensive force can assume the offensive. Defensive operations resist, repulse, and/or destroy enemy attacking forces. The defender undertakes the defense to develop more favorable conditions for subsequent offensive operations, to economize forces in one area in order to apply decisive force elsewhere, to compel an enemy force to mass, to destroy or trap a hostile force, to deny an enemy entrance to an area, or to reduce the enemy's capability with minimum losses to friendly forces.

b. Relief operations may be conducted in conjunction with defensive operations and are discussed in chapter 9.

c. FM 61-100 and FM 17-1 provide additional information concerning defensive operations.

##### 8-2. Purpose

During conduct of the defense, the defender strives to gain and maintain the initiative. The attacker is continually harassed by fires and offensive maneuver when appropriate. The defender uses all means available to detect enemy weaknesses and maintains sufficient flexibility in his planning to exploit those that occur. All resources are employed to inflict maximum destruction on the enemy force.

##### 8-3. Doctrine of Defense

Defensive concepts contemplate the use of security forces to detect the time, direction, and size of an enemy attack and to delay and disorganize the attack; the selection and organization of a forward defensive area to repel or canalize the attacker and force him to mass; and the use of a reserve to eject or to destroy the attacker by offensive action.

a. Defense on the nuclear battlefield must be based on the principle that a defense on a wide

front or in great depth will normally require highly mobile forward defense forces, and a tank-heavy reserve with a counterattack mission. When the enemy possesses the capability for high-speed armored operations, the forward defense force should contain sufficient tank and other antitank weapons strength to repel or canalize the attacker, or develop the situation, whichever is desired. The reserves are positioned and prepared to strike the enemy's flanks and exploit friendly nuclear fires without delay. In nonnuclear warfare, the same principles apply. The application of these principles may be modified depending on the threat and mobility of the defending unit. This concept envisions capitalizing on mobility, firepower, and offensive action to establish a resilient defense aimed at retaining the defender's initiative, denying the enemy his decisive objectives without the defender himself becoming fixed and destroyed, and ultimately destroying the attacking enemy by fire and maneuver.

b. This concept of offensive action, combined with a properly organized forward defense area, is designed to defend successfully against a well-equipped and numerically superior enemy. The nature of the operation demands adequate maneuver room and mobility. Against a numerically superior enemy, penetrations must be expected. To counter these penetrations, a resilient defense in depth is essential.

c. The prerequisites to successful application of this concept are—

(1) Retention of a strong, mobile, tank-heavy reserve.

(2) Adequate tank strength in the forward defense force to provide antitank defense in coordination with other antitank weapons.

(3) Adequate and timely intelligence.

(4) Reliable and rapid means of control.

(5) Close timing and careful selection of goals in planning the offensive parts of the operation.

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(6) Mobility equal to, or greater than, the enemy's.

(7) Adequate fire support.

(8) Aggressive and able leadership coupled with individual initiative.

#### 8-4. Forms of Defense

a. The fundamental forms of defense are the mobile defense and the area defense. The brigade is capable of conducting the area defense either independently or as part of a larger force. The brigade normally participates in the mobile defense as part of a larger force.

b. The primary purpose of the mobile defense is the destruction of enemy forces, *not* the retention or control of terrain, by utilizing combinations of offensive, defensive, and delay operations. Minimum forces are deployed in the forward defensive area while a strong mobile reserve is retained to destroy the attacker. The mobile defense is normally conducted by division or higher headquarters. Mobility equal to or superior to that of the enemy is desirable for all elements of the defensive force.

c. The primary purpose of the area defense is to retain or control specific terrain for specific periods of time. The priority and preponderance of combat power is in the forward defense area to defeat the enemy forward of the forward edge of the battle area (FEBA) through use of large volumes of fire. Reserves counterattack to restore the integrity of the forward defense area.

d. In the conduct of offensive, defensive, and retrograde operations, it may become necessary for the brigade to establish a perimeter to defend itself. This situation may occur when the brigade is temporarily halted, or when the brigade secures an objective. Provisions for security are inherent in all brigade operations.

#### 8-5. Defense Areas

Defensive areas include the security area, the forward defense area, and the reserve area. Each of these areas is allocated forces and fires as part of the overall defense plan. Defense of a fixed base during stability operations may require establishment of defensive areas which are variations of those listed above. Defensive areas are illustrated in figure 8-1.

a. The division security area begins at the FEBA and extends as far to the front and the flanks as elements of the security echelon are em-

ployed. Security forces gain time for the preparation of the brigade defensive positions; furnish information of the enemy; delay, deceive, and disrupt him as much as possible; and provide a counterreconnaissance screen. These forces also may have the mission of locating and developing targets for special munitions. Forces operating in the security area may include elements from higher echelons, such as covering forces and units providing air surveillance and flank security. Brigade forces in the security area may consist of combat outpost elements (COP), observation and listening posts, and patrols. The general outpost (GOP) is organized and controlled by the division; however, the brigade may be selected by the division to perform the GOP mission (FM 61-100).

b. The forward defense area (FDA) extends from the FEBA to the rear of the area organized by the forward defense forces. The form of defense employed strongly influences the composition of the forward defense forces.

c. The reserve area extends from the rear boundaries of the forward defense forces to the brigade rear boundary. The reserve forces—those uncommitted forces under brigade control—occupy positions in the brigade rear area and add depth to the defensive position. These forces are the commander's principal means of influencing the defensive battle and regaining the initiative. The combat power of the reserve will normally consist of special or conventional fires and maneuver elements.

#### 8-6. Fundamental Considerations in Defense

Fundamental considerations for planning, organizing, and conducting the defense are—

a. *Proper Use of Terrain.* Terrain is a major factor in selecting the defensive area and disposing defending forces. The defender retains control of terrain features essential to observation, communications, and maneuver of reserves; he denies the enemy the use of terrain that might jeopardize the success of the defense. The defender uses field fortifications and obstacles to increase the natural strength of the area. He uses obstacles to divert the enemy into areas suitable for counterattack or destruction by special munitions. Obstacles in the area bear strongly on the general defensive scheme, including the disposition of forces and the positioning of reserves. The defender should visualize all probable enemy avenues of approach into the area. An evaluation

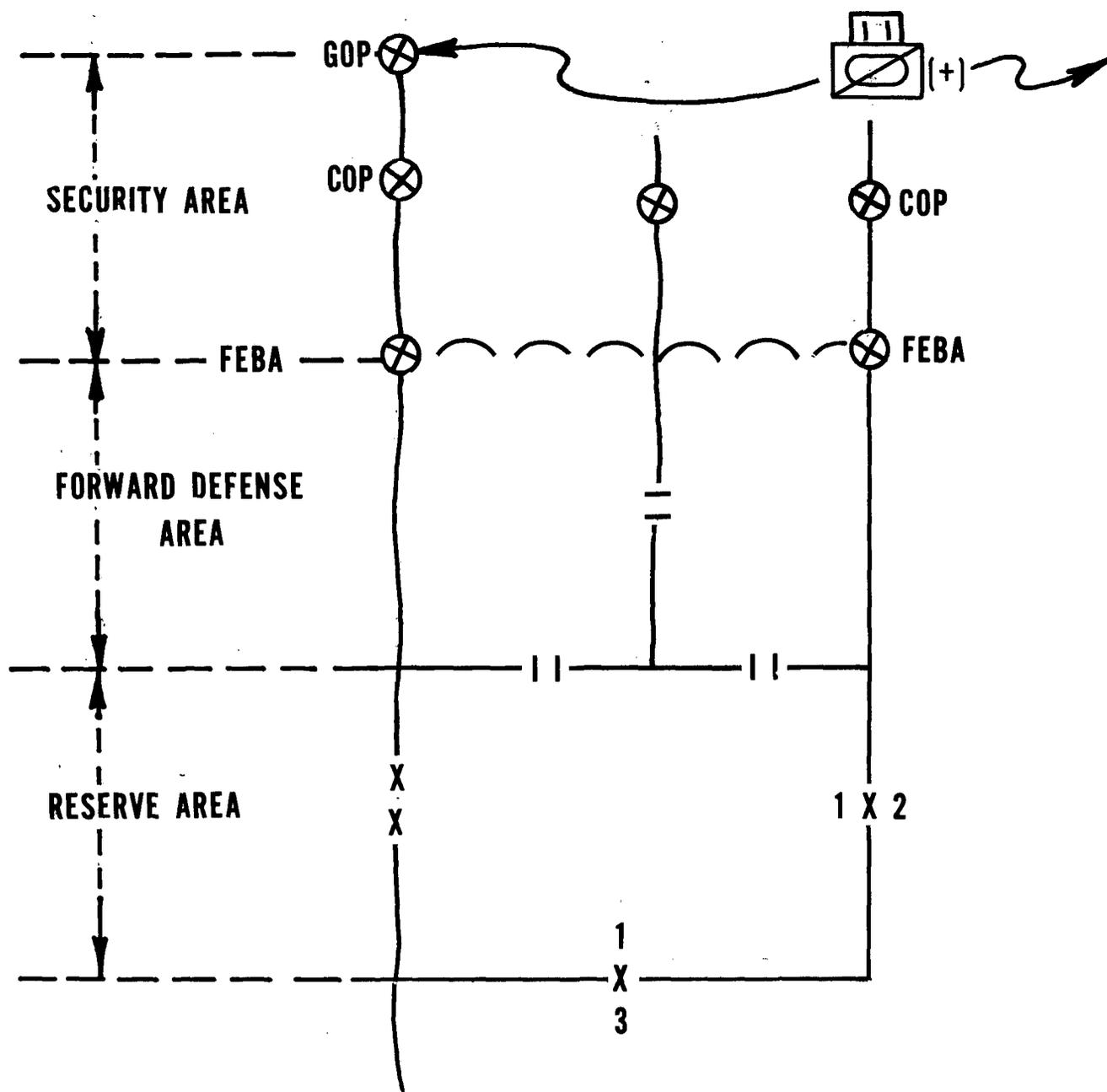


Figure 8-1. Defensive areas.

of the avenues of approach in conjunction with key terrain features serves as the basis for positioning forces as well as for using surveillance means and for planning fire support. Normally, avenues of approach at brigade level are those that will accommodate, as a minimum, an enemy battalion. The area selected for defense should afford good observation, fields of fire, and adequate cover and concealment to the defending forces.

*b. Security.* The defender must take all necessary steps to avoid tactical surprise. He must provide

means to insure early warning and reliable information of approaching enemy forces. Security measures include placing security elements to the front in the direction of anticipated enemy approach and providing necessary security for the protection of the brigade flanks and rear. All-round security is essential.

*c. All-Round Defense.* Although the defense is designed primarily to combat an enemy attack along the most probable avenues of approach, the enemy can attack from an unexpected or unlikely direction. The enemy can also attack the brigade

rear by ground envelopment, airmobile or airborne attack, or large-scale guerrilla action. The defender should prevent the enemy from gaining a decisive advantage by surprise as to direction or location of the enemy attack. The brigade prepares for all-round defense by carefully disposing forces initially, planning the redistribution of troops, shifting fires, and insuring the preparation of all subordinate units for all-round defense.

*d. Defense in Depth.* Adequate depth is essential to the defense. A strong attack supported by special munitions may permit the enemy to penetrate the forward defense area. Therefore, the defender must have sufficient depth to the defense to contain or canalize the enemy and to permit execution of counterattacks. Shallow defenses are inherently vulnerable because the enemy can breach such defenses before the defender can contain him or take effective counteraction. The defender achieves depth to the defense by proper deployment; maneuver of forces; use of blocking positions, field fortifications, and barriers; and proper employment of fires and reserves.

*e. Responsiveness.* The defense is organized to permit the shifting of forces and fires to counter the developing attack. Mobile reserves and nuclear munitions provide the brigade commander greater freedom to conduct the defensive battle.

*f. Dispersion.* The defender disperses units as permitted by the requirements of his mission to reduce vulnerability to special munitions; however, the mission may conflict with the requirement to disperse. For example, the retention of specific terrain may be essential to the mission but may permit only limited dispersion. In such cases, the mission is paramount; the degree of risk in accepting less dispersion is secondary. Dispersion in depth is better than lateral dispersion because it avoids frontages that overextend the defense, provides a larger percentage of a given force as a reserve, avoids lateral movements in the face of an enemy attack, facilitates detection and destruction of infiltrators, and provides a better position for launching the counterattack.

*g. Maximum Use of Offensive Action.* In the defense, the brigade takes every opportunity to regain the initiative and to destroy enemy forces. The brigade must be prepared to take offensive action whenever the opportunity presents itself. A counterattack or spoiling attack is often the key to success in the defense. Such action can keep the enemy off balance and prevent his massing forces, thus permitting the defender to achieve decisive results.

*h. Integration and Coordination of Defensive Measures.* The overall defense plan involves the careful integration and coordination of all defensive measures.

(1) Fire support plans, to include the use of chemical and nuclear munitions, provide support for forward defense elements, control of unoccupied areas, cover for barriers, and support for offensive action such as counterattacks. The brigade integrates planned fires into the overall defensive scheme and coordinates fires of all units.

(2) The brigade supplements natural barriers and obstacles with artificial barriers and obstacles. These artificial means include minefields, and, when authorized, chemical agents and residual nuclear effects. These obstructions restrict the enemy's movement without restricting the friendly forces' planned maneuver. The division barrier plan supports the scheme of defense. Higher echelon requirements become a part of the brigade barrier plan. Careful coordination insures that the plan will accommodate planned maneuver, particularly reserve movement.

*i. Mutual Support.* The positioning of forces and the planning of fires laterally and in depth provide mutual support between forces consistent with the accomplishment of the assigned mission. Achievement of mutual support may require forces to move and assemble. If gaps exist in the defense, they present a particular problem in providing mutual support. The commander controls gaps by using surveillance, obstacles, prearranged fires, patrols, and elements that physically occupy the gaps when the enemy threatens their use. Gaps are normally accepted *between* rather than *within* battalions.

*j. Use of Time Available.* Since the defender can examine the terrain in detail and plan its best use, he makes every effort to prepare the defense in advance. The time available for the planning and preparation for the defense will influence the employment of forces, preparation of obstacles, coordination of fires, and priority for performance of tasks. The effectiveness of the defense depends not only on the time available for its planning and preparation but also on its advantageous use during the preparation phase. This fundamental also applies after the preparation phase because improvement continues during the conduct of the defense.

*k. Enemy.* In defense, a logical assumption is that a superior force opposes the defender. Therefore, the enemy consideration is dealt with in terms of "how superior." As the enemy's superior-

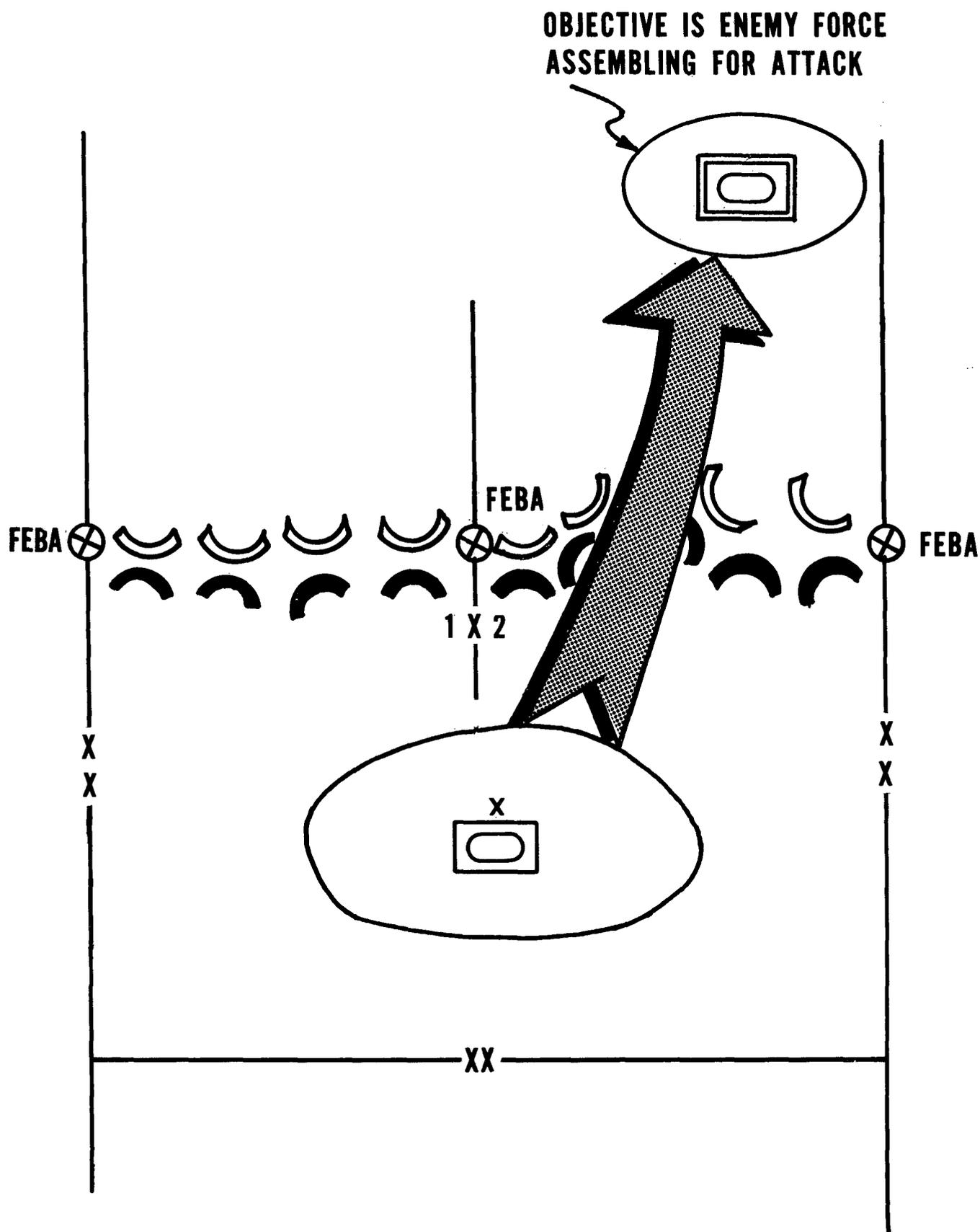


Figure 8-2. Division spoiling attack.

ity increases, the desirability of the mobile defense tends to increase. With the bulk of the combat power in the reserve, the defense can react to the enemy's thrust, moving at the critical time and place to destroy the enemy. FM 30-5 contains a detailed discussion of the effects of enemy capabilities and indications on defense operations.

### 8-7. Spoiling Attack

*a.* Plans for defense may include spoiling attacks to prevent or delay enemy attacks. Figure 8-2 illustrates the spoiling attack, which is normally launched against enemy forces that are forming or assembling for an attack.

*b.* Commanders make and coordinate plans for the spoiling attack with the same degree of care afforded a coordinated attack as discussed in chapter 5.

*c.* The following considerations affect the use of the spoiling attack:

(1) The spoiling attack delays, disrupts, or destroys the enemy capability to launch an offensive.

(2) The objective of the spoiling attack is destruction of enemy personnel and equipment, not the seizure of terrain or other physical objectives.

(3) The objectives selected must facilitate the accomplishment of the defensive mission of the unit.

(4) The next higher commander may limit the size of the force that may be used for a spoiling attack.

(5) The mobility of forces available for the spoiling attack.

## Section II. MOBILE DEFENSE

### 8-8. General

*a.* Mobile defense is defense in an area or on a series of positions disposed in width and depth in which maneuver coordinated with the organization of fire and the use of terrain is used to destroy the enemy. The mobile defense does not seek to defend terrain as such but is conducted to maintain the integrity of the defending force, to deny to the enemy his decisive attack objectives, and to destroy the attacking enemy force. The mobile defense makes maximum use of the mobile combat power of armor units. It is an active defense that employs offensive, delaying, and screening action, as well as defensive measures, to maintain the offensive capability.

*b.* In general, the division is the smallest unit capable of providing a sufficiently powerful reserve to permit conduct of a mobile defense. In this connection, the armored division, by virtue of its tank strength, is best equipped to perform this mission. The counterattack by the division reserve is the key to the success of the mobile defense. In the armored division mobile defense, the brigade may be employed as the security force, the fixing force (forces in the forward defense area), or the reserve (FM 17-1). Figure 8-3 illustrates a type organization for conduct of a division mobile defense.

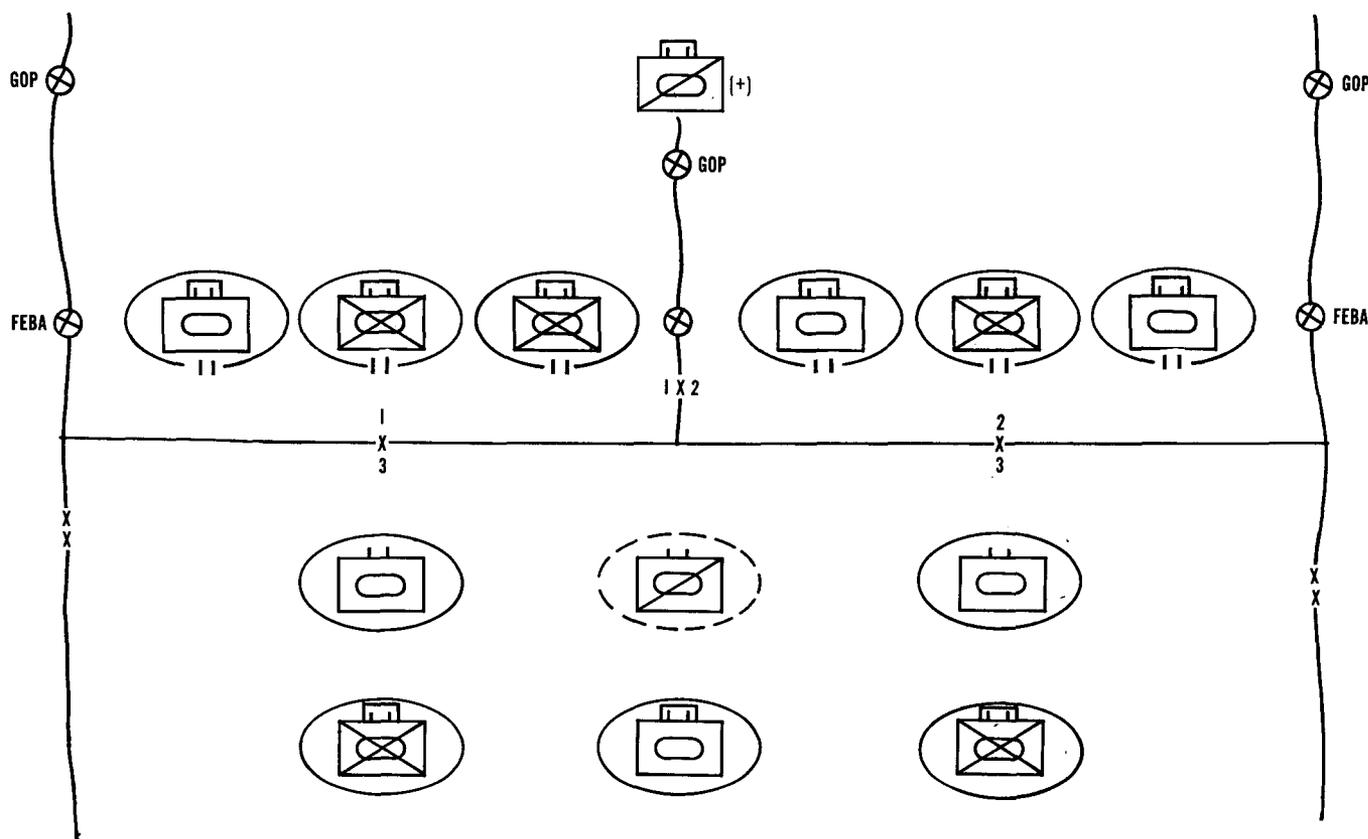
### 8-9. Security Forces

Security forces in the mobile defense may include the GOP, COP, observation posts (OP), listening

posts (LP), patrols, flank guard, and rear area security forces. Additional doctrine and techniques for the employment of these forces is contained in FM 17-1 and FM 61-100.

### 8-10. General Outpost

Normally, the division organizes and controls the GOP to intercept, engage, delay, disorganize, and deceive the enemy before he can attack. The GOP force normally has the primary mission of delaying the enemy forward of the FEBA for a specified time. In the absence of a specified time for delay, the GOP force will execute a maximum delay. The GOP provides security for a higher headquarters by observation, reconnaissance, attack or defense, or any combination of these methods. Brigade actions during conduct of a GOP mission are essentially the same as for a covering force mission. Unless the outpost is required to hold for a definite time, it begins its withdrawal to subsequent positions as soon as it is apparent that a superior enemy force is deployed for action, and outposts are likely to become decisively engaged. The action upon each successive delaying position is designed to create as great a change as possible in the direction of the enemy attack, and bring about the deployment of the maximum number of hostile units. In the event that the division has had time to prepare its defense and further time is not needed, the GOP force could be given a screening mission forward of the FEBA.



NOTE: USE OF REAR BOUNDARIES FOR BRIGADES IN A MOBILE DEFENSE IS OPTIONAL.

Figure 8-3. Type organization for a division mobile defense.

### 8-11. Combat Outpost

The division conducting a mobile defense will not always direct that a COP be established due to the limited number of maneuver battalions allocated to the FDA. Normally, only those units given the specific mission to defend will establish a COP. Units given a mission to delay do not establish a COP, but do employ security elements (OP's and LP's) forward of the FEBA. The COP is described further in paragraph 8-15.

### 8-12. Fixing Forces

#### a. General.

(1) Fixing forces are those elements of a command that are located in the forward defensive area of a mobile defense whose mission is to warn of impending attack; delay, disorganize, and inflict maximum destruction upon the enemy; force the enemy to mass by either offensive or defensive action (or both); and canalize him into a suitable

area for attack by the division reserve and/or nuclear weapons. Figure 8-4 illustrates the division in the mobile defense with two brigades acting as fixing forces—one brigade in a "delay" posture and one brigade in a defense posture. The third brigade has been retained as an armor heavy reserve.

(2) When a brigade functions as a fixing force for the division in a mobile defense, it may provide varying degrees of resistance against the attacker. The degrees of resistance are defend, delay, or screen. Regardless of the degree of resistance provided by a fixing force brigade, the brigade makes every effort to convince the enemy attacking force that the form of defense is other than the mobile defense. Consequently, the fixing force relinquishes ground with reluctance and only under enemy pressure. Such action provides higher headquarters additional time to plan for and employ the reserve successfully. The enemy attack force is therefore less likely to identify

the friendly defense as a mobile defense, thereby increasing the effectiveness of the counterattack when launched.

(a) The armored brigade acting as a fixing force may be given a mission to defend over the entire brigade sector, in which case each of its forward battalions is required to provide a *defend* degree of resistance and a significant reserve is retained at brigade level. In this posture, the brigade as a unit is employed as in an area defense. If assigned this mission, the brigade must be allocated sufficient combat power to defend the entire width of its sector.

(b) A fixing force brigade given the mission to delay in sector will be provided the minimum combat power essential to conduct the delay. This brigade will normally have little or no reserve available. The brigade may be given the additional mission to occupy certain terrain or blocking positions, and thereafter with reinforcement from division, defend in sector. Such a mission would be the culmination of the delay, and would establish a firm line of contact for counterattack coordination. In some instances, a brigade ordered to delay in sector may be tasked to retain certain terrain. A portion of the brigade would be ordered to defend that specific location, while the remainder of the brigade conducts delay. Given a combination requirement of this sort, a brigade cannot cover as wide a sector as would be expected in a simple delay. Normally, a sector cannot be narrowed, so the increased requirement must be offset by allocation of additional combat power to that brigade.

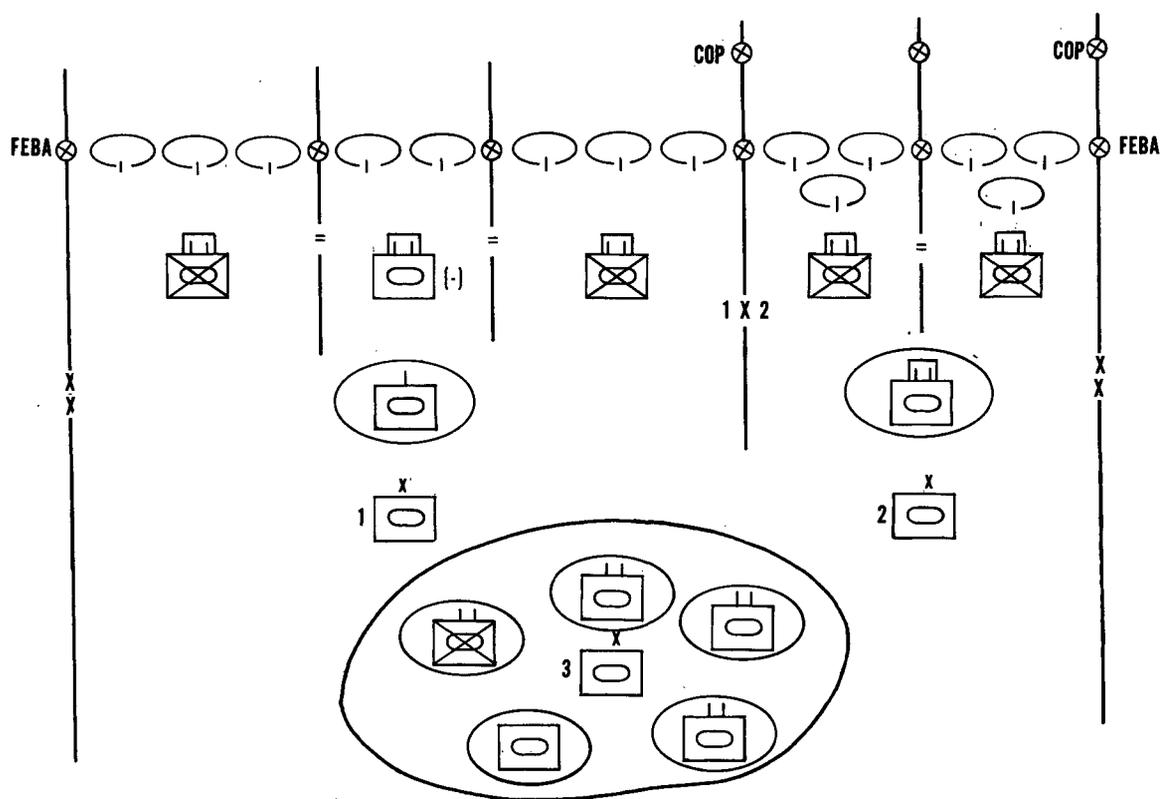
(3) Fixing forces accomplish their mission by establishing observation and listening posts, occupying and defending blocking positions, limited offensive action, and delaying action. Blocking positions are areas organized for all-round defense by elements varying in size from a company to a battalion task force. They are located along the FEBA and in depth, covering enemy avenues of approach into the area. Forces occupying a blocking position on the FEBA do not necessarily hold their initial position, but fight offensive and delaying actions to force the enemy to mass and present a lucrative nuclear target, and to afford sufficient time for the employment of the division reserve. Forces from blocking positions not engaged may be used to reinforce the efforts of other positions.

*b. Planning Considerations.* When the brigade is part of the fixing force in the mobile defense, its commander makes plans and organizes to take

advantage of the terrain. Consequently, a thorough reconnaissance is made of the assigned sectors by all commanders. This reconnaissance includes the selection of key terrain features controlling possible enemy avenues of approach, and routes for movement of defending forces between blocking positions and within the forward defensive area. Particular emphasis must be placed on identifying potential routes for the division counterattack in order not to interfere with its maneuver. This reconnaissance must be made from the viewpoint of meeting an attack by enemy armor. The brigade commander must therefore visualize the organization of the battle area, including the areas to be occupied and the troops required. Concurrently, the commander considers the employment of nuclear weapons during the defense and the effect of enemy nuclear weapons on his defense. All available fire support must be planned and integrated into the defense. Nuclear fires, counterattacks, and use of chemical agents and barriers are planned concurrently. Flexibility in fire support planning is important so that all elements of the defending force receive adequate fire support. Further details on defense planning are contained in FM 17-1 and FM 61-100.

*c. Disposition of Forces.* The disposition employed by the armored brigade in the fixing force will depend on many factors. Among these are the mission, enemy capabilities, nature of the terrain, size of the area to be defended, and troops available. One of several dispositions may be used.

(1) The brigade area may be divided into battalion task force sectors. In such a case, cross attachments between tank and mechanized infantry units are so made that each contains the forces necessary to conduct the most efficient defense. This will not necessarily result in balanced forces in each battalion task force. Generally, all such battalion task forces will be mechanized-infantry heavy but one may have more tanks than another. For example, the terrain in one task force sector may be defended more effectively with additional tanks. Because of the requirement for maximum strength in the division reserve, the fixing force commander assigned a delay mission will normally be allocated only minimum forces; and only through judicious distribution of his forces will he be able to hold a small local reserve. Such a reserve may be required to add depth to the defense of a particularly key terrain feature. This local reserve may be employed to strengthen blocking positions under attack and threatened with capture or destruc-



NOTE: 1st BRIGADE - FIXING FORCE IN DELAY POSTURE  
2nd BRIGADE - FIXING FORCE IN DEFEND POSTURE

Figure 8-4. Brigade as a fixing force.

tion, to restore a lost position, or to block while the division reserve counterattacks.

(2) Terrain considerations, such as a barrier through the area to be defended, which preclude the rapid employment of the division reserve may dictate the establishment of a larger reserve in the brigade sector. In this case, the brigade commander must be allocated sufficient forces to establish a local reserve of adequate strength to permit counterattacks or blocking of penetrations.

#### d. Organization for Combat.

(1) The division commander assigns tank and mechanized infantry elements to the brigade in the proportion best suited for the mission. Generally, the brigade will be mechanized-infantry heavy in the forward defensive area. The brigade reserve (if any) is as tank heavy as possible. Battalion task forces will be organized to defend blocking positions in designated sectors (FM 17-1).

(2) Engineer elements may be attached to the brigade when centralized control is difficult because of the size of the area involved. When attached to the brigade, engineer units are usually

placed in direct support of the battalion task forces to permit responsive employment.

(3) Centralized control of artillery is desirable to provide flexibility in shifting and massing fires to meet a threat from any direction. If the area is too large to permit the massing of fires, artillery battalions may be attached to the brigade occupying the forward defensive area.

e. *Preparation of the Ground.* The effectiveness of the armored brigade in the mobile defense depends upon its ability to maneuver subordinate elements rapidly and to bring its massed firepower to bear against the enemy. The preparation of counterattack routes within and forward of the defensive area and routes between successive positions, together with the improvement of fields of fire, assume high priority. Defensive positions are strengthened by the construction of obstacles and minefields; however, care must be taken that no obstacles or minefields are constructed that will interfere with the free movement of the division reserve or fixing forces. When authorized, chemical agents may be used to protect flanks or deny critical areas to the enemy.

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*f. Combat Support.* The employment of combat support units and provisions of combat service support are discussed in chapters 5 and 6 and FM 61-100.

*g. Conduct of the Fixing Force.*

(1) Depending on the specific mission assigned by the commander, the fixing force, when warned by the security forces, prepares to stop or slow the enemy attack. The fires available to these forces are concentrated on the enemy to disorganize and stop his attack, and to force him to mass.

(2) The brigade commander may move troops from blocking positions not affected by the attack to strengthen those under attack. The division commander must be informed promptly of such action. The defense plan may contain the provision that forces occupying certain blocking positions, when attacked; be permitted to withdraw to alternate positions to permit more efficient application of a planned counterattack by the division reserve. Forces occupying blocking positions under attack must give the division reserve sufficient time to launch its counterattack. Forces occupying blocking positions may be directed to hold a position to force the enemy to mass and provide a lucrative nuclear target.

(3) Reserves held locally at the brigade level may be employed to reinforce blocking positions, occupy other positions, or conduct limited-objective counterattacks.

### 8-13. Division Reserve

*a. General.*

(1) The division reserve is the tank-heavy part of a command conducting a mobile defense that is organized to destroy the enemy by offensive action in front of, within, or behind the forward defensive area. The reserve must be prepared to conduct a counterattack whenever the enemy presents a target. The reserve may be employed against an enemy force forward of the FEBA. When employed in this manner it executes a spoiling attack.

(2) The division reserve is located for rapid movement to any part of the defensive area. Elements of the reserve, such as battalion task forces, are located in dispersed positions to minimize the effects of enemy nuclear weapons, but must be capable of assembling rapidly for the counterattack. Elements of the reserve may be required to occupy blocking positions to assist in establishing conditions favorable to the decisive attack of the bulk of the reserve.

(3) The reserve commander prepares detailed counterattack plans based on division plans and in accordance with priorities established by the division commander. Depending on the time available, detailed reconnaissance of routes and areas of the counterattack will be made by subordinate commanders, and rehearsals will be conducted by at least the key personnel of the reserve. Fire plans are prepared to support each counterattack plan.

*b. Planning Considerations.*

(1) The counterattack by the division reserve is the key to the success of the mobile defense. A separate plan is made to destroy a major penetration by the enemy along each principal avenue of approach into the defended area. Planning guidance for the reserve is provided by division as soon as the requirement for the mobile defense is known. This guidance will generally consist of at least an indication of the areas of anticipated enemy penetration and the priority of preparation of plans for each anticipated need. The reserve brigade prepares detailed counterattack plans. Control measures contained in these plans include the line of departure, objective, direction of attack, routes for the movement of the counterattack force to the line of departure, and boundaries between units. Routes of movement are as direct as the situation permits and take maximum advantage of cover and concealment afforded by the terrain. Boundaries are adjusted as necessary to control the passage and maneuver of the counterattacking force and to assist in the control of fires during the counterattack. Figure 8-5 illustrates a situation in which the counterattacking 3d brigade has no territorial responsibility outside the penetration nor any command and control over the forward defense area forces. The trace of the assumed penetration serves as a boundary between the 1st brigade and the 3rd brigade. Figure 8-6 illustrates a situation that dictates a realignment of boundaries and the assignment of territorial responsibility to the counterattacking brigade. The counterattacking force commander assumes responsibility for the forward defense area forces within the new boundary.

(2) Priority is established for the preparation of these plans depending on the effect each penetration will have on the division mission, with due consideration to the factors of METT. Each plan will include preparatory orders to the reserve to cover the possibility of minor penetrations on other logical avenues of approach that may occur

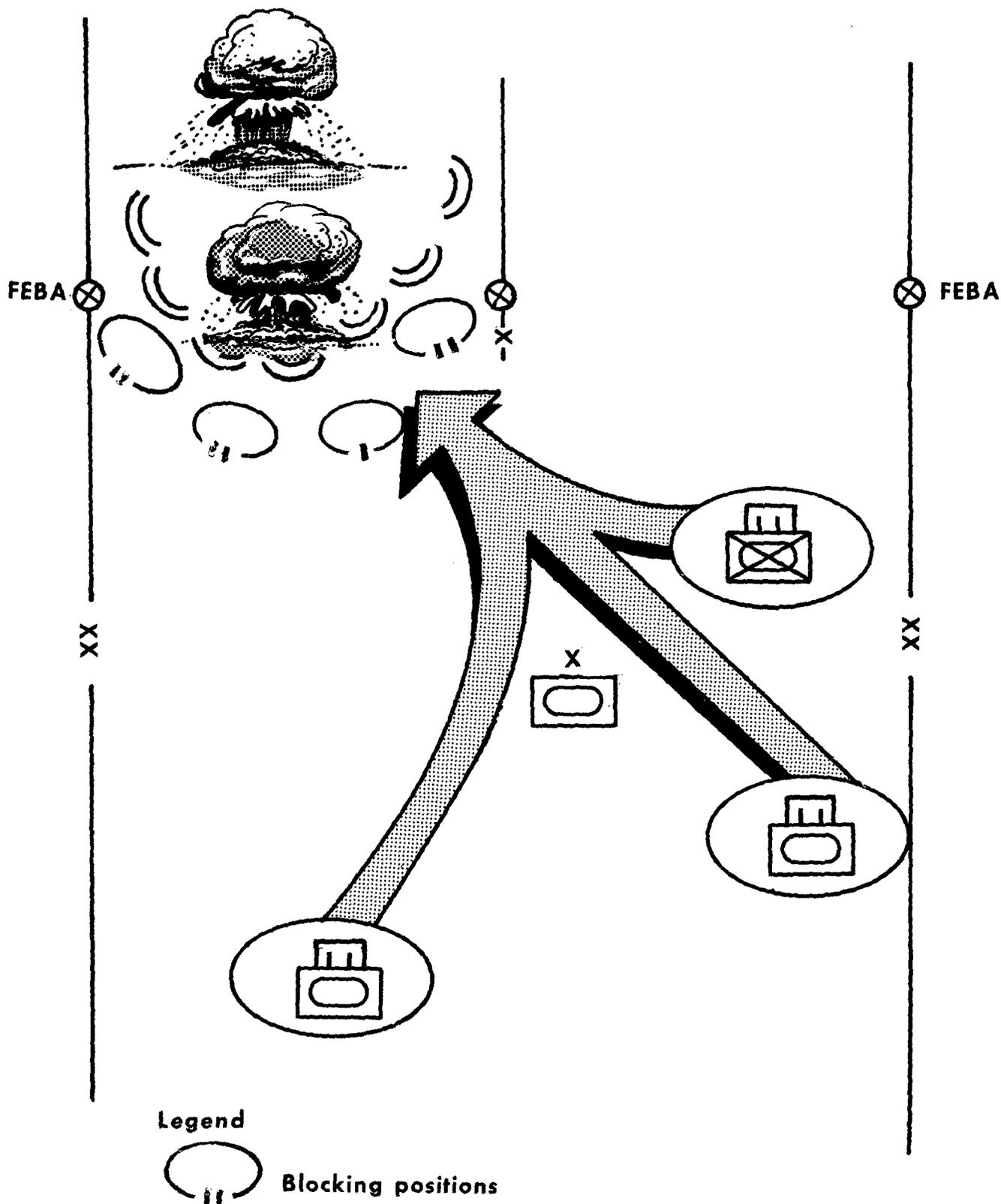
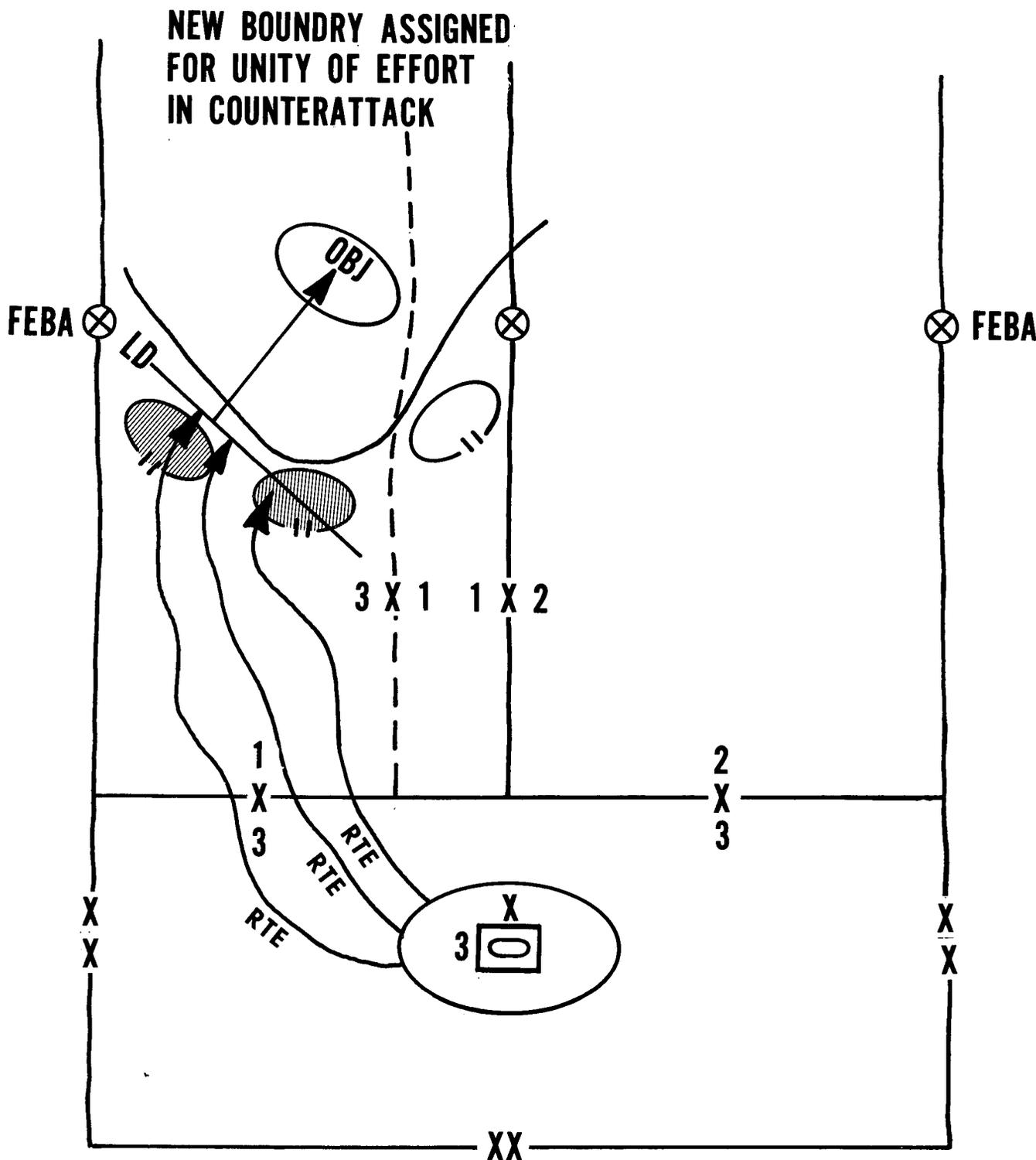


Figure 8-5. Counterattack by a brigade in division reserve without a boundary change.



**Note:**  Elements of 1st brigade are attached to 3d brigade to provide unity of effort in the counterattack.

Figure 8-6. Brigade counterattack with a boundary change.

simultaneously with a major penetration. This planning is required so that minimum time will elapse between the decision to launch the counter-

attack and the actual execution by the reserve. Detailed fire support plans are prepared for each counterattack plan. Nuclear fires are planned for

each likely area of enemy attack in front or in the battle area. Such fires are closely coordinated with the scheme of maneuver. Counter-attack plans must be disseminated to all lower echelons in sufficient time to permit a thorough study and detailed reconnaissance by subordinate commanders. Plans must include furnishing the reserve with all enemy information as it becomes available.

*c. Organization.*

(1) Priority of combat power is given to the reserve when the division is organizing for combat. This means that the brigade organization for the division reserve will be developed at the expense of the division fixing force, if necessary. The brigade will be organized with a major share of the division's tank battalions. Mechanized infantry is provided as required. Initially, not all reserve elements may be present in the reserve area. Some may be employed initially in the security force. Field artillery support will normally be retained under division control. When the reserve is committed, designated field artillery is attached to or placed in direct support of the brigade. Engineers are in general support until the reserve is committed, at which time they may be placed in direct support of the brigade.

(2) In any case, the reserve is a powerful tank-heavy formation supported by mechanized infantry, artillery, engineers, other tactical support elements as needed, and necessary combat service support elements. The reserve is organized to provide decisive combat power which is capable of reducing a numerically superior enemy.

*d. Formations.* Considerations leading to a determination of the formations to be employed include the mission, terrain, amount of maneuver room, disposition of friendly and enemy forces at the time the counterattack is launched, size and composition of the reserve, and the restrictions imposed by control measures. Ordinarily, the reserve will attack with maximum firepower forward, but with sufficient depth to the formation to maintain the momentum of the attack. The considerations governing the formations for the offense apply to the reserve.

*e. Conduct of the Counterattack.*

(1) When the division commander considers that the enemy penetration has been sufficiently slowed or disorganized as to make a counterattack

feasible, he launches it with the full power of all available resources to insure success. When possible it is launched against the enemy's flanks or rear. The goal is destruction of the enemy, not restoration of the position. The reserve concentrates on destroying the enemy formation, command echelons, major fire support units, and administrative support. Surprise, boldness, rapidity, and violence are the principal characteristics of the successful counterattack. Counterattacks are supported by maximum fires—nuclear and non-nuclear—within the respective ranges of all available weapons.

(2) The counterattack is not normally limited to the area being defended. The objectives selected for the counterattack are oriented on identifiable key terrain features. Seizure of these designated objectives should achieve the goal stated above. The objectives, as discussed, are only coincidentally related to the positions previously occupied in the FDA. The seizure of terrain designed to restore the FEBA is not valid as an objective except so far as retaking such positions will contribute to the destruction of the enemy. As a rule, the counterattack stays within range of supporting artillery. It may be necessary, however, for artillery units to displace to previously planned positions in order to support the counterattack. Counterattacks supported by nuclear weapons against enemy penetrations in the battle area must be carefully coordinated to avoid friendly troop casualties from nuclear weapons.

(3) The reserve is normally committed as a whole to strike a decisive blow. Piecemeal commitment of this force is avoided. When the situation favors the commitment of the reserve to destroy a threat against the defensive position, the reserve commander is given the appropriate mission and the necessary means with which to accomplish it.

(4) In the event the enemy succeeds in effecting multiple penetrations into the division area, it may be necessary to deal with these penetrations simultaneously. In such cases, the major threat should be determined and the reserve committed to destroy this threat. To contain secondary threats, it may be necessary to detach a portion of the reserve and attach it to another element of the command, or to allocate nuclear weapons, or a combination of both. This reappportionment of the forces to deal with multiple penetrations is not considered piecemeal commitment.

## Section III. AREA DEFENSE

**8-14. General**

The armored brigade will establish an area defense when specifically ordered to do so or when conditions of terrain or mission require this type of defense. Figure 8-7 illustrates a type organization for area defense.

**8-15. Security Forces**

In the area defense, the armored brigade establishes a combat outpost (COP). The combat outpost is a security element provided and controlled by the brigade or major subordinate unit assigned a sector in the forward defense area. Its location provides timely warning of the enemy's approach and denies the enemy close ground observation and direct fires into the forward defense area. Its location permits support by fire from the FDA. The commander may establish the combat outpost by employing elements of the brigade reserve or by directing the forward battalions to furnish appropriate elements. The strength and composition of the combat outpost in a battalion sector may range from a reinforced platoon to a reinforced company, depending on the situation and strength of the fixing force. The division commander prescribes the general location of combat outposts when employed to the extent necessary to insure the provision of security across the division front. The armored brigade may constitute all or part of the general outpost (GOP). For a discussion of the GOP, see paragraph 8-10 and FM 61-100.

**8-16. Forces in the Forward Defensive Area**

*a. General.* The forces in the battle area are charged with the immediate defense of the forward defensive area. They organize a series of defensive areas which provide good observation and natural defensive strength. Each defensive area is organized into a number of positions; forces in these positions will be mutually supporting by fire, disposed irregularly in width and depth, and organized for their own all-round defense. Defensive areas are distributed in depth so as to provide mutual support, to limit enemy penetrations of forward areas, to diminish the effect of hostile fire, to provide continuity to the defense, and to establish bases from which counterattacks can be launched.

*b. Planning Considerations.* Planning considerations are the same as for the mobile defense.

*c. Distribution of Forces.* The brigade commander makes a reconnaissance of the terrain to determine the likely avenues of enemy approach, and selects key terrain that must be held. The commander then designates defensive areas. Boundaries are established between major subordinate units. These boundaries are extended to the front to the range limit of those supporting weapons under the command or control of battalions in the FEBA, and to the rear to include the subordinate reserve location. The intervals between defensive areas are covered by fire and obstacles. Fires are coordinated between adjacent units by establishing coordinating points along the boundaries.

*d. Organization for Combat.* The brigade commander organizes tank and mechanized infantry task forces based on his consideration of the factors of METT. Generally, the bulk of the mechanized infantry secures the key terrain along the FEBA, while the majority of the tanks are held in brigade reserve. Cross attachment should be such that battalion task forces may, terrain permitting, employ a tank-heavy team to cover an avenue of approach which is open and which provides long-range fields of fire, or to hold a tank-heavy team as the reserve. Forces on the FEBA are given priority in the brigade organization, but the brigade reserve is strong in tanks. Engineer and artillery units are employed to provide maximum support.

*e. Preparation of the Ground.* Sectors of responsibility are assigned to subordinate elements, so that an enemy avenue of approach and the key terrain features which control it are assigned to a single element. This results in unity of command for the defense of such critical localities. Boundaries which designate these sectors are located so that there is no question of responsibility. The defense qualities of the terrain are improved to the fullest extent possible with the men, weapons, materials, and time available. This may include the laying of mines and tactical wire, erection of other artificial obstacles, establishing command and observation posts, preparation of alternate positions for weapons, construction of dummy emplacements; improvement of camouflage, fields of fire, and observation; and protection of supply installations.

*f. Conduct of Defense.* The area defense requires the retention of terrain for a period of time. After security forces are driven in by the

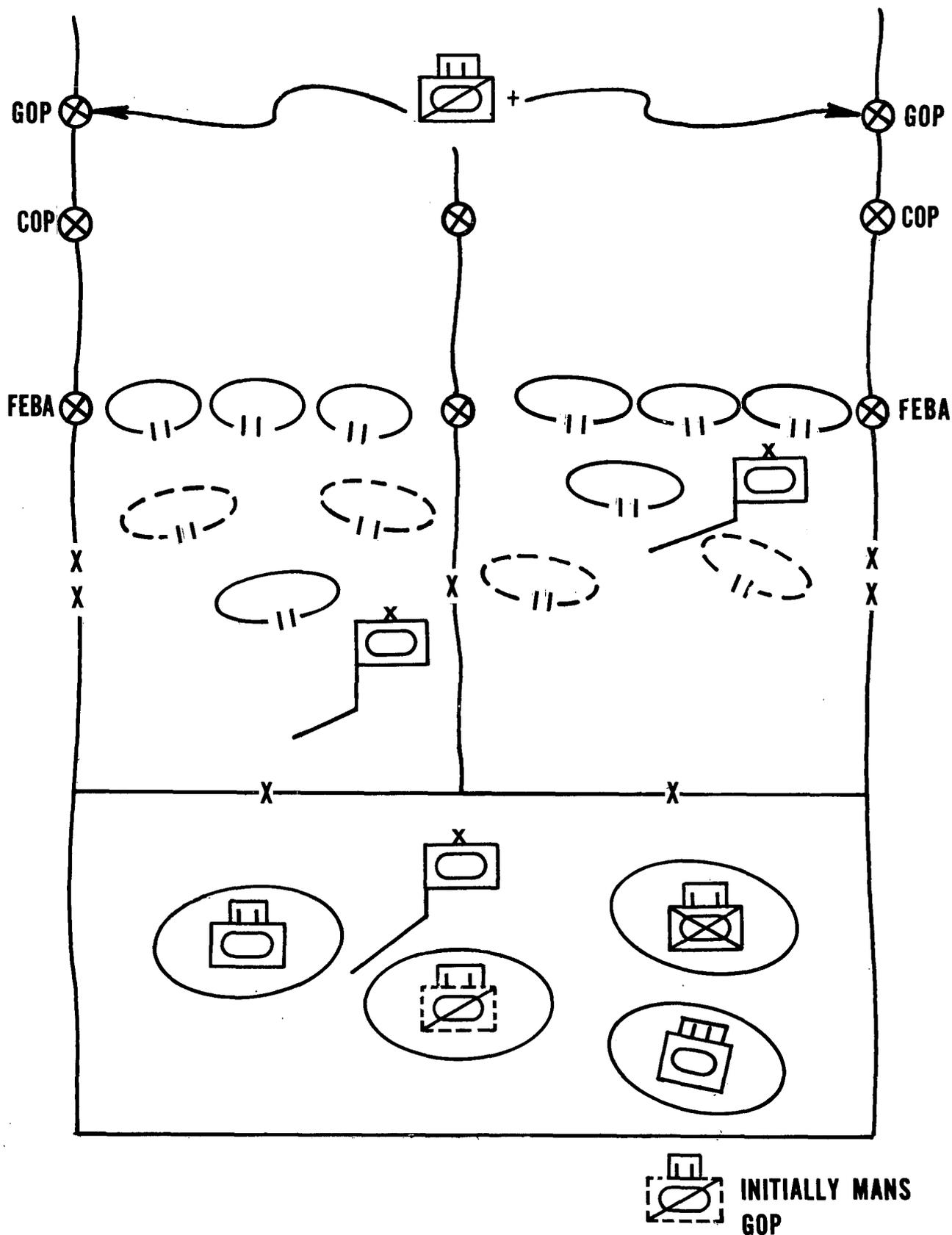


Figure 8-7. Type organization for area defense.

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enemy, they are assigned other missions in the overall defense. The mission of units in the FDA is to stop the enemy forward of the FEBA and allow no penetration. This is accomplished by utilizing the fire of all units and supporting fires from all available artillery and tactical air. Planned fires include nuclear as well as nonnuclear artillery concentrations. If the enemy succeeds in making a penetration of the FEBA by overrunning or bypassing an organized position, his progress is blocked by other positions organized in depth or by the employment of local reserves. When the penetration has been stopped, slowed, or disorganized, the brigade reserve counterattacks with the objective of restoring the FEBA. Forward positions are vacated only on approval of higher headquarters. Since the FEBA is strongly held in the area defense, counterattack plans must include detailed instructions to cover the containment of an enemy penetration prior to launching the counterattack. These plans must visualize the action of reserves at lower echelons, such as reserve platoons of company teams and battalion task forces. These units have the initial mission of containing an enemy penetration before any one of them is committed to a local counterattack. As a result, these units usually act as containing forces and a base of fire while the brigade reserve executes the counterattack. The purpose of the counterattack is to destroy or eject the enemy and restore the position. The conduct of the defense must be aggressive; therefore, the counterattack

is a decisive element of defensive combat. The conduct of the counterattack follows the same principles and procedures as in the mobile defense. However, in the area defense, the counterattack will usually be executed within the forward defensive area to reduce an enemy penetration and restore the FEBA.

### 8-17. Brigade as Division Reserve, Area Defense

*a. General.* While forces in the FDA will receive priority of combat power, the reserve brigade of the armored division in the area defense will be strong in tanks.

*b. Location.* The reserve is positioned so that it can execute counterattack plans and contain penetrations from the front or flanks. The reserve insures the continuity of the defense by counterattacking enemy penetrations, by reinforcing forward elements, or by executing blocking missions.

*c. Conduct of the Counterattack, Area Defense.* Considerations involved in selecting the exact time and place for the counterattack are similar to those which apply to the mobile defense. Preferably, the counterattack is launched when the enemy has been stopped, slowed, or disorganized and before he is able to consolidate gains and reorganize his forces; however, these must not be considered essential criteria. Once launched, the counterattack is provided all possible support to insure success.

## Section IV. OTHER CONSIDERATIONS IN DEFENSE

### 8-18. General

Effective security requires planning. Regardless of the brigade's assigned mission, plans must be developed to counter the threat of enemy armor, airmobile, airborne, guerrilla, or infiltration forces. Enemy action may be designed primarily to harass the brigade forces and reduce their combat capability. If the threat is of sufficient size, it may endanger the brigade's mission to the point where the bulk of the brigade's forces must be employed to counter the threat.

### 8-19. Defense Against Armor

*a.* The brigade must plan to cover enemy avenues of armor approach. Normally, the brigade will have a significant enemy armor-defeating capability. Disposition of forces must be in depth

for maximum effectiveness against an enemy force attacking with significant tank power.

*b.* When practicable, enemy armor attacks are broken up by spoiling attacks and fires—both nuclear and nonnuclear—before they begin. Armor units are most vulnerable in attack positions and assembly areas.

*c.* Maximum use is made of natural obstacles in defense against armor. Minefields and other artificial obstacles, properly sited, can be effectively employed to supplement natural obstacles. However, the tactical employment of obstacles must be carefully integrated with the overall tactical plan to be sure the obstacles hinder the enemy without denying freedom of movement to friendly armor units. Atomic demolition munitions (ADM) provide an area obstacle when executed; however, they will not restrict friendly

movement before execution. See FM 5-26, FM 17-1, and FM 20-32 for detailed discussion of minefield, ADM, and other obstacle employment.

## 8-20. Air Defense

*a.* Active and passive air defense measures are employed against enemy air attack. Principal passive defense measures include camouflage, cover, and concealment. Active air defense is direct action taken to destroy or reduce the effectiveness of an enemy attack and includes such measures as the firing of small arms, REDEYE, and crew-served weapons at enemy aircraft.

*b.* Organic air defense means in the divisional brigade headquarters are limited to small arms and crew-served weapons. The attached maneuver battalions and the separate brigade headquarters employ the REDEYE in addition to small arms and crew-served weapons.

*c.* Additional air defense protection for the brigade is provided by the area air defense artillery system and the air defense battalion assigned to the division. Air defense artillery units may be attached to brigades with the understanding that their engagements must be conducted in accordance with the rules and procedures established by the headquarters attacking them.

(1) The divisional air defense artillery battalion provides air defense to the brigade by positioning units to defend priority targets in the brigade area or by attacking a unit to the brigade. When the air defense artillery unit is performing an air defense role, attachment will occur normally only when the battalion cannot provide necessary control and combat service support. However, attachment is normal when the air defense artillery unit is in the ground fire support role.

(2) When air defense artillery units are attached to the brigade in the air defense role, they are not normally further attached to battalion task forces. The commander of the air defense unit is the air defense advisor to the brigade commander. The brigade commander will establish the defense priorities and control the maneuver of attached air defense artillery units; however, the unit operates under the rules and procedures established by the division.

(3) When air defense artillery units are attached to the brigade in the ground fire support role, further attachment to battalion task forces may be appropriate.

(4) Air defense employment is basically the same in offensive, defensive, or retrograde operations; however, the techniques of employment may require modification based upon the operational plan. The commander of the air defense unit must insure that continuous air defense protection is provided the brigade throughout all phases of an operation.

*d.* For further discussion of employment of air defense artillery units, see FM 17-1, FM 44-1, FM 44-3, and FM 61-100. See FM 17-1 for further discussion of passive and active air defense measures of armor units to include warning systems and employment of small arms, crew-served weapons, and REDEYE.

## 8-21. Defense Against Infiltration

*a.* In the concept of widely dispersed forces on the nuclear battlefield, defense against infiltration becomes a major problem. Infiltration will be used by the enemy to move behind forward area forces to harass and destroy small units and interrupt and disorganize communication and combat service support. While the enemy may attempt to develop large-scale infiltrations into major attacks, the principal threat to the brigade is the disruption of combat service support by small forces that will diminish, delay, or degrade the brigade's combat capability.

*b.* Defense against the enemy's infiltration must rely upon aggressive use of patrols, air and ground reconnaissance, surveillance devices, and a warning system. Observation posts and listening posts must be disposed and connected by patrols to cover gaps between units and promptly alert designated units to cope with the threat.

*c.* When the danger of large-scale infiltration exists, the brigade must plan for and provide a mobile force to eliminate the threat.

## 8-22. Defense Against Guerrillas

*a.* Guerrilla activities are generally carried out by small lightly armed forces to include, as appropriate, paramilitary and regular armed forces which may be using guerrilla tactics, as well as irregular forces. Such forces normally operate by stealth using hit and run tactics designed to destroy soft targets in rear areas, disrupt communication and administrative support, and harass. While they rarely attack to destroy heavily armored units, guerrilla attack directed at the vulnerable parts of the armor brigade must be guarded against. Defensive measures include the

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establishment of observation posts and listening posts connected by communication and patrols, thorough initial reconnaissance of the brigade area, protection of combat service support elements, and all-round security of the brigade area.

*b.* When a guerrilla force of significant size is known to exist in the armored division area, a brigade may be assigned the mission to locate and destroy it. When assigned such a mission, usually the brigade will be organized predominantly around mechanized infantry with a substantial amount of armored cavalry elements, field artillery, engineer, and Army aviation.

*c.* Every effort is made to determine from native sources all the information possible of the guerrilla force pertaining to leadership, personalities, size and condition of force, location, and its equipment and morale.

*d.* Army aviation and air cavalry are particularly useful in locating guerrilla forces in areas not readily accessible by ground vehicles. When discovered, ground and airmobile attack elements must be employed rapidly to prevent the guerrillas from exfiltrating.

*e.* Systematic search of large areas for guerrilla forces is not usually feasible since the nature of the effort will betray itself to the hunted force. The guerrillas then will probably have time to evade the search. For this reason, counter guerrilla offense must rely heavily on information of specific location of guerrillas, stealth in the approach to the guerrilla force, and speed and complete surprise in the attack.

*f.* Offensive actions against guerrillas are discussed in FM 17-1, FM 31-16, and FM 31-21.

## Section V. REAR AREA SECURITY AND AREA DAMAGE CONTROL

### 8-23. General

Although the support command is normally responsible for the rear area security of the division support area, the brigade, when serving as the division reserve, may be given a contingency mission for division rear area security. When the armored division is in corps or army reserve, however, the division may appropriately be assigned a rear area security mission. As a major subordinate command, the brigade will normally be assigned a sector in the division's area of responsibility or it may be held in reserve. See FM 17-1 for a detailed discussion of rear area security.

### 8-24. Planning

*a.* The rear area security mission for the brigade will be assigned according to a geographical area of responsibility. Depending on the troops available, the brigade may suballocate sectors to subordinate commands. The brigade commander, key members of his staff, and subordinate commanders and their staffs, reconnoiter assigned areas of responsibility to determine—

- (1) Key terrain.
- (2) Critical rear area installations.
- (3) Extent and condition of the road net.
- (4) Airborne assault drop zones and airmobile landing zones.
- (5) Assembly areas for brigade forces.

*b.* The brigade and subordinate commanders and staffs familiarize themselves with guerrilla

capabilities and enemy airborne assault and airmobile capabilities. Brigade forces are disposed and oriented to these major threats to rear area security.

*c.* Based on his reconnaissance and study of the enemy and guerrilla capabilities, together with a consideration of troops available and the mission, the brigade commander develops his plan.

### 8-25. Organization for Combat

*a.* The brigade will normally be given units for a rear area security mission that will provide a light, fast-moving force with adequate firepower. The brigade will be organized into a combined arms team of balanced or mechanized infantry-heavy task forces. To these may be added an armored cavalry troop, an engineer company, a field artillery battalion, an augmentation to the brigade aviation section, and necessary combat service support elements. When the brigade suballocates its area of responsibility, the subareas will be secured on a battalion task force basis.

*b.* The division will usually retain a reserve organized around a tank-heavy battalion task force. When division does not retain a reserve, the brigade should retain at least a company-size team, predominantly of tanks, for use in areas where additional forces are required to meet the threat. Sufficient forces will not normally be available in the battalion task force to form reserves.

c. Army aviation will normally be retained under brigade control.

d. Engineer support will normally be employed by the brigade to assist task forces according to priorities of effort established by brigade. Concentration of engineer effort will normally be on road and bridge maintenance and construction of obstacles.

### 8-26. Deployment

Deployment of forces will be oriented toward areas vulnerable to enemy airborne or airmobile assault and guerrilla attack. Normally, the major elements of the brigade will be sited to protect critical rear installations. A system of observation posts will be established throughout the area to maintain observation over usable airborne drop and landing zones identified in the initial reconnaissance. Reserves are centrally located with respect to the vulnerable areas, and are prepared for rapid employment in any direction. Army aviation elements maintain air patrols between ground dispositions, and systematically, although not regularly scheduled, conduct aerial reconnaissance missions over the brigade areas of responsibility. Ground elements establish a similar patrol system between OP's, LP's, and major concentrations of forces. Ground elements also secure communication center in the area to deny their use to guerrilla forces.

### 8-27. Conduct of the Defense

a. Successful defense of the rear area is contingent upon the early warning furnished by security elements disposed throughout the area. The security elements, after promptly reporting the existence of an enemy threat, engage the enemy. Successful defense against an airborne or airmobile assault is based upon prompt reinforcement of the security elements in contact by all available means. Every effort is made to attack and reduce the assault in the earliest stages of the drop and landing operations, when the enemy forces are most vulnerable. Reinforcements are briefed en route by radio or immediately on arriving on the scene. As soon as each force is familiarized with the situation, it is committed promptly in a decisive direction to eliminate the threat. Coordinated plans are developed when

reinforcements have arrived in such numbers as to require a preplanned attack against the threat.

b. In the case of guerrilla attack, initial protection of the installation relies upon local security. On receipt of information of the guerrilla attack, the commander in whose area the attack occurs moves reserves or requests assistance from higher headquarters to cope with the threat. Attacks must frequently be executed from march column to preclude guerrilla escape.

### 8-28. Communication

An effective and reliable network of communication is essential to the success of the rear area security mission. Primary reliance is placed on radio. Wire communication, to include that of civilian facilities when available, may be used as an alternate means of communication. The communication system must be such that it meets the requirements for rapid, reliable, and secure transmission of early warning of a hostile threat.

### 8-29. Routes of Communication

The brigade protects routes of communication throughout its area of responsibility as described in FM 17-36. The brigade may also be called upon to provide a tactical escort through those portions of its area where recurring hostile action threatens. Armed escorts should be only of that size and composition essential to the mission and will not usually include main battle tanks. Armored cavalry elements and mechanized infantry are usually adequate. Additional protection during periods of reasonable visibility may be gained from using Army aviation to reconnoiter unprotected routes of communication.

### 8-30. Area Damage Control

When it is employed on a rear area security mission, the brigade must be prepared to participate in the area damage control function. To accomplish this mission, the brigade will direct task force level control and assessment teams (CAT) and rescue squads to conduct area damage control operations. If the mission is beyond their capabilities, the brigade CAT, formed from resources within the headquarters and headquarters company, will control the operations of two or more task force CAT and rescue squads. For detailed discussions of area damage control, see FM 17-1 and FM 61-100.

## CHAPTER 9

### RETROGRADE AND RELIEF OPERATIONS

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#### Section I. RETROGRADE OPERATIONS

##### 9-1. General

A retrograde operation is an organized movement to the rear or away from the enemy. The operation may be forced by enemy action or it may be executed voluntarily, but in either case, it must be approved by the higher commander. A well-planned and well-executed retrograde operation may provide excellent opportunities for inflicting heavy damage to enemy troops and materiel, although in only one type of retrograde—the delaying action—is contact desirable.

##### 9-2. Types of Retrograde Operations

Retrograde operations are classified as delaying action, withdrawal, and retirement. These are defined as follows:

*a. Delaying Action.* A type of retrograde operation in which a force in contact trades space for time, while inflicting maximum punishment on the enemy without becoming decisively engaged.

*b. Withdrawal.* A type of retrograde operation in which a force in contact disengages from the enemy either under pressure or not under pressure.

*c. Retirement.* A type of retrograde operation in which a force not in contact moves away from the enemy according to its own plan.

##### 9-3. Purpose

Retrograde movements are conducted for one or more of the following purposes:

*a.* To harass, exhaust, inflict punishment on, resist, and delay the enemy.

*b.* To draw the enemy into an unfavorable position.

*c.* To permit the employment of all or a portion of the command elsewhere.

*d.* To avoid combat under undesirable conditions.

*e.* To gain time and avoid fighting a decisive engagement.

*f.* To disengage from battle.

*g.* To conform to movements of other friendly troops.

*h.* To shorten lines of communications.

#### Section II. BASIC CONSIDERATIONS AND PLANNING FOR RETROGRADE OPERATIONS

##### 9-4. Terrain and Weather

*a. Terrain.* The delaying force can inflict heavy punishment and cause considerable delay to an enemy force through the proper use of terrain. The force selects positions that provide long-range observation and fields of fire. This permits friendly forces to engage the enemy at long-range and to bring him under increasingly heavy fires as he maneuvers toward friendly positions. Delaying forces seek concealment and cover for delaying positions, assembly areas, and routes of

movement. They create artificial obstacles by the use of mines, atomic and conventional demolitions, chemical agents, and nuclear munitions. Barrier systems make maximum use of natural barriers and obstacles. Good road nets facilitate control of the operation and expedite movement. When possible, use of road nets is denied to the enemy. Terrain affording good cross-country trafficability permits wider dispersion and reduces vulnerability of enemy air, nuclear, and chemical attacks.

*b. Weather.* Clear weather provides good observation and assists in attaining maximum re-

sults from special fires. Unfavorable weather conditions may limit observation, reduce the effects of special fires, limit cross-country movements, impair efficiency of personnel and equipment, and increase the problem of command and control. Weather conditions are of special interest in planning and employing nuclear fallout and persistent or nonpersistent chemical agents to create obstacles, canalize enemy forces, and disrupt enemy intentions.

### 9-5. Control and Coordination

a. The brigade conducting a retrograde operation is frequently deployed on an extended front. Operations consist of a series of independent unit actions within the framework of the overall detail plan. Missions issued to subordinate elements and their sequence of execution are more detailed and more restrictive than in other types of operations. However, each subordinate commander should have freedom of maneuver to permit him to exploit any advantages that develop at his level. The enemy should not be permitted to bypass or envelop elements of the force, or to make a penetration that might threaten the overall mission. Detailed control and coordination are accomplished by the use of phase lines, boundaries, checkpoints, delay positions, time and routes for withdrawal, and traffic control. Plans for combat service support are detailed and provide for the disposition of excess supplies and equipment. Subordinate commanders must be aware of the overall concept of operation to insure effective and intelligent execution.

b. Radio communication is used at all echelons for control and coordination. Careful communications planning is essential to preclude premature disclosure of the retrograde movement. In assigning missions and sectors to subordinate units, the capabilities of unit signal equipment must be considered. Chapter 4 contains information on signal communication support.

c. Movement of civilians must not interfere with the tactical operation. Civilian control measures must be easily understood and capable of enforcement with a minimum number of troops. The plan for control of civilians should include—

- (1) Early issuance of directions for the overall plan of civilian control. These directives should specify either a standfast policy or the plan for civilian movement. When movement is authorized, the civilian population is advised of the hours during which movement may be made and specific routes to be used.

- (2) Maximum use of civilian police, paramilitary units, and other appropriate civilian agencies to post refugee evacuation routes, to block routes leading into the division sector, and to aid in operation of civilian collecting points.

- (3) Establishment of civilian collecting points as required.

- (4) Coordination with adjacent and higher headquarters to integrate plans and provide mutual support.

### 9-6. Reconnaissance and Security

a. In retrograde operations, reconnaissance is performed to obtain information for the production of intelligence. All intelligence collection agencies are used to collect information of the enemy. Specific route and area reconnaissance missions may be assigned to units within their assigned sectors.

b. The brigade's intelligence collection plan includes essential elements of information. Examples are:

- (1) Location of enemy special weapons delivery means.

- (2) Numbers and yields of munitions available.

- (3) Direction of enemy movement.

- (4) Strength and composition of the main attack force.

- (5) Location of enemy armor.

- (6) Efforts to impede or block the retrograde movement.

- (7) Enemy use of airborne or airmobile attack, air attack, amphibious attack, guerrilla action, or infiltration to interfere with the retrograde operation.

c. The brigade commander uses the available intelligence to inflict maximum casualties. Early intelligence of enemy movement permits the adjustment of plans to minimize enemy interference with the retrograde operation. When decisive action is indicated, the retrograde force carefully plans and forcefully executes offensive action to exploit available intelligence.

d. CBR fires, coupled with offensive action and other fires, assist in providing security during retrograde operations. Knowledge of the intent to withdraw is denied the enemy for as long as possible. Strict passive security and deceptive measures are adopted to deprive the enemy of knowledge of the move. These measures may in-

clude radio listening silence for units displacing and the maintenance of a normal radio pattern in the forward area, maintenance of normal artillery and other supporting fires, displacement under cover of darkness or under conditions of reduced visibility, and retention of sufficient troops in position to indicate the presence of the entire force.

*e.* Security against CBR attack is provided by withdrawing on a broad front, using dispersed assembly areas, and denying the enemy observation and information about the movement.

*f.* Positive measures must provide security from ground and air attack to the front, flanks, and rear of the main body. Army aviation, air cavalry, and supporting tactical air force reconnaissance aircraft are used to locate enemy units and to maintain surveillance of them. Artillery units are positioned to support the security elements.

*g.* Planning must consider the defense of rear areas. Security detachments secure the defiles that must be traversed by division elements. Air defense artillery protects such areas from enemy air attack.

*h.* Deceptive measures assist the main body and security forces to withdraw with minimum enemy interference. These measures are also used to trap and destroy the enemy.

## 9-7. Combat Support

### *a. Air Support.*

(1) Tactical air support aircraft are used to attack hostile aircraft and to delay the enemy advance by harassing and interdicting hostile ground forces at critical locations. Column cover aircraft assist the security forces in accomplishing their mission. Tactical air force aircraft support counterattacks and other offensive action. Tactical air control parties (TACP's) are allocated to security elements and to other elements of the brigade in accordance with the overall operation plan. Fire support coordination lines (FSCL's) are prescribed in operation orders. During retrograde operations, the fire support coordination line is located closer to friendly units and may be shifted more frequently than during offensive operations.

(2) High-performance reconnaissance aircraft provide distant reconnaissance and information of the location and disposition of enemy forces. These aircraft attempt to detect enemy efforts to envelop the flanks. Enemy concentra-

tions located by reconnaissance aircraft are destroyed by nuclear attack or by other offensive action.

(3) Army aviation units, when available, transport troops, supplies, and equipment; conduct aerial reconnaissance and surveillance; and furnish aerial fire support. Such units assist the commander in overcoming terrain barriers, shifting troops rapidly, supplying units away from the main body, evacuating personnel and materiel, providing limited direct aerial fire support, providing security, and collecting intelligence information.

### *b. Artillery.*

(1) In retrograde operations, field artillery is employed to bring the enemy under fire at extreme ranges and to force his early deployment. It can interdict enemy avenues of approach, deliver harassing fire, destroy enemy concentrations with nuclear or nonnuclear fires, and support the brigade combat elements. Field artillery is prepared to give continuous support during all types of retrograde operations.

(2) Since a brigade engaged in a retrograde operation may be numerically weaker than the enemy force, it is augmented by additional artillery units, if available, to partially offset this imbalance in combat power. These artillery units may be attached to the retrograde force in order to give the brigade commander maximum freedom of action in employing his combat power. Although the dispersion of units and the decentralization of operations may suggest further attachment of artillery to subordinate maneuver elements, the need for maximum flexibility and versatility to meet unforeseen tactical contingencies usually outweighs any advantages that may be accrued through attachment.

(3) Retrograde operation plans provide for artillery support of the division reserve and other elements when they are committed. The division reserve should have forward observers and liaison officers at the start of the operation so that it can be committed with minimum delay.

*c. Air Defense Artillery.* Air defense artillery units may be retained under centralized control, or elements may be attached to subordinate commands. Divisional priorities for air defense normally will be given to nuclear delivery means, critical avenues of low-altitude approach, the support command, and command installations. FM 44-1 and FM 44-3 discuss the employment of air defense artillery in retrograde operations.

*d. Engineers.*

(1) Engineers may be placed in direct support of, or attached to, combat units. Execution of the division barrier plan, construction of obstacles and rear defensive or delay positions, and road maintenance may dictate a centralized engineer effort. Units in contact with the enemy may require the attachment of engineers. Brigades may place engineers in support of battalion task forces. Unless additional engineer support is furnished by higher headquarters, the effectiveness of the engineer effort may be decreased because of the attachment of engineers to combat units.

(2) One of the most important engineer functions is to provide advice and assistance for the formulation and implementation of the barrier plan. Barriers are used by the retrograde force commander to delay the enemy or to canalize him for destruction with nuclear or nonnuclear fires. Well-planned and widespread use of barriers, to include chemical munitions, assists in gaining time and in hampering the enemy's advance. Barrier plans are coordinated with higher headquarters to prevent interference with future operations. The barrier plan is prepared as an annex to the operation order or plan.

(3) Subsurface or surface nuclear detonations may create craters, fallout patterns, and contaminated areas, and slow or impede the enemy's advance.

(4) Detailed plans are prepared for demolitions along enemy avenues of approach and along routes that lead into the division sector. Particular attention is given to the destruction of bridges and tunnels. Demolitions are placed in defiles and on routes traversing natural and artificial obstacles. Demolition plans include—

(a) Provisions for placing and firing the necessary demolitions.

(b) Adequate guards to prevent premature firing of charges or seizure by enemy infiltrators.

(c) Fixed responsibility for the destruction of bridges.

(d) Schedules for destroying bridges and tunnels no longer needed by friendly forces.

(e) Covering by fire, including nuclear fire, those obstacles created by demolition.

(5) The retrograde force commander is vitally interested in the destruction of bridges. He is careful to insure that bridges are not destroyed prematurely and that they are not seized intact by the enemy. To accomplish this, the tactical commander is given the responsibility for destroy-

ing bridges in his sector. This delegation of authority is often subject to specific restrictions by the higher commander. A demolition firing party and a demolition guard party are designated for each bridge to be destroyed. The guard commander has the authority to destroy the bridge, subject to restrictions of the higher commander. The guard commander has a list of all units that are to use the bridge. Each unit commander notifies the guard commander when his unit has cleared. After the main body has crossed, most of the bridges in the sector are destroyed. Certain predesignated bridges are retained for the use of security elements. The demolition guard commander is responsible for destroying the bridge to prevent its capture by the enemy, but will do so only in accordance with the demolition plan.

*e. Signal.* Because of the type of support furnished, signal units are normally retained under centralized control. The communications centers of the forward communications company supporting the brigade supplements the organic communications means of subordinate units to provide an effective signal communications system. Signal facilities in areas to the rear are prepared well in advance of their occupation by the main combat elements.

*f. Chemical.* Mechanized flame units can provide mechanized flame support to maneuver units, and smoke generator units can provide smoke support for tactical operations. Most chemical service organizations can provide other chemical combat support as required.

**9-8. Combat Service Support**

*a.* Combat service support units are normally retained under centralized control if this procedure provides effective support for major subordinate units. When brigades operate over extended distances, they may require the attachment of combat service support units.

*b.* Planning for a retrograde operation includes the following:

(1) Adequate support for the operation.

(2) Evacuation of supplies and disabled equipment.

(3) Destruction of supplies and equipment (except medical) not evacuated.

(4) Prompt evacuation of casualties.

*c.* Unnecessary destruction, loss, or hauling of supplies is avoided by limiting the flow of supplies

into the forward areas and initiating early evacuation of excess supplies. Supply economy is rigidly enforced. The commander directing a retrograde operation issues specific instructions authorizing the destruction of supplies and equipment that cannot be evacuated and fixing responsibility for their destruction. During retrograde operations, supplies normally are prepositioned along routes of withdrawal to reduce the enemy's ability to interfere with supply operations, to simplify supply procedures, and to permit early withdrawal of supply units.

*d.* Medical evacuation is expedited during retrograde operations. Field army units normally provide aeromedical evacuation service. When such units are not available or cannot evacuate all patients, division or corps aircraft provide assistance. Clearing stations are established in the rear of committed brigades to provide effective support. Seriously wounded personnel are evacuated direct to mobile army surgical hospitals when possible. Air evacuation direct from the battalion aid station is used to the maximum.

*e.* The forward support companies or separate brigade maintenance company repair equipment on-site when possible to maintain combat effectiveness and to reduce evacuation requirements. Badly damaged materiel is evacuated to the rear to prevent its capture and to make necessary repairs. Equipment, except medical, that cannot be repaired or evacuated is destroyed.

*f.* Combat service support units and installations are located well to the rear during retrograde operations to insure uninterrupted service, maximum protection, and minimum displacement. Maximum dispersion consistent with control and local security is maintained. Combat service support units are displaced early and normally under cover of darkness to reduce traffic congestion and to avoid interfering with the movement of combat units. High priority items, such as special munitions, may require added protection to prevent loss, capture, or emergency destruction. FM 54-2 contains details on combat service support.

## 9-9. Leadership, Command, and Morale

Retrograde operations at all echelons demand personal courage and aggressive leadership to maintain the offensive spirit. High morale is especially important during retrograde operations. All troops are oriented on the purpose of the operation. An aggressive, offensive spirit is maintained by emphasizing opportunities for destroying the

enemy. Every opportunity for successful offensive action is seized and the results are disseminated to nonparticipating units. Nuclear fires employed against the enemy and their results are made known to all units.

## 9-10. Planning

*a.* Planning for a retrograde operation must be thorough and complete. Plans are closely supervised, effectively controlled, and vigorously executed.

*b. Control Measures.* Basic control measures for a retrograde operation may include boundaries, routes of movement, phase lines, checkpoints, traffic control posts, and a series of delay positions.

(1) A retirement does not visualize organized enemy opposition during its conduct. Control measures are normally limited to routes of movement, phase lines, and traffic control posts.

(2) A delaying action will include designated delay positions, sectors, and routes of movement if road arteries are limited and priority for their use is required. The division may confine control measures to sectors and phase lines with provisions for retention of positions for a specified period of time or until certain situations occur. Under these circumstances, the brigade may subdivide the sector for control of attached maneuver units and establish delay positions or phase lines.

(3) Control measures prescribed for a withdrawal are based on the situations under which the withdrawal is expected to occur. When the withdrawal is conducted during periods of reduced visibility with a probability of enemy pressure, highly restrictive control measures are essential. If conducted during daylight under enemy pressure, control measures are generally limited to those prescribed for a delaying action.

(4) Designation of control measures must include the consideration that unnecessary restrictions preclude initiative, flexibility, and improvisation on the part of subordinates. Prescribed control measures should be limited to those essential to security, to direct phasing of the operation, and to maintain integrity of the command.

*c.* FM 17-1 and FM 61-100 contain a further discussion of planning considerations in retrograde action.

## Section III. WITHDRAWAL

**9-11. General**

*a.* Withdrawals may be executed under enemy pressure or not under enemy pressure. They may be executed during daylight or darkness.

*b.* Withdrawals not under enemy pressure are favored over withdrawals under enemy pressure. They provide freedom of action because the commander selects the time of withdrawal. They facilitate deception and reduce the effectiveness of observed enemy fires because the commander can take maximum advantage of darkness and periods of reduced visibility.

*c.* Withdrawals during daylight are avoided when possible because observed enemy fires may result in heavy casualties and loss of freedom of action.

*d.* Regardless of the type of withdrawal being conducted, physical and/or visual contact is maintained with enemy forces. Delaying actions provide security and deception for the unit conducting the withdrawal and prevent a rapid enemy advance. When the division conducts a withdrawal, the brigade may be employed as a covering force to provide security for the remainder of the division.

*e.* The withdrawal plan requires subordinate units to develop contingency plans for both types of withdrawals. The success of a withdrawal not under enemy pressure is based on deception. If conducted at night, the use of illumination is planned in the event secrecy is lost. If this occurs, the operation is conducted as a withdrawal under enemy pressure. A withdrawal under enemy pressure envisions fighting to the rear. If smoke is used or other conditions reduce enemy observation, it may be based on deception as in a withdrawal not under enemy pressure.

*f.* Additional considerations for the withdrawal are discussed in FM 17-1 and FM 61-100.

**9-12. Conduct of a Withdrawal Not Under Enemy Pressure**

The brigade commander prescribes the strength and disposition of forces to be left in contact upon withdrawal of the main force. In addition, he designates a brigade-level command element to control the operation and carry on such communication traffic as will approximate normal operations. Under certain circumstances, such as anticipated enemy pressure, and in the absence

of such action at division level, brigade will establish a covering position utilizing the brigade reserve. The mission of the detachments left in contact is to protect the initial movement of the main body to the rear and to simulate normal activity.

*a.* As soon as a concept of operation is reasonably firm, the commander issues a sufficiently detailed warning order to permit reconnaissance and planning by subordinate commanders during daylight hours. Withdrawals not under enemy pressure normally occur in three phases. Figures 9-1, 9-2, and 9-3 illustrate the three phases.

*b.* Time of withdrawal is normally specified in the division order. If not, the brigade commander prescribes the time of withdrawal of subordinate elements. In order to provide the maximum period of darkness for the entire operation, the operation should commence early enough to insure completion before daylight.

*c.* To insure that the withdrawal is accomplished as expeditiously as practicable, elements not immediately essential to the operation are designated for infiltration to the rear to prevent road congestion when the main force withdraws.

*d.* Withdrawal plans normally provide for the simultaneous withdrawal of the major elements of all forward committed battalions. Those elements designated as detachments left in contact become, thereafter, a separate force under brigade control. In designating forces to be left in contact, every effort should be made to provide mobility superior to that of the enemy.

*e.* To insure adequate control of the operation and provide for orderly movement, elements located in the areas of major subordinate units are attached to these units prior to initiation of the withdrawal.

*f.* Withdrawal of detachment left in contact should be initiated in sufficient time to permit their withdrawal not under enemy pressure.

*g.* When the headquarters controlling the withdrawal provides a covering force, the brigade reserve is withdrawn prior to movement of the forward elements. Under this condition, the brigade reserve starts organization and preparation of positions to be manned by the brigade after withdrawal. When a covering force is not provided from the directing headquarters and the brigade commander considers a covering force

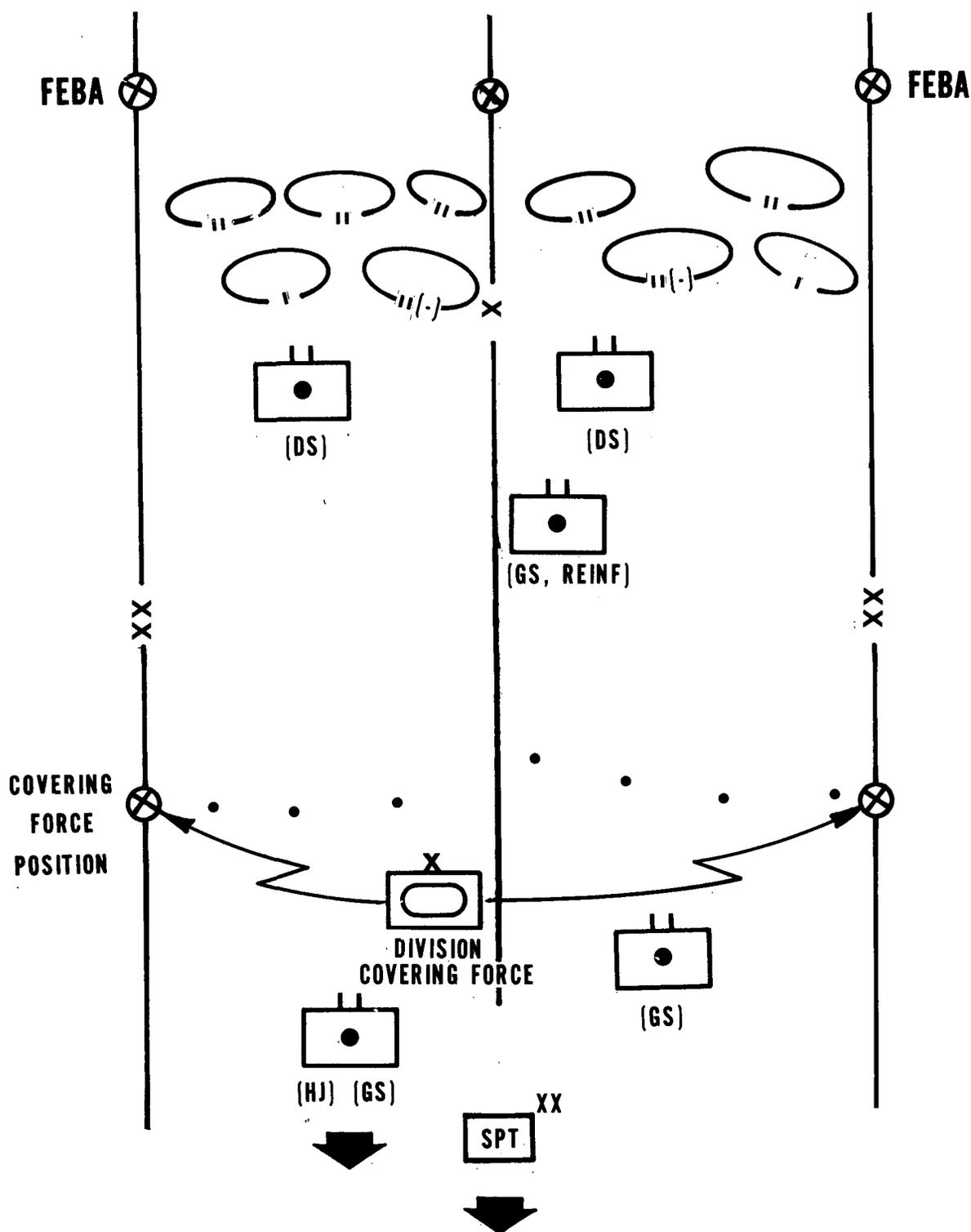
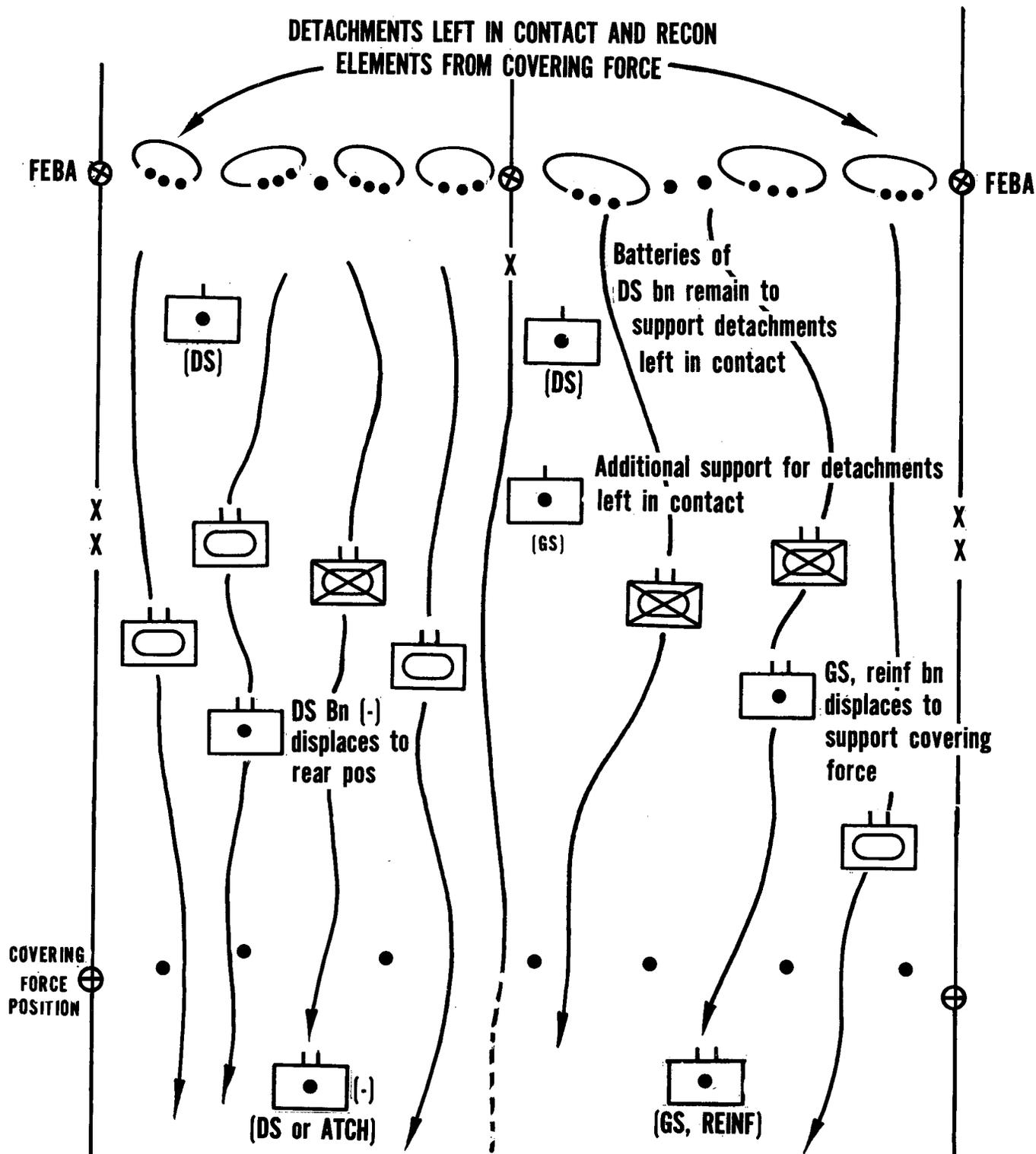


Figure 9-1. Withdrawal not under enemy pressure, first phase.

necessary, it is constituted from the brigade reserve and assumes positions securing the main elements. When the main elements have passed through the covering force, it assumes the mission of, and conducts the appropriate actions for, a

brigade COP. Normally, a portion of the brigade reserve is left in position to represent the reserve communication system, simulate normal activities of a full brigade reserve, and assist withdrawal of the detachments left in contact.



**NOTE:** Brigade assembly areas are normally not assigned. Battalions move individually to next position. If move is over extended distance, control points are established for traffic control and to allow brigade commanders to regain control.

Figure 9-2. Withdrawal not under enemy pressure, second phase.

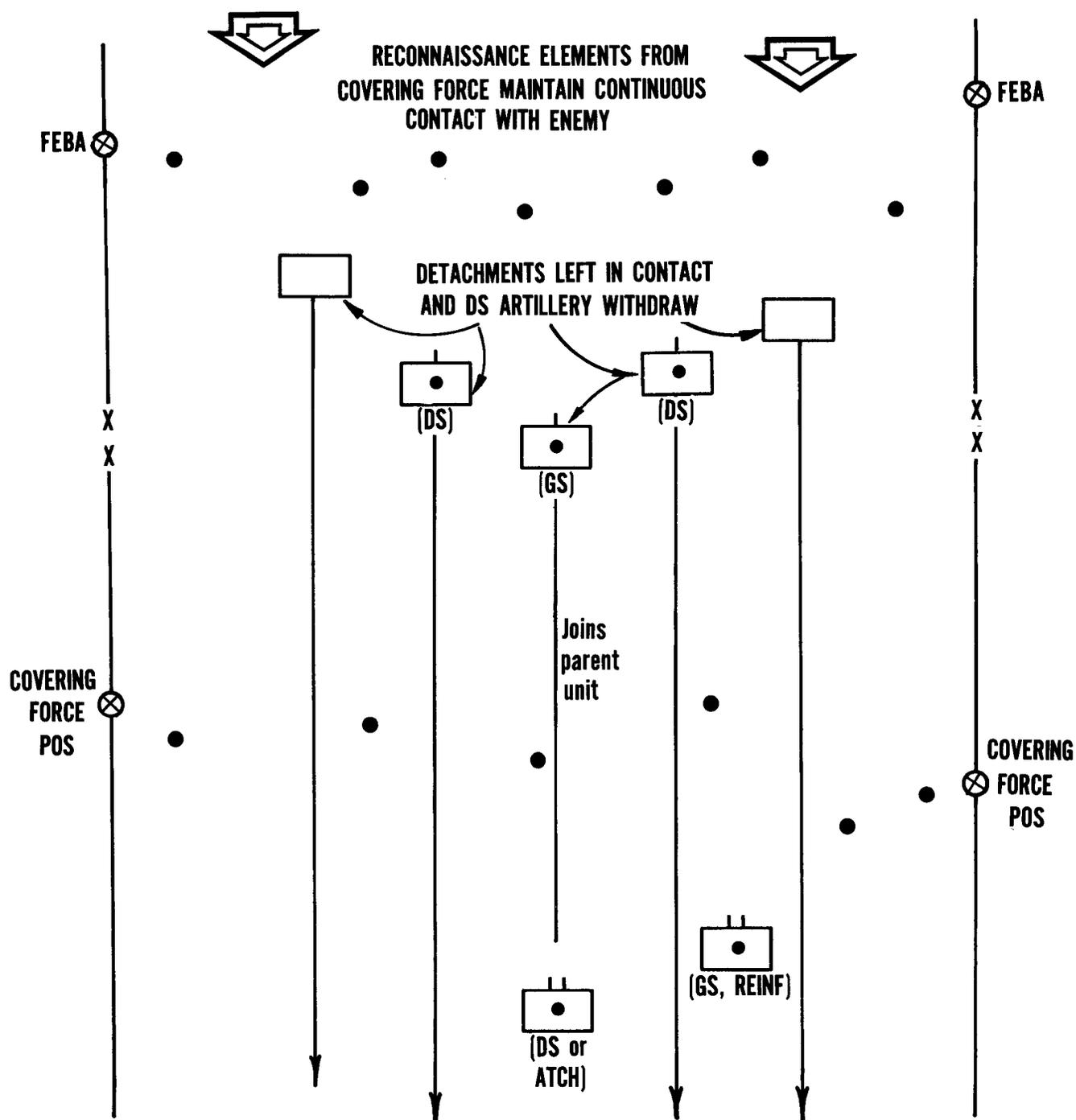


Figure 9-3. Withdrawal not under enemy pressure, third phase.

h. At battalion and lower level, assembly areas are frequently designated to insure control of forces prior to forming a march column. The assembly area is not normally used at brigade level.

i. If the withdrawal not under enemy pressure is discovered, the brigade conducts the action using the techniques of a withdrawal under enemy

pressure. Planning should provide for such a contingency, and all subordinate leaders must be made aware of the alternate plans.

### 9-13. Conduct of a Withdrawal Under Enemy Pressure

A withdrawal under enemy pressure is based on elements fighting their way to the rear, using

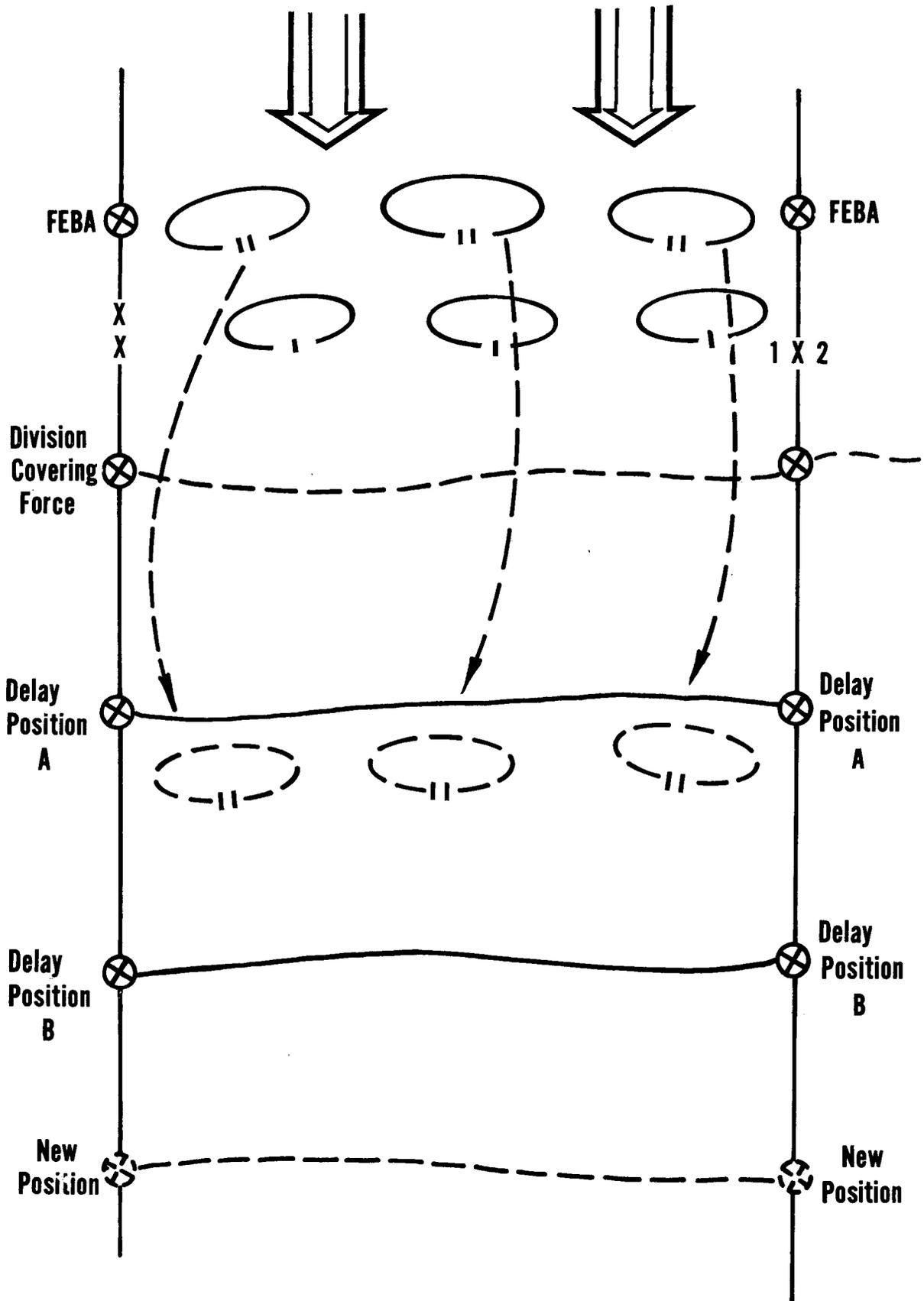


Figure 9-4. Withdrawal under enemy pressure, forward defense forces disengage.

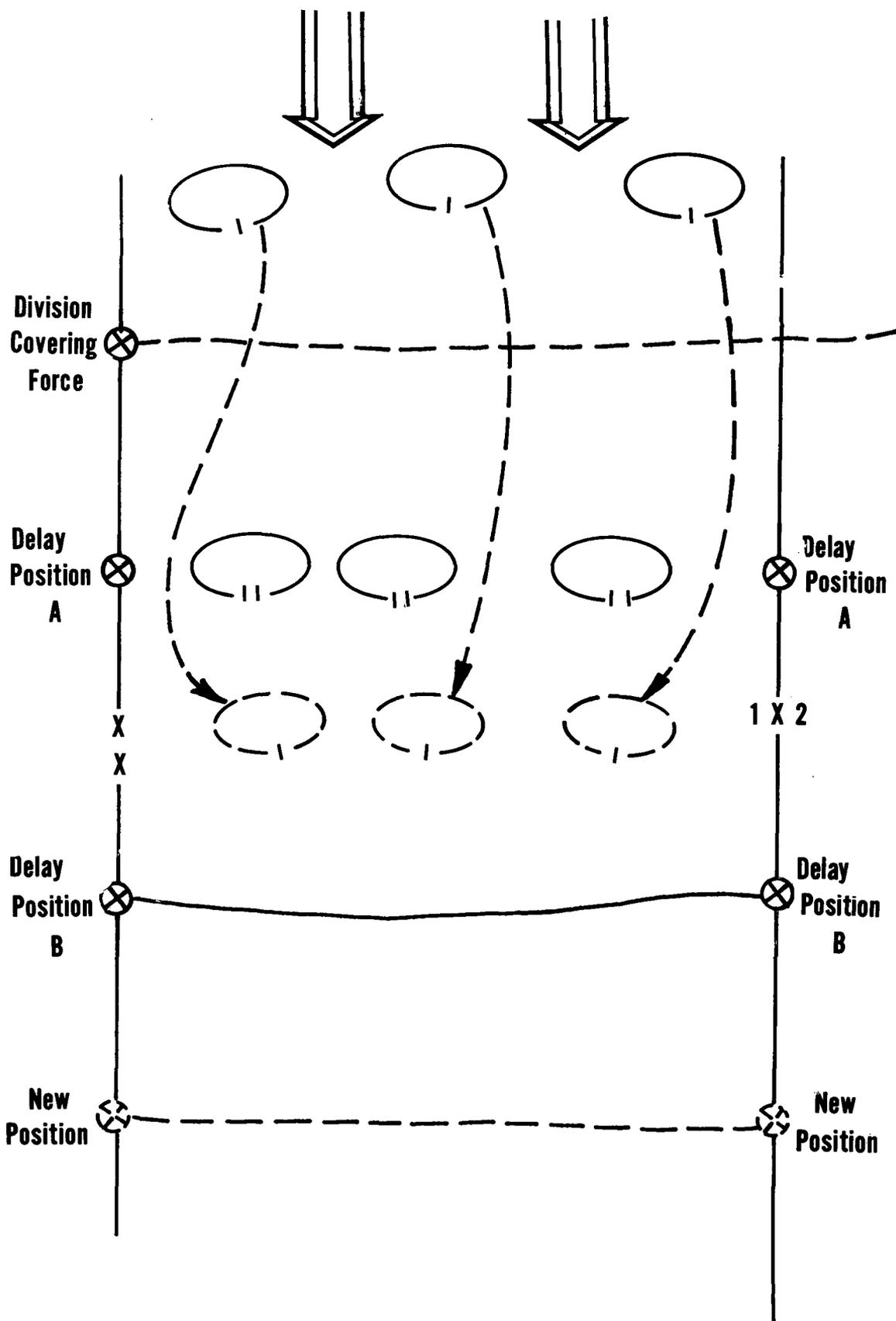


Figure 9-5. Withdrawal under enemy pressure, security forces withdraw through division covering force.

FM 17-30

delaying tactics. Terrain permitting, this action is best accomplished by mechanized and armor elements. A high degree of coordination and skillful employment of obstacles and terrain is essential. Authority for withdrawal should rest with the lowest echelon of command consistent with the requirements for a coordinated effort. Figures 9-4 and 9-5 illustrate a brigade conducting a withdrawal under enemy pressure when the division reserve constitutes a division covering force.

*a.* Control measures used for a withdrawal under enemy pressure are similar to those for a withdrawal not under enemy pressure.

*b.* Since higher headquarters may or may not provide a covering force, the brigade commander may elect to use his reserve to cover the withdrawal, or to withdraw without a brigade-level security element. This decision is based on the following considerations:

(1) Availability of forces to constitute a covering force.

(2) Availability of time to deploy a covering force.

(3) Availability of suitable terrain on which to employ a covering force.

(4) Location of any covering force provided by higher headquarters.

(5) Capability of the enemy to attack.

*c.* If the brigade uses its reserve to cover the withdrawal, it does so in the manner illustrated in figures 9-4 and 9-5. If it does not, then the brigade conducts a delaying action until it has broken contact with the enemy or reached the new positions.

*d.* When simultaneous withdrawal is not practicable, the commander must determine the order of withdrawal. The decision must be based on determining which plan best preserves the integrity of the force and which best contributes to the accomplishment of the mission. Generally speaking, the least engaged units are withdrawn first.

## Section IV. DELAYING ACTION

### 9-14. General

*a.* A delaying action is an operation in which maximum delay and damage are inflicted on an advancing enemy without the delaying force becoming decisively engaged in combat. In executing a delaying action, minimum space is exchanged for maximum delay.

*b.* The characteristics of the armored brigade enable it to inflict continuous delay on the advancing enemy. The long-range armor-protected firepower available to the brigade is used to force the enemy to deploy, reconnoiter, maneuver, and take other time consuming measures. The enemy is subjected to continuous fire to slow his advance and to inflict maximum casualties.

*c.* Normally, delay will be made on and between a series of positions. Delaying forces maintain contact with the enemy at all times and cause him continuous delay. Limited aggressive offensive action is taken when opportunities arise. Similar action may be required as a means of deception to seize dominating terrain or to disengage a decisively engaged force.

*d.* Planning for the overall operation is centralized and execution is decentralized. Within the overall plans announced by the brigade commander, subordinate unit commanders are given maximum freedom of action. This freedom permits the exploitation of advantages that may arise at the small-unit level.

*e.* Nuclear weapons enable the brigade, while conducting a delaying action, to inflict severe casualties on the enemy. Withdrawals may be planned to lure the enemy into areas that favor nuclear attack. With the approval of higher headquarters, prepositioned atomic demolition munitions may be left in areas where the enemy can be expected to mass. Such areas are kept under observation and the weapon is detonated at the appropriate time.

*f.* Employment of chemical agents/munitions should also be considered in the conduct of the delay. Persistent chemical agents can be used to delay the enemy by forcing him to decontaminate his personnel and equipment, by restricting the use of key terrain, and by canalizing the enemy into a kill zone. Nonpersistent chemical agents can be used to disrupt the enemy attack by inflicting severe casualties on his attacking force and reserve.

*f.* Employment of chemical agents/munitions should also be considered in the conduct of the delay. Persistent chemical agents can be used to delay the enemy by forcing him to decontaminate his personnel and equipment, by restricting the use of key terrain, and by canalizing the enemy into a kill zone. Nonpersistent chemical agents can be used to disrupt the enemy attack by inflicting severe casualties on his attacking force and reserve.

### 9-15. Selection of Delay Position

*a.* Delay positions are selected and designated by the division and/or brigade commander so as

to afford the greatest opportunity to destroy the advancing enemy as well as inflict delay. Ideally, those positions permit minimum friendly forces to be deployed so as to force the enemy to mass and thereby present a profitable target. Delay positions are sought that incorporate:

(1) A series of parallel ridges across the axes of hostile advance.

(2) Unfordable streams, swamps, lakes, and other obstacles to the front and flanks.

(3) Good observation and long-range fields of fire.

(4) Concealed or covered routes of withdrawal.

(5) A road net or areas providing good cross-country mobility.

b. Delay positions selected by the division or brigade commander may be identified by the use of phase lines. Normally, the division commander will announce how long the enemy is to be held forward of each delay position he designates. In executing the operation, the brigade holds the enemy as far forward of each delay position as long as possible without becoming decisively engaged. Based on the positions and time planning schedule announced by the division, the brigade commander selects delay positions to be occupied by his major elements (fig. 9-6). It is on and between these positions that the required continuous delay is accomplished (fig. 9-7). Delay positions selected by the brigade commander are coordinated with adjacent units. The brigade commander may also use a stated time to express his concept of time phasing the delaying action, and this in turn becomes a mission to his subordinate elements.

#### 9-16. Organization of the Ground for Delaying Action

a. In planning for a delaying action, definite sectors of responsibility are assigned to each committed brigade. The limits of each sector are delineated by boundaries. These boundaries may extend to the rear through the depth of the division sector and, as a minimum, must extend through the next rearward delay position or phase line, and forward to the limits of the effective range of those weapons under the command or control of the brigade.

b. When sectors are assigned to subordinate units, each enemy avenue of approach is given in its entirety to one unit when possible. Bound-

aries are assigned so that terrain features that control fire and observation into a sector are assigned to the unit having responsibility for that sector. Coordinating points are designated for coordination and for continuity of the position.

c. Natural obstacles are exploited in organizing delay positions. Artificial obstacles are also used to improve the position with the material, time, and manpower available. Although important, obstacles alone must not be relied on to halt the enemy's progress. No terrain is impassable to a determined, resourceful, well-trained, and aggressive enemy. He will attempt to gain surprise by attacking over ground considered impassable. All obstacles, both natural and artificial, must be covered by fire to cause him maximum delay. In massing to overcome such defended obstacles, the enemy may present a profitable nuclear target. In any event, greater delay is inflicted on the enemy when obstacles are covered by fire than when they are not.

#### 9-17. Organization for Combat for Delaying Action

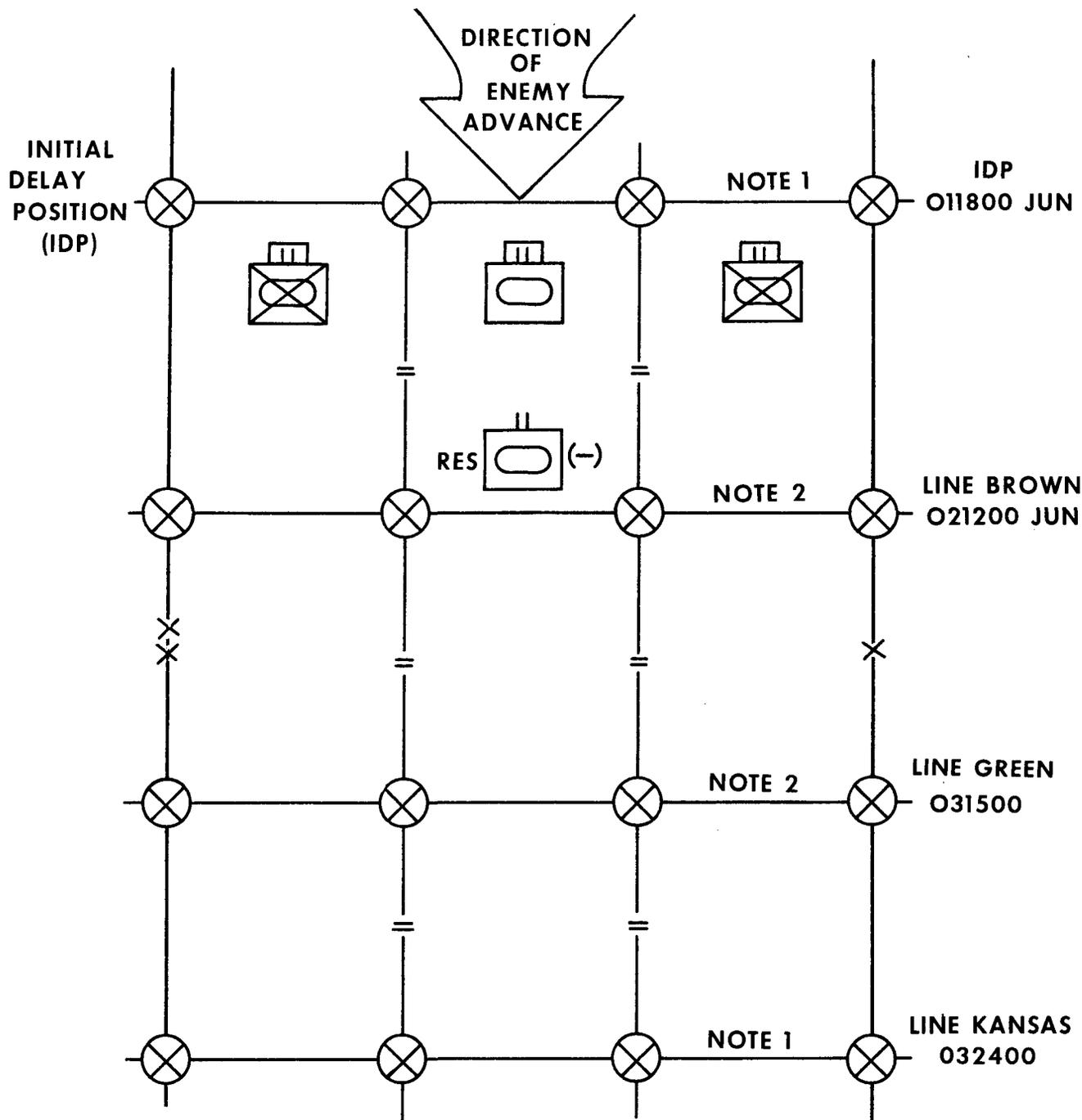
a. To conduct a delaying action, the brigade is organized for combat by cross attachment of tank and mechanized infantry units in such a way as to enable the front line units to organize and man positions as required, to cover wide frontages, and to take the enemy under fire at long ranges. This provides the brigade with highly mobile units that are capable of inflicting maximum delay both on and between delaying positions. The brigade commander will normally retain a small reserve consisting primarily of tanks. Organization for delay, as a form of retrograde, differs from delay as a part of the mobile defense, in that division allocates maximum feasible combat power to brigades in contact, holding only a small reserve. The brigade in turn places maximum feasible combat power in contact with the advancing enemy.

b. Engineer support is provided to each committed brigade by the attachment of elements of the engineer battalion.

c. Organization for combat of the division artillery and the division support command is discussed in FM 17-1 and FM 61-100.

#### 9-18. Delay on Successive Positions

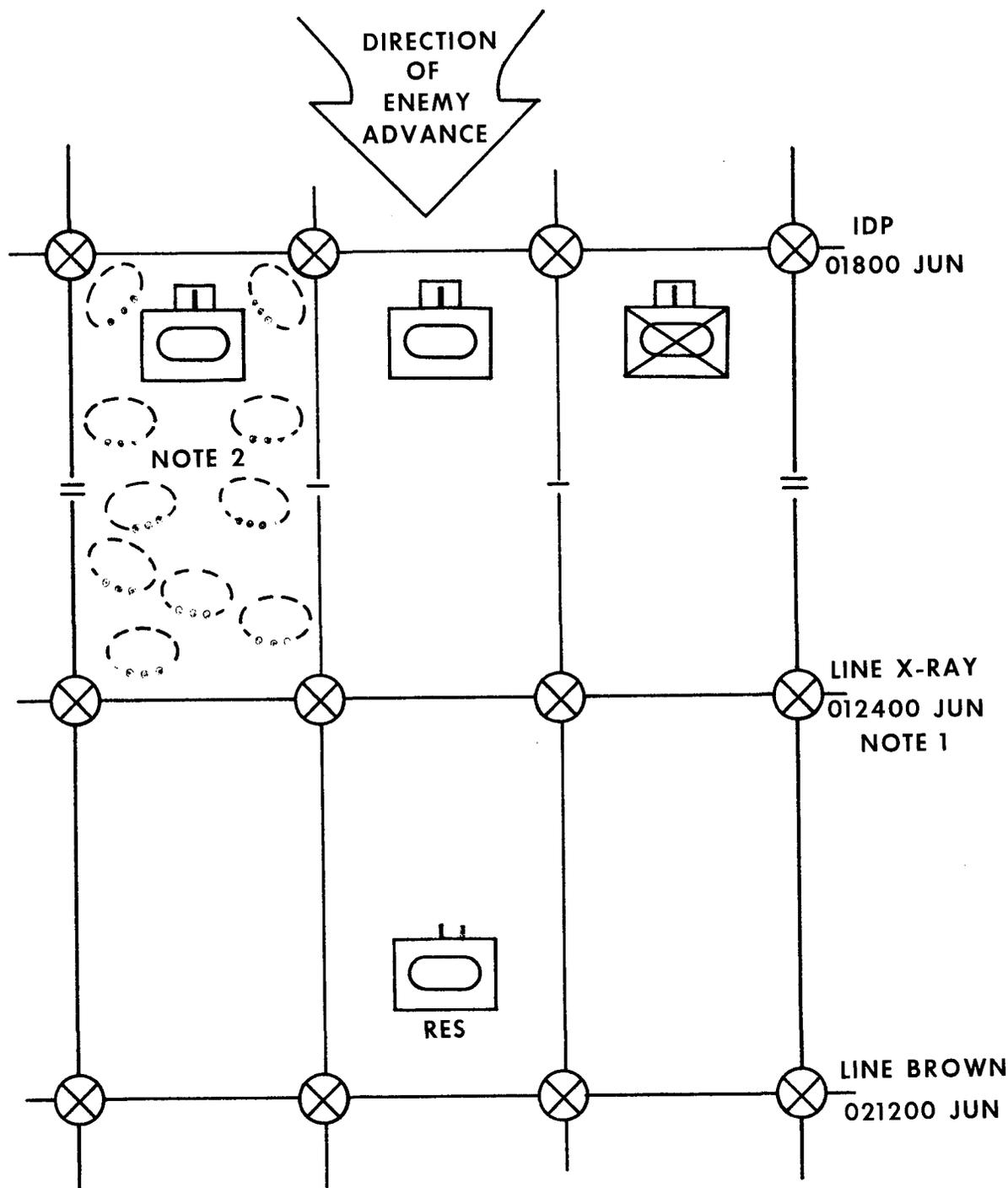
a. Delay on successive positions is the type of delay action most frequently conducted by the bri-



**NOTES:**

1. IDP AND DELAY LINE KANSAS DESIGNATED BY DIVISIONS. TIME ENEMY IS TO BE HELD FORWARD OF THESE LINES ALSO PRESCRIBED BY DIVISION.
2. DELAY LINES AND TIMES PRESCRIBED BY BRIGADE.

*Figure 9-6. Selection of brigade delay positions.*



NOTE 1. DELAY POSITION DESIGNATED BY TASK FORCE COMMANDER.

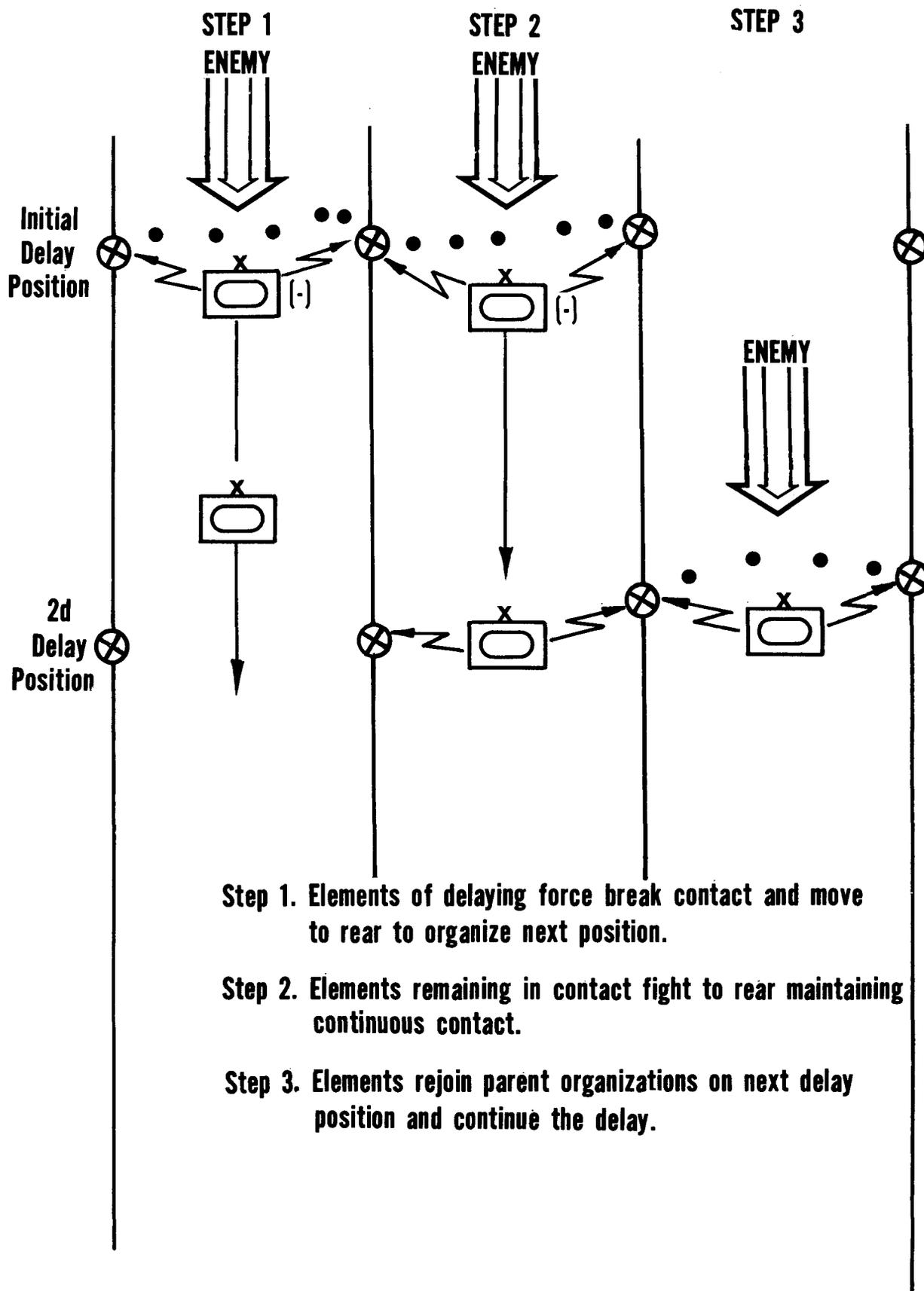
NOTE 2. DELAY POSITIONS ESTABLISHED BY TEAM COMMANDER.

Figure 9-7. Conduct of continuous delay—selection of intermediate positions.

gade. When this type delay action is used, the major part of the brigade is committed in the forward part of the brigade sector.

b. Delay on successive positions envisions im-

provement and occupation of each natural delay position. However, delay is inflicted not only on these successive positions, but also between the positions. Terrain is never given up unnecessarily;

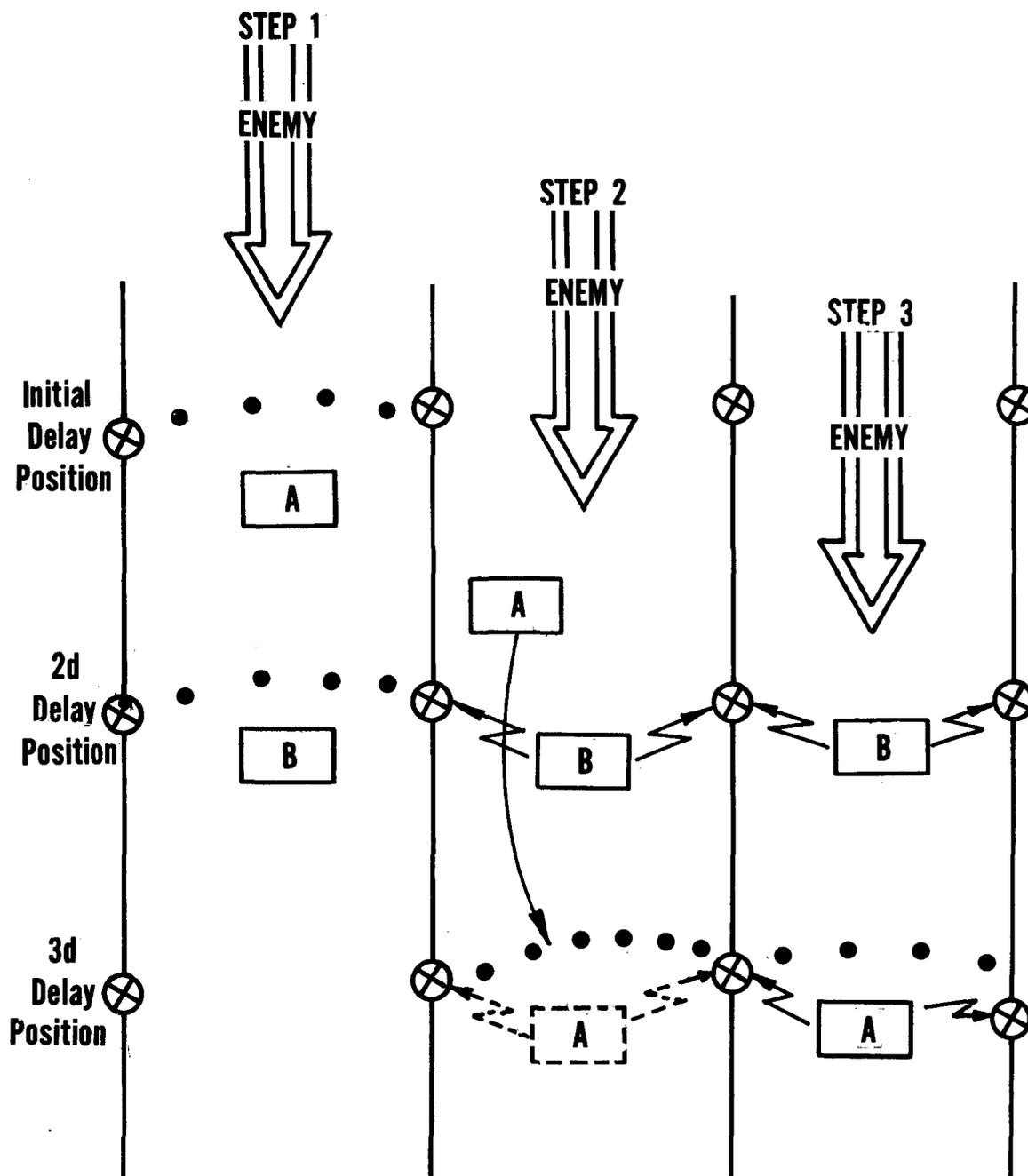


**Step 1.** Elements of delaying force break contact and move to rear to organize next position.

**Step 2.** Elements remaining in contact fight to rear maintaining continuous contact.

**Step 3.** Elements rejoin parent organizations on next delay position and continue the delay.

Figure 9-8. Brigade delay on successive positions.



**Step 1. Elements of the brigade organize the initial and second delay positions.**

**Step 2. Elements on the initial delay position delay back through the second position to the third delay position.**

**Step 3. Elements on the second position pick up the delay. The third delay position is occupied.**

*Figure 9-9. Brigade delay on alternate positions.*

instead, every opportunity to cause delay to the enemy is exploited, and minimum terrain is traded for maximum delay. See FM 17-1 and FM 17-15.

c. The initial delay position is organized and occupied by the major elements of the brigade. In some cases, the initial delay position is occupied before contact is made with the advancing enemy. In such cases, security elements are sent forward to establish contact and delay the enemy advance toward the initial position. Long-range artillery and units in the initial delay position take the enemy under fire at maximum range. This fire inflicts casualties on the enemy, causes his early deployment, and requires him to take other time-consuming measures to close with the position.

d. Each position occupied by a frontline unit is defended by that unit until the enemy threatens decisive engagement or envelopment. When maximum delay has been achieved and it becomes apparent that further occupation of the position will result in decisive engagement, the withdrawal begins. When the enemy attack approaches the point at which fires from individual weapons become effective, or when the commander at each echelon considers he is in danger of losing freedom of maneuver, it may be considered that the unit is in danger of being decisively engaged. Withdrawals may be initiated in accordance with prearranged plans, to prevent decisive engagement, or on order of the higher commander. Each withdrawal is coordinated with adjacent units.

e. When the order to withdraw is received, a part of the affected unit displaces directly to the rear and occupies the next designated delay position. The remainder of the unit maintains contact with the enemy and continues to inflict delay between the first position and the next rearward delay position employing all favorable terrain. Forces remaining in contact should be composed primarily of tanks. The armor-protected firepower and high degree of mobility of such tank-heavy forces enable them to cause considerable delay. These units, when threatened with decisive engagement, withdraw toward the next position using fire and movement. When the enemy is within range of the rear delay positions, they are subjected to fire by the elements occupying these positions. These units provide overwatching fire to the delaying elements that have remained in contact. When forced back by the enemy, the forces that have remained in contact rejoin that

part of the command that is occupying the second prepared position. The commander then employs all available firepower to hold the position as long as possible. When he is no longer able to hold the position without becoming decisively engaged, the withdrawal procedure is repeated.

f. The mission assigned the brigade may require that the enemy be delayed for an extended period in an area of little depth. Under these conditions, the brigade may be required to risk decisive engagement. Maximum use is made of nuclear weapons. Carefully planned and violently executed counterattacks are used to disrupt the enemy attack, inflict casualties, and cause additional delay.

g. The brigade may retain a reserve when conducting a delay on successive positions, particularly if none is held at division level. This reserve frequently will be small and composed primarily of tanks. The reserve may be employed as a counterattack force, to protect a threatened flank, to secure vital rear areas, or to provide overwatching fire to a withdrawing unit. The reserve will frequently be employed to assist a closely engaged unit disengage by executing a counterattack. Such counterattacks may take the form of a tank sweep. In this action, the counterattack force strikes the enemy flank immediately in rear of the area of contact. The counterattack force usually does not attempt to secure terrain; instead, the momentum of the attack is maintained to carry the unit through the enemy columns and back into friendly terrain. The violence and shock effect employed in such attacks result in considerable damage and delay being inflicted on the enemy. Counterattacks designed to strike the enemy flank and to place direct tank fire on the advancing enemy columns may also be used to cause the damage and delay required. Figure 9-8 illustrates brigade delay on successive positions.

### 9-19. Delay on Alternate Positions

a. When operating on a narrow front, or when delay positions are reasonably close together, e.g., within maximum effective range of tank main armament, the brigade may elect to delay on alternate positions. Employing this technique, the brigade is divided into two elements. The first element occupies the initial delay position and engages the enemy. The second element occupies and improves the second delay position.

b. Units occupying the initial delay position delay the enemy by employing continuous delay

techniques. They delay on the initial delay position and between it and the second delay position. When the units arrive at the second delay position, they withdraw through or around the units that prepared and are occupying that position. After withdrawing through or around the second delay position, the units proceed to the third delay position and begin preparing and occupying that position. Responsibility for delay of the enemy is assumed by the units on the second delay position when the first element has withdrawn through their position. The delay procedure is then repeated, with each element being alternately in contact and responsible for obtaining the required delay. When not in contact, each element is responsible for improving and occupying rearward positions and for providing overwatching fire for the withdrawal of the element that is in contact.

c. In a delay on alternate positions, the brigade does not normally maintain a reserve as such. The forces not in contact, while organizing the next delaying position, are available to the brigade commander to function in any of the roles expected of a reserve during the conduct of the delay.

d. Delay on alternate positions has the advantage of providing more time for the improvement of delaying positions and the performance of maintenance on materiel. It also provides troops with periods of relief from combat. However, this technique renders the brigade more vulnerable to nuclear attack because of troop density during the rearward passage of lines. Figure 9-9 illustrates delay on alternate positions.

## Section V. RETIREMENT

### 9-20. Definition

a. A retirement is a retrograde operation in which a force not in contact marches away from the enemy according to its own plan to avoid combat under the existing conditions.

b. A retirement may be made following a withdrawal or when there is no actual contact with the enemy. When a withdrawal precedes the retirement, the retirement begins after the main forces have broken contact with the enemy and march columns have been formed (FM 61-100).

### 9-21. Conduct of the Retirement

a. In a retirement, the brigade is organized in a manner inverse to that employed in an advance to contact.

b. The brigade assigns definite routes and march objectives or rearward positions to each of the major commands moving with the main

body. During the initial stage of the retirement, control may be decentralized to subordinate commanders. However, as the brigade increases the distance between itself and the enemy, the brigade commander resumes centralized control.

c. Security for the main body is similar to the security for a movement to contact and is provided by advance, flank, and rear guards. When the retirement is preceded by a withdrawal from action, a tank-heavy rear guard supported by field artillery, air defense artillery, and tactical air support will normally be required. The rear guard uses delaying action techniques to slow the advance of the enemy and prevent interference with the movement of the main body. The brigade commander must be alert for attempts by the enemy to envelop his force. He employs tactical air force reconnaissance and army aviation over the enemy force to obtain early information of such enemy attempts.

## Section VI. RELIEF OPERATIONS

### 9-22. Types of Relief

Conservation of fighting power, maintenance of effectiveness, and the tactical plan may require the periodic relief of committed units. The armored brigade may participate in a relief operation, or it may direct and control any or all of these operations internally. Relief operations are the relief in place, passage of lines, and with-

drawal through a rearward position. FM 17-1 discusses relief operations in detail.

### 9-23. Relief in Place

a. A relief in place is a combat operation in which, by direction of higher authority, all or part of a unit is replaced in a combat area by an incoming unit. The responsibilities of the replaced

elements for the combat mission and the assigned zone of operations are transferred to the incoming unit. The incoming unit continues the operation as ordered. The purpose of this operation is to continue the defense or to prepare for a subsequent attack. Continuation of the defense requires conformity of men, weapons, units, and dispositions of incoming and outgoing units until relief completion. Preparation for a subsequent attack allows relief on an area basis with dispositions made to facilitate the attack. Relief in place should be used when the relieved units are required elsewhere; passage of lines is not tactically acceptable; and the attacking force requires greater knowledge of the terrain and enemy.

*b.* The warning order specifies the start and completion time of the relief. Normally, the operation is conducted during darkness or periods of reduced visibility. Upon receipt of the order, the brigade issues its orders and establishes liaison.

*c.* The incoming and outgoing units coordinate all existing intelligence, dispositions, and defensive plans, including fire support, barrier, and counterattack plans. If the sequence of relief and passage of command criteria have not been specified, then they are mutually agreed upon by the incoming and outgoing commanders. Sequence of relief is normally executed by stages; either rear to front or front to rear, based upon consideration of the mission, strength, combat effectiveness, size and types of units involved, plus terrain and enemy threats. Passage of command occurs at specified times or circumstances—normally when the incoming forward defense area commanders assume responsibility for their area and the brigade commander has positive command, control, and communications established. All incoming and outgoing units are under control of the brigade commander having overall command at any given point in time.

*d.* Detailed reconnaissance, cover, and security measures are executed through all phases of the operation to insure maximum deception and defensive capabilities.

*e.* Movement control is coordinated by a single traffic control headquarters which has purview of routes, priorities, assembly areas, guards, and transportation.

*f.* Fire support planning is critical and is based upon the principle of maximum, constant fire support availability. Plans are executed by having incoming artillery units prepared for fire missions prior to withdrawal of outgoing artillery units,

the integrated use of both units, and their controlled phasing.

*g.* Relief operations increase troop density, hence vulnerability to CBR attack, which necessitates prudent scheduling to present minimum density targets and to avoid detection and attack.

## 9-24. Passage of Lines

*a.* A passage of lines is an operation in which an incoming unit attacks through a unit which is in contact with the enemy. Sub-units of the unit being passed through remain in position until their fires have been masked, at which time they may remain in place or be committed to another mission. The purpose of this operation may be to relieve an overcommitted or depleted unit and continue the attack. It should be used for a subsequent attack when time precludes a relief in place; when formation flexibility, continuous offensive pressure, speed, and maximized force capabilities are desired; and when massed fire support and a significant change in the direction of attack are planned. Passage of lines may also be required in the execution of a linkup operation, a raid, or in establishing a security echelon.

*b.* The passage of lines has similar procedures to relief in place operations. Upon receipt of the warning order, the brigade organizes planning meetings and effects coordination and liaison with the unit in contact. Coordination includes: intelligence; tactical plans and SOI's; reconnaissance and security measures; areas of passage and guides; routes, priorities, and traffic control; time and circumstances of passage of command; and fire support, combat service support, and CBR procedures.

*c.* If practical, areas of passage should be unoccupied areas between or on the flanks of units in contact. The incoming unit has priority of routes; however, traffic control is exercised by the unit in contact until passage of command.

*d.* Passage of command procedures are similar to relief in place. Normally, the incoming unit assumes command prior to or at the time of attack. Upon passage of command, the incoming commander assumes control of both units until passage is complete.

*e.* Fire support by the unit in contact is normally indirect due to control, maneuver, marking, range, and effectiveness problems. This support should be utilized to the maximum in the control phases of the passage and attack. The incoming

artillery commander controls all fires after the passage of command.

*f.* The passage of lines is desirably executed during periods of reduced visibility with strict timing to insure that no forward assembly areas are required. To reduce density of units and traffic, reserves of units in contact adjust their locations. Physical passage should be within the lateral boundaries of a major subordinate unit of the unit in contact to facilitate movement, control, and combat service support.

### **9-25. Withdrawal Through a Rearward Position**

*a.* A withdrawal through a rearward position is an operation in which a unit conducting a retrograde movement passes through the sector of a unit occupying a rearward defensive position. The purpose of this operation is to relieve an overcommitted or depleted unit; as part of a withdrawal operation; or to allow the withdrawn unit to accomplish another mission. The planning, procedures, and detailed coordination are similar to those of other relief operations; however, the following factors deserve special attention:

- (1) Mutual recognition signals.
- (2) Passage areas that are unoccupied areas

between or on the flanks of units in position, and avoidance of locally prepared defensive positions.

(3) Configurations of defensive positions, fire plans, security, vulnerability, and subsequent missions.

(4) Coincident boundaries and minimal points of passage to facilitate control. The unit being passed through designates and controls multiple routes and the withdrawing unit specifically identifies its last element(s).

(5) The probability of CBR attack and appropriate preventive measures.

*b.* Passage of command procedures are similar to those of other relief operations with the units in position normally assuming control at a specific time or during an operational phase; for example, in the delay, the withdrawing commander's responsibilities terminate upon passage.

*c.* In the conduct of the withdrawal, units withdraw straight to the rear at a specific time, usually under conditions of reduced visibility, avoiding assembly areas. Normally, combat service support units are withdrawn first. The withdrawing unit should, if possible, clear the rear boundary of the unit in position prior to starting lateral movement.

**CHAPTER 10**  
**OTHER TACTICAL OPERATIONS**  
**(NATO STANAG 2082, CENTO STANAG 2082, SEATO**  
**SEASTAG 2082, ABCA SOLOG 49R)**

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**Section I. INTRODUCTION**

**10-1. Introduction**

The armored brigade may be required to operate in geographic portions of the world that offer variations of terrain and weather. Topographic variations in terrain become important factors in the brigade's operations. The armored brigade may operate in conjunction with or in support of other specialized operations. Regardless of the mission and operational environment, the principles are the same for all tactical operations; however, the techniques used in applying these principles may vary.

**10-2. Scope**

This chapter does not discuss other tactical operations in detail. It describes the general nature

of other tactical operations and, where appropriate, amplifies the discussion of other manuals to cover subjects peculiar to the armored brigade. It references doctrinal publications written to provide guidance to commanders and staffs faced with the conduct of other tactical operations to assist in the development of a specific operation.

**10-3. General**

The term "other tactical operations" implies, correctly, a deviation from normal tactical operations. Consequently, the armored brigade's intelligence effort in other tactical operations will be directed toward production of detailed intelligence required to facilitate the employment of the armored brigade under conditions peculiar to the specific operation.

**Section II. JOINT AMPHIBIOUS OPERATIONS**

**10-4. General**

a. The armored brigade normally participates in an amphibious operation as part of a larger force. It may be employed as part of an amphibious operation launched for any of the following purposes:

(1) An assault to obtain lodgment areas from which to carry out further combat operations ashore; or operations to obtain advanced air, naval, or logistical base areas; or to deny certain areas to the enemy.

(2) Raids to destroy enemy installations, test enemy dispositions, obtain intelligence information, or capture and evacuate individuals or materiel.

(3) Attack of enemy forces to exploit a vulnerable sea flank.

b. Amphibious operations are complex and require extensive and detailed planning, preparations, and interservice coordination. Adequate amphibious lift vessels of suitable type are required for the brigade to participate. Armor units also require suitable beaches to permit landing on a wide front and capable of accommodating combat service support operations that will permit rapid inshore movement of tanks, armored personnel carriers, and wheeled vehicles.

**10-5. Types of Amphibious Operations**

The brigade may participate in any of the following types of amphibious operations:

a. An amphibious assault to establish a landing force on a hostile shore to conduct further combat operations, to obtain a site for an advance naval or air base, or to deny the use of an area or facilities to the enemy.

*b.* An amphibious withdrawal for the purpose of redeployment or evacuation.

*c.* An amphibious demonstration conducted to deceive the enemy by a show of force, with the expectation of deluding the enemy into a course of action unfavorable to him.

*d.* An amphibious raid involving a swift incursion into, or a temporary occupancy of, an objective followed by a planned withdrawal. The purposes of such raids are to inflict loss or damage on the enemy, secure information, create a diversion, or capture or evacuate individuals and/or materiel.

### 10-6. Tactical Considerations

*a.* In amphibious operations against a defended shoreline, the armored brigade, as the assault echelon of a larger force, should land on a wide front. Nuclear and nonnuclear fires and armored amphibians should be used to achieve rapid attack momentum at the shoreline and to support the sustained drive of widely dispersed battalion task forces toward assigned objectives. Early removal of obstacles from the beaches and the rapid development of additional routes inland are essential.

*b.* During the initial stages of the assault landing, the brigade will be dependent upon naval and air forces for both nuclear and nonnuclear fires and air defense. Attached air defense and field artillery should be put ashore as rapidly as assault elements can secure adequate firing positions inland. Dispersion in both assault landings and subsequent operations, including such minimum beach support activities as may be required, is essential in the face of an enemy nuclear capability. Amphibious operations require highly centralized planning, with concurrent coordinated planning at all levels. Execution of the assault phase is decentralized. Centralized control is reestablished as soon as possible.

*c.* Rapid movement inland is necessary to prevent undue congestion in landing areas. Airmobile operations conducted immediately following naval gunfire preparation may precede the landing of armor units. This will facilitate the landing of the heavier units and achieve dispersion in depth. Airmobile landed elements may be from mechanized infantry battalions, less vehicles, or from units attached to the brigade for this purpose.

*d.* Detailed plans must be prepared and means made available for the continuous logistical sup-

port of the brigade ashore, particularly as it moves deeper inland. When establishment of on-shore logistical support facilities may not be desirable or feasible, supply and casualty evacuation of the brigade may have to be made entirely by air. When establishment of beach support operations is planned, multiple beach support activities must be provided and use of amphibian and air transportation for distribution of supplies directly to assault units from ships must be considered. This is necessary to eliminate dependence on any one beach. This contingency also requires alternate plans in the event of loss of any beach.

*e.* For details on the training and employment of small armor units in amphibious operations, see FM 17-1. For planning and execution of amphibious operations, see FM 5-144, FM 17-1, FM 31-11, FM 31-12, FM 60-30, and FM 61-100.

### 10-7. Organization for Combat

*a.* As in other operations, the brigade is organized for the amphibious operation in accordance with the requirements for the land mission. When the brigade is part of the assault echelon, organization will provide for cross attachment to form company landing teams and battalion landing teams before embarkation. Battalion landing teams of the brigade to be landed first will normally be mechanized infantry-heavy. As part of the assault echelon, the brigade is combat loaded on assigned shipping, and unit integrity is maintained.

*b.* Artillery, engineers, signal, and combat service support elements are frequently attached at battalion landing team level for early use of their facilities ashore and to disperse those facilities throughout the amphibious lift. For the movement phase of the operation, the brigade command element is echeloned for dual command capabilities. Such echelonment ceases as soon as both elements are ashore.

*c.* Attachments to the battalion landing teams and the brigade landing team will remain in effect until such time as adequate control can be exercised by parent headquarters ashore or when attachment is no longer desired or needed.

### 10-8. Embarkation

*a.* Before embarkation, planning will include formation of battalion landing teams and company landing teams by cross attachment. Battalion landing teams may have an engineer platoon in support. Planning will include combat loading

of vessels to maintain battalion landing team and company landing team integrity. Loading will provide for discharge in the sequence required directly onto the beach in the lodgment area. Planning will also include early unloading of artillery.

b. The brigade headquarters and headquarters company will be echeloned in at least two elements, each loaded on a different vessel. Both should be combat loaded for discharge immediately behind the task force. Each echelon should be organized to command and control if the other echelon is lost.

#### 10-9. Debarkation

The commander of units to be debarked fur-

nishes the appropriate transport commander with data concerning landing teams, sequence of landing of units, and other requirements he may have in executing the ship-to-shore movement. The commander of units to be debarked and the transport commander jointly prepare debarkation schedules. For further details, see FM 31-12.

#### 10-10. Operations Ashore

The maneuver battalions of the brigade, appropriately reinforced, form the assault landing teams of the assault echelon of the force. Ground tactics during the operations ashore after the beachhead has been secured are substantially the same as for any ground operation.

### Section III. LINKUP OPERATIONS

#### 10-11. General

a. A linkup operation entails the juncture of two ground units. Linkups may be required in connection with airborne or airmobile operations, for relief of a cutoff force, in the breakout of an encircled force, or in the convergence of separate forces.

b. The initial phase of a linkup will generally correspond with normal offensive operations. The actual linkup requires careful planning, coordination, and control. It must provide for carefully defined communication capabilities and restrictions on fire and maneuver by the linkup force.

c. Armor units are normally employed as a linkup force because of their mobility, speed, and firepower.

#### 10-12. Planning Considerations

When the brigade is employed as the linkup force, it employs the same planning considerations as the division. For a detailed discussion of command relationships, coordination measures, and considerations, see FM 17-1 and FM 61-100.

#### 10-13. Organization for Combat

a. As a linkup force, the brigade is organized for an exploitation and is normally tank heavy. Engineer support is attached, with particular attention to anticipated requirements for bridging and for rapid movement of the brigade. Ar-

mored vehicle launched bridges may be required in addition to those organic to the tank battalions.

b. A communication plan is prepared for use between the linkup force and the force to be met or relieved. The plan should provide for radios with long range capability and for assignment of frequencies and codes.

c. Logistics elements are attached to the brigade according to the estimated duration of the operation, distance involved, and the capability to support the operation by ground or aerial supply means.

#### 10-14. Conduct of the Linkup

In the initial phase, the conduct of the linkup operation is the same as for any offensive operation. Linkup operations frequently will require a passage of lines. Once through the friendly lines, the brigade moves as in an exploitation to effect the linkup. The action is characterized by speed, aggressiveness, and boldness. Enemy forces that threaten the successful accomplishment of the mission are destroyed. Others are bypassed and reported. Depending on the tactical situation, nuclear weapons may or may not be fired. As far as possible, the linkup force avoids interferences with its mission and concentrates its effort on completing the linkup. For details of establishing contact with, joining forces, and actions after linkup, see FM 17-1 and FM 61-100.

## Section IV. RAIDS, FEINTS, DEMONSTRATIONS, AND RUSES

**10-15. Raids**

A raid is an attack to accomplish a specific purpose within the enemy position with no intention of holding the invaded territory. Purposes of raids may be to—

- a. Capture prisoners or specific material.
- b. Obtain or free key civilians such as scientists or political leaders.
- c. Destroy specific enemy material or installations, including nuclear delivery means.
- d. Obtain information of enemy forces.
- e. Deceive or harass the enemy.
- f. Complete the destruction caused by nuclear fires.
- g. Support unconventional warfare activities.

**10-16. Organization**

The raid operation is appropriate to the armored brigade because of its capabilities for shock, speed, mobility, and firepower. When available forces permit, the brigade is organized with tank heavy battalion task forces and such additional combat, combat support, and combat service support as the time and distance of the raid require. Normally, raids are so short in both time and distance that supplies are limited to what can be carried on the combat vehicles. Maintenance support is confined to the ability to make minor repairs. Medical evacuation is to be by combat vehicle or air. Every effort is made organizationally to provide a fighting force with minimum equipment to execute the raid. Careful coordination with friendly fire support means is necessary to avoid bringing friendly fires down on the raiding force.

**10-17. Conduct of the Raid**

a. The raid operation corresponds to the armored brigade linkup, frequently requiring a passage of lines in a carefully coordinated effort. The raiding armored brigade moves into the exploitation quickly and concentrates on its assigned objective. It seeks to achieve the greatest possible degree of surprise and, capitalizing on surprise to advance rapidly, avoids all possible enemy interference with its mission. The brigade should

not be diverted from its primary mission by becoming otherwise decisively engaged.

b. Once having reached its objective and accomplished its mission, the raid force can anticipate vigorous enemy reaction in the area through which the raid force has passed. For this reason, the withdrawal of the raid force will usually be over alternate routes. Brigade forces should avoid principal routes of communication and should consider using routes for attack and withdrawal not usually considered feasible for armored movement.

c. Once the brigade raid objective has been achieved, no time is wasted in returning to friendly territory. The longer the withdrawal is delayed, the greater the chance the enemy has of defeating the raiding force.

d. Withdrawal over alternate routes is also preplanned. Careful planning and prior coordination will facilitate passage through friendly lines. In this phase of the raid, the operation corresponds to techniques used during linkup.

**10-18. Feints, Demonstrations, and Ruses**

a. *Feints.* A feint is a show of force intended to mislead the enemy and draw his combat power away from a main attack. It may vary in size from a small raid to a sizable supporting attack. The feint is most effective when it appears as a definite threat to the enemy, when the enemy has a large reserve that he has been committing early, when there are several feasible courses of action open to the attacker, and when the feint is of adequate strength and composition to cause the desired enemy reaction. Some of the desired reactions are to force the enemy into improper employment of his reserves, attract supporting fires away from his main attack, force him to reveal defensive fires, or to make him become accustomed to shallow attacks in order to gain surprise with a deep main attack. For timing and location of feints, see FM 61-100.

b. *Demonstrations.* A demonstration is an attack or a show of force in an area where a decision is not being sought. There is no advance against the enemy by maneuver forces. Demonstration forces use fires, smoke, sonic devices, and decoy equipment. FM 61-100 describes the conduct of demonstrations in detail.

*c. Ruses.* Ruses are tricks used at all levels to achieve deception. False movements of a few vehicles towing chains or brush to simulate the

dust of a larger force are examples. The intention is to divert enemy attention from critical operations.

## Section V. COMBAT AT RIVER LINES

### 10-19. General

When unfordable rivers are encountered during exploitation operations by the armored brigade, every effort must be made to continue the advance without pause or significant concentration on either bank. Subordinate units are directed to seize crossings in zone. The river should be approached with maximum speed and on a broad front. When bridges cannot be seized intact, hasty crossings should be made on a wide front, capitalizing on the amphibious characteristics of armored personnel carriers, underwater fording kits for tanks, organic and attached helicopters, special fires, and other means. The hasty crossing is characterized by speed and surprise. As a river crossing creates a defile, reconnaissance must include consideration of all routes leading into and out of the crossing site. Planning for alternate routes is essential. Preparation of the crossing site for passage is normally done at night or during periods of low visibility.

*a.* A deliberate crossing is conducted when a hasty crossing has failed or is impractical, and is characterized by some delay in execution and by use of extensive crossing means. Deliberate river crossings in nuclear warfare will require higher headquarters action and concurrence and detailed planning at all levels so that multiple crossings and deception operations can be carried out. A bridgehead supported by only a single crossing site is extremely vulnerable.

*b.* In any river crossing operation, it is important that multiple crossing sites be placed in operation as soon as possible. The bridgehead should be rapidly expanded to prevent undue congestion. Nuclear fires should be carefully planned and used to neutralize critical enemy defenses and to rapidly develop a superiority of combat power on the far shore while employing widely dispersed assault units. For details on combat at river lines, see FM 17-1 and FM 31-60.

## Section VI. COMBAT IN DIFFICULT TERRAIN AND BUILT-UP AREAS

### 10-20. General

*a.* Although it is sometimes required because of a shortage of infantry or time, commitment of the armored brigade to combat in difficult terrain is undesirable. It serves to minimize the mobility of the combat battalions. Besides slowing armor momentum, very difficult terrain may act to canalize the brigade, with a resulting increase in vulnerability to nuclear attack. In some instances however, obvious disadvantages may be offset by surprise, and difficult terrain may provide natural concealment and cover nuclear effects.

*b.* Increased requirements for engineer support, use of field expedients to assist in the movement of armored vehicles, and increased maintenance and logistical requirements generally typify armor operations in difficult terrain. These requirements must be taken into account in planning.

### 10-21. Combat in Fortified Areas

The armored brigade is not normally used to attack a fortified area. When so required, it is organized as infantry heavy with large amounts of artillery. Principles and techniques discussed in FM 17-1, FM 31-50, and FM 61-100 apply for combat in fortified positions.

### 10-22. Combat in Built-up Areas

Combat in built-up areas is normally considered a mission for dismounted infantry because of the necessity for house-to-house fighting, limited fields of fire for tanks, and lack of tank maneuver space. The armored brigade may be required to perform this type of combat to clear a defended town and continue its advance, to keep critical land lines of communication open, or because of the nonavailability of dismounted infantry. For details see FM 17-1 and FM 31-50.

**10-23. Attack**

*a.* The brigade attacks cities and towns with an enveloping force and a direct-assault force. The enveloping force maneuvers to surround and isolate the town by securing dominating terrain on the flanks and rear, sealing off entrance and exit routes, and destroying enemy forces trying to enter or escape. The enveloping force usually contains a preponderance of tanks and the direct-assault force a preponderance of mechanized infantry, supported by tanks.

*b.* The maneuver of the enveloping force may be accomplished by both nuclear and nonnuclear artillery fires on the town in preparation for attack. In planning for the employment of such fires, careful consideration must be given to the probabilities of creating conditions that may adversely affect the direct-assault force. Such conditions may include the blocking of routes through the town with rubble resulting from blowdown or intense high explosive shelling and the creation of high-intensity radiological hazards.

**10-24. Defense**

*a.* Built-up areas are obstacles to the movement of friendly counterattack forces as well as the attacking enemy. Consideration should be given to defending outside the built-up area. Under some conditions, elements of the brigade may hold towns while the remainder counterattacks in the open.

*b.* The defense of a built-up area is organized around key terrain features that preserve the integrity of the defense and provide ease of movement to the defender. Subterranean systems may facilitate the movement of dismounted forces and provide shelter against nuclear attack. Maximum use is made of rubble and other obstacles. Defenses are prepared in depth. For further details, see FM 17-1.

**10-25. Combat in Woods, Swamps, and Lake Areas**

*a.* Armor operations in woods, swamps, and lake areas are in some respects similar to those in towns and fortified areas. Extended areas of this nature are an obstacle to the armored brigade, affording the enemy concealment and camouflage but limiting visibility and fields of fire. These areas favor enemy raids and guerrilla operations and require adequate support of tanks by dismounted infantry. Some woods, swamps, or lake areas are naturally strong defensive areas;

however, small wooded areas in open terrain are easily neutralized by fire, smoke, or automatic weapons. Whenever possible, heavily wooded areas, swamps, and lake areas are bypassed. In such instances, these areas may be neutralized by nuclear fires. If woods, swamps, and lake areas are ordered cleared, they should be surrounded by tank elements and cleared by mechanized infantry supported by tanks.

*b.* For additional details, see FM 17-1 and FM 101-31-series.

**10-26. Combat at Defiles**

*a.* A defile is any terrain feature, natural or artificial, which tends to constrict the passage of troops. Therefore, a mountain pass, a gap through a minefield, a river crossing site, a bridge, or an area between two radiation areas are all defiles. Reconnaissance must include consideration of all possible routes. Planning for alternate routes is essential. Preparation of a defile for passage must be done during periods of low visibility or at night. Traffic control must insure that the flow of vehicles is constant, without halts or grouping in the defile area. Units may be moved to a holding area prior to entering the defile target area and directed from there through the defile target area. Absolute control in the target area must be maintained. Units plan for movement into an attack position or a holding area after clearance of the defile target area. Every effort must be made to secure the flanks of a defile on the broadest possible front before attempting to pass the main body of the brigade. Organic and attached army aircraft may be advantageously employed both to facilitate reconnaissance and surveillance of critical areas and to transport light elements in the air landed seizure of such areas. Air defense artillery should be deployed to protect the defile. Figure 10-1 illustrates a defile target area. For further details of combat at defiles, see FM 5-29, FM 5-135, and FM 17-1.

*b. Tactical Considerations.*

(1) *Offense.* When the brigade must pass through a defile, armored cavalry elements normally precede the main body and reconnoiter the entire surrounding area. If the immediate area is clear, tanks and mechanized infantry are dispatched rapidly through the defile and establish a defense, securing enough maneuver room to permit the main body to emerge from the defile unhampered. If the area is defended, enough space must be secured to permit the maneuver of the

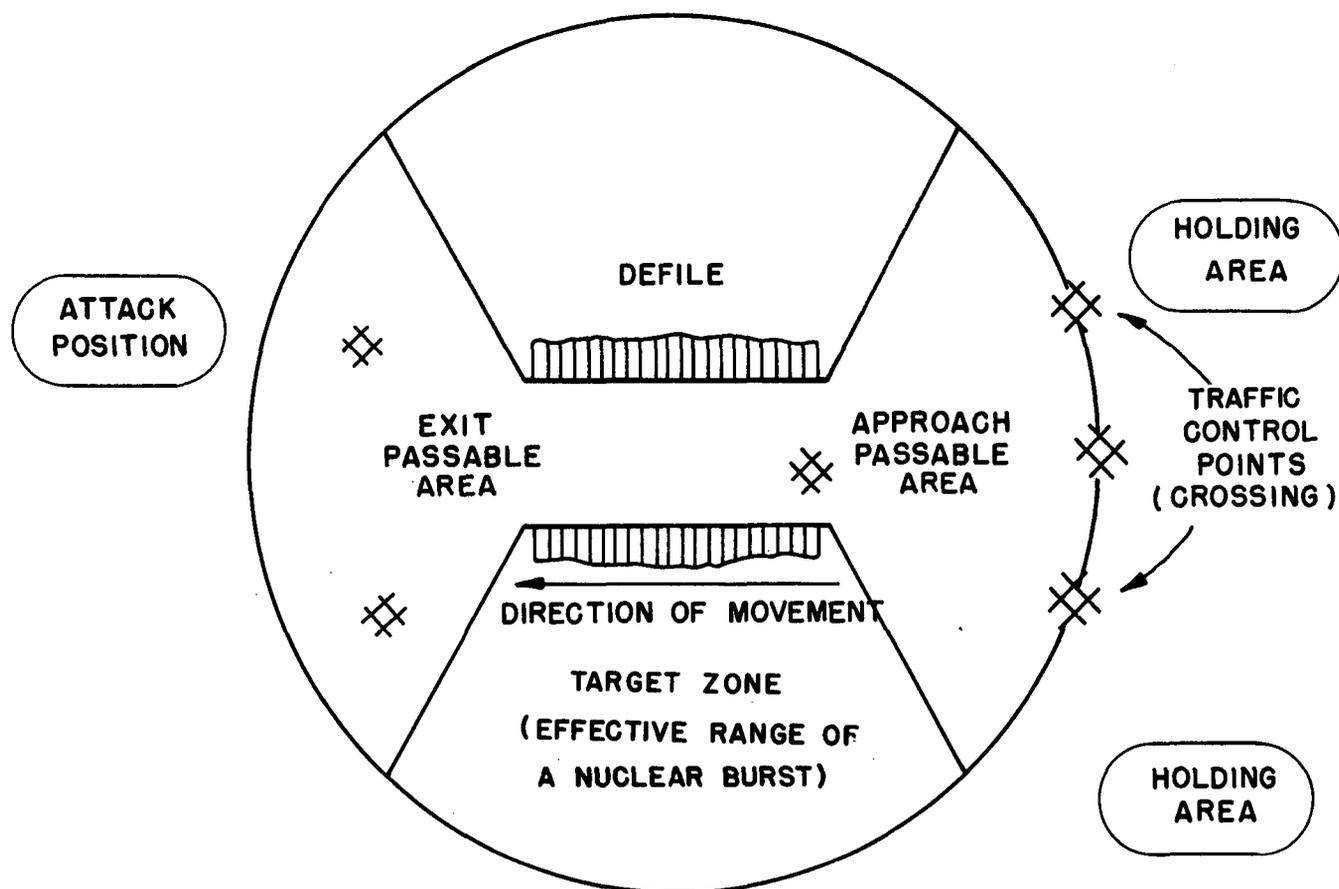


Figure 10-1. Defile target area.

main body. The employment of nuclear fires during this phase may speed up operations. Movement of the brigade through the defile should be planned so that vulnerability to nuclear attack is minimized.

(2) *Defense.* The defense of a defile by the brigade may be conducted using several methods: In a single position with flanks refused and protected by the obstacles behind the defile; by delaying action, with leading elements well forward of the defile to gain time and space for the main body to pass the defile and development for any action required; or by a mobile defense, with

all major elements of the higher headquarters forward of the defile. Nuclear weapons may be employed in conjunction with any of these methods, or they may be used to deny access to, or of, the defile by enemy ground forces.

*c. Ground and Aerial Reconnaissance and Surveillance.* In operations at a defile, reconnaissance and area surveillance are of utmost importance. It is imperative that the command be warned of the presence or approach of the enemy at the earliest possible moment and at the longest ranges possible.

## Section VII. COMBAT IN EXTREME TERRAIN AND WEATHER CONDITIONS

### 10-27. Combat in Snow and Extreme Cold

*a.* Operations are influenced by snow, ice, extreme cold, sharp variations in weather, long periods of daylight or darkness, and seasonal transitions. Peculiarities of the subarctic and arctic are sparse settlement, lack of roads and railroads; numerous lakes, waterways, swamps,

and bogs; lack of maps, difficulty of navigation, difficulty of radio transmission, arctic whiteout and forests. During periods of extreme cold, the firing of weapons produces ice fog which renders observation for direct firing difficult and reveals locations of weapons. During thaws, streams and other bodies of water present serious obstacles.

Under summer conditions, certain streams and lakes are arteries for water transportation. Rivers and lakes adequately frozen over in winter may offer excellent arteries for movement. Deep snow and ice impede cross-country movement. Under certain conditions, snow may provide concealment and deception. In open terrain, snow may make camouflage and deception difficult. Hasty field fortifications are difficult to construct in frozen ground. In the arctic and subarctic, permanently frozen subsurface soil (permafrost) frequently exists and prevents surface water from draining into the subsoil in summer. In relatively flat areas, where drainage is limited, this condition results in a soft spongy surface interspersed with numerous lakes and ponds, which make movement extremely difficult and often impossible. In such areas, water and air transportation means may be used, but land transportation means have not yet been satisfactorily developed to traverse the muskies and tundras. In extreme cold, more time must be allowed for all types of operations. Armor operations under the foregoing conditions may be generally typified by--

(1) Increased requirements for vehicle and equipment maintenance and special maintenance equipment.

(2) Trafficability problems caused by snow and ice in winter and mud and water in summer.

(3) Increased fuel consumption and special lubricant requirements for all vehicles.

(4) Additional engineer support.

(5) Substitution of special arctic vehicles and equipment for standard vehicles and equipment.

(6) Special training in arctic survival, health practices, and arctic field expedients.

*b. Combat in Snow and Extreme Cold, Tactical Considerations.*

(1) The fundamentals of offensive and defensive operations set forth in chapters 7 and 8 apply to armored brigade operations in extreme cold and deep snow, subject to the limitations imposed by weather and terrain. For further details, see FM 17-1, FM 31-70, FM 31-71, and FM 61-100.

(2) Tactical operations in snow and extreme cold depend more on effective administrative support than do operations in normal temperate zone conditions. Exposure to extreme cold and deep snow results in lowered combat efficiency. Under such conditions, both individual and unit rotation during combat and readily available heated shelter for all will be required.

(3) For employment of nuclear weapons under these conditions, see FM 101-31-1 and FM 101-31-2.

### 10-28. Desert Areas

Desert areas may be characterized by a wide variety of terrain, including areas of loose sand and dunes, boulder-strewn areas, mountains, broken terrain, salt marshes, and rolling or relatively flat hard surface areas. Well defined roads are generally scarce, but trails or desert tracks generally exist between water sources. Desert areas comprised mainly of loose sand and sand dunes or boulders can seriously impede armor movements. However, in rolling or flat hard surface desert, a greater freedom of movement is afforded than in normal terrain, and roads are of decreased significance. Most desert areas are also characterized by sparse vegetation and few prominent landmarks, as well as extremes of temperature or climatic conditions. These conditions can result in difficulty in concealment and maintenance of direction, and can impose difficult physical conditions on personnel. All of these factors should be considered in planning.

### 10-29. Combat in Desert Regions, Tactical Considerations

*a.* Basic tactical doctrine and fundamentals for desert operations are essentially the same as those set forth in previous chapters and in FM 100-5. Armored brigade operations in desert areas are influenced by the following factors:

(1) Greater fields of fire.

(2) Less restriction on maneuver, but greater restrictions on location and use of ground lines of communication.

(3) Increased need for security and combat deception measures due to difficulty of concealment.

(4) Increased emphasis on attaining surprise by rapid movement.

(5) Increased problems of combat service support.

(6) Increased vehicular and equipment maintenance requirements due to sand, gritty dust, rocks, and temperature variations.

*b.* For additional details on combat in desert regions, see FM 17-1 and FM 31-25.

**10-30. Operations in Riverine Areas**

*a.* A riverine area is a land environment dominated by water lines of communications with an extensive network of rivers, streams, canals, swamps, paddies, or muskeg extending over broad, level terrain, parts of which may be inundated periodically or permanently. It may include sparsely populated swamps or forests, rivers and streams that have steep banks densely covered with tropical trees or bamboo, and relatively flat and open terrain. A large population may concentrate along the waterways. Tides may affect riverine areas near the ocean or far inland.

*b.* Riverine operations include all military activities designed to achieve and maintain control of a riverine area by destroying hostile forces and restricting or eliminating hostile activities. Operations are characterized by the extensive use of joint watermobile forces together with groundmobile and airmobile forces.

*c.* The armored brigade could be called upon to perform any operation discussed in this manual in support of or in conjunction with riverine operations. FM 17-1 and FM 61-100 provide additional discussion of riverine operations.

**Section VIII. AIRMOBILE OPERATIONS****10-31. Introduction**

In an airmobile operation, combat forces and their equipment move about the battlefield in aircraft under the control of a ground force commander to engage in ground combat. The size of an airmobile operation is contingent on availability of aircraft. The forces in an airmobile operation may vary from one squad to one or more battalions.

**10-32. General**

*a.* The armored brigade has the capability and may be given or develop the requirement to employ an airmobile force. Sources for such a force will depend on the organization and support of the brigade at the time of the requirement.

*b.* For reconnaissance or combat missions requiring a large force, the brigade may mount a mechanized infantry platoon or company in aircraft provided by higher headquarters. For a discussion of planning factors and execution of airmobile operations, see FM 57-35.

**Section IX. UNCONVENTIONAL WARFARE****10-33. General**

Unconventional warfare (UW) is the application of selected aspects of subversion, political warfare, guerrilla warfare, psychological operations, and economic warfare to support national objectives. By current U.S. Army definition, it includes the three interrelated fields of guerrilla warfare: evasion, escape, and subversion; as well as other activities normally associated with general warfare. Unconventional warfare operations are conducted within enemy or enemy-controlled territory by predominantly indigenous personnel, usually supported and directed in varying degrees by an external source such as the U.S. Army's unconventional warfare force—special forces. The brigade will normally concern itself with unconventional warfare activities that fall within its area of operations and/or influence.

**10-34. Unconventional Warfare Operations**

*a.* Indigenous personnel operating as guerrillas

are organized as paramilitary or military forces to reduce the combat effectiveness, war potential, and morale of their enemy. The guerrilla combat operations include interdiction and diversion. Raids and ambushes are the principal offensive techniques. Combat operations are integrated with psychological operations, evasion and escape, passive resistance, reprisal, subversion, sabotage, and intelligence activities. Guerrillas may operate with friendly conventional forces and special forces as dictated by the political climate. This factor must be a prime consideration of the U.S. commander planning the commitment of his forces.

*b.* When the brigade area of influence overlaps an area in which U.S.-sponsored guerrillas are operating, the brigade may request that the guerrilla forces execute missions to assist its operations. When linkup with U.S.-sponsored guerrilla forces becomes imminent, the U.S. commander in the area normally has operational control of the

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guerrilla forces. If the guerrilla force operates with a special forces detachment, operational control is normally exercised through a special forces liaison detachment attached to the division from the special forces operational base (SFOB). When linkup occurs, the operational control of the affected guerrilla force is normally transferred to the tactical command concerned. Such control is usually not given to a headquarters below divi-

sion level, but may, in unusual circumstances, be given to a brigade. In the later event, the brigade commander would coordinate directly with the guerrilla force commander and provide a liaison party with adequate communications to maintain contact.

c. FM 31-21 discusses the employment of guerrilla forces to assist the brigade before, during, and after linkup.

## CHAPTER 11

### COLD WAR OPERATIONS

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#### Section I. INTRODUCTION

##### 11-1. General

*a.* Cold war is a state of international tension wherein political, economic, technological, sociological, psychological, paramilitary, and military measures short of overt armed conflict involving regular military forces are employed to achieve national objectives.

*b.* The doctrine, tactics, and techniques for employment of armor units, as discussed elsewhere in this manual, are equally valid for cold war operations. Additional discussion of cold war operations may be found in FM 17-1, FM 31-16, FM 31-23, FM 61-100, and FM 100-20.

##### 11-2. Characteristics of Cold War Operations

Cold war operations are necessitated by a direct threat to U.S. interests by acts of a hostile power. These acts include illegal occupation, subversion, or coercion of friendly countries; a show of force; or the establishment of hostile military forces within range of U.S. territory. Such actions by a hostile power may be, for example, the seizure or control of a friendly government, the occupation or intimidation of a weaker country, or the defeat of friendly elements within a country. Military operations in cold war may include both incidents between regular forces and actions against irregular forces during stability operations.

##### 11-3. U.S. Forces Participation

United States participation in cold war operations may result from alliances or coalition agreements, or such operations may be taken unilaterally. United States military forces participate in such operations only by specific order or responsible U.S. Government authority. Within the broad scope of cold war operations, military actions may be designed to achieve the following:

- a.* Encourage a weak and faltering government.
- b.* Stabilize a restless area.

*c.* Deter or thwart aggression.

*d.* Reinforce a threatened area.

*e.* Check or counter aggressive moves by opposing powers.

*f.* Maintain or restore order.

##### 11-4. Types of Cold War Missions

*a.* Missions assigned forces conducting cold war operations include the following:

- (1) Show of force.
- (2) Truce enforcement.
- (3) International police action.
- (4) Legal occupation.
- (5) Stability operations.

*b.* Specific operations within these missions may include parades, maneuvers, demonstrations, police and patrol duty, operations against irregular forces, and reinforcement of a threatened area.

##### 11-5. Concurrent Tasks

Psychological operations (PSYOP) and civil affairs operations are integral parts of all cold war operations. The commander must consider these tasks whenever the brigade is involved in cold war operations. They are discussed in detail in FM 17-1, FM 31-16, FM 31-23, FM 33-1, FM 33-5, FM 41-5, FM 41-10, and FM 61-100.

##### 11-6. Employment of the Armored Brigade

*a.* The armored brigade may be employed either independently or as part of an armored division or larger U.S. force in cold war operations. Its ground mobility, ability to cover large areas, and wide range of available combat power allow the brigade to adapt itself to the variety of conditions which will be encountered in this type of operation. The brigade is usually task organized to cope with the conditions of the area of operations.

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b. The brigade operating in a cold war environment will be confronted with a wide range of unpredictable factors. These factors include the local political conditions in relation to indigenous and United States national policies; attitudes of local populations, law enforcement agencies, and native armed forces; potential enemy covert and overt capabilities; terrain and other environmental conditions; and command arrangements. No normal employment can be prescribed; however, the concepts, tactics, techniques, and procedures for the employment of the brigade contained elsewhere in this manual basically apply to cold war operations when adjusted to fit the particular operational environment. This demands the utmost flexibility and imagination in planning by the commanders and staffs of armored brigades. All must fully comprehend and exploit the

organizational capabilities of subordinate units and be willing to adapt and improvise to meet the unusual conditions posed by a specific situation.

### 11-7. Capabilities of the Armored Brigade

The armored brigade retains the capabilities and limitations discussed elsewhere in this manual when conducting cold war operations. Additionally, the massive appearance of the tank makes armor units especially capable of conducting show of force operations.

### 11-8. Brigade Missions

The armored brigade may be required to accomplish any tactical mission discussed in previous chapters when it is conducting cold war operations.

## Section II. STABILITY OPERATIONS

### 11-9. General

a. Stability operations are those types of internal defense and internal development operations and assistance provided by the armed forces to maintain, restore, or establish a climate of order within which responsible government can function effectively and without which progress cannot be achieved.

b. This section provides a guide for the employment of the armored brigade in stability operations. It discusses definitions, employment, tactical operations, missions, and training aspects applicable to stability operations. As stated in section I, other tasks, to include psychological operations and civil affairs operations, are integral parts of all stability operations. The commander must consider these tasks whenever the unit is involved in stability operations.

c. Armor units may be required to provide tactical support to host country or allied forces in stability operations.

armored brigade in tactical operations must take advantage of superior flexibility, communications, and mobility to locate and eliminate an unusually elusive enemy.

b. The ultimate objective in operations against an insurgent force is to eliminate the insurgency and prevent its resurgence. When the insurgency involves active guerrilla warfare, the armored brigade normally conducts offensive operations to locate and destroy guerrilla elements. These operations may be conducted over vast areas and plans must insure the maximum use of mobility and communication capabilities to control the action.

c. The following characteristics apply to tactical operations against guerrilla forces:

(1) The majority of tactical operations against guerrilla forces consist of small unit actions.

(2) Tactical operations against guerrilla forces are generally offensive in nature.

(3) Tactical operations against guerrilla forces are designed to minimize the strength of the guerrillas and to exploit their weaknesses.

(4) The relationship between the population and the guerrilla force requires that action be taken to separate the guerrillas from the people.

d. The following specific factors in addition to the normal factors of METT are considered in the commander's estimate:

(1) Motivation and loyalties of segments of the population, identification of hostile and

### 11-10. Employment of the Armored Brigade

a. The doctrine for employment of the armored brigade in conventional offensive and defensive operations applies to stability operations. These operations complement other actions taken by a government to defeat an insurgency. Specific tactics and techniques must be modified to fit the special requirements of the operational environment and the nature of the insurgent threat. The

friendly elements, vulnerability of friendly population and friendly military elements to coercion by terror tactics, and their susceptibility to enemy and friendly propaganda.

(2) Existing policies and directives regarding the status and treatment of population and guerrilla force members.

(3) Resources available to the insurgent force.

(4) Extent of the insurgency as a whole and specifically the guerrilla force operation.

(5) Communication facilities available to allow effective control of forces engaged in stability operations.

### 11-11. Operations in Support of Stability Operations

The armored brigade conducts both offensive and defensive operations when operating in a stability operations environment.

### 11-12. Characteristics of Offensive Operations

Offensive operations are primarily characterized by brevity and are conducted in an assigned area of operation to find, fix, and destroy or capture the guerrilla.

*a. Area of Operations.* The brigade is normally assigned a specific area in which to conduct offensive operations. The brigade commander will normally subdivide his area and assign an operational area or zone of action to each subordinate task force. In assigning operational areas, the brigade commander pays careful attention to terrain trafficability.

*b. Combat Bases.* Occupation of an area of operation is characterized by the establishment of multiple combat bases from which to conduct offensive operations. In establishing combat bases, the separation of tactical units from their parent headquarters is normal. Units occupying and operating from separate combat bases must operate as part of a well coordinated plan and be prepared to reinforce each other as required. FM 17-1 discusses the organization and establishment of combat bases.

*c. Objectives.* Terrain objectives are seldom assigned in offensive operations. Operations are normally oriented on destroying guerrilla forces and bases. Once guerrilla forces have been located, the brigade places priority of all available combat power to destroy or incapacitate the guerrilla.

*d. Reserves.* Reserves are maintained by brigade and battalion task forces to rapidly reinforce elements gaining contact with guerrilla forces. The inherent mobility, firepower, and armored protection enjoyed by the armored brigade units may allow committed units to double as reserves when the enemy threat is relatively weak.

### 11-13. Conduct of Offensive Operations

*a. General.* Offensive operations inflict damage on, seize, disrupt, or destroy an objective—either terrain or hostile guerrilla forces. Because offensive operations are normally of short duration (generally from one day to several weeks), other activities are pursued only to the extent that they assist the brigade force while it is in the area of operations. Offensive operations may be conducted in support of internal defense and development operations, but generally they are conducted against local guerrilla forces and bases. The objective of offensive operations is to harass or destroy guerrilla forces and normally entails no intent to remain permanently in the area of operations. The brigade is normally assigned a large operational area and in turn assigns operational areas to subordinate commands. Separation of tactical units from parent headquarters is normal in counter guerrilla operations; however, they must operate as part of a well-coordinated plan and be prepared to concentrate rapidly. To facilitate the rapid concentration of forces, the use of airmobile or airborne forces is emphasized.

*b. Operations.* Intensive reconnaissance and reliable intelligence are required to develop the situation, to include determining the size and location of guerrilla forces. Once located and fixed, the units maneuver to destroy the guerrilla forces. The guerrillas' ability to hide weapons and assume noncombatant roles in attempting to avoid capture will require maneuver forces to conduct a thorough search of the area. In planning offensive operations, commanders and staffs must allow sufficient time for thorough search operations.

*c. Raid.* A raid is an operation, usually small-scale, involving a swift penetration of hostile territory to secure information, harass the hostile guerrilla force, or destroy his installation. It ends in a planned withdrawal upon completion of the operation. Inclement weather, terrain considered impassable, and heliborne assault are used to achieve surprise. The raiding force may vary in size from a squad to a reinforced battalion. For additional information on composition and or-

ganization of raid forces, see FM 7-20 and FM 21-75.

*d. Reconnaissance in Force.* A reconnaissance in force is a limited-objective operation to discover and test the enemy's positions, locations, and strength, and to gather information. In stability operations, its objective is collection of information on the enemy and the destruction of his units and facilities. The primary aim is reconnaissance; however, the commander must be prepared to exploit meeting engagements by conducting a coordinated attack (chap. 7) to destroy discovered enemy units and facilities. The committed force may conduct the operation as a unit, or only selected subordinate units may be committed on a limited scale. Reconnaissance in force operations may be conducted during offensive or defensive operations in guerrilla-controlled areas.

*e. Movement to Contact.* Movement to contact in counter guerrilla tactical operations is basically the same as in limited and general war operations (see chap. 7 for discussion of movement to contact). Movement to contact in a counter guerrilla atmosphere dictates that strong precautions be taken against ambush. When the brigade moves by ground to the operational area, and on subsequent unit maneuvers, tactical movements must be employed to prevent ambush of counter guerrilla forces, to gain or reestablish contact, or to develop guerrilla force dispositions.

*f. Pursuit.* The pursuit is an operation against a retreating hostile force. It may consist entirely of direct pressure forces (as in a frontal attack) or a combination of direct pressure and encircling forces (as in an envelopment). It occurs when the guerrilla attempts to disengage and has as its primary purpose the destruction of the guerrilla force. Although terrain objectives may be assigned, the primary objective is the guerrilla force itself. When direct-pressure forces and encircling forces are employed, the direct-pressure force maintains constant pressure on the guerrilla as he withdraws. The encircling force should have a mobility advantage over the guerrilla. Both the direct-pressure force and the encircling force employ all available fire support to assist in the accomplishment of the destruction mission.

*g. Encirclement.* Encirclement offers the best possibility for fixing guerrilla forces in position and achieving decisive results. The brigade, battalion, and (to a limited degree) the company may conduct encirclements. The company and

smaller units normally possess insufficient personnel strength and command and control capability to conduct encirclements except against small, concentrated guerrilla forces. All units of the brigade may participate in encirclements conducted by a larger force.

## 11-14. Defensive Operations

Defensive operations are often characterized by long duration and are conducted in an assigned area of responsibility to provide a secure area in which positive effort can be devoted to internal development.

*a.* Plans for defensive operations must be detailed and provide for long range commitment of both personnel and material resources (military and civilian). In formulating plans for defensive operations, an assessment of the area must be made to determine military and civilian resources requirements. Plans must be coordinated fully with all agencies which will be involved in the operation. Required resources to implement defensive plans must be available for commitment to the area prior to initiation of the operation.

*b.* Initially, offensive operations are stressed and other internal defense and development operations are subordinated to the tactical mission. These operations require a high degree of firepower, security, and speed in execution. They may be mounted directly from friendly controlled areas or from other secure sites. A flexible communication system must be employed to insure a high degree of control and coordination. The purpose of these operations is to destroy or clear guerrilla forces from the area.

*c.* After eliminating guerrilla units from the area, the brigade organizes its defense to prevent their return and to provide a security shield behind which other aspects of internal defense and development can take place. Normally, the form of defense employed will be neither an area defense or mobile defense as described in chapter 8, but a combination of the two including the extensive use of mounted and dismounted patrols. These operations provide a secure environment for—

(1) Locating, identifying, and destroying underground elements and sympathizers.

(2) Replacing insurgent political, economic, social, civic, and psychological functionaries in the local government.

*d.* FM 17-1 and FM 31-16 discuss in detail the requirements of the brigade during these opera-

tions and present examples of brigade organization in a type defensive area.

#### **11-15. Maintaining Lines of Communication**

The armored brigade is well suited for maintaining lines of communication. The techniques for performing specific operations in support of maintaining lines of communication are discussed in FM 17-1 and FM 31-16. When assigned this type of mission, any or all of the following operations may be required.

- a. Road opening.
- b. Route security.
- c. Convoy escort.
- d. Counterambush.

#### **11-16. Combat Support and Combat Service Support**

The principles discussed in chapters 5 and 6 apply to cold war operations. Additional planning considerations for stability operations are contained in FM 17-1 and FM 31-16.



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By Order of the Secretary of the Army:

Official:

KENNETH G. WICKHAM,  
*Major General, United States Army,  
The Adjutant General.*

W. C. WESTMORELAND,  
*General, United States Army,  
Chief of Staff.*

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